

SIEMENS

SINUMERIK 840D sl/840Di sl/ 840D/840Di/810D SIMODRIVE 611digital SINAMICS

Lists (1st Book)

Parameter Manual

Valid for

Control

SINUMERIK 840D sl	1.3
SINUMERIK 840DE sl (export version)	1.3
SINUMERIK 840D powerline	1.1
SINUMERIK 840DE (export version) powerline	1.1
SINUMERIK 840Di sl	7.4
SINUMERIK 840DiE (export version) sl	7.4
SINUMERIK 840Di powerline	3.2
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Drive

SIMODRIVE 611
SINAMICS

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SINUMERIK® Documentation

Printing history

Brief details of this edition and previous editions are listed below.

The status of each edition is shown by the code in the "Remarks" column.

Status codes in the "Remarks" column.

A New documentation.

B Unrevised reprint with new Order No.

C Revised edition with new status.

If factual changes have been made on a page since the last edition, this is indicated by a new edition coding in the header on that page.

Edition	Order No.	Remarks
09.95	6FC5297-3AB70-0BP0	A
12.95	6FC5297-3AB70-0BP1	C
03.96	6FC5297-3AB70-0BP2	C
08.97	6FC5297-4AB70-0BP0	C
12.97	6FC5297-4AB70-0BP1	C
12.98	6FC5297-5AB70-0BP0	C
08.99	6FC5297-5AB70-0BP1	C
04.00	6FC5297-5AB70-0BP2	C
10.00	6FC5297-6AB70-0BP0	C
09.01	6FC5297-6AB70-0BP1	C
02.02	6FC5297-6AB70-0BP2	C
11.02	6FC5297-6AB70-0BP3	C
03.04	6FC5297-7AB70-0BP0	C
10.04	6FC5297-7AB70-0BP1	C
07.05	6FC5397-7AP10-0BA0	C
03/2006	6FC5397-7AP10-1BA0	C

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Liability disclaimer

We have checked that the contents of this document correspond to the hardware and software described. Nonetheless, differences might exist and therefore we cannot guarantee that they are completely identical. The information contained in this document is, however, reviewed regularly and any necessary changes will be included in the next edition.

Preface

Structure of the documentation

The SINUMERIK documentation is organized in 3 parts:

- General documentation
- User documentation
- Manufacturer/service documentation

An overview of publications (updated monthly) indicating the language versions available can be found on the Internet at:

<http://www.siemens.com/motioncontrol>

Select "Support" -> "Technical Documentation" -> "Overview of Publications"

The Internet version of the DOConCD (DOConWEB) is available at:

<http://www.automation.siemens.com/doconweb>

Information about training courses and FAQs (Frequently Asked Questions) can be found at the following web site:

<http://www.siemens.com/motioncontrol> under menu option "Support"

Target group

This documentation is intended for project engineers, commissioning engineers, machine operators, service and maintenance personnel.

Benefits

The Parameter Manual enables the intended target group to evaluate error and fault indications and to respond accordingly.

With the help of the Parameter Manual, the target group has an overview of the various diagnostic options and diagnostic tools.

Standard version

This Parameter Manual only describes the functionality of the standard version. Extensions or changes made by the machine tool manufacturer are documented by the machine tool manufacturer.

Other functions not described in this documentation might be executable in the control. This does not, however, represent an obligation to supply such functions with a new control or when servicing.

Further, for the sake of simplicity, this documentation does not contain all detailed information about all types of the product and cannot cover every conceivable case of installation, operation or maintenance.

Technical Support

If you have any questions, please get in touch with our Hotline:

Europe and Africa time zone:

A&D Technical Support

Phone: +49 (0) 180 / 5050 - 222

Fax: +49 (0) 180 / 5050 - 223

Internet: <http://www.siemens.com/automation/support-request>

E-mail: <mailto:adsupport@siemens.com>

Asia and Australia time zone:

A&D Technical Support

Phone: +86 1064 719 990

Fax: +86 1064 747 474

Internet: <http://www.siemens.de/automation/support-request>

E-mail: <mailto:adsupport@siemens.com>

America time zone:

A&D Technical Support

Tel.: +1 423 262 2522

Fax: +1 423 262 2289

Note

Country telephone numbers for technical support are provided under the following Internet address:

<http://www.siemens.com/automation/service&support>

Questions about the Manual

If you have any queries (suggestions, corrections) in relation to this documentation, please fax or e-mail us:

Fax: +49 (0) 9131 / 98 - 63315

E-mail: <mailto:motioncontrol.docu@siemens.com>

Fax form: See the reply form at the end of the document.

SINUMERIK Internet address

<http://www.siemens.com/motioncontrol>

EC declaration of conformity

The EC Declaration of Conformity for the EMC Directive can be found/obtained
"on the Internet:

<http://www.ad.siemens.de/csinfo>

under product/order no. 15257461

"at the relevant regional office of the Siemens AG division A&D MC.

Safety Instructions

This Manual contains information which you should carefully observe to ensure your own personal safety and the prevention of material damage. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring to property damage only have no safety alert symbol. The warnings appear in decreasing order of risk as given below.

**Danger**

Indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury or in substantial property damage.

**Warning**

Indicates that death or severe personal injury will result if proper precautions are not taken.

**Caution**

with a warning triangle indicates that minor personal injury can result if proper precautions are not taken.

Caution

without a warning triangle indicates that property damage **can** result if proper precautions are not taken.

Notice

indicates a potential situation which, if not avoided, **may** result in an undesirable event or state.

If several hazards of different degrees occur, the hazard with the highest degree must always be given priority. A warning notice accompanied by a safety alert symbol indicating a risk of bodily injury can also indicate a risk of property damage.

Qualified Personnel

The associated device/system may only be set up and operated using this documentation. Commissioning and operation of a device/system may only be performed by qualified personnel. Qualified persons are defined as persons who are authorized to commission, to ground, and to tag circuits, equipment, and systems in accordance with established safety practices and standards.

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Overview of Functions

1

Note

The following Overview of Functions corresponds to Chapter 2 of the Catalogs NC 60 and NC 61 issued in 2006. Later versions of this Catalog will replace the information stated here.

All references such as "See Part i" refer to the Catalog NC 60 / 61 Part i rather than to the chapters of this Parameter Manual.

1.1 CNC Sinumerik sl

Export control versions

Overview

As a consequence of the prevailing export restrictions applicable to the system software of numerical controls in relation to particular control functions in accordance with the European/German Export List (export list item 2D002), SINUMERIK 840Di sl and SINUMERIK 840D sl are available in two versions.

This is applicable to the NCK system software in the case of SINUMERIK 840Di sl and to the NCU system software in the case of SINUMERIK 840D sl.

The **standard versions** SINUMERIK 840Di sl and SINUMERIK 840D sl offer the full scope of control functions, but **require official approval** when exported to countries outside the EU.

The **export versions** SINUMERIK 802D sl, SINUMERIK 840DiE sl and SINUMERIK 840DE sl are limited in their functionality in accordance with the export list restrictions and therefore **do not re-**

quire official approval as a result of their "Type" in accordance with EU or German law.

The approval status for the complete CNC system is correspondingly dependent on the hardware or software version used.

General note:

If any particular components require official re-export approval according to US law, this must be duly filed for. Information about official approval requirements for supplied components is given in the delivery documentation: Goods labeled here with "AL not equal to N" are subject to European or German export authorization if they are exported out of the EU. Goods labeled with "ECCN not equal to N" are subject to US re-export authorization. Even if goods are not labeled or labeled with "AL:N" or "ECCN:N", they may still be subject to export authorization due to the final destination and end use of the goods.

Functional restrictions for export versions

Function	Bestell-Nr.	SINUMERIK 802D sl plus	SINUMERIK 840DiE sl	SINUMERIK 840DE sl
Linear interpolation	n	–	☐☐ ¹⁾	☐☐ ¹⁾
Helical interpolation 2D+6	n	–	–	–
Synchronized actions	n	–	☐☐ ²⁾	☐☐ ²⁾
SINUMERIK NCK Runtime OA	6FC5800-0AM04-0YB0	–	–	–
Multi-axis interpolation (> 4 interpolating axes)	6FC5800-0AM15-0YB0	–	–	–
Master-value coupling and curve table interpolation	6FC5800-0AM20-0YB0	–	☐☐ ³⁾	☐☐ ³⁾
Electronic gear unit	6FC5800-0AM22-0YB0	–	☐☐ ³⁾	☐☐ ³⁾
Milling machining package	6FC5800-0AM26-0YB0	–	–	–
Machining package 5 axes	6FC5800-0AM30-0YB0	–	–	–
Handling transformation package	6FC5800-0AM31-0YB0	–	–	–
Electronic transfer	6FC5800-0AM35-0YB0	–	☐☐ ³⁾	☐☐ ³⁾
Synchronized actions level 2	6FC5800-0AM36-0YB0	–	☐☐ ⁴⁾	☐☐ ⁴⁾
Clearance control, 1D/3D in position control cycle	6FC5800-0AM40-0YB0	–	☐☐ ⁵⁾	☐☐ ⁵⁾
Sag compensation, multi-dimensional	6FC5800-0AM55-0YB0	–	☐☐ ⁶⁾	☐☐ ⁶⁾

n Basic version

☐☐ Limited functionality of the Export control version

– Not possible

For further details on "restricted functionality" for the Export versions, see the Glossary on the CD-ROM for Catalog NC 61 or go to: www.siemens.com/automation/mall

- 1) The number of simultaneously interpolating axes is restricted to four.
- 2) Only one active synchronous function (SYNFCT) is possible at a time. The number of simultaneously traversing axes is limited to four (path and positioning axes).
- 3) The number of simultaneously traversing axes is restricted to four.
- 4) The number of simultaneously traversing axes is restricted to four (path and positioning axes).
- 5) 1D distance control only in the position control cycle, and the number of simultaneously interpolating axes is restricted to four.
- 6) The correctable tolerance band is restricted to 1 mm (0.04 in)

¶ Overview

Important export information

Export of standard versions of components or systems can be subjected to a time-consuming official authorization process, so it is recommended that **the export version** is used where applicable.

When the standard versions are used, it is important to note that the official authorization is also required for the export of components subject to export approval within the framework of service provision, the supply of spare parts and delivery of software upgrades/updates. This also applies in particular in cases when the control is exported after the machine manufacturer installed it in a machine tool. The lengthy official approval procedure can severely restrict after-sales service.

When an application for an export permit for a system is made, we therefore recommend that spare parts supplies for any components requiring approval are included in the application as a matter of course to avoid future delays.

If the control system is to be exported as an installed component in a machine tool, we recommend that machine manufacturers include any components requiring approval in the export permit application for the machine. If the machine itself does not require official export approval, but contains components which do, we recommend that an export permit for the replacement supply of such components is applied for in advance.

Spare parts supplies requiring official approval can then be exported quickly and easily by the machine manufacturer himself, or by Siemens if the manufacturer can make the original export permit available to Siemens.

<ul style="list-style-type: none"> n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz-angabe
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n Control structure and configuration

Structure:			
• Panel-based			
• PC-based			
• Drive-based			
SINUMERIK 840D sl:			
• NCU 710.1		6FC5371-0AA10-0AA0	
• NCU 720.1		6FC5372-0AA00-0AA0	
• NCU 730.1		6FC5373-0AA00-0AA0	
• Seal for external heat dissipation of NCU 720.1/NCU 730.1		6FC5348-0AA07-0AA0	
• Numeric Control Extension NX10		6SL3040-0NC00-0AA0	
• Numeric Control Extension NX15		6SL3040-0NB00-0AA0	
Software for SINUMERIK NCU 710.1/NCU 720.1/NCU 730.1:			
• 4 axes Grinding with HMI-Embedded, export version, on CF card, with license		6FC5843-0YG...YA0	
• 6 axes with HMI-Embedded, export version on CF card, with license		6FC5840-1YG...YA0	
• 6 axes with HMI-Embedded, on CF card, with license		6FC5840-1XG...YA0	
• 31 axes with HMI-Embedded, export version on CF card, with license		6FC5840-3YG...YA0	
• 31 axes with HMI-Embedded, on CF card, with license		6FC5840-3XG...YA0	
• 4G/6/31 axes with HMI-Embedded, export version, on CD-ROM, without license		6FC5840-3YC...YA8	
• 6/31 axes with HMI-Embedded, on CD-ROM, without license		6FC5840-3XC...YA8	
• 4G/6/31 axes with HMI-Embedded, export version, software update service, without license		6FC5840-3YP00-0YL8	
• 6/31 axes with HMI-Embedded, software update service, without license		6FC5840-3XP00-0YL8	
• 6 axes with ShopMill HMI, export version, on CF card, with license		6FC5841-1YG...YA0	
• 6 axes with ShopMill HMI, on CF card, with license		6FC5841-1XG...YA0	
• 31 axes with ShopMill HMI, export version, on CF card, with license		6FC5841-3YG...YA0	
• 31 axes with ShopMill HMI, on CF card, with license		6FC5841-3XG...YA0	
• 6/31 axes with ShopMill HMI, export version, on CD-ROM, without license		6FC5841-3YC...YA8	
• 6/31 axes with ShopMill HMI, on CD-ROM, without license		6FC5841-3XC...YA8	

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
n	-	-	-	-	-				
-	n	n	-	-	-				
-	-	-	n	n	n				
-	-	-	v	v	v	v	v	v	
-	-	-	v	v	v	v	v	v	
-	-	-	v	v	v	v	v	v	
-	-	-	v	v	v				
-	-	-	v	v	v				
-	-	-	v	-	-	n			
-	-	-	-	v	-	n			
-	-	-	-	-	v	n			
-	-	-	-	v	-	n			
-	-	-	-	-	v	n			
-	-	-	v	v	-	n			
-	-	-	-	-	v	n			
-	-	-	v	v	-	n			
-	-	-	-	-	v	n			
-	-	-	-	v	-	n	n		
-	-	-	-	-	v	n	n		
-	-	-	-	v	-	n	n		
-	-	-	-	-	v	n	n		
-	-	-	-	v	-	n	n		
-	-	-	-	-	v	n	n		

<p>n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced – nicht möglich</p>	Hinweise	Bestell-Nr.	Kurz- angabe
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n Control structure and configuration (Fortsetzung)

Software for SINUMERIK NCU 710.1/NCU 720.1/NCU 730.1 (Fortsetzung):

- 6/31 axes with ShopMill HMI, export version, software update service, without license
- 6/31 axes with ShopMill HMI, software update service, without license
- 6 axes with ShopTurn HMI, export version, on CF card, with license
- 6 axes with ShopTurn HMI, on CF card, with license
- 31 axes with ShopTurn HMI, export version, on CF card, with license
- 31 axes with ShopTurn HMI, on CF card, with license
- 6/31 axes with ShopTurn HMI, export version, on CD-ROM, without license
- 6/31 axes with ShopTurn HMI, on CD-ROM, without license
- 6/31 axes with ShopTurn HMI, export version, software update service, without license
- 6/31 axes with ShopTurn HMI, software update service, without license

SINUMERIK 840Di sl:

- 840Di sl (PCU 50.3-C 1.5 GHz/512 MB + MCI2 board, Windows XP ProEmbSys)
- 840Di sl (PCU 50.3-P 2.0 GHz/1024 MB + MCI2 board, Windows XP ProEmbSys)

MCI board extension slot variant with cable distributor

Software for SINUMERIK 840Di sl:

- 6 axes, export version on hard disk of the SINUMERIK 840DiE sl, with license
- 6 axes on hard disk of the SINUMERIK 840Di sl, with license
- 20 axes, export version on hard disk of the SINUMERIK 840DiE sl, with license
- 20 axes on hard disk of the SINUMERIK 840Di sl, with license
- 6/20 axes, export version, software update service, without license
- 6/20 axes, software update service, without license
- 6/20 axes with ShopMill HMI and ShopTurn HMI, export version, on CD-ROM, without license
- 6 axes, export version, license
- 20 axes, export version, license

	6FC5841-3YP00-0YL8	
	6FC5841-3XP00-0YL8	
	6FC5842-1YG...YA0	
	6FC5842-1XG...YA0	
	6FC5842-3YG...YA0	
	6FC5842-3XG...YA0	
	6FC5842-3YC...YA8	
	6FC5842-3XC...YA8	
	6FC5842-3YP00-0YL8	
	6FC5842-3XP00-0YL8	
	6FC5220-0AA31-2AA0	
	6FC5220-0AA33-2AA0	
	6FC5222-0AA00-0AA1 6FX2006-1BA02	
		L11, Q00, R00
		L10, Q00, R00
		L15, Q00, R00
		L14, Q00, R00
	6FC5820-3YP00-0YL8	
	6FC5820-3XP00-0YL8	
	6FC5820-3YC...YA8	
	6FC5820-1YP00-0YB0	
	6FC5820-3YP00-0YB0	

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl					Leeres Feld: Funktion unabhängig von Bedien-Software			
	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
-	-	-	-	v	-	n	n		
-	-	-	-	-	v	n	n		
-	-	-	-	v	-	n		n	
-	-	-	-	-	v	n		n	
-	-	-	-	v	-	n		n	
-	-	-	-	-	v	n		n	
-	-	-	-	v	-	n		n	
-	-	-	-	-	v	n		n	
-	-	-	-	v	-	n		n	
-	-	-	-	-	v	n		n	
-	v	v	-	-	-	-	X	X	v
-	v	v	-	-	-	-	X	X	v
-	v	v	-	-	-				
-	v	-	-	-	-				
-	-	v	-	-	-				
-	v	-	-	-	-				
-	-	v	-	-	-				
-	-	v	-	-	-				
-	v	-	-	-	-		X	X	
-	-	v	-	-	-		X	X	
-	v	-	-	-	-		X	X	
-	v	-	-	-	-		X	X	

<ul style="list-style-type: none"> n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz-angabe
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n Control structure and configuration (Fortsetzung)

Software for SINUMERIK 840Di sl (Fortsetzung):			
<ul style="list-style-type: none"> • 6/20 axes with ShopMill HMI, ShopTurn HMI, on CD-ROM, without license 		6FC5820-3XC...YA8	
<ul style="list-style-type: none"> • 6 axes, license 		6FC5820-1XP00-0YB0	
<ul style="list-style-type: none"> • 20 axes, license 		6FC5820-3XP00-0YB0	
SINUMERIK 802D sl:			
<ul style="list-style-type: none"> • PCU 210.3 with T/M software, export version 		6FC5370-0AA00-2AA0	
Channels/mode groups (MG):			
<ul style="list-style-type: none"> • Maximum configuration 			
4-axis software			
6-axis software			
20/31-axis software			
NCU 710.1			
NCU 720.1/NCU 730.1			
<ul style="list-style-type: none"> • Each additional mode group (MG) 		6FC5800-0AC00-0YB0	C01 ... C09
<ul style="list-style-type: none"> • Each additional machining channel 		6FC5800-0AC10-0YB0	C11 ... C19
CNC user memory (backed up) for programs and data in MB			
CNC user memory, expansion by 2 MB each		6FC5800-0AD00-0YB0	D01 ... D06
CNC user memory, maximum configuration	1) For NCU 710.1 max. 9 MB.		
HMI user memory, additional 256 MB on CF card of the NCU		6FC5800-0AP12-0YB0	P12
Axes/spindles or positioning axes/auxiliary spindle:			
4-axis software			
6-axis software			
12/20/31-axis software			
<ul style="list-style-type: none"> • Maximum configuration of axes 	1) Display: 3 geometry axes + 2 additional axes + 1 spindle. 2) Display: 3 geometry axes + 1 additional axis + 3 spindles.		
NCU 710.1			
NCU 720.1/NCU 730.1			
<ul style="list-style-type: none"> • Maximum configuration of spindles 			
NCU 710.1			
NCU 720.1/NCU 730.1			
<ul style="list-style-type: none"> • Maximum configuration of axes and spindles 			
NCU 710.1			
NCU 720.1/NCU 730.1			

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
–	v	v	–	–	–		X	X	
–	v	v	–	–	–		X	X	
–	v	v	–	–	–		X	X	
n	–	–	–	–	–				
n 1	n 1	n 1	n 1	n 1	n 1				
1						10	1	1	10
–	–	–	1	1	1				
–	2	2	–	2	2				
–	10	10	–	10	10				
–	–	–	1	2	2				
–	–	–	1	10	10				
–	v	v	–	v	v	v	–	–	v
–	v	v	–	v	v	v	–	–	v
n 1	n 1	n 1	n 3	n 3	n 3				
–	v	v	v	v	v				
1	5	5	15 ¹⁾	15 ¹⁾	15 ¹⁾				
–	–	–	v	v	v	v	v	v	
4/1 3/2									
–	–	–	n 3	–	–				
–	n 3	n 3	–	n 3	n 3				
–	n 5	n 5	–	n 5	n 5				
4/1 3/2	20	20				31	12 ¹⁾	12 ²⁾	31
–	–	–	4	6	6				
–	–	–	4	31	31				
2	20	20				31	1	3+2C	31
–	–	–	4	6	6				
–	–	–	4	31	31				
4/1 3/2	20	20				31	12	12	31
–	–	–	4	6	6				
–	–	–	4	31	31				

n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced – nicht möglich	Hinweise	Bestell-Nr.	Kurz- angabe
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n Control structure and configuration (Fortsetzung)

Axes/spindles or positioning axes/auxiliary spindle (Fortsetzung):			
• Configuration per channel, axes incl. spindles			
NCU 710.1			
NCU 720.1/NCU 730.1			
Each additional axis/spindle		6FC5800-0AA00-0YB0	A01 ... A26
PLC-controlled axis			
PLC positioning axis via PROFIBUS DP			

n Drives

SINAMICS S120 Motor Modules via DRIVE-CLiQ	See Drive System.		
SINAMICS S120 Motor Modules via PROFIBUS and CU320 ¹⁾	1) For positioning tasks via the PLC.		
SIMODRIVE POSMO A/SI/CD/CA	1) For positioning tasks via the PLC.		

n Connectable measuring systems

Max. number ¹⁾	1) Two measuring systems per axis. 2) Second measuring system available soon.		
Built-in absolute/incremental encoder in 1FT6/1FK7/1PH7 ¹⁾	1) Via SINAMICS Sensor Modules integrated in motor.		
Resolver installed in 1FT6/1FK7/1PH7 ¹⁾	1) Via SINAMICS Sensor Modules integrated in motor.		
Incremental rotary measuring systems with RS 422 (TTL) ¹⁾	1) Via SINAMICS SMC30 Sensor Modules. 2) For analog axes via ADI 4 (available soon). 3) For analog spindle, setpoint via MCPA.		
Linear scale LMS with sin/cos 1 V _{pp} ¹⁾	1) Via SINAMICS SMC20/SME20 Sensor Modules.		
Rotary measuring systems with sin/cos 1 V _{pp} ¹⁾	1) Via SINAMICS SMC20/SME20 Sensor Modules.		
Linear scale LMS with distance-coded reference marks ¹⁾	1) Via SINAMICS SMC20/SME20 Sensor Modules.		
Rotary measuring systems with distance-coded reference marks ¹⁾	1) Via SINAMICS SMC20/SME20 Sensor Modules.		
Linear scale LMS with EnDat 2.1 ¹⁾	1) Via SINAMICS SMC20/SME25 Sensor Modules.		
Rotary measuring systems with EnDat 2.1 ¹⁾	1) Via SINAMICS SMC20/SME25 Sensor Modules.		

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
4/1 3/2	12	12				12 12	12 1	12 3	12 12
-	-	-	4	6	6				
-	-	-	4	12	12				
-	v	v	v	v	v				
-	n	n	n	n	n				
-	n	n	n	n	n				
n	-	-	n	n	n				
-	n	n	v l)	v l)	v l)				
-	n l)	n l)	v l)	v l)	v l)				
n 2)	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
n 3)	n 2)	n 2)	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				

n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced – nicht möglich	Hinweise	Bestell-Nr.	Kurz-angabe
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n Axis functions

Feedrate override 0 ... 200%			
Feedrate override, axis-specific 0 ... 200%			
Traversing range ± 9 decades			
Rotary axis, turning endlessly			
Velocity, max. 300 m/s (984 ft/s)			
Acceleration with jerk limitation			
Programmable acceleration			
Follow-up mode			
Measuring system 1 and 2, selectable			
Feedrate interpolation			
Separate path feed for corners and chamfers			
Travel to fixed stop			
Travel to fixed stop with Force Control		6FC5800-0AM01-0YB0	M01
Pair of synchronized axes (gantry axes) Max. number		6FC5800-0AM02-0YB0	M02
Trailing axes (TRAIL)			
Master/slave for drives		6FC5800-0AM03-0YB0	M03
Analog axis	1) With ADI 4 (available soon).		
Setpoint exchange		6FC5800-0AM05-0YB0	M05
Tangential control		6FC5800-0AM06-0YB0	M06
Path switch signals/cam controller:	1) Path switch signals only.	6FC5800-0AM07-0YB0	M07
• Max. number of pairs			

n Spindle functions

Analog spindle speed	1) With ADI 4 (available soon). 2) With MCPA.		
Digital spindle speed			
Spindle speed, max. programmable value range: 10 ⁶ ... 0.0001 (display: ± 999 999 999.9999)			
Spindle override 0 ... 200%			
5 gear stages			
Automatic gear stage selection			
Oriented spindle stop			
Spindle speed limitation (min./max.)			
Constant cutting rate			
Spindle control via PLC (positioning, oscillation)			
Changeover to axis mode			
Axis synchronization on-the-fly			

n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced – nicht möglich	Hinweise	Bestell-Nr.	Kurz- angabe
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n Spindle functions (Fortsetzung)

Thread run-in and run-out programmable			
Thread cutting with constant or variable pitch			
Tapping with/without compensating chuck			
Synchronous spindle/multi-edge turning		6FC5800-0AM14-0YB0	M14

n Interpolations

Linear interpolating axes			
• Maximum			
Circle via center point and end point			
Circle via interpolation point			
Helical interpolation			
Universal interpolator NURBS (non-uniform rational B splines)			
Continuous-path mode with programmable rounding clearance			
Multi-axis interpolation (> 4 interpolating axes)		6FC5800-0AM15-0YB0	M15
Spline interpolation (A, B and C splines/compressor) for 3-axis machining		6FC5800-0AM16-0YB0	M16
Spline interpolation (A, B and C splines/compressor) for 5-axis machining		6FC5800-0AM17-0YB0	M17
Polynomial interpolation		6FC5800-0AM18-0YB0	M18
Master-value coupling and curve table interpolation	1) With restricted functionality, see Export control versions.	6FC5800-0AM20-0YB0	M20
Involute interpolation		6FC5800-0AM21-0YB0	M21
Electronic gear	1) With restricted functionality, see Export control versions.	6FC5800-0AM22-0YB0	M22
Axial coupling in the machine coordinate system (MCS coupling)		6FC5800-0AM23-0YB0	M23
Continue machining at the contour (retrace support)		6FC5800-0AM24-0YB0	M24

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI-Embedded	ShopMill	ShopTurn	HMI-Advanced
-	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
-	v	v	v	v	v				
n 4	n 4	n 4	n 2	n 4	n 4				
4	4	12	2	4	12				
n	n	n	n	n	n				
n	n	n	n	n	n				
2D+2	2D+2	2D+6	-	2D+2	2D+6				
-	n	n	n	n	n				
-	n	n	n	n	n				
-	-	v	-	-	v				
-	v	v	v	v	v				
-	v	v	-	v	v				
-	v	v	v	v	v				
-	v 1)	v	v 1)	v 1)	v				
-	v	v	v	v	v				
-	v 1)	v	v 1)	v 1)	v				
-	-	v	-	-	v				
-	v	v	v	v	v				

<p>n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced – nicht möglich</p>	Hinweise	Bestell-Nr.	Kurz- angabe
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n Transformations

Cartesian point-to-point (PTP) travel			
TRANSMIT/peripheral surface transformation		6FC5800-0AM27-0YB0	M27
Inclined axis		6FC5800-0AM28-0YB0	M28
Concatenated transformations (inclined axis TRAANG to TRAORI/ universal milling head/TRANSMIT/TRACYL)			
Handling transformation package		6FC5800-0AM31-0YB0	M31
Generic transformation	1) With 3-axis and 4-axis transformation.		
Transformation for pantograph kinematics, 2 axes		6FC5800-0AM51-0YB0	M51
3-axis PARACOP transformation for parallel kinematics (Channel 1)		6FC5800-0AM44-0YB0	M44
Transformation TRICEPT, 5 axes, basis		6FC5800-0AM46-0YB0	M46
Transformation TRICEPT, 5 axes, DMS		6FC5800-0AM47-0YB0	M47
Transformation TRICEPT, 5 axes, 6th axis		6FC5800-0AM66-0YB0	M66
HEXAPOD transformation, 6 axes		6FC5800-0AM71-0YB0	M71

n Measuring functions/measuring cycles

Measuring Stage 1 2 probes (switching) with/without deletion of distance-to-go	See HMI software. 1) 1 probe. 2) Precondition: MCI board extension.		
Measuring Stage 2 Logging the measurement results, measurement functions from synchronized actions, cyclic measurement	1) Precondition: MCI board extension.	6FC5800-0AM32-0YB0	M32
Measuring cycles for drilling/milling and turning Calibration of workpiece probe, workpiece measurement, tool measuring	1) Partially.	6FC5800-0AP28-0YB0	P28

n Technologies

Punching/nibbling		6FC5800-0AM33-0YB0	M33
Oscillation functions block-related, modal and asynchronous		6FC5800-0AM34-0YB0	M34
More than one feed in block, e.g. for calipers			
Handwheel override			
Contour handwheel			
Electronic transfer	1) With restricted functionality, see Export control versions.	6FC5800-0AM35-0YB0	M35
Machining package 5 axes Contains the option "Multi-axis interpolation".		6FC5800-0AM30-0YB0	M30
Milling machining package Contains the options: Machining package 5 axes, multi-axis interpolation, spline interpolation (A, B and C splines/compressor for 5-axis machining and 3D tool radius compensation).		6FC5800-0AM26-0YB0	M26

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl									
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software				
						HMI-Embedded	ShopMill	ShopTurn	HMI-Advanced	
–	n	n	n	n	n					
n	v	v	–	v	v					
–	v	v	v	v	v					
–	n	n	n	n	n					
–	–	v	–	–	v					
–	n ₁₎	n	–	n ₁₎	n					
–	v	v	–	v	v					
–	v	v	–	v	v					
–	v	v	–	v	v					
–	v	v	–	v	v					
–	v	v	–	v	v					
n ₁₎	n ₂₎	n ₂₎	n	n	n					
–	v ₁₎	v ₁₎	v	v	v					
n ₁₎	v	v	–	v	v	v	n ₁₎	n ₁₎	v	
–	v	v	–	–	–					
–	v	v	n	v	v					
–	n	n	n	n	n					
–	n	n	n	n	n					
–	n	n	n	n	n					
–	v ₁₎	v	–	v ₁₎	v					
–	–	v	–	–	v					
–	–	v	–	–	v					

<p>n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced – nicht möglich</p>	Hinweise	Bestell-Nr.	Kurz-angabe
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n Motion-synchronous actions

High-speed CNC inputs/outputs			
• Digital inputs (on-board)	1) Precondition: MCI board extension.		
• Digital inputs or outputs on-board	1) Precondition: MCI board extension.		
• Expansion via SIMATIC S7 I/O 32 digital inputs/32 digital outputs 4 analog inputs/4 analog outputs			
Synchronized actions (max. 16) and high-speed auxiliary function output incl. 3 synchronous functions	1) With restricted functionality, see Export control versions.		
Synchronized actions Stage 2	1) With restricted functionality, see Export control versions.	6FC5800-0AM36-0YB0	M36
Positioning axes and spindles via synchronized actions (command axes)			
Analog value control in the interpolation cycle (precondition: analog output)	1) Precondition: SIMATIC DP ET 200 analog module.		
Analog output, dependent on path velocity Laser power control	1) Precondition: SIMATIC DP ET 200 analog module.	6FC5800-0AM37-0YB0	M37
Laser switching signal, high-speed		6FC5800-0AM38-0YB0	M38
Clearance control			
• 1D in interpolation cycle via synchronized action			
• 1D/3D clearance control in position control cycle (including in interpolation cycle)	1) With restricted functionality, see Export control versions.	6FC5800-0AM40-0YB0	M40
• 1D/3D clearance control in position control cycle (any direction)		6FC5800-0AM65-0YB0	M65
Evaluation of internal drive variables (precondition for Adaptive Control)		6FC5800-0AM41-0YB0	M41
Continuous dressing (parallel dressing, online modification of tool offset)			
Asynchronous subroutines ASUB: ¹⁾	1) High-speed CNC inputs/outputs required		
• Interrupt routines with fast retraction from the contour		6FC5800-0AM42-0YB0	M42
Cross-mode actions (ASUBs and synchronized actions in all operating modes)		6FC5800-0AM43-0YB0	M43

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl					Leeres Feld: Funktion unabhängig von Bedien-Software			
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
–	4 1)	4 1)	4	4	4				
–	4 1)	4 1)	4	4	4				
–	v	v	v	v	v				
–	n 1)	n	n 1)	n 1)	n				
–	v 1)	v	v 1)	v 1)	v				
–	n	n	n	n	n				
–	n 1)	n 1)	–	–	–				
–	v 1)	v 1)	–	–	–				
–	v	v	–	v	v				
–	n	n	n	n	n				
–	v 1)	v	–	v 1)	v				
–	v	v	–	v	v				
–	–	–	v	v	v				
–	n	n	n	n	n				
–	n	n	n	n	n				
–	v	v	–	–	–				
–	v	v	v	v	v				

<ul style="list-style-type: none"> n Grundauführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz-angabe
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n Open Architecture

User interface expansion • Spare screens			
SINUMERIK HMI programming package (OEM contract required)		6FC5253-0BX20-0AG0 6FC5253-. BX20-. AG0 6FC5253-0BX20-0AG1 6FC5253-0BX20-0AG2 6FC5253-. BX20-. AG3	
SINUMERIK HMI configuring package WinCC flexible (OEM contract required)		6FC5253-0CX25-0AG0 6FC5253-. CX25-. AG0 6FC5253-0CX25-0AG1 6FC5253-0CX25-0AG2 6FC5253-. CX25-. AG3	
SINUMERIK HMI copy license OA and user interface expansion from 21st screen onwards	1) For user interface expansion only.	6FC5800-0AP02-0YB0	P02
SINUMERIK HMI copy license CE		6FC5800-0AP03-0YB0	P03
OA package NCK (OEM contract required)	See Basic Components.		
SINUMERIK NCK Runtime OA	See Basic Components. 1) On request.	6FC5800-0AM04-0YB0	M04

n CNC programming language

Programming language (DIN 66025 and high-level language expansion)			
Main program calls from main programs and subroutines			
Subroutine levels/interrupt routines, max.			
Number of subroutine passes ≤ 9999			
Number of levels for skip blocks (/0 to /...)			
Polar coordinates			
1/2/3-point contours			
Dimensions metric/inch, changeover manually or via program			
Inverse-time feedrate			
Auxiliary function output			
<ul style="list-style-type: none"> • Via M word, max. programmable value range: INT $2^{31} - 1$ • Via H word, max. programmable value range: REAL $\pm 3.4028 \times 10^{38}$ (display: $\pm 999\,999\,999.9999$) INT $-2^{31} \dots 2^{31} - 1$ 			

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl					Leeres Feld: Funktion unabhängig von Bedien-Software			
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
-	X	X	X	X	X	n 20	n 20	n 20	n 20
-	X	X	X	X	X	-	-	-	v
-	x	x	x	x	x	-	-	-	v
-	x	x	x	x	x	v 1)	v 1)	v 1)	v
-	x	x	x	x	x				
-	-	-	-	-	v				
-	-	v 1)	-	-	v				
n	n	n	n	n	n				
n	n	n	n	n	n				
8/0	11/4	11/4	11/4	11/4	11/4				
n	n	n	n	n	n				
1	8	8	8	8	8				
n	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				

<ul style="list-style-type: none"> n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced – nicht möglich 	Hinweise	Bestell-Nr.	Kurz- angabe
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n CNC programming language (Fortsetzung)

High-level CNC language with:			
• User variables, configurable			
• Predefined user variables (arithmetic parameters)			
• Predefined user variables (arithmetic parameters), configurable			
• Read/write system variables	1) Restricted scope.		
• Indirect programming			
• Program jumps and branches			
• Program coordination with WAIT, START, INIT			
• Arithmetic and trigonometric functions			
• Comparing operations and logic combinations			
• Macro techniques			
• Control structures IF-ELSE-ENDIF			
• Control structures WHILE, FOR, REPEAT, LOOP			
• Commands to HMI			
• STRING functions			
Program functions:			
• Dynamic preprocessing memory (FIFO)			
• LookAhead			
• Frame concept			
• Inclined-surface machining with frames			
• Axis/spindle replacement			
• Geometry axes, switchable online in the CNC program			
• Program preprocessing		6FC5800-0AM00-0YB0	M00
Online ISO dialect interpreter			
Program/workpiece management:			
• Parts programs on NCU, max. number ¹⁾	1) In total, up to 512 files per directory.		
• Workpieces on NCU, max. number	1) In total, up to 256 directories.		
• Workpieces on hard disk, max. number ¹⁾	1) In total, up to 100,000 user files.		
• on an additional 256 MB HMI user memory on CF card of the NCU ¹⁾	1) In total, up to 100,000 user files and directories.		
• on additional plug-in CF card	1) On the front. 2) With PCU 50.3.		
• on integral hard disk in PCU 50.3			

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
–	n	n	n	n	n				
n	n	n	n	n	n				
–	n	n	n	n	n				
n 1)	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
–	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
–	n	n	n	n	n				
n	n	n	n	n	n				
–	n	n	n	n	n				
–	X	X	x	x	x	n	n	n	n
–	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
–	n	n	n	n	n				
–	n	n	n	n	n				
–	n	n	n	n	n				
–	v	v	v	v	v				
n	n	n	n	n	n				
99	500	500	500	500	500				
–	250	250	250	250	250	250	250	250	250
–	1000	1000	v	v	v		1000	1000	1000
–	–	–	v	v	v				
n 1)	X 2)	X 2)	X 2)	X 2)	X 2)				
–	n	n	x	x	x	–	n	n	n

<ul style="list-style-type: none"> n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz- angabe
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n CNC programming language (Fortsetzung)

Program/workpiece management (Fortsetzung):			
<ul style="list-style-type: none"> • on USB storage medium (e.g. disk drive, memory stick) • on network drive 			
<ul style="list-style-type: none"> • Templates for workpieces, programs and INI files • Job lists 	1) Precondition: Network drive management.		
Max. number of basic frames			
Max. number of selectable offsets			
Zero offsets, programmable (frames)			
Scratching, determining zero offset			
Zero offsets, external (PLC)			
Global and local user data			
Global program user data			
Display system variables (also via online configurable display) and log them			

n Programming support system

Program editor:			
<ul style="list-style-type: none"> • Text editor with editing functions: Marking, copying, deleting • Dual editor • Write protection for lines • Suppression of lines in the display 			
<ul style="list-style-type: none"> • Machining step programming • Multi-channel step sequence programming 		6FC5800-0AP04-0YB0	P04
<ul style="list-style-type: none"> • Multi-channel step sequence programming 		6FC5800-0AP05-0YB0	P05
Programming support for geometry entries:			
<ul style="list-style-type: none"> • Geometry processor with programming graphics/ free contour input (contour calculator) • Screens for 1/2/3-point contours (contour definition programming) 			
Technology cycles for drilling/milling and turning			
Pocket milling with free contour definition and islands			
Residual material detection and machining for contour pockets and during cutting		6FC5800-0AP13-0YB0	P13
Multiple clamping of different workpieces		6FC5800-0AP14-0YB0	P14

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI-Embedded	ShopMill	ShopTurn	HMI-Advanced
-	v	v	v	v	v	n	n	n	n
-	x	x	v	v	v	v l)	v l)	v l)	v l)
-	X	X	x	x	x	-	-	-	n
-	X	X	x	x	x	-	-	-	n
1	X	X	16	16	16	16	1	1	16
6	X	X	100	100	100	100	100	100	100
-	n	n	n	n	n				
n	X	X	x	x	x	n	n	n	n
-	n	n	n	n	n	n	n	n	n
-	X	X	n	n	n	n	n	n	n
-	X	X	n	n	n	n	n	n	n
-	X	X	x	x	x	-	-	-	n
n	n	n	x	x	x	n	n	n	n
-	X	X	x	x	x	n	-	-	n
-	X	X	x	x	x	n	n	n	n
-	X	X	x	x	x	n	n	n	n
-	x	x	-	x	x	-	v	v	-
-	X	X	-	x	x	-	-	-	v
-	X	X	x	x	x	n	n	n	n
n	X	X	x	x	x	n	n	n	n
n	X	X	x	x	x	n	n	n	n
-	X	X	x	x	x	-	n	n	-
-	x	x	x	x	x	-	v	v	-
-	x	x	x	x	x		v		

<p>n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced – nicht möglich</p>	Hinweise	Bestell-Nr.	Kurz- angabe
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n Programming support system (Fortsetzung)

Access protection for cycles			
Programming support for cycles:			
• Screens and stationary auxiliary displays			
• Dynamic program graphics during programming			
• Programming support is expandable (e.g. user cycles)	1) On request. 2) With "Expand user interface", see HMI/MMC startup guide.		
Programming and operator support for machines:			
• ShopTurn HMI			
• Manual machine (ShopTurn manual)		6FC5800-0AP11-0YB0	P11
• ShopMill HMI			
CAD reader for PC		6FC5260-0AY00-0AG0 6FC5260-.AY00-.AG0 6FC5260-0AY00-0AG1 6FC5260-0AY00-0AG2 6FC5260-.AY00-.AG8	

n Simulation

Up to n channels can be simulated sequentially			
Several channels and programs can machine the same blank part in succession			
Simulation of program X, while program Y is being executed			
Quickview for shaping programs			
Drilling/milling (tool carrier vertical to the workpiece):			
• Single-sided 2D view, dynamic			
• Milling simulation Multi-sided 2D dynamic; 3D static		6FC5800-0AP21-0YB0	P21
• Simultaneous recording Real-time simulation of current machining		6FC5800-0AP23-0YB0	P23
Turning (tool carrier vertical to the workpiece):			
• Traverse path simulation without model, broken-line graphics			
• Contour of blank part can be specified			
• Simulation in working plane G18			
• Simulation in working planes G17/G19			
• Full cut/partial cut with circumferential edges, front face and peripheral surfaces, milling and drilling operations			
• Counterspindle			
• 3D simulation of the finished part		6FC5800-0AP20-0YB0	P20
• Simultaneous recording Real-time simulation of current machining		6FC5800-0AP24-0YB0	P24

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced

n	n	n	n	n	n	n	n	n	n
n	X	X	x	x	x	n	n	n	n
-	x	x	x	x	x	-	n	n	-
1)	X	X	x	x	x	n 2)	n 2)	n 2)	n 2)
-	x	x	-	x	x				
-	x	x	-	x	x				
-	x	x	-	x	x				
-	v	v	v	v	v				

-	2	2	1	10	10	1	1	1	10
-	X	X	-	x	x	-	-	-	n
-	X	X	x	x	x	-	-	-	n
-	x	x	x	x	x	-	n	-	n
n	-	-	-	-	-	-	-	-	-
-	X	X	x	x	x	v	n	-	n
-	x	x	x	x	x	-	v	v	-
n	X	X	x	x	x	n	-	-	n
-	X	X	x	x	x	-	-	n	n
-	X	X	x	x	x	n	-	n	n
-	X	X	x	x	x	-	-	n	n
-	X	X	x	x	x	-	-	n	n
-	x	x	x	x	x	-	-	v	-
-	x	x	x	x	x	n	v	v	-

<ul style="list-style-type: none"> n Grundauführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz-angabe
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n Operating modes

JOG:			
• Handwheel selection			
• Inch/metric changeover			
• Manual measurement of zero offset			
• Manual measurement of tool offset			
• Automatic tool/workpiece measurement	1) Tool measuring only. 2) Precondition: Measuring cycles.		
• Reference point approach, automatic/ via CNC program			
MDA:			
• Input in text editor			
• Save MDA program			
• Input screen forms for technology and positioning, cycle support			
Teach In:	1) Available soon.		
• Teach positions in MDA buffer	1) In automatic mode.		
• Teach In function handling			
Automatic:			
• Execution of HMI memory on CF card of the NCU	1) Precondition: 256 MB additional HMI user memory on CF card of the NCU. 2) External CF card.		
• Data on memory medium to rear USB of the TCU/PCU (e.g. disk drive, memory stick)			
• Execution from network drive	1) Precondition: Network drive management.		
• Execution from hard disk	1) With PCU 50.3.		
• Program control			
• Program editing			
• Overstoring			
• DRF offset			
• Block search with/without calculation			
Repos (repositioning on the contour)			
• With operator command/semi-automatically			
• Program-controlled			
Preset			
Set actual value			

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
n	n	n	n	n	n	n			n
n	X	X	n	n	n	n	-	-	n
n	X	X	n	n	n	n	n	n	n
n	X	X	x	x	x	n	n	n	n
n	x	x	x	x	x	-	n	n	-
n 1)	X	X	X	X	X	-	n	n	V 2)
n	n	n	n	n	n	n	n	n	n
n	X	X	n	n	n	n			n
n	X	X	n	n	n	n	n	n	n
n	X	X	n	n	n	n	-	-	n
-	X	X	n	n	n	-	n	n	-
n 1)	X	X	n	n	n	n	-	-	n
n 1)	X	X	n	n	n	n	-	-	n
-	-	-	n	n	n	n	-	-	n
n	n	n	n	n	n	n	n	n	n
n 2)	n	n	V 1)	V 1)	V 1)				
-	X	X	n	n	n	n	n	n	n
-	X	X	V 1)	V 1)	V 1)	V 1)	V	V	V 1)
-	X	X	x	x	x	-	n 1)	n 1)	n
n	X	X	n	n	n	n	n	n	n
n	X	X	n	n	n	n	n	n	n
-	X	X	n	n	n	n	n	n	n
-	X	X	n	n	n	n	n	n	n
n	X	X	n	n	n	n	n	n	n
n	n	n	n	n	n	n	n	n	n
n	n	n	n	n	n	n	n	n	n
n	n	n	n	n	n	n	n	n	n
n	X	X	n	n	n	n	n	n	n
-	X	X	n	n	n	n	n	n	n

<ul style="list-style-type: none"> n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz-angabe
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n Tools

Tool types:			
• Turning			
• Drilling/milling			
• Grinding			
• Groove sawing			
Tool radius compensations in plane:			
• With approach and retract strategies			
• With transition circle/ellipse on outer edges			
Configurable intermediate blocks with active tool radius compensation			
3D tool radius compensation		6FC5800-0AM48-0YB0	M48
Tool change via T number			
Tool carrier with orientation capability			
Look-ahead detection of contour violations			
Grinding-specific tool offset with grinding wheel surface speed			
Tool orientation interpolation ¹⁾	1) Precondition: Machining package 5 axes.		
Online tool length compensation			
Operation <u>without</u> tool management:			
• Tool offset selection via D number without T assignment (flat D number)			
• Editing of tool data			
• Tool offset selection via T and D numbers			
• Number of tools/cutting edges in tool list			
Operation with tool management:		6FC5800-0AM50-0YB0	M50
• System displays in standard software			
• Easy startup via system displays	1) Precondition: PCU 50.3.		
• Tool list			
• Configurable tool lists	1) One configured list is possible.		
• Number of tools/cutting edges in tool list			
• Unambiguous D number structure			
• Tool offset selection via T or D number			

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
n	X	X	-	n	n	n	-	n	n
n	X	X	-	n	n	n	n	n	n
-	X	X	n	n	n	n	-	-	n
-	X	X	-	n	n	n	-	-	n
-	n	n	n	n	n				
n	n	n	n	n	n				
-	n	n	n	n	n				
-	v	v	-	v	v	n	n	-	n
n	n	n	n	n	n	n	n	n	n
-	n	n	n	n	n	n	n	-	n
n	n	n	n	n	n				
-	n	n	n	n	n	n	-	-	n
-	-	n	-	-	n				
-	-	-	n	n	n				
n	X	X	n	n	n	n	-	-	n
-	X	X	n	n	n	n	-	-	n
n	X	X	n	n	n	n	-	-	n
n	n	n	n	n	n	n	-	-	n
64	600/ 1500 X	600/ 1500 X	600/ 1500	600/ 1500	600/ 1500		-	-	
-	X	X	v	v	v	v	n	n	v
-	X	X	v	v	v	v	n	n	v
-	X	X	v	v	v	-	n 1)	n 1)	v
-	v	v	v	v	v	v	n	n	v
-	v	v	v	v	v	-	n 1)	n 1)	v
-	600/ 1500 X	600/ 1500 X	600/ 1500	600/ 1500	600/ 1500				
-	X	X	v	v	v	-	-	-	v
-	n	n	n	n	n	n	n	n	n

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
-	X	X	v	v	v	v	n	n	v
-	X	X	v	v	v	v	n 1)	n 1)	v
-	X	X	v	v	v	v	n	n	v
-	X	X	v	v	v	-	-	-	v
-	32	32	32	32	32	32	32	32	32
-	X	X	v	v	v	v	n	n	v
-	X	X	v	v	v	v	n	n	v
-	X	X	v	v	v	-	-	-	v
-	X	X	v	v	v	v	n	n	v
-	X	X	v	v	v	-	-	-	v
-	X	X	v	v	v	-	-	-	v
-	X	X	v	v	v	-	-	-	v
-	X	X	v	v	v	-	-	-	v
n	X	X	v	v	v	v	n	n	v
-	X	X	x	x	x	-	v	v	v
-	X	X	x	x	x	-	v	v	v
-	X	X	x	x	x	-	v	v	v
-	X	X	x	x	x	-	v	v	v
-	X	X	x	x	x	-	v	v	v
-	X	X	x	x	x	-	v	v	v
-	X	X	x	x	x	-	v	v	v
-	X	X	x	x	x	-	v	v	v

<ul style="list-style-type: none"> n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz-angabe
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II Tools (Fortsetzung)

TDI – Tool management functions for individual machines and networked machines (Fortsetzung):			
<ul style="list-style-type: none"> • TDI Cell 		6FC6000-2BF00-0AB0 6FC6000-2BC00-0AA0 6FC6000-2BC0. - .AA0	
<ul style="list-style-type: none"> • TDI Ident Connection Connection of tool identification systems 		6FC6000-2HF00-0AB0 6FC6000-2HC00-0AA0 6FC6000-2HC0. - .AA0	
Connection of tool identification system MOBY E			

II Communication/data management

Data storage in HMI user memory on CF card of the NCU	See Basic Components 1) On external CF card.		
Data on memory medium to rear USB of the TCU/PCU (e.g. disk drive, memory stick)	1) Two plant HMIs can be accessed per plant network.		
Data on memory medium to front USB of the OP (e.g. memory stick)	1) One is possible per OP.		
Managing of up to 4 additional network drives:			
<ul style="list-style-type: none"> • via Ethernet 		6FC5800-0AP01-0YB0	P01
<ul style="list-style-type: none"> • via USB 			
<ul style="list-style-type: none"> • CF card of the PCU 			
Serial interface RS 232 C			
I/O interfacing via PROFIBUS DP			
Data backup on hard disk	1) On PCU 50.3.		
Data backup with Ghost (Backup/Restore) on hard disk/network	1) On PCU 50.3.		
Data backup for NCU CF card (Backup/Restore) on memory stick or network	1) Network only.		
DNC – Direct Numeric Control:	See MCIS software.		
<ul style="list-style-type: none"> • DNC machine CNC program transfer 	1) On PCU 50.3.	6FC5800-0AP40-0YB0 6FC6000-0AC00-0AA8 6FC6000-0AC0. - .AA8 6FC6000-0AC0. - .AE0 6FC6000-0AC00-0AT7 6FC6000-0AC0. - .AT7	P40
<ul style="list-style-type: none"> • DNC IFC CNC program transfer over network 	1) On PCU 50.3.	6FC5800-0AP41-0YB0	P41
<ul style="list-style-type: none"> • DNC Compare CNC program comparison 	1) On PCU 50.3.	6FC6000-0HF00-0AB0	
<ul style="list-style-type: none"> • DNC IFC Dialog Option for serial CNC 	1) On PCU 50.3.	6FC6000-0GF00-0AB0	

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl					Leeres Feld: Funktion unabhängig von Bedien-Software			
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
–	X	X	x	x	x	–	v	v	v
–	X	X	x	x	x	–	v	v	v
–	v	v	v	v	v				
n l)	–	–	v	v	v	v	v	v	v
–	X	X	n	n	n	n l)	n l)	n l)	n l)
–	X	X	n	n	n	n l)	n l)	n l)	n l)
–	X	X	x	x	x	v	v	v	v
–	X	X	x	x	x	n	n	n	n
–	X	X	x	x	x	n	n	n	n
n	–	–	–	–	–	–	–	–	–
n	n	n	n	n	n				
–	X	X	x	x	x	–	n l)	n l)	n
–	n	n	x	x	x	–	n l)	n l)	n
–	–	–	n	n	n				
–	X	X	x	x	x	–	v l)	v l)	v
–	X	X	x	x	x	–	v l)	v l)	v
–	X	X	x	x	x	–	v l)	v l)	v

<ul style="list-style-type: none"> n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz-angabe
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n Communication/data management (Fortsetzung)

DNC – Direct Numeric Control (Fortsetzung):			
• DNC IFC Serial Connection for for serial CNC	1) On PCU 50.3.	6FC6000-0FF00-0AB0	
• DNC IFC Filesystem Connection for CNC with file system	1) On PCU 50.3.	6FC6000-0KF00-0AB0	
• DNC Cell CNC program archiving		6FC6000-0BF00-0AB0 6FC6000-0BC00-0AA0 6FC6000-0BC0. - .AA0 6FC6000-0BC0. - .AE0	
• DNC Plant CNC program archiving		6FC6000-0CF00-0AB0 6FC6000-0CC00-0AA0 6FC6000-0CC0. - .AA0	
• DNC HMI Additional PC user interface		6FC6000-0DF00-0AB0	
RPC SINUMERIK:	See MCIS software.		
• RPC SINUMERIK Data exchange between CNC and master computer (computer link)	1) On PCU 50.3.	6FC5800-0AP50-0YB0 6FC6000-7AC00-0AA8 6FC6000-7AC0. - .AA8 6FC6000-7AC0. - .AE0	P50
ADM – Automation Data Management:	See MCIS software.		
• ADDM – Data Management Data management system Precondition: SIMATIC STEP 7		6BQ3030-1AA00-3AB0 6BQ3030-1AA10-0AB0 6BQ3030-1AA20-1AB0 6BQ3030-1AA30-3AB0 6BQ3030-1AA70-3AB0 6BQ3030-3AA00-0AA0 6BQ3030-1AB00-8AB0 6BQ3030-1AB10-8AB0 6BQ3030-3AA10-0AA0	

n Production data evaluation

MDA – Machine Data Acquisition (Machine and production data acquisition):	See MCIS software.		
• MDA Machine Production data acquisition, local version	1) On PCU 50.3.	6FC5800-0AP42-0YB0 6FC6000-3AC00-0AA8 6FC6000-3AC0. - .AA8 6FC6000-3AC0. - .AE0 6FC6000-3AC00-0AT7 6FC6000-3AC0. - .AT7	P42
• MDA IFC (interface client) Production data acquisition, version with network capability	1) On PCU 50.3.	6FC5800-0AP43-0YB0	P43
• MDA Cell Machine and production data evaluation		6FC6000-3BF00-0AB0 6FC6000-3BC00-0AA0 6FC6000-3BC0. - .AA0 6FC6000-3BC0. - .AE0	
PMT IFC Parts tracking, version with network capability	1) On PCU 50.3.	6FC5800-0AP44-0YB0	P44
PDA IFC Production data management, version with network capability	1) On PCU 50.3.	6FC5800-0AP45-0YB0	P45

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI-Embedded	ShopMill	ShopTurn	HMI-Advanced

-	X	X	x	x	x	-	V l)	V l)	V
-	X	X	x	x	x	-	V l)	V l)	V
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	X	X	x	x	x	-	V l)	V l)	V
-	v	v	v	v	v				

-	X	X	x	x	x	-	V l)	V l)	V
-	X	X	x	x	x	-	V l)	V l)	V
-	v	v	v	v	v	-	-	-	-
-	X	X	x	x	x	-	V l)	V l)	V
-	X	X	x	x	x	-	V l)	V l)	V

<ul style="list-style-type: none"> n Grundauführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz- angabe
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n Operation

Operator panels:			
• SINUMERIK 802D sl, 10.4" color			
Operator panel fronts:			
• OP 015, 15" color		6FC5203-0AF03-0AA0	
• OP 015A, 15" color		6FC5203-0AF05-0AA0	
• TP 015A, 15" color, touch		6FC5203-0AF08-0AA0	
• OP 012, 12.1" color		6FC5203-0AF02-0AA1	
• OP 010, 10.4" color		6FC5203-0AF00-0AA1	
• OP 010C, 10.4" color		6FC5203-0AF01-0AA0	
• OP 010S, 10.4" color		6FC5203-0AF04-0AA0	
Thin Client Unit for operator panel fronts:			
• TCU		6FC5312-0DA00-0AA0	
Operator panel fronts with integrated TCU:			
• OP 012T, 12.1" color		6FC5203-0AF06-1AA0	
Additional components for Thin Client:			
• SCALANCE X108 switch		6GK5108-0BA00-2AA3	
Industrial PC for operator panel fronts:			
• PCU 50.3 - C 1.5 GHz/512 MB, Windows XP ProEmbSys		6FC5210-0DF31-2AA0	
• PCU 50.3 - P 2.0 GHz/1024 MB, Windows XP ProEmbSys		6FC5210-0DF33-2AA0	
• Memory expansion 512 MB for PCU 50.3		6ES7648-2AG30-0GA0	
• Memory expansion 1024 MB for PCU 50.3		6ES7648-2AG40-0GA0	
Software for:	See HMI software.		
• SINUMERIK PCU 50.3 for machine operation with HMI Startup			
• SINUMERIK PCU 50.3 for machine operation with HMI-Advanced ¹⁾	1) HMI software for PC/PG can be ordered separately. 2) For SINUMERIK 840Di sl only.	6FC5253-7BX10-. AF0 6FC5253-0BX10-0AF0 6FC5253-7BX10-. AG0 6FC5253-0BX10-0AG0 6FC5253-0BX10-0AG1 6FC5253-0BX10-0AG2 6FC5253-7BX10-. AG3	L00 ²⁾
• PC for machine operation with HMI-Advanced		6FC5253-7BX40-. AG0 6FC5253-0BX40-0AG0 6FC5253-0BX40-0AG1 6FC5253-0BX40-0AG2 6FC5253-7BX40-. AG3	

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI-Embedded	ShopMill	ShopTurn	HMI-Advanced
n	-	-	-	-	-	-	-	-	-
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	n	n	v	v	v				
-	n	n	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	n	n	-	-	-				
-	v	v	v	v	v				v
-	v	v	v	v	v				v

<ul style="list-style-type: none"> n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz-angabe
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n Operation (Fortsetzung)

Software for: (Fortsetzung)			
<ul style="list-style-type: none"> • SINUMERIK PCU 50.3 for machine operation with ShopMill HMI ¹⁾ 	<ul style="list-style-type: none"> 1) Data carrier only, no license required. 2) Precondition: NCU software with ShopMill HMI. 	6FC5841-3YC .. - . YA8 6FC5841-3XC .. - . YA8	
<ul style="list-style-type: none"> • SINUMERIK PCU 50.3 for machine operation with ShopTurn HMI ¹⁾ 	<ul style="list-style-type: none"> 1) Data carrier only, no license required. 2) Precondition: NCU software with ShopTurn HMI. 	6FC5842-3YC .. - . YA8 6FC5842-3XC .. - . YA8	
<ul style="list-style-type: none"> • SINUMERIK PCU 50.3 for machine operation with ShopMill HMI or ShopTurn HMI ¹⁾ 	<ul style="list-style-type: none"> 1) Data carrier only, no license required. 	6FC5820-3YC .. - . YA8 6FC5820-3XC .. - . YA8	
Mounting hardware for PCU/TCU:			
<ul style="list-style-type: none"> • Mounting bracket for PCU/TCU behind operator panel front 		6FC5248-0AF20-2AA0	
<ul style="list-style-type: none"> • Upright mounting bracket for PCU in control cabinet 		6FC5248-0AF20-1AA0	
<ul style="list-style-type: none"> • Horizontal mounting bracket for PCU in control cabinet 		6FC5248-0AF20-0AA0	
Connection for:			
<ul style="list-style-type: none"> • Standard monitor (DVI), VGA via ext. adapter for PCU 50.3 			
<ul style="list-style-type: none"> • SIMATIC OP 177B ¹⁾ 	<ul style="list-style-type: none"> 1) WinCC flexible is required for OA applications. 		
<ul style="list-style-type: none"> • SIMATIC OP 170B/TP 170B and OP 270/TP 270 with 6"/10" display ¹⁾ 	<ul style="list-style-type: none"> 1) WinCC flexible is required for OA applications. 		
<ul style="list-style-type: none"> • SIMATIC Mobile Panel 170 and MP 270B/MP 370 with keys/touch ¹⁾ 	<ul style="list-style-type: none"> 1) WinCC flexible is required for OA applications. 		
Software for:			
<ul style="list-style-type: none"> • SIMATIC OP 177B operator panel for loading and unloading of tools 		6FC5868-0YM.. - . YA0 6FC5868-0YC .. - . YA8 6FC5868-0YP00-0YB0 6FC5868-0YP00-0YL8	
Control unit management:			
Identical display on all OPs with TCU			
<ul style="list-style-type: none"> • Simultaneous operation interlock 			
<ul style="list-style-type: none"> • Activate/deactivate MCP 			
<ul style="list-style-type: none"> • Different resolutions (e.g. OP 010/OP 012) ¹⁾ 	<ul style="list-style-type: none"> 1) Minimal reduction in quality of display clarity on the smaller OP. 		

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl									
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software				
						HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced	
-	-	-	-	X 2)	X 2)					
-	-	-	-	X 2)	X 2)					
-	X	X	-	-	-					
-	v	v	v	v	v					
-	v	v	v	v	v					
-	v	v	v	v	v					
-	n	n	n	n	n					
-	n	n	n	n	n					
-	n	n	n	n	n					
-	n	n	n	n	n					
-	v	v	v	v	v					
-										
-	n	n	n	n	n					
-	n	n	n	n	n					
-	n	n	n	n	n					

<ul style="list-style-type: none"> n Grundausführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz- angabe
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n Operation (Fortsetzung)

Control unit management (Fortsetzung):			
Identical display on all OPs with TCU (Fortsetzung)			
<ul style="list-style-type: none"> • Up to 2 operator panel fronts, each with one TCU on one NCU 710.1 			
<ul style="list-style-type: none"> • Up to 4 operator panel fronts, each with one TCU on one NCU 720.1/NCU 730.1 			
<ul style="list-style-type: none"> • Up to 4 operator panel fronts, each with one TCU on one PCU 50.3 and 1 additional operator panel front directly on the PCU 50.3 	1) Some specified configurations (see SINUMERIK 840Di sl documentation).		
One or more TCUs selectable via several NCUs and PCUs			
One HMI-Advanced selectable via several NCUs			
One integrated HMI and an external HMI-Advanced simultaneously on one NCU			
Handheld units:			
<ul style="list-style-type: none"> • MPI-B handheld unit with coiled connecting cable 		6FX2007-1AE04	
<ul style="list-style-type: none"> • MPI-B handheld unit with straight cable 		6FX2007-1AE14	
<ul style="list-style-type: none"> - Distributor box 		6FX2006-1BH01	
<ul style="list-style-type: none"> - Handwheel connection module for PROFIBUS ¹⁾ 	1) Not required for handwheel connection via machine control panel.	6FC5303-0AA02-0AA0	
<ul style="list-style-type: none"> • Mini handheld unit with coiled connecting cable 		6FX2007-1AD01	
<ul style="list-style-type: none"> • Mini handheld unit with straight cable 		6FX2007-1AD11	
<ul style="list-style-type: none"> - Connection kit for mini handheld unit 		6FX2006-1BG00	
<ul style="list-style-type: none"> - Handwheel connection module for PROFIBUS ¹⁾ 	1) Not required for handwheel connection via machine control panel.	6FC5303-0AA02-0AA0	
Machine control panels:			
<ul style="list-style-type: none"> • MCP 		6FC5603-0AD00-0AA2	
<ul style="list-style-type: none"> • MCP 802D sl 		6FC5303-0AF30-1AA0	
<ul style="list-style-type: none"> - MCPA module for MCP 802D sl connection and with ±10 V interface 		6FC5312-0DA01-0AA0	

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
-	-	-	n	n	n				
-	-	-	n	n	n				
-	n 1)	n 1)	n	n	n				
-	n 1)	n 1)	n	n	n				
-	-	-	n	n	n				
-	-	-	n	n	n				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
v	v	v	v	v	v				
v	v	v	v	v	v				
v	v	v	v	v	v				
-	v	v	v	v	v				
v	-	-	-	-	-				
v	-	-	-	-	-				
v	-	-	-	-	-				

<ul style="list-style-type: none"> n Grundausführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz-angabe
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n Operation (Fortsetzung)

Machine control panels (continued):			
<ul style="list-style-type: none"> • MCP 310 - 22 mm (0.87 in) actuating element, mushroom pushbutton, latching, red - Contact block - Cable set for additional control devices - Spindle/rapid traverse override rotary switch, 1x 16G, T=24, cap, button, pointer, dials for spindle and rapid traverse 		6FC5203-0AF23-1AA0	
		3SB3000-1HA20	
		3SB3400-0A	
		6FC5247-0AA35-0AA0	
		6FC5247-0AF12-1AA0	
<ul style="list-style-type: none"> • MCP 483C IE - Cable set for additional control devices 		6FC5303-0AF22-0AA0	
		6FC5247-0AA35-0AA0	
<ul style="list-style-type: none"> • MCP 483 - Cable set for additional control devices 		6FC5203-0AF22-1AA2	
		6FC5247-0AA35-0AA0	
Pushbutton panel with machine control panel functions:			
<ul style="list-style-type: none"> • MPP 483 		6FC5303-1AF00-0AA0	
<ul style="list-style-type: none"> • MPP 483H for handheld unit 		6FC5303-1AF00-1AA0	
<ul style="list-style-type: none"> • MPP 483A without override 		6FC5303-1AF01-0AA0	
Direct key module			
<ul style="list-style-type: none"> • Mounting kit for direct key module 		6FC5247-0AF11-0AA0	
		6FC5247-0AF30-0AA0	
Connection for:			
<ul style="list-style-type: none"> • Electronic handwheels 	<ul style="list-style-type: none"> 1) Precondition: MCI board extension. 2) Third handwheel can be operated as a contour handwheel. 		
Handwheels:			
<ul style="list-style-type: none"> • with 120 mm x 120 mm (4.72 in x 4.72 in) front panel, 5 V DC 		6FC9320-5DB01	
<ul style="list-style-type: none"> • with 76.2 mm x 76.2 mm (3 in x 3 in) front panel, 5 V DC 		6FC9320-5DC01	
<ul style="list-style-type: none"> • with 76.2 mm x 76.2 mm (3 in x 3 in) front panel, 24 V DC, HTL 		6FC9320-5DH01	
<ul style="list-style-type: none"> • without front panel, without setting wheel, 5 V DC 		6FC9320-5DF01	
<ul style="list-style-type: none"> • without front panel, with setting wheel, 5 V DC 		6FC9320-5DM00	
<ul style="list-style-type: none"> • portable within housing with 2 m (6.56 ft) connecting cable, 5 V DC 		6FC9320-5DE01	
<ul style="list-style-type: none"> - Flange socket for portable handwheel 		6FC9341-1AQ	
<ul style="list-style-type: none"> - Handwheel connection module for PROFIBUS ¹⁾ 	<ul style="list-style-type: none"> 1) Not required for handwheel connection via machine control panel. 	6FC5303-0AA02-0AA0	
<ul style="list-style-type: none"> - Cable distributor¹⁾ 	<ul style="list-style-type: none"> 1) Not required for handwheel connection via machine control panel. 	6FX2006-1BA02	

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI-Embedded	ShopMill	ShopTurn	HMI-Advanced
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
2	2 1)	2 1)	2/3 2)	2/3 2)	2/3 2)				
v	v	v	v	v	v				
v	v	v	v	v	v				
v	v	v	v	v	v				
v	v	v	v	v	v				
v	v	v	v	v	v				
v	v	v	v	v	v				
v	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	-	-	-				

<ul style="list-style-type: none"> n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz-angabe
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n Operation (Fortsetzung)

Keyboards:			
• Full CNC keyboard, vertical format		6FC5303-0DT12-1AA0	
• Full CNC keyboard, horizontal format		6FC5303-0DM13-1AA0	
• KB 483C		6FC5203-0AF20-0AA1	
• KB 310C		6FC5203-0AF21-0AA1	
• KBPC USB US standard PC keyboard		6FC5203-0AC01-2AA0	
- Keyboard tray for standard PC keyboards		6FC5247-0AA40-0AA0	
Memory/storage devices:			
• 3.5" disk drive/1.44 MB with USB connection		6FC5235-0AA05-1AA2	
• CompactFlash Card 512 MB	1) With PCU 50.3.	6FC5313-4AG00-0AA0	
• USB memory stick 512 MB		6ES7648-0DC20-0AA0	
Plain text display of user variables			
Multi-channel display			
2D representation of 3D protection areas/ work areas			
Actual-value system for workpiece (grinding)			
Menu selection via the PLC ¹⁾	1) Not for two simultaneously active HMIs.		
CNC program messages			
Online help for programming, alarms and machine data (expandable)	1) With PCU 50.3.		
Screen blanking			
Access protection, 8 levels			
Operating software languages:			
Operating software languages HMI-Advanced, HMI-Embedded, ShopMill, ShopTurn on CD-ROM		6FC5253-7BX10- . XG8	
• 2 languages switchable online			
• English, French, German, Italian, Simplified Chinese, Spanish	1) Available software versions on request.		
• Additional languages (e.g. Czech, Danish, Dutch, Finnish, Hungarian, Japanese, Korean, Polish, Rumanian, Russian, Swedish, Traditional Chinese, Turkish)	1) Available software versions on request. 2) Included on HMI Additional languages CD-ROM; available SW versions on request.	6FC5800-0AN00-0YB0	N00
• Maximum configuration for installed languages	1) Without limitation.		
• Other languages	1) On request.		

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
v	-	-	-	-	-				
v	-	-	-	-	-				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v	v	v	v	v
v	v	v	n	n	n	n	v 1)	v 1)	v
-	v	v	v	v	v	v	v	v	v
-	X	X	n	n	n	n	n	n	n
-	X	X	X	X	X	-	-	-	n
-	X	X	n	n	n	n	-	-	n
-	n	n	n	n	n	n	-	-	n
-	X	X	x	x	x	n	n	n	n
n	X	X	n	n	n	n	n	n	n
n	X	X	x	x	x	-	n 1)	n 1)	n
-	n	n	n	n	n	n	n	n	n
n	n	n	n	n	n	n	n	n	n
-	v	v	v	v	v	v	v	v	v
n	n	n	n	n	n	n	n	n	n
n 1)	X	X	x	x	x	n	n	n	n
n 1)	X	X	x	x	x	v 2)	v 2)	v 2)	v 2)
2	X	X	x	x	x	8	8	8	1)
1)	X	X	x	x	x	1)	1)	1)	1)

n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced – nicht möglich	Hinweise	Bestell-Nr.	Kurz- angabe
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n Monitoring functions

Working area limitation			
Limit switch monitoring for software and hardware limit switches			
Position monitoring			
Standstill monitoring			
Clamping monitoring			
2D/3D protection zones			
Contour monitoring			
Contour monitoring with tunnel function		6FC5800-0AM52-0YB0	M52
Path length evaluation		6FC5800-0AM53-0YB0	M53
Axis limitation from the PLC			
Spindle speed limitation			
PROFIBUS tool and process monitoring		6FC5800-0AM62-0YB0	M62

n Compensations

Backlash compensation			
Leadscrew error compensation			
Measuring system error compensation			
Sag compensation, multi-dimensional	1) With restricted functionality, see Export control versions.	6FC5800-0AM55-0YB0	M55
Quadrant error compensation per operation			
Graphical monitoring of the quadrant error compensation using the circularity test	1) Precondition: HMI-Advanced.		
Temperature compensation			
Error compensation in space for kinematic transformations (Space Error Compensation SEC)		6FC5800-0AM57-0YB0	M57
Feedforward control, velocity-dependent			
Feedforward control, acceleration-dependent		6FC5800-0AM58-0YB0	M58

n PLC

SIMATIC S7-200 (integrated)			
SIMATIC S7-300 CPU 317-2 DP (integrated)			
Machining time, typically in ms/KI for bit operations ¹⁾	1) 1 KI = 1024 instructions, corresponds to approx. 3 KB.		
Machining time, typically in ms/KI for word operations ¹⁾	1) 1 KI = 1024 instructions, corresponds to approx. 3 KB.		
Ladder steps memory configuration			

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
n	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
-	n	n	n	n	n				
n	n	n	n	n	n				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	n	n	n	n	n				
n	n	n	n	n	n				
-	-	-	v	v	v				
n	n	n	n	n	n				
n	n	n	n	n	n				
n	n	n	n	n	n				
-	v l)	v	v l)	v l)	v				
-	X	X	n	n	n				
-	x	x	x	x	x	v l)	v l)	v l)	n
-	n	n	n	n	n				
-	v	v	-	v	v				
n	n	n	n	n	n				
-	-	-	v	v	v				
n	-	-	-	-	-				
-	n	n	n	n	n				
0.1	0.03	0.03	0.03	0.03	0.03				
0.2	0.1	0.1	0.1	0.1	0.1				
6000	-	-	-	-	-				

n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced – nicht möglich	Hinweise	Bestell-Nr.	Kurz- angabe
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n PLC (Fortsetzung)

PLC user memory in KB, including basic PLC program			
PLC user memory, maximum configuration in KB			
Expansion of the PLC user memory by 128 KB each		6FC5800-0AD10-0YB0	D11 ... D15
SIMATIC STEP 7 programming language:			
• LAD ladder diagram			
• FBD function block diagram			
• STL statement list			
PLC programming with HiGraph (add-on package for STEP 7)			
PLC programming tool, PLC program examples, standard machine data and alarm text editor on Toolbox			
PP 72/48 I/O module	1) No PROFIBUS certification.	6FC5611-0CA01-0AA0	
• PP 72/48 I/O module, max. number			
ADI 4 Analog Drive Interface for 4 axes (available soon)	1) No PROFIBUS certification.	6FC5211-0BA01-0AA2	
MCI board extension slot variant		6FC5222-0AA00-0AA1	
• Cable distributor		6FX2006-1BA02	
Distributed I/O via PROFIBUS DP	Catalog ST 70		
• Via integrated interface, transfer rate up to 12 Mbit/s			
• Distributed DP slaves, max. number			
Digital inputs, maximum	1) Number = input image or output image.		
Digital outputs, maximum	1) Number = input image or output image.		
I/O inputs, max. number in bytes			
I/O outputs, max. number in bytes			
Bit memories, max. number			
Timers, max. number			
Counters, max. numbers			
Subroutines			
FB, FC (largest number per type)			
DB, largest number			
Cyclic function block			
Time-controlled function blocks			
Equipment for PLC programming and program test with PG/PC			
User machine data for configuration of the PLC user program			

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl					Leeres Feld: Funktion unabhängig von Bedien-Software			
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
-	n 128	n 128	n 128	n 128	n 128				
-	768	768	768	768	768				
-	v	v	v	v	v				
n	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
-	v	v	v	v	v				
n	-	-	-	-	-				
v	v 1)	v 1)	v 1)	v 1)	v 1)				
3	125	125	125	125	125				
-	v 1)	v 1)	-	-	-				
-	v	v	-	-	-				
n	n	n	n	n	n				
-	125	125	125	125	125				
216	256 1)	256 1)	256 1)	256 1)	256 1)				
144	256 1)	256 1)	256 1)	256 1)	256 1)				
-	8192	8192	4096	4096	4096				
-	8192	8192	4096	4096	4096				
3072	32768	32768	32768	32768	32768				
40	512	512	512	512	512				
32	512	512	512	512	512				
64	-	-	-	-	-				
-	2048	2048	2048	2048	2048				
-	2047	2047	2047	2047	2047				
n	n	n	n	n	n				
-	n	n	n	n	n				
v	v	v	v	v	v				
n	-	-	-	-	-				

<p>n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced – nicht möglich</p>	Hinweise	Bestell-Nr.	Kurz-angabe
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n Safety functions

SINUMERIK Safety Integrated Safety functions for personnel and machine protection ¹⁾	1) Precondition: See Basic Components.		
Safety Integrated SI Basic incl. 1 axis, 4 inputs/outputs for safe programmable logic		6FC5800-0AM63-0YB0	M63
Safety Integrated SI Comfort incl. 1 axis, 64 inputs/outputs for safe programmable logic		6FC5800-0AM64-0YB0	M64
Safety Integrated SI axis/spindle additionally for each further axis/spindle		6FC5800-0AC70-0YB0	C71 ... C78
Safety Integrated SI axis/spindle package additional 15 axes/spindles		6FC5800-0AC60-0YB0	C61, C62
Safety Integrated automated acceptance test performed with SinuCom NC SI	See SinuCom.		

n Startup

Startup software for drive system is integrated: • SINAMICS S120 • SINAMICS S120 with CU320			
Startup trace (drive optimization without an additional oscilloscope)			
Series startup via a serial interface			
Series startup via USB interface with memory medium (e.g. memory stick)			
Series startup from network drive	1) Precondition: Network drive management.		
Series startup by programming the CF card offline or online	1) Precondition: 256 MB additional HMI user memory on CF card of the NCU.		
STARTER drive/startup software on PC/PG for SINAMICS S120	1) On Toolbox.		
Startup software on PC/PG for SINAMICS S120 (and SIMODRIVE 611 digital)		6FC5255-7AX00-. AG0 6FC5255-0AX00-0AB1 6FC5255-0AY00-0AB2 6FC5255-7AX00-. AG3	
SINUMERIK 840Di/840Di sI Startup (SimoCom U and SinuCom NC)			
SINUMERIK 840Di sI/840D sI Toolbox on hard disk of PCU			
SINUMERIK 840Di sI/840D sI Toolbox on CD-ROM		6FC5840-0YC00-0YA8 6FC5840-0YC0. - .YA8 6FC5840-0YP00-0YL8	

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI-Embedded	ShopMill	ShopTurn	HMI-Advanced
–	–	–	v	v	v				
–	–	–	v	v	v				
–	–	–	v	v	v				
–	–	–	v	v	v				
–	–	–	v	v	v				
n	–	–	x	x	x	–	–	–	n
–	n l)	n l)	–	–	–	–	–	–	–
–	X	X	x	x	x	–			n
n	–	–	–	–	–				
–	X	X	n	n	n	n	n	n	n
–	X	X	n l)	n l)	n l)	n l)	n l)	n l)	n l)
n	–	–	n l)	n l)	n l)				
n l)	–	–	–	–	–				
–	v	v	v	v	v				
–	n	n	–	–	–				
–	n	n	–	–	–				
–	v	v	v	v	v				

n Grundaussführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced – nicht möglich	Hinweise	Bestell-Nr.	Kurz- angabe
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n Startup (Fortsetzung)

PLC example library (PLC templates)			
SinuCm PLC Manager Software for generation of PLC user programs		6FC5250-0AY10-0AG0 6FC5250-.AY10-.AG0 6FC5250-0AY10-0AG1	
SinuCm Startup software for SINUMERIK 840Di sl/840D sl		6FC5250-0AY00-0AG0 6FC5250-7AY00-.AG0 6FC5250-0AY00-0AG1 6FC5250-0AY00-0AG2 6FC5250-7AY00-.AG3	
SinuCm NC Dialog-based parameterization of machine data, management of series startup files, integrated online help for functions, machine data and alarms	See SinuCm.		
SinuCm NC Trace (dynamic recording of variables and signals - Optimization without an additional oscilloscope)	See SinuCm NC.		
SinuCm CFS Creation of an image for the CF card in Ext3 format	See SinuCm.		
SinuCm ARC Reading, deleting, inserting and changing series startup files	See SinuCm.		
SinuCm UPSShield	See SinuCm Update Agent.		
SinuCm UPExpert	See SinuCm Update Agent.		
SinuCm UPDiff	See SinuCm Update Agent.		
STARTER drive/startup software for SINAMICS and MICROMASTER	1) For topology and diagnostics. 2) On Toolbox.	6SL3072-0AA00-0AG0	

n Diagnostic functions

Alarms and messages			
Tachograph can be activated for diagnostic purposes	1) Logbook for alarms/keys.		
PLC status	1) Via STEP 7 on PG/PC generally possible.		
LAD display	1) Via STEP 7 on PG/PC generally possible.		
SIMATIC STEP 7 for SINUMERIK hardware (for service functions)	1) With PCU 50.3.	6FC5252-0AY00-0AG0 6FC5252-.AY01-.AG0 6FC5252-0AY00-0AG1	

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl					Leeres Feld: Funktion unabhängig von Bedien-Software			
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
n	–	–	–	–	–				
–	v	v	v	v	v				
–	n	n	v	v	v				
–	n	n	v	v	v				
–	n	n	v	v	v				
–	–	–	v	v	v				
–	–	–	v	v	v				
–	–	–	v	v	v				
–	–	–	v	v	v				
n 2)	v 1)	v 1)	–	–	–				
n	n	n	n	n	n				
n 1)	X	X	n	n	n	n	n	n	n
n	X 1)	X 1)	n 1)	n 1)	n 1)	n	n	n	n
n	– 1)	– 1)	– 1)	– 1)	– 1)	–	–	–	–
–	v	v	v 1)	v 1)	v 1)				

<ul style="list-style-type: none"> n Grundauführung v Option x Funktion abhängig von Bedien-Software X Voraussetzung: Bedien-Software HMI-Advanced - nicht möglich 	Hinweise	Bestell-Nr.	Kurz- angabe
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n Diagnostic functions (Fortsetzung)

RCS (Remote Control System) remote diagnostics:	See MCIS Software.		
• RCS Host Remote diagnostics software	1) With PCU 50.3.	6FC5800-0AP30-0YB0	P30
• RCS Viewer		6FC6000-6DF00-0BB0 6FC6000-6DC00-0BA0 6FC6000-6DC0. - . BA0	
• RCS Viewer Embedded		6FC6000-6DF88-8BB0 6FC6000-6DC80-0BA0 6FC6000-6DC8. - . BA0	
• RCS @Event Remote diagnostics e-mail	1) With PCU 50.3.	6FC5800-0AP31-0YB0 6FC6000-6BC00-0AA8 6FC6000-6BC0. - . AA8 6FC6000-6BC00-0BA0 6FC6000-6BC0. - . BA0 6FC6000-6BC0. - . BE0	P31

n Service and maintenance

ePS Network Services: - Company Account and - Value Account are required for using the services	1) With PCU 50.3.	6FC6001-0EE00-0AM8 6FC6001-0EE00-0AF8	
• eP Access: Remote operation and remote monitoring of machine controls	1) With PCU 50.3.		
• eP Dynamic: Analyzing and processing of machine faults	1) With PCU 50.3.		
• eP Performance: Status-oriented maintenance	1) With PCU 50.3.		
TPM – Total Productive Maintenance Support for maintenance and repair:	See MCIS software.		
• TPM Machine for SINUMERIK Preventive maintenance, local version	1) With PCU 50.3.	6FC5800-0AP32-0YB0 6FC6000-1AC00-0AA8 6FC6000-1AC0. - . AA8 6FC6000-1AC0. - . AF0 6FC6000-1AC00-0AT7	P32
• TPM IFC for SINUMERIK Preventive maintenance, version with network capability	1) With PCU 50.3.	6FC5800-0AP46-0YB0	P46
• TPM HMI Additional user interface for the PC		6FC6000-1DF00-0AB0	
• TPM Cell Preventive maintenance on the PC		6FC6000-1BF00-0AB0 6FC6000-1BC00-0AA0 6FC6000-1BC0. - . AA0	

SINUMERIK 802D sl	SINUMERIK 840Di sl/840D sl								
802D sl T/M plus	840DiE sl	840Di sl	840DE sl Grinding	840DE sl	840D sl	Leeres Feld: Funktion unabhängig von Bedien-Software			
						HMI- Embedded	ShopMill	ShopTurn	HMI- Advanced
–	X	X	X	X	X	V	V 1)	V 1)	V
–	X	X	X	X	X				
–	–	–	X	X	X				
–	X	X	X	X	X	–	V 1)	V 1)	V 1)
–	X	X	X	X	X	–	V 1)	V 1)	V 1)
–	X	X	X	X	X	–	V 1)	V 1)	V 1)
–	X	X	X	X	X	–	V 1)	V 1)	V 1)
–	X	X	X	X	X	–	–	–	V
–	X	X	X	X	X	–	–	–	V
–	X	X	X	X	X	–	–	–	V
–	X	X	X	X	X	–	–	–	V

Ordering examples for SINUMERIK 840DE sl

ii Weitere Info

Ordering as a bundle

Order using Order No. with order codes
License key included in delivery

Order item	Remarks
Item 1: 1 x 6FC5840-3YG10-0YA0-Z M01+A03+C11+N00	NCU system software, up to 31 axes with HMI-Embedded 6 languages (English, French, German, Italian, Simplified Chinese, Spanish) on CF card Single license Export 840DE sl Specific software version 1.00 with Travel to fixed stop with Force Control, 3 x additional axis/spindle, 1 x additional machining channel and additional languages
Explanation	
1 x 6FC5840-3YG10-0YA0	NCU system software, up to 31 axes with HMI-Embedded 6 languages (English, French, German, Italian, Simplified Chinese, Spanish) on CF card Single license Export 840DE sl Specific software version 1.00
-Z	Followed by order codes:
M01	Travel to fixed stop with Force Control
A03	3 x additional axis/spindle
C11	1 x additional machining channel
N00	Additional languages

Ordering individually

Order using the complete Order No.
License key obtained over Internet

Order item	Remarks
Item 1: 1 x 6FC5840-3YG10-0YA0	NCU system software, up to 31 axes with HMI-Embedded 6 languages (English, French, German, Italian, Simplified Chinese, Spanish) on CF card Single license Export 840DE sl Specific software version 1.00
Item 2: 1 x 6FC5800-0AM01-0YB0	Travel to fixed stop with Force Control
Item 3: 3 x 6FC5800-0AA00-0YB0	3 x additional axis/spindle
Item 4: 1 x 6FC5800-0AC10-0YB0	1 x additional machining channel
Item 5: 1 x 6FC5800-0AN00-0YB0	Additional languages

CNC Sinumerik pl

n Grundaussführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

1.2 CNC Sinumerik pl

Control structure/application

Structure	See Converters
• SIMODRIVE 611	See Operator Components
• SINUMERIK PCU	
Drives	See Converters
• SIMODRIVE 611 digital	
• SIMODRIVE 611 universal HRS ¹⁾	
• SIMODRIVE 611 universal E HRS (via PROFIBUS)	
• SIMODRIVE POSMO A/SI/CD/CA	
• SIMODRIVE base line	
• FM STEPDRIVE (stepper motors)	
Mode groups (MGs)	
• 1 MG	
• Maximum configuration	
NCU 561.4/561.5/571.4/571.5	
NCU 572.4/572.5	
NCU 573.4/573.5	
• Each additional MG	6FC5 251-0AD00-0AA0
Machining channels	
• Maximum configuration	
NCU 561.4/561.5/571.4/571.5	
NCU 572.4/572.5	
NCU 573.4/573.5	
• Each additional machining channel	6FC5 251-0AA07-0AA0
Additional axis/spindle + channel	
NCU 561.4/561.5	6FC5 251-0AD08-0AA0
NCU 571.4/571.5/572.4/572.5/573.4/573.5	

1) Activation via analog or PROFIBUS interface.
 2) For positioning tasks using the PLC.
 3) In excess of ±10 V, not PROFIBUS.

4) With system software Plus (requirements: PCU with 1.2 GHz).
 With system software Basic and Universal: 2.
 5) With NCU system software 2/6/12 axes: max. 2 MGs/2 channels.

CNC Sinumerik pl

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power- line	810D power- line	840DiE	840Di	840DE power- line	840D power- line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Manual Turn	Shop Turn	HT 6
-	-	-	-	n	n	-	-	n	n						
n	n	n	n	-	-	n	n	-	-						
-	-	-	-	n	n	-	-	n	n						
-	n	-	-	v 2)	v 2)	n	n	v 2)	v 2)						
-	n 3)	n	n	v 2)	v 2)	n	n	v 2)	v 2)						
-	-	-	-	v 2)	v 2)	n	n	v 2)	v 2)						
-	n	-	-	-	-	-	-	-	-						
n	-	-	-	-	-	-	-	-	-						
n	n	n	n	n	n	n	n	n	n						
1	1	1	1	2	2	6 4)	6 4)			10	10	1	1	1	10
								2	2						
								6 5)	6 5)						
								10 5)	10 5)						
-	-	-	-	v	v	v	v	v	v	-	-	-	-	-	-
n 1	n 1	n 1	n 1	n 1	n 1	n 1	n 1	n 1	n 1						
1	1	1	1	2	2	6 4)	6 4)			10	10	1	1	1	10
								2	2						
								6 5)	6 5)						
								10 5)	10 5)						
-	-	-	-	v	v	v	v	v	v						
-	-	-	-	-	-	-	-								
								v	-						
								-	-						

CNC Sinumerik pl

n Grundaussführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

n Control structure/application (continued)

CNC main memory (buffered) for programs and data in MB (SINUMERIK 810D/840D: max. 0.3 MB is reserved by Technology cycles by Siemens; measuring cycles by Siemens require 0.25 MB in addition)

NCU 561.4/571.4/572.4

NCU 561.5/571.5/572.5/573.4/573.5

Expansion of CNC main memory by 1 MB

6FC5 251-0AD02-0AA0

CNC main memory, maximum configuration

NCU 561.4/571.4/572.4

NCU 561.5/571.5/572.5/573.4/573.5

Axes/spindles or positioning axes/auxiliary spindles

• Maximum configuration of axes

NCU 561.4/561.5

NCU 571.4/571.5

NCU 572.4/572.5/573.4/573.5

• Maximum configuration of spindles

NCU 561.4/561.5

NCU 571.4/571.5

NCU 572.4/572.5/573.4/573.5

• Maximum configuration of axes and spindles

NCU 561.4/561.5

NCU 571.4/571.5

NCU 572.4/572.5/573.4/573.5

• Configuration per channel axes incl. spindles

NCU 561.4/561.5

NCU 571.4/571.5

NCU 572.4/572.5/573.4/573.5

Each additional interpolation axis/spindle ¹⁾

6FC5 251-0AA03-0AA0

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

1) Option: If number of axes + spindles > 5.
 2) With system software Plus (requirements: PCU with 1.2 GHz).
 With system software Basic: 6.
 With system software Universal: 10.

3) Display of max. 5 axes + 1 spindle.

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software						
802S base line	802C base line	802D base line	802D	810DE power- line	810D power- line	840DiE	840Di	840DE power- line	840D power- line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Manual Turn	Shop Turn	HT 6	
n 0.25	n 0.25	n 0.25	n 0.25	n 0.5	n 0.5	n 1	n 1									
								n 0.5	n 0.5							
								n 3	n 3							
-	-	-	-	v	v	-	-	v	v							
0.25	0.25	0.25	0.25	2.5	2.5	n 5	n 5									
								2.5	2.5							
								6	6							
n 4	n 4	n 3	n 5	n 5	n 5	n 5	n 5	n 5	n 5							
3	3	2	4	6	6	18 ²⁾	18 ²⁾			31	31	12	2	12	31	
								2	2							
								6	6							
								31	31							
1	1	1	1+1	2	2	18 ²⁾	18 ²⁾			31	31	1	1+C	3+2C	31	
								2	2							
								6	6							
								31	31							
4	4	3	5	6	6	18 ²⁾	18 ²⁾			31	31	12 ³⁾	4	12 ³⁾	31	
								2	2							
								6	6							
								31	31							
4 1	4 1	3 1	5 1 (1+1)	6 2	6 2	12 ²⁾ 12 ²⁾	12 ²⁾ 12 ²⁾			12 12	12 12	12 1	4 1	12 3	12 12	
								2	2							
								6	6							
								12	12							
-	-	-	-	v	v	v	v									
								-	-							
								v	v							

CNC Sinumerik pl

n Grundaussführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

n Control structure/application (continued)

Each additional positioning axis (axis-specific feed) or auxiliary spindle (spindle-specific speed) ¹⁾ NCU 561.4/561.5 NCU 571.4/571.5/572.4/572.5/573.4/573.5	6FC5 251-0AA04-0AA0
Activation of <u>internal</u> drive control of 6th axis for positioning tasks (contains additional positioning axis or auxiliary spindle)	6FC5 451-0AF01-0AA0
Activation of <u>internal</u> drive control of 6th axis for interpolation tasks (contains additional interpolation axis/spindle)	6FC5 451-0AF02-0AA0
Additionally as a package: 2nd machining channel and maximum memory configuration	6FC5 451-0AF03-0AA0
Additionally as a package: 4 machining channels and 13 axes NCU 561.4/561.5/571.4/571.5 NCU 572.4/572.5/573.4/573.5	6FC5 251-0AD01-0AA0
Connection of FM 354 as PLC positioning axis	See Basic Components
Connection of FM 353 as PLC positioning axis	See Basic Components

n Measuring systems that can be connected

Max. number NCU 561.4/561.5 NCU 571.4/571.5 NCU 572.4/572.5/573.4/573.5	
Incremental rotary measuring system with RS 422 (TTL)	
Linear incremental encoder with current signals • Via external EXE • Via SIMODRIVE 611 digital closed-loop control module	
Linear incremental encoder with sin/cos 1 V _{PP} • On-board • Via external EXE • Via SIMODRIVE 611 digital closed-loop control module • Via SIMODRIVE 611 universal HRS incremental shaft encoder output • Via SIMODRIVE 611 universal HRS (linear axis)	
Linear incremental encoder with distance-coded reference marks • On-board • Via SIMODRIVE 611 digital closed-loop control module • Via SIMODRIVE 611 universal HRS (closed-loop control module)	

1) Option: If number of axes + spindles > 5.
 2) For spindle only.
 3) SINUMERIK 810D measurement channels and via SIMODRIVE 611 digital closed-loop control module.
 4) Two measurement systems per axis.
 5) Second measurement system for one axis via 2nd axis SIMODRIVE 611 universal HRS or ADI 4.
 6) For analog axes via ADI 4.

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power- line	810D power- line	840DiE	840Di	840DE power- line	840D power- line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Man- ual Turn	Shop Turn	HT 6
-	-	-	-	v	v	v	v								
								-	-						
								v	v						
-	-	-	-	v	v	-	-	-	-						
-	-	-	-	v	v	-	-	-	-						
-	-	-	-	v	v	-	-	-	-						
-	-	-	-	-	-	v ⁸⁾	v ⁸⁾								
								-	-						
								v	v						
-	-	-	-	n	n	-	-	n	n						
-	-	-	-	n	n	-	-	n	n						

1	4	3	5	12 ³⁾	12 ³⁾	36 ^{4) 5)}	36 ^{4) 5)}								
								4 ⁴⁾	4 ⁴⁾						
								12 ⁴⁾	12 ⁴⁾						
								62 ⁴⁾	62 ⁴⁾						
n ²⁾	n	n ²⁾	n ²⁾	-	-	n ⁶⁾	n ⁶⁾	-	-						
-	n	n ⁹⁾	n ⁹⁾	-	-	-	-	-	-						
-	-	-	-	n	n	-	-	n	n						
-	-	-	-	n	n	-	-	-	-						
-	n	n ⁹⁾	n ⁹⁾	-	-	-	-	-	-						
-	-	-	-	n	n	-	-	n	n						
-	n	-	-	-	-	-	-	-	-						
-	-	n	n	v ⁷⁾	v ⁷⁾	n	n	v ⁷⁾	v ⁷⁾						
-	-	-	-	n	n	-	-	-	-						
-	-	-	-	n	n	-	-	n	n						
-	-	-	-	v ⁷⁾	v ⁷⁾	n	n	v ⁷⁾	v ⁷⁾						

7) For positioning tasks.
 8) With system software Plus (requirements: PCU with 1.2 GHz).
 9) Via ADI 4.

CNC Sinumerik pl

n Grundaussführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

n Measurement systems that can be connected (continued)

Rotary measurement systems with distance-coded reference marks

- On-board
- Via SIMODRIVE 611 digital closed-loop control module
- Via SIMODRIVE 611 universal HRS (closed-loop control module)

Absolute value encoder connection with SSI interface

Absolute value encoder connection with EnDat linear/rotary

- On-board
- Via SIMODRIVE 611 digital closed-loop control module
- Via SIMODRIVE 611 universal HRS (closed-loop control module)

Absolute value/incremental encoder installed in 1FT6/1FK

- On-board
- Via SIMODRIVE 611 digital closed-loop control module
- Via SIMODRIVE 611 universal HRS (closed-loop control module)

Incremental encoder with sin/cos 1 V_{pp}

- On-board
- Via SIMODRIVE 611 digital closed-loop control module
- Via SIMODRIVE 611 universal HRS (closed-loop control module)

Resolver installed in 1FT6/1FK

- Via SIMODRIVE 611 universal HRS (closed-loop control module)
- Via SIMODRIVE base line (only 1FK7 with 2-pole resolver)

n CNC functionality: Program functions

Dynamic preprocessing memory (FIFO)

Look Ahead

Program preprocessing

6FC5 251-0AC02-0AA0

Axis/spindle replacement

Geometry axes, switchable online in the CNC program

Frame concept

Inclined-surface machining with frames

1) Second measurement system for one axis via 2nd axis SIMODRIVE 611 universal HRS.
 2) For analog axes with ADI 4.
 3) For positioning tasks.

4) Number of traversing blocks cannot be parameterized.
 5) Not as motor measuring system, only for spindles or rotary axes for direct position sensing.
 6) Via SIMODRIVE 611 universal E HRS closed-loop control module.

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power- line	810D power- line	840DiE	840Di	840DE power- line	840D power- line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Man- ual Turn	Shop Turn	HT 6
-	-	-	-	n	n	-	-	-	-						
-	-	-	-	n	n	-	-	n	n						
-	-	-	-	V 5)	V 5)	-	-	V 5)	V 5)						
-	-	-	-	-	-	n 2)	n 2)	n	n						
-	-	-	-	n	n	-	-	-	-						
-	-	-	-	n	n	-	-	n	n						
-	-	n 6)	n 6)	V 3)	V 3)	n 1)	n 1)	V 3)	V 3)						
-	-	-	-	n	n	-	-	-	-						
-	-	-	-	n	n	-	-	n	n						
-	-	n 6)	n 6)	V 3)	V 3)	n	n	V 3)	V 3)						
-	-	-	-	n	n	-	-	-	-						
-	-	-	-	n	n	-	-	n	n						
-	n	n 6)	n 6)	V 3)	V 3)	n	n	V 3)	V 3)						
-	-	-	-	n	n	-	-	-	-						
-	n	-	-	V 3)	V 3)	n	n	V 3)	V 3)						
-	n	-	-	-	-	-	-	-	-						
n	n	n	n	n	n	n	n	n	n						
n 4)	n 4)	n 4)	n 4)	n	n	n	n	n	n						
-	-	-	-	V	V	V	V	V	V						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
-	-	n	n	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						

CNC Sinumerik pl

n Grundaussführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

n CNC functionality: Axis functions

Feedrate override of 0 ... 200%	
Feedrate override, axis-specific of 0 ... 200%	
Traversing range ± 9 decades	
Rotary axis, turning endlessly	
Measuring system 1 and 2, selectable	
Speed, max. 300 m/s	
Acceleration with jerk limitation	
Programmable acceleration	
Feedrate interpolation	
Separate path feed for corners and chamfers	
Traversing to fixed stop	6FC5 255-0AB02-0AA0
Traversing to fixed stop (without Force Control)	6FC5 655-0AA01-0AA0
Follow-up mode	
Pair of synchronized axes (gantry axes)	6FC5 255-0AB00-0AA0
Max. number	
NCU 561.4/561.5	
NCU 571.4/571.5/572.4/572.5/573.4/573.5	
Trailing axes (TRAIL)	
Master/slave for drives	6FC5 251-0AC07-0AA0
NCU 561.4/561.5	
NCU 571.4/571.5/572.4/572.5/573.4/573.5	
Analog axis ¹⁾	6FC5 251-0AC06-0AA0
Setpoint exchange	6FC5 251-0AE76-0AA0
Tangential control	6FC5 251-0AB11-0AA0
NCU 561.4/561.5	
NCU 571.4/571.5/572.4/572.5/573.4/573.5	
Position switching signals/cam controller	6FC5 251-0AB07-0AA0

1) SINUMERIK 840DE powerline/840D powerline: From the 6th axis upwards, the option "Each additional interpolating axis/spindle" is included. For SINUMERIK 840DiE/840Di with ADI 4.

2) In SW Version 6.4 and higher, functionality is included in the NCU system software.
 3) In SW Version 7.1 and higher, functionality is included in the NCU system software.

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power- line	810D power- line	840DiE	840Di	840DE power- line	840D power- line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Man- ual Turn	Shop Turn	HT 6
120	120	n	n	n	n	n	n	n	n						
-	-	n	n	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
-	-	-	n	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
12	n	n	n	n	n	n	n	n	n						
-	-	-	n	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	v	v	v	v	v	v						
-	-	-	v	-	-	-	-	-	-						
-	n	n	n	n	n	n	n	n	n						
-	-	-	-	v	v	v	v								
								-	-						
								v	v						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	v	v	-	-								
								-	-						
								v	v						
-	-	-	-	-	-	-	-	v	v						
-	-	-	-	-	-	-	-	v	v						
-	-	-	-	v	v	v	v								
								-	-						
								v	v						
-	-	-	-	v	v	v	v	v	v						

CNC Sinumerik pl

n Grundaussführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

II CNC functionality: Axis functions (continued)

Link axis ¹⁾ NCU 561.4/561.5/571.4/571.5/572.4/572.5 NCU 573.4/573.5	6FC5 251-0AD10-0AA0
Axis container NCU 561.4/561.5/571.4/571.5/572.4/572.5 NCU 573.4/573.5	6FC5 251-0AE01-0AA0
Setpoint linkage for multiple NCUs ¹⁾ NCU 561.4/561.5/571.4/571.5/572.4/572.5 NCU 573.4/573.5	6FC5 251-0AF02-0AA0
Fast IPO link ¹⁾ NCU 561.4/561.5/571.4/571.5/572.4/572.5 NCU 573.4/573.5	6FC5 251-0AF03-0AA0
Advanced Position Control APC	6FC5 251-0AF04-0AA0

II CNC functionality: Spindle functions

Analog spindle speed	
Digital spindle speed	
Spindle speed, max. programmable value range: REAL ± 3.4028 ex 38 (display: ± 999 999 999.9999)	
Spindle override of 0 ... 200%	
5 gear stages	
Automatic gear stage selection	
Oriented spindle stop	
Spindle speed limitation (min. and max.)	
Constant cutting rate	
Spindle control via PLC (positioning, oscillation)	
Changeover to axis mode	
Axis synchronization on-the-fly	
Thread run-in and run-out programmable	
Thread cutting with constant or variable pitch NCU 561.4/561.5 NCU 571.4/571.5/572.4/572.5/573.4/573.5	
Tapping with/without compensating chuck	
Synchronous spindle/multi-edge turning NCU 561.4/561.5 NCU 571.4/571.5/572.4/572.5/573.4/573.5	6FC5 255-0AB01-0AA0

1) Requirement: Link module.
 2) Value range: 999 999.999.

3) Only SPOS and basic functions.
 4) Via ADI 4.

CNC Sinumerik pl

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power-line	810D power-line	840DiE	840Di	840DE power-line	840D power-line	HMI Advanced	HMI Embedded	Shop Mill	Manual Turn	Shop Turn	HT 6
-	-	-	-	-	-	-	-	-	-						
								v	v						
-	-	-	-	-	-	v	v	-	-						
								v	v						
-	-	-	-	-	-	-	-	-	-						
								v	v						
-	-	-	-	-	-	-	-	-	-						
								v	v						
-	-	-	-	-	-	-	-	v	v						
n	n	n	n	-	-	n ⁴⁾	n ⁴⁾	-	-						
-	-	n	n	n	n	n	n	n	n						
n ²⁾	n ²⁾	n	n	n	n	n	n	n	n						
120	120	n	n	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
n ³⁾	n ³⁾	n ³⁾	n ³⁾	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	-	-						
								n	n						
n	n	n	n	n	n	n	n	n	n						
-	-	-	-	v	v	v	v	-	-						
								v	v						

CNC Sinumerik pl

- n Grundaussführung
- v Option
- x Funktion abhängig von Bedien-Software
 - Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

n CNC functionality: Interpolations

Universal interpolator NURBS (non-uniform rational B-splines)

Continuous-path mode with programmable rounding clearance

Linear interpolation axes

- Maximum

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Multi-axis interpolation (> 4 interpolating axes)

6FC5 251-0AA16-0AA0

Circle via center point and end point

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Circle via interpolation point

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Helical interpolation:

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Spline interpolation (A, B and C splines/compressor) for 3-axis machining

6FC5 251-0AF14-0AA0

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Spline interpolation (A, B and C splines/compressor) for 5-axis machining

6FC5 251-0AA14-0AA0

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Polynomial interpolation

6FC5 251-0AA15-0AA0

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Master-value coupling and curve table interpolation

6FC5 251-0AD06-0AA0

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Involute interpolation

6FC5 251-0AF01-0AA0

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

1) With restricted functionality, see export information.
 2) With system software Plus (requirements: PCU with 1.2 GHz).
 With system software Basic: 6
 With system software Universal: 10.

3) Only tapping: Axis + spindle.

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power- line	810D power- line	840DiE	840Di	840DE power- line	840D power- line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Man- ual Turn	Shop Turn	HT 6
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
3	3	2	4	4	4	4	4	4	4						
3	3	2	4	4	6	4	12 ²⁾								
								2 ³⁾	2 ³⁾						
								4	12						
-	-	-	-	-	v	-	v	-	v						
n	n	n	n	n	n	n	n								
								-	-						
								n	n						
n	n	n	n	n	n	n	n								
								-	-						
								n	n						
2D+1	2D+1	-	2D+2	2D+2	2D+2	2D+2	2D+6								
								-	-						
								2D+2	2D+6						
-	-	-	-	v	v	v	v								
								-	-						
								v	v						
-	-	-	-	v	v	v	v								
								-	-						
								v	v						
-	-	-	-	v	v	v	v								
								-	-						
								v	v						
-	-	-	-	v ¹⁾	v	v ¹⁾	v								
								-	-						
								v ¹⁾	v						
-	-	-	-	v	v	v	v								
								-	-						
								v	v						

CNC Sinumerik pl

- n Grundaussführung
- v Option
- x Funktion abhängig von Bedien-Software
 - Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

n CNC functionality: Interpolations (continued)

Electronic gear EG NCU 561.4/561.5 NCU 571.4/571.5/572.4/572.5/573.4/573.5	6FC5 251-0AE00-0AA0
Axial coupling in the machine coordinate system (MCS coupling) NCU 561.4/561.5 NCU 571.4/571.5/572.4/572.5/573.4/573.5	6FC5 251-0AD11-0AA0
Continue machining at the contour (retrace support)	6FC5 251-0AE72-0AA0
Advanced Processing 1	6FC5 251-0AF10-0AA0
Advanced Processing 2	6FC5 251-0AF11-0AA0

n CNC functionality: Transformations

Cartesian point-to-point (PTP) traversing NCU 561.4/561.5 NCU 571.4/571.5/572.4/572.5/573.4/573.5	
TRANSMIT/peripheral surface transformation NCU 561.4/561.5 NCU 571.4/571.5/572.4/572.5/573.4/573.5	6FC5 251-0AB01-0AA0
TRANSMIT/peripheral surface transformation	6FC5 651-0AA02-0AA0
Inclined axis NCU 561.4/561.5 NCU 571.4/571.5/572.4/572.5/573.4/573.5	6FC5 251-0AB06-0AA0
Chained transformations (inclined axis TRAANG to TRAORI/Universal milling head/TRANSMIT/TRACYL) NCU 561.4/561.5 NCU 571.4/571.5/572.4/572.5/573.4/573.5	
Machining package milling ⁶⁾	6FC5 251-0AG00-0AA0
Machining package 5 axes ¹⁾	6FC5 251-0AA10-0AA0
Handling transformation package	6FC5 251-0AD07-0AA0
Generic transformation NCU 561.4/561.5 NCU 571.4/571.5/572.4/572.5/573.4/573.5	

1) Contains the option "Multi-axis interpolation".
2) Only with system software Universal and Plus.

3) Only with system software Plus.
4) With 3-axis and 4-axis transformation.

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power- line	810D power- line	840DiE	840Di	840DE power- line	840D power- line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Man- ual Turn	Shop Turn	HT 6
-	-	-	-	-	-	v	v	-	-						
								v	v						
-	-	-	-	-	-	-	v	-	-						
								-	-						
								-	v ⁵⁾						
-	-	-	-	v	v	v	v	v ⁵⁾	v ⁵⁾						
-	-	-	-	-	-	v ²⁾	v ²⁾	-	-						
-	-	-	-	-	-	v ³⁾	v ³⁾	-	-						
-	-	-	-	n	n	n	n	-	-						
								n	n						
-	-	-	-	v	v	v	v	-	-						
								v	v						
-	-	-	v	-	-	-	-	-	-						
-	-	-	-	v	v	v	v	-	-						
								v	v						
-	-	-	-	n	n	n	n	-	-						
								n	n						
-	-	-	-	-	-	-	v	-	v						
-	-	-	-	-	-	-	v	-	v						
-	-	-	-	-	v	-	v	-	v ⁵⁾						
-	-	-	-	n ⁴⁾	n ⁴⁾	n ⁴⁾	n	-	-						
								n ⁴⁾	n						

5) Loadable compile cycle in SW Version 6.4 and higher in the NCU system software.

6) Includes options: Machining package 5 axes, Multi-axis interpolation, Spline interpolation for 5-axis machining, 3D tool radius compensation.

CNC Sinumerik pl

n Grundaussführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

n CNC functionality: Measuring

Measuring Stage 1
 2 sensors (switching) with/without deletion of distance-to-go

See HMI Software

Measuring Stage 2
 (logging of measurement results, measurement functions from synchronized actions, cyclic measurement)

6FC5 250-0AD00-0AA0
 See HMI Software

n CNC functionality: Technologies

Punching/nibbling

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

6FC5 251-0AC00-0AA0

Oscillation functions (block-related, modal and asynchronous)

6FC5 251-0AB04-0AA0

More than one feed in block (e. g. for calipers)

Handwheel override

Contour handwheel

Electronic transfer

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

6FC5 250-0AD05-0AA0

n CNC functionality: Motion-synchronous action

High-speed CNC inputs/outputs

• 4 digital inputs/4 digital outputs on-board

• Expansion via NCU terminal block
 32 digital inputs/32 digital outputs,
 8 analog inputs/8 analog outputs

• Expansion via SIMATIC S7 I/O
 32 digital inputs/32 digital outputs
 4 analog inputs/4 analog outputs

See Basic Components

Synchronized action (max. 16) and high-speed auxiliary function output

Synchronized action Stage 2 (up to 255 parallel actions per channel, technology cycles)

6FC5 251-0AD05-0AA0

Positioning axes and spindles via synchronized actions (command axes)

Analog value control in interpolation cycle (requirement: analog output)

Path velocity-dependent analog output (laser power control)

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

6FC5 251-0AC04-0AA0

1) 1 sensor.
 2) With restricted functionality, see export information.

3) Requirement: MCI board extension.
 4) Requirement: SIMATIC DP ET 200 analog module.

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power- line	810D power- line	840DiE	840Di	840DE power- line	840D power- line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Man- ual Turn	Shop Turn	HT 6
-	-	-	n 1)	n	n	n 3)	n 3)	n	n						
-	-	-	-	v 2)	v	v 2) 3)	v 3)	v 2)	v						
-	-	-	-	-	-	v	v								
								-	-						
								v	v						
-	-	-	-	v	v	v	v	v	v						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	-	-	v 2)	v								
								-	-						
								v 2)	v						
-	-	-	-	-	-	n 3)	n 3)	n	n						
-	-	-	-	v	v	-	-	v	v						
-	-	-	-	-	-	v	v	-	-						
-	-	-	-	n 2)	n	n 2)	n	n 2)	n						
-	-	-	-	v 2)	v	v 2)	v	v 2)	v						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	n	n	n 4)	n 4)	n	n						
-	-	-	-	v	v	v 4)	v 4)								
								-	-						
								v	v						

CNC Sinumerik pl

n Grundaussführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

II CNC functionality: Motion-synchronous action (continued)

Laser switching signal, high-speed NCU 561.4/561.5 NCU 571.4/571.5/572.4/572.5/573.4/573.5: 6/12/31 axes	6FC5 251-0AE74-0AA0
Clearance control • 1D in interpolation cycle via synchronized action • 1D/3D in position control cycle (incl. in interpolation cycle) NCU 561.4/561.5 NCU 571.4/571.5/572.4/572.5/573.4/573.5: 6/12/31 axes	6FC5 251-0AC05-0AA0
Evaluation of internal drive variables (prerequisite for Adaptive Control)	6FC5 251-0AB17-0AA0
Continuous Dressing (parallel dressing, online modification of the tool offset) NCU 561.4/561.5 NCU 571.4/571.5/572.4/572.5/573.4/573.5	
Asynchronous subroutine ASUP ¹⁾	
Interrupt routines with high-speed retraction from the contour	6FC5 251-0AA00-0AA0
Multiple mode actions (ASUPs and synchronized actions in all operating modes)	6FC5 251-0AD04-0AA0

II Open Architecture

HMI programming package (OEM contract required)	See HMI Software
HMI configuring package (OEM contract required)	See HMI Software
User-interface expansion (HMI Advanced/HMI Embedded)	See HMI Software
OA package NCK (OEM contract required)	See Basic Components
OA NCK compile cycles (runtime license)	6FC5 251-0AA20-0AA0 See Basic Components

1) High-speed CNC inputs/outputs required.
 2) With restricted functionality, see export information.

3) 20 unreserved screens.
 4) Configuration via PROFIBUS DP.

CNC Sinumerik pl

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power-line	810D power-line	840DiE	840Di	840DE power-line	840D power-line	HMI Advanced	HMI Embedded	Shop Mill	Manual Turn	Shop Turn	HT 6
-	-	-	-	-	-	v	v	-	-						
								v 5)	v 5)						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	-	-	v 2)	v								
								v 2) 5)	v 5)						
-	-	-	-	v 2)	v	v 2) 4)	v 4)	v 2)	v						
-	-	-	-	n 2)	n	n 2)	n								
								-	-						
								n 2)	n						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	v	v	v	v	v	v						
-	-	-	-	v	v	v	v	v	v						
-	-	-	-	v	v	v	v	v	v						
-	-	-	-	v	v	v	v	v	v						
-	-	-	-	v	v	v	v	v	v						
-	-	-	-	x	x	x	x	x	x	v 3)	v 3)	v 3)	v 3)	v 3)	v 3)
-	-	-	-	-	-	-	-	-	v						
-	-	-	-	-	-	-	-	-	v						

CNC Sinumerik pl

- 5) Loadable compile cycle in SW Version 6.4 and higher in the NCU system software.



n Grundaussführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced
 nicht möglich

Bestell-Nr.

□ CNC programming: Language

Programming language (DIN 66025 and high-level language expansion)

Main program calls from main programs and subroutines

Subroutine levels/interrupt routines, max.

Number of subroutine repetitions ≤ 9999

Number of levels for skippable blocks (/0 to /...)

Polar coordinates

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

1/2/3-point contours

Dimensions metric/inch,
changeover manually or via program

Inverse-time feedrate

Auxiliary function output

- Via M word, max. programmable value range: INT $2^{31}-1$

- Via H word,
max. programmable value range: REAL $\pm 3.4028 \text{ ex } 38$
(display: $\pm 999\,999\,999.9999$) INT $-2^{31} \dots 2^{31}-1$

High-level language CNC with

- User variables, configurable
- Predefined user variables (arithmetic parameters), configurable
- Read/write system variables
- Indirect programming
- Program jumps and branches
- Program coordination with WAIT, START, INIT
NCU 561.4/561.5
NCU 571.4/571.5/572.4/572.5/573.4/573.5
- Arithmetic and trigonometric functions
- Comparing operations and logic combinations
- Macro techniques
- Control structures
(IF-ELSE-ENDIF, WHILE, FOR, REPEAT, LOOP)
- Commands to HMI
- STRING functions

1) M function: 1 ... 99.

CNC Sinumerik pl

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power- line	810D power- line	840DiE	840Di	840DE power- line	840D power- line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Man- ual Turn	Shop Turn	HT 6
n	n	n	n	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
4/0	4/0	8/0	8/0	11/4	11/4	11/4	11/4	11/4	11/4						
n	n	n	n	n	n	n	n	n	n						
1	1	1	1	8	8	8	8	8	8						
-	-	n	n	n	n	n	n								
								-	-						
								n	n						
n	n	n	n	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
n ₁₎	n ₁₎	n	n	n	n	n	n	n	n						
-	-	n	n	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
-	-	n	n	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	X	X	X	X	X	X	n	n	-	-	-	-
-	-	-	-	n	n	n	n	n	n						

- n Grundaussführung
- v Option
- x Funktion abhängig von Bedien-Software
 - Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

II CNC programming: Language (continued)

Online ISO dialect interpreter

6FC5 253-0AE00-0AA0

Program management

- Management of programs and workpieces in NCK
- Management of programs and workpieces on hard disk (HD)
- Management of programs and workpieces on diskette drive
- Management of programs and workpieces on network drive
- Max. number of workpieces on NC/NC + HD
- Templates for workpieces, programs and INI files
- Job lists

II CNC programming: Cycles

Process-oriented cycles for drilling/milling and turning

See HMI Software

Pocket milling with free contour definition and islands

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

See HMI Software

Pocket milling with free contour definition, islands and residual material removal

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

See HMI Software

Enhanced stock removal functions with blank part description

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

See HMI Software

Enhanced stock removal functions with blank part description and residual material removal

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

See HMI Software

Measuring cycles for drilling/milling and turning

See HMI Software

Access protection for cycles

Cycle storage separate from CNC main memory

6FC5 251-0AF00-0AA0

1) Management of workpieces is not possible.

2) Requirement: DNC (option).

3) With different functionality.

4) Partially.

CNC Sinumerik pl

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power- line	810D power- line	840DiE	840Di	840DE power- line	840D power- line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Man- ual Turn	Shop Turn	HT 6
-	-	-	n	v	v	v	v	v	v						
n 1)	n 1)	n 1)	n 1)	n	n	n	n	n	n	n	n	n	n	n	n
-	-	-	-	x	x	n	n	x	x	n	-	n	-	n	-
-	-	-	-	x	x	x	x	x	x	n	v	v	-	v	-
-	-	-	-	x	x	x	x	x	x	v 2)	v	v	-	v	-
100/-	100/-	100/-	100/-	250/-	250/-	310	310	250/-	250/-	-/310	-	-/310	-/310	-/310	-
-	-	-	-	x	x	x	x	x	x	n	-	-	-	-	-
-	-	-	-	x	x	x	x	x	x	n	-	-	-	-	-
n	n	n	n	x	x	x	x	x	x	n	v	n	n 3)	n	-
-	-	-	-	x	x	x	x	-	-	v	-	n	-	n	-
								x	x						
-	-	-	-	x	x	x	x	-	-	v	-	v	-	v	-
								x	x						
-	-	-	-	x	x	x	x	-	-	v	-	-	v	n	-
								x	x						
-	-	-	-	v	v	v	v	-	-	v	-	-	v	v	-
								-	-						
								v	v						
-	-	-	-	v	v	v	v	v	v	v	v	n 4)	-	n 4)	-
n	n	n	n	n	n	n	n	n	n		-				
-	-	-	-	v	v	v	v	v	v						

n Grundausführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

¶ CNC programming: Program support

Program editor

- Text editor with editing functions: Marking, copying, deleting, ...
- Machining step programming
- Write protection for lines
- Suppression of lines in the display

See HMI Software

- Dual editor
- Multi-channel sequence programming

6FC5 253-0AF03-0AA0

AutoTurn/AutoTurn Plus

See HMI Software

Program support for geometry entries

- Geometry processor with programming graphics/
Free contour input (contour calculator)
- Screens for 1/2/3-point contours

See HMI Software

Program support for cycles

- Screens and stationary auxiliary displays
- Dynamic programming graphics during programming
- Programming support expandable (e. g. customer cycles)

¶ Parameter

Max. number of basic frames

Max. number of selectable offsets

Work offsets, programmable (frames)

Scratching, determining work offset

Work offsets, external (PLC)

Global and local user data

Global program user data

Display system variables (also via online configurable display) and log them

1) Configurable by Siemens.
 2) For presentation of the machining step.

3) With "Expand user interface", see HMI/MMC start-up instructions.
 4) With "Customer cycles" function.

CNC Sinumerik pl

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power-line	810D power-line	840DiE	840Di	840DE power-line	840D power-line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Man- ual Turn	Shop Turn	HT 6
n	n	n	n	X	X	n	n	X	X	n	n	n	n	n	n
-	-	-	-	X	X	X	X	X	X	-	-	V	n	V	-
-	-	-	-	X	X	X	X	X	X	n	-	n	-	n	-
-	-	-	-	X	X	X	X	X	X	n	-	n ²⁾	-	n	-
-	-	-	-	X	X	X	X	X	X	n	n	-	-	-	-
-	-	-	-	X	X	-	-	X	X	V	-	-	-	-	-
-	-	-	-	X	X	-	-	X	X	V	-	-	-	-	-
-	-	-	-	X	X	X	X	X	X	n	n	n	V	n	-
n	n	n	n	X	X	X	X	X	X	n	n	n	-	n	n
n	n	n	n	X	X	X	X	X	X	n	n	n	n	n	-
-	-	-	-	X	X	X	X	X	X	-	-	n	n	n	-
l)	l)	l)	l)	X	X	X	X	X	X	n ³⁾	n ³⁾	n ³⁾	n ⁴⁾	n ³⁾	n
1	1	1	1	16	16	x	x	16	16	16	16	1	1	1	-
4	4	6	6	100	100	x	x	100	100	100	100	100	4	100	100
1	1	n	n	n	n	n	n	n	n						
n	n	n	n	X	X	X	X	X	X	n	n	n	n	n	-
-	-	-	-	n	n	n	n	n	n	n	n	n	n	n	-
-	-	-	-	n	n	X	X	n	n	n	-	n	-	n	n
-	-	-	-	n	n	X	X	n	n	n	n	n	-	n	n
-	-	-	-	X	X	X	X	X	X	n	-	-	-	-	-

- n Grundaussführung
- v Option
- x Funktion abhängig von Bedien-Software
 - Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

Simulation

Up to n channels can be simulated sequentially

NCU 561.4/561.5

NCU 571.4/571.5

NCU 572.4/572.5/573.4/573.5

Several channels and programs can machine the same blank part in succession

Simulation of program X, while program Y is executed

Drilling/milling ¹⁾

- Multi-sided 2D view, dynamic
- 3D view, static
- Simultaneous recording (real-time simulation of current machining)

See HMI Software

Turning ¹⁾

- Traverse path simulation without model (broken-line graphics)
- Contour of blank part can be specified
- Simulation in working plane G18
- Simulation in working planes G17/G19
- Full cut/partial cut with circumferential edges, front face and peripheral surfaces, milling and drilling operations
- Counterspindle
- 3D simulation of the finished part (static/dynamic)
- Simultaneous recording (real-time simulation of current machining)

See HMI Software

Turning ¹⁾

- Traverse path simulation without model (broken-line graphics)
- Simulation in working plane G18
- Simultaneous recording (real-time simulation of current machining)

6FC5 673-0AB01-0AF0

Operating modes

JOG

- Handwheel selection
- Inch/metric changeover
- Manual measurement of work offset
- Manual measurement of tool compensation
- Automatic tool/workpiece measurement
- Reference point approach, automatic/via CNC program

See HMI Software

¹⁾ Toolholder vertical to the workpiece.

²⁾ Single-sided broken-line graphics at programming level.

³⁾ Dynamic for PCU 50/PCU 70.

⁴⁾ Requirement: Measurement cycles.

CNC Sinumerik pl

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
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-	-	-	-	2	2	2	2			10	1	1	1	1	-
								2	2						
								6	6						
								10	10						
-	-	-	-	X	X	X	X	X	X	n	-	-	-	-	-
-	-	-	-	X	X	X	X	X	X	n	-	-	-	-	-
-	-	-	n ²⁾	X	X	X	X	X	X	n	-	n	-	-	-
-	-	-	-	X	X	X	X	X	X	n	-	n	-	-	-
-	-	-	n ²⁾	X	X	X	X	X	X	-	V	V	-	-	-
-	-	-	-	X	X	X	X	X	X	n	n	-	n ⁵⁾	-	-
-	-	-	-	X	X	X	X	X	X	n	-	-	n	-	-
-	-	-	-	X	X	X	X	X	X	n	n	-	n	n	-
-	-	-	-	X	X	X	X	X	X	n	-	-	-	n	-
-	-	-	-	X	X	X	X	X	X	n	-	-	-	n	-
-	-	-	-	X	X	X	X	X	X	n	-	-	-	n	-
-	-	-	-	X	X	X	X	X	X	n	-	-	-	n	-
-	-	-	-	X	X	X	X	X	X	n	-	-	-	n	-
-	-	-	-	X	X	X	X	X	X	n	-	-	-	n	-
-	-	V ²⁾	n ²⁾	-	-	-	-	-	-	-	-	-	-	-	-
-	-	V ²⁾	n ²⁾	-	-	-	-	-	-	-	-	-	-	-	-
-	-	V ²⁾	n ²⁾	-	-	-	-	-	-	-	-	-	-	-	-
n	n	n	n	n	n	n	n	n	n	n	n	-	-	-	n
n	n	n	n	n	n	X	X	n	n	n	n	-	-	-	-
-	-	n	n	n	n	X	X	n	n	n	n	n	n	n	-
n	n	n	n	X	X	X	X	X	X	n	n	n	n	n	-
n	n	n	n	X	X	X	X	X	X	-	-	n	n	n	-
-	-	n	n	n	n	X	X	n	n	V ⁴⁾	-	n	-	n	-
n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

5) Only turning.

n Grundaussführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

n Operating modes (continued)

MDA	
• Input in text editor	
• Save MDA program	
• Input screen forms for technology and positioning, cycle support	
Teach In	
• Teach positions in MDA buffer	
• Teach (record/playback)	
• Teach In with HT 6	
Teach In	6FC5 571-0AA01-0BF0
Automatic	
• Execution from network drive or PC card for PCU 20	See HMI Software
• Execution from V.24 (RS 232 C) interface	
• Execution from hard disk	
• Program control	
• Program editing:	
• Overstoring	
• DRF offset	
• Block search with/without calculation	
Repos (repositioning on the contour)	
• With operator command/semi-automatically	
• Program-controlled	
Preset	
Set actual value	

n Tools

Tool types	
• Turning	
• Drilling/milling	
• Grinding	
• Groove sawing	

1) Requirement: DNC (option).
 2) Possible with restrictions.

3) Requirement: Management of network and diskette drive on PCU 20 (option).

CNC Sinumerik pl

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n	n	n	n	n	n	X	X	n	n	n	n				n
n	n	n	n	n	n	X	X	n	n	n	n	n	-	n	n
-	-	-	-	n	n	X	X	n	n	n	n	-	-	-	n
-	-	-	-	n	n	X	X	n	n	-	-	n	n	n	-
-	-	-	-	n	n	X	X	n	n						
-	-	-	-	n	n	X	X	n	n	n	n	-	-	-	n
-	-	-	-	n	n	-	-	n	n	-	-	-	n	-	-
-	-	-	-	V	V	V	V	V	V	-	-	-	-	-	n
V	V	-	-	-	-	-	-	-	-						
n	n	n	n	n	n	n	n	n	n	n	n				n
-	-	-	-	n	n	X	X	n	n	V 1)	V 3)	V	-	V	-
n	n	n	n	n	n	X	X	n	n	n	n	n	-	n	-
-	-	-	-	n	n	X	X	n	n	n	-	n	-	n	-
n	n	n	n	n	n	X	X	n	n	n	n	n	n 2)	n	n
n	n	n	n	n	n	X	X	n	n	n	n	n	-	n	n
-	-	-	-	n	n	X	X	n	n	n	n	-	-	-	n
-	-	-	-	n	n	X	X	n	n	n	n	n	n	n	n
n	n	n	n	n	n	X	X	n	n	n	n	n	n/-	n	n
n	n	n	n	n	n	X	X	n	n	n	n	n	n	n	-
-	-	-	-	n	n	X	X	n	n	n	n	n	n	n	-
-	-	-	-	n	n	X	X	n	n	n	n	n	n	n	-
n	n	n	n	n	n	X	X	n	n	n	n	n	n	n	-
n	n	n	n	n	n	X	X	n	n	n	n	-	n	n	n
n	n	n/-	n	n	n	X	X	n	n	n	n	n	n	n	n
-	-	-	-	n	n	X	X	n	n	n	n	-	-	-	n
-	-	-	-	n	n	X	X	n	n	n	n	-	-	-	n

n Grundaussführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced
 nicht möglich

Bestell-Nr.

II Tools (continued)

Tool radius compensations in plane

- With approach and retract strategies

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

- With transition circle/ellipse on outer edges

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Configurable intermediate blocks with tool radius compensation active

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

3D tool radius compensation

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

6FC5 251-0AB13-0AA0

Tool change via T number

Tool holder with orientation capability

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Look-ahead detection of contour violations

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Grinding-specific tool compensation with grinding wheel surface speed

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Tool orientation interpolation ¹⁾

Online tool length compensation

Operation without tool management

- Tool compensation selection via D number without T assignment (flat D number)
- Editing of tool data
- Tool compensation selection via T and D numbers
- Data backup via V.24 (RS 232 C) interface
- Number of tools/cutting edges in tool list

1) Requirement: Machining package for 5 axes (option).

2) Available soon.

CNC Sinumerik pl

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-	-	-	-	n	n	n	n	-	-						
								n	n						
n	n	n	n	n	n	n	n	-	-						
								n	n						
-	-	-	-	n	n	n	n	-	-						
								n	n						
-	-	-	-	-	-	v	v	-	-	n	n	n	-	-	-
								v	v						
n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	-
-	-	-	-	n	n	n	n	-	-	n	n	n	-	-	-
								-	-						
								n	n						
n	n	n	n	n	n	n	n	-	-						
								n	n						
-	-	-	-	n	n	n	n	-	-	n	n	-	-	-	-
								-	-						
							n	-	n						
-	-	-	-	-	-	-	-	n	n						
								-	-						
n	n	n	n	n	n	x	x	n	n	n	n	-	n	²⁾	n
-	-	-	-	n	n	x	x	n	n	n	n	-	-	-	n
n	n	n	n	n	n	x	x	n	n	n	-	-	-	-	n
n	n	n	n	n	n	x	x	n	n	n	n	n	-	n	-
n	n	n	n	-	-	-	-	-	-	-	-	-	-	-	-
15/30	15/30	18/36	³⁾	600/ 1500	600/ 1500	600/ 1500 x	600/ 1500 x	600/ 1500	600/ 1500			-	-	-	

3) For turning 32/64. For milling 48/96.

n Grundaussführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced
 nicht möglich

Bestell-Nr.

n Tools (continued)

Operation with tool management

- System displays in standard software
- Easy start-up via system displays
- Tool list
- Configurable tool lists
- Number of tools/cutting edges in tool list

- Unambiguous D number structure
- Tool compensation selection via T and D numbers
- Editing of tool data
- Editing of OA data
- Magazine list
- Configurable magazine list
- More than one magazine is possible
- Magazine data
- Vacant position search and positioning
- Easy vacant position search using softkeys
- Loading and unloading of tools
- More than one loading and unloading point per magazine
- Tool cabinet and tool catalog
- Loading and unloading via code carrier system
- Adapter data
- Local offsets
- Connection to TDI
- Data backup on hard disk
- Data backup via V.24 (RS 232 C) interface

Monitoring of tool life and workpiece count

6FC5 251-0AB12-0AA0

6FC5 651-0AA01-0AA0

1) Valid for PCU 50/PCU 70. For PCU 20: 250/500.
 2) Available soon.
 3) Available with PCU 50.

CNC Sinumerik pl

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline											
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										HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Man- ual Turn	Shop Turn	HT 6
-	-	-	-	v	v	x	x	v	v	v	v	n	-	n	-
-	-	-	-	v	v	x	x	v	v	v	v	n	-	n	-
-	-	-	-	v	v	x	x	v	v	v	-	3)	-	3)	-
-	-	-	-	v	v	v	v	v	v	v	v	n	-	n	-
-	-	-	-	v	v	v	v	v	v	v	-	-	-	-	-
-	-	-	-	600/1500	600/1500	600/1500 x	600/1500 x	600/1500	600/1500	600/1500	600/1500	600/1200 ¹⁾	100/1	600/1200 ¹⁾	-
-	-	-	-	v	v	x	x	v	v	v	-	-	-	-	-
-	-	-	-	n	n	n	n	n	n	n	n	n	-	n	-
-	-	-	-	v	v	x	x	v	v	v	v	n	-	n	-
-	-	-	-	v	v	x	x	v	v	v	v	2)	-	2)	-
-	-	-	-	v	v	x	x	v	v	v	v	n	-	n	-
-	-	-	-	v	v	x	x	v	v	v	-	-	-	-	-
-	-	-	-	32	32	32	32	32	32	32	32	3	-	3	-
-	-	-	-	v	v	x	x	v	v	v	v	n	-	n	-
-	-	-	-	v	v	x	x	v	v	v	v	n	-	n	-
-	-	-	-	v	v	x	x	v	v	v	-	-	-	-	-
-	-	-	-	v	v	x	x	v	v	v	v	n	-	n	-
-	-	-	-	v	v	x	x	v	v	v	-	-	-	-	-
-	-	-	-	v	v	x	x	v	v	v	-	-	-	-	-
-	-	-	-	v	v	x	x	v	v	v	-	n	-	n	-
-	-	-	-	v	v	x	x	v	v	v	v	n	-	n	-
-	-	-	v	-	-	-	-	-	-	-	-	-	-	-	-

<ul style="list-style-type: none"> n Grundaussführung v Option x Funktion abhängig von Bedien-Software – Voraussetzung: Bedien-Software HMI-Advanced nicht möglich 	Bestell-Nr.
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II Communication

Serial interface V.24 (RS 232 C)	
Secure data transfer (Z modem)	
Parallel interface (Centronics)	
Diskette drive operation	See HMI Software
Multipoint interface (MPI)	
Ethernet connections	See HMI Software
Interfacing to I/O via PROFIBUS DP ¹⁾ (software option)	6FC5 252-0AD00-0AA0
Data interchange between machining channels	
High-speed data interchange between CNC and PLC	
Data backup on hard disk	
Data backup on PC card	
PC card as additional program memory (PCU 20)	

II ePS Network Services

eP Access	See HMI Software
eP Dynamic	See HMI Software
eP Performance	See HMI Software

II Motion Control Information System MCIS

DNC Machine/IFC: CNC program transfer via the network	See HMI Software
TDI: Tool management function for individual machines and networked machines	See HMI Software
TDI Ident Connection: Connection to tool identification systems	See HMI Software
MDA Machine/IFC: Machine and production data acquisition	See HMI Software
RPC SINUMERIK: Data interchange between CNC and host computer	See HMI Software
TPM Machine: Support for maintenance and repair	See HMI Software
RCS@Event	See HMI Software

1) For literature on the subject of PROFIBUS DP, see Services.
 2) For PCU 50/PCU 70.

3) Requirement: DNC (option).

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										HMI Advanced	HMI Embedded	Shop Mill	Manual Turn	Shop Turn	HT 6
n	n	n	n	X	X	n	n	X	X	n	n	n	n	n	n
-	-	-	-	X	X	X	X	X	X	n	5)	5)	-	5)	-
-	-	-	-	X	X	n	n	X	X	n	-	n 2)	n 2)	n 2)	-
-	-	-	-	X	X	n	n	X	X	n	V	V	-	V	-
-	-	-	-	n	n	n	n	n	n	n	n	n	n	n	n
-	-	-	-	X	X	n	n	X	X	V 3)	V	V	-	V	-
-	-	n	n	V	V	n	n	V	V						
-	-	-	-	n	n	n	n	n	n					-	-
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	X	X	n	n	X	X	n	-	n 5) 2)	n 2)	n 2)	-
-	-	n	n	n	n	-	-	n	n	n	n	n	n	n	n
-	-	-	-	X	X	-	-	X	X	-	n 4)	-	-	-	-
-	-	-	-	V	V	V	V	V	V	V 6)	-	V 6)	V 6)	V 6)	-
-	-	-	-	V	V	V	V	V	V	V 6)	-	V 6)	V 6)	V 6)	-
-	-	-	-	V 7)	V 7)	V 7)	V 7)	V 7)	V 7)	V 6)	-	V 6)	V 6)	V 6)	-
-	-	-	-	X	X	X	X	X	X	V	-	V 2)	V 2)	V 2)	-
-	-	-	-	X	X	X	X	X	X	V	-	V 2)	-	-	-
-	-	-	-	X	X	X	X	X	X	V	-	-	-	-	-
-	-	-	-	X	X	X	X	X	X	V	-	V 2)	V 2)	V 2)	-
-	-	-	-	X	X	X	X	X	X	V	-	-	-	-	-
-	-	-	-	X	X	X	X	X	X	V	-	V 2)	V 2)	V 2)	-

4) HMI Embedded SW Version 6.2. and higher.
Remote diagnostics on PC card is not possible.
Requirement: Management of network/diskette drive on PCU 20 (option).

5) Available soon.
6) For PCU 50/PCU 70 with HMI-Advanced, SW Version 6.0 and higher.
7) On request.

- n Grundaussführung
- v Option
- x Funktion abhängig von Bedien-Software
- Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

n Data management

A&D DataManagement: Data management system (requirement: SIMATIC STEP 7)

See HMI Software

n Tool identification system

Connection of tool identification system MOBY E

See HMI Software

n Operation

Operator panel fronts OP 015/OP 015A/TP 015A, 15" color

See Operator Components

Operator panel fronts OP 012, 12.1" color

See Operator Components

Operator panel fronts TP 012, 12.1" color ³⁾

See Operator Components

Operator panel fronts OP 010/OP 010C/OP 010S, 10.4" color

See Operator Components

PCU 20 ²⁾

See Operator Components

PCU 50 ²⁾

See Operator Components

PCU 70 ²⁾

See Operator Components

Physical separation of operator panel front (OP) and PCU as well as connection of up to 3 operator panels of the same type

1 operator panel for up to 8 NCUs/
2 operator panels for up to 4 NCUs

Control unit management for each PCU (up to 9 PCUs for up to 9 NCUs)
Functionality: Active, passive and displacement mechanisms

6FC5 253-0AE03-0AA0

Integrated operator panel: SINUMERIK 802S/802C base line, 8" monochrome

See Basic Components

Operator panel SINUMERIK 802D base line/802D, 10.4" monochrome/color

See Basic Components

Slimline operator panel OP 030 with system software

See Operator Components

Connections for OP7/OP17 operator panel

Connection of SIMATIC HMI to PLC

Connection of SIMATIC Panels OP 170/TP 170/OP 270/TP 270 to SINUMERIK with ProTool

SINUMERIK HT 6 handheld terminal

See Operator Components

Mini handheld unit

See Operator Components

B-MPI handheld unit

See Operator Components

Machine control panel

See Operator Components

Pushbutton panel

See Operator Components

Electronic handwheels can be connected

See Operator Components

1) Three CCUs on one operator panel. Two operator panels on one CCU.
2) HMI software for PC/PG can be ordered separately.
3) For customized operator interface.

4) Third handwheel can be operated as a contour handwheel.
5) Requirement: MCI board extension.

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline											
802S base line	802C base line	802D base line	802D	810DE power-line	810D power-line	840DiE	840Di	840DE power-line	840D power-line	Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
										HMI Advanced	HMI Embedded	Shop Mill	Manual Turn	Shop Turn	HT 6
-	-	-	-	x	x	x	x	x	x	v	-				-
-	-	-	-	x	x	-	-	x	x	v					
-	-	-	-	v	v	v	v	v	v	v	v	v	-	v	-
-	-	-	-	v	v	v	v	v	v	v	v	v	v	v	-
-	-	-	-	v	v	v	v	v	v	v	v	v	v	v	-
-	-	-	-	v	v	-	-	v	v	-	n	v	v	v	-
-	-	-	-	v	v	n	n	v	v	v	v	v	v	v	-
-	-	-	-	v	v	-	-	v	v	v	v	v	v	v	-
-	-	-	-	v	v	v	v	v	v						
-	-	-	-	n l)	n l)	-	-	n	n	n	n	-	-	-	-
-	-	-	-	-	-	-	-	x	x	v	v	-	-	-	v
n	n	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	n/v	n/v	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	v	v	-	-	v	v	-	-	-	-	-	-
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	v	v	v	v	v	v	-	-	-	-	-	n
v	v	v	v	v	v	v	v	v	v						
-	-	-	-	v	v	v	v	v	v						
n	n	v	v	v	v	v	v	v	v						
-	-	-	-	v	v	v	v	v	v						
2	2	3	3	2/3 ⁴⁾	2/3 ⁴⁾	2 ⁵⁾	2 ⁵⁾	2/3 ⁴⁾	2/3 ⁴⁾						

<p>n Grundaussführung v Option x Funktion abhängig von Bedien-Software – Voraussetzung: Bedien-Software HMI-Advanced nicht möglich</p>	Bestell-Nr.
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II Operation (continued)

CNC keyboard, horizontal/vertical	See Basic Components
Full CNC keyboard	See Operator Components
Standard PC keyboard MF-II	See Operator Components
Diskette drive (3.5"/1.44 MB)	See Operator Components
Diskette drive (3.5"/1.44 MB) with USB connection	See Operator Components
Plain text display of user variables	
Multi-channel display	
2D representation of 3D protection areas/work areas	
Actual-value system for workpiece (grinding)	
Menu selection via the PLC	
CNC program messages	
Online help for programming, alarms and machine data (expandable)	
Screen blanking	
Access protection, 8 levels	
2 languages switchable online	
Languages: English, German	
Languages: English, German, French, Italian, Spanish	
Language: Simplified Chinese	
Language: Traditional Chinese	
Languages: Polish, Russian, Czech, Turkish, Hungarian	
Languages: Danish, Dutch, Finnish, Japanese, Portuguese/Brazilian, Swedish	
Language: Korean	
Other languages	
Operating software can be used for:	
• SINUMERIK 810D powerline/840D powerline	See HMI Software
• SINUMERIK 840Di	See HMI Software
User interface with TRANSLINE 2000 HMI Pro software	See HMI Software
User interface with TRANSLINE 2000 HMI Lite CE software	See HMI Software

1) Included in scope of supply.
2) Included on the system software CD-ROM.
3) SW Version 6.4 and higher.

4) SW Version 6.5 and higher.
5) Included on CD-ROM of HMI language expansion. Please enquire about available software versions.
6) On request.

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power- line	810D power- line	840DiE	840Di	840DE power- line	840D power- line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Man- ual Turn	Shop Turn	HT 6
-	-	V	n 9)	-	-	-	-	-	-						
-	-	-	-	V	V	V	V	V	V						
-	-	-	-	V	V	V	V	V	V						
-	-	-	-	X	X	V	V	X	X	V	V	V	V	V	-
-	-	-	-	X	X	-	-	X	X	V	-	-	-	-	-
-	-	-	-	n	n	X	X	n	n	n	n	n	-	n	n
-	-	-	-	X	X	-	-	X	X	n	-	-	-	-	-
-	-	-	-	n	n	X	X	n	n	n	n	-	-	-	-
-	-	-	-	n	n	n	n	n	n	n	n	-	-	-	-
-	-	-	-	-	-	-	-	X	X	n	n	n	-	n	-
-	-	n	n	n	n	X	X	n	n	n	n	-	-	-	n
-	-	-	-	n	n	X	X	n	n	n	-	-	-	-	-
-	-	-	-	n	n	n	n	n	n	n	n	n	n	n	n
n	n	n	n	n	n	n	n	n	n	n	n	n	-	n	n
n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
n 1)	n 1)	n 1)	n 1)	X	X	X	X	X	X	n	n 2)	n	n	n	n 2)
n 1)	n 1)	n 1)	n 1)	X	X	X	X	X	X	n 3)	n 4)	n 8)	-	n 3)	-
-	-	n 1)	n 1)	X	X	X	X	X	X	V 5)	V 5)	V 5)	-	V 5)	-
n 1)	n 1)	n 1)	-	X	X	X	X	X	X	V 5)	V 5)	V 5)	V 5)	V 5)	V 6)
-	-	-	-	X	X	X	X	X	X	V 5)	V 5)	V 5)	V 5)	V 5)	V 6)
-	-	n 1)	n 1)	X	X	X	X	X	X	V 5)	V 5)	V 5)	-	V 5)	V 5)
6)	6)	6)	6)	6)	6)	6)	6)	6)	6)	6)	6)	6)	6)	6)	6)
-	-	-	-	V	V	-	-	V	V	V	V	V	V	V	V
-	-	-	-	-	-	V	V	-	-	V	-	V 7)	-	-	V
-	-	-	-	-	-	X	X	X	X	V	-	-	-	-	-
-	-	-	-	-	-	-	-	V	V	-	-	-	-	-	-

7) Requirement: Uninterruptible power supply and SINUMERIK 840Di
SW Version 2.3.
8) SW Version 6.3 and higher.
9) For scope of supply, see Ordering Data.

- n Grundaussführung
- v Option
- x Funktion abhängig von Bedien-Software
- Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

ii Axis monitoring

Working area limitation

Limit switch monitor

Software and hardware limit switch

2D/3D protection zones

Contour monitoring

Contour monitoring with tunnel function

6FC5 251-0AB16-0AA0

Position monitoring

Standstill monitoring

Clamping monitoring

Path length evaluation

6FC5 251-0AF05-0AA0

ii Compensations

Backlash compensation

Leadscrew error compensation

Measuring system error compensation

Electronic weight counterbalances

6FC5 255-0AC00-0AA0

Sag compensation, multi-dimensional

6FC5 251-0AB15-0AA0

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Quadrant error compensation per operation

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Quadrant error compensation, automatic (neural network)

6FC5 251-0AB14-0AA0

NCU 561.4/561.5

NCU 571.4/571.5/572.4/572.5/573.4/573.5

Graphical monitoring of the quadrant error compensation using the circularity test

See HMI Software

Temperature compensation

6FC5 251-0AA13-0AA0

Automatic drift compensation for analog speed setpoints

Precontrol

- Speed dependent

- Acceleration dependent

6FC5 250-0AA07-0AA0

1) With restricted functionality, see export information.

2) Requirement: Start-up tool for SIMODRIVE 611 digital (already included in HMI-Advanced system software, also for PC/PG).

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power-line	810D power-line	840DiE	840Di	840DE power-line	840D power-line	HMI Advanced	HMI Embedded	Shop Mill	Manual Turn	Shop Turn	HT 6

-	-	n	n	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
-	-	-	-	v	v	v	v	v	v						
-	n	n	n	n	n	n	n	n	n						
-	n	n	n	n	n	n	n	n	n						
-	n	n	n	n	n	n	n	n	n						
-	-	-	-	v	v	-	-	v	v						

n	n	n	n	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
n	n	n	n	n	n	n	n	n	n						
-	-	-	-	v	v	-	-	v	v						
-	-	-	-	v ₁₎	v	v ₁₎	v								
								-	-						
								v ₁₎	v						
-	-	-	-	n	n	x	x			n	-	-	-	-	-
								-	-						
								n	n						
-	-	-	-	v	v	-	-								
								-	-						
								v	v						
-	-	-	-	x	x	-	-	x	x	n	v ₂₎				-
-	-	-	-	v	v	v	v	v	v						
-	n	-	-	-	-	-	-	-	-						
-	-	n	n	n	n	n	n	n	n						
-	-	-	-	v	v	-	-	v	v						

- n Grundaussführung
- v Option
- x Funktion abhängig von Bedien-Software
- Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

II PLC area

SIMATIC S7-200 (integrated)

SIMATIC S7-300 CPU 315-2 DP (integrated)

SIMATIC S7-300 CPU 314C-2 DP (integrated)

NCU 561.4/571.4/572.4/573.4

SIMATIC S7-300 CPU 317-2 DP (integrated)

NCU 561.5/571.5/572.5/573.5

Machining time, typically in ms/KI for bit operations ³⁾

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

Machining time, typically in ms/KI for word operations ³⁾

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

PLC user memory in KB, incl. basic PLC program

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

PLC user memory, maximum configuration in KB

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

Expansion of the PLC user memory by 64 KB

6FC5 252-0AA03-0AA0

Ladder steps memory configuration

PLC programming with HiGraph (add-on package for STEP 7)

PLC programming tool

See HMI Software

PLC programming tool, PLC program examples, standard machine data and alarm text editor on Toolbox

Toolbox with basic PLC program, standard machine data and CNC variable selector

See HMI Software

Digital inputs, input image max. in bytes

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

Digital outputs, output image max. in bytes

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

1) Without CNC variable selector.
2) Included in the basic package.

3) 1 KI = 1024 instructions; corresponds to approx. 3 KB.
4) With PLC module D I/O.

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power- line	810D power- line	840DiE	840Di	840DE power- line	840D power- line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Man- ual Turn	Shop Turn	HT 6
n	n	n	n	-	-	-	-	-	-						
-	-	-	-	n	n	-	-	-	-						
-	-	-	-	-	-	-	-	-	-						
								n	n						
-	-	-	-	-	-	n	n								
								n	n						
1.8	1.8	0.4	0.4	0.3	0.3	0.03	0.03								
								0.1	0.1						
								0.03	0.03						
5.9	5.9	1.4	1.4	1	1	0.1	0.1								
								0.25	0.25						
								0.1	0.1						
-	-	-	-	n 96	n 96	n 128	n 128								
								n 96	n 96						
								n 128	n 128						
-	-	-	-	288	288	768	768								
								480	480						
								768	768						
-	-	-	-	v	v	v	v	v	v						
4000	4000	6000	6000	-	-	-	-	-	-						
-	-	-	-	v	v	v	v	v	v						
n 2)	n 2)	n 2)	n 2)	-	-	-	-	-	-						
n 2)	n 2)	n 2)	n 2)	-	-	-	-	-	-						
n 1)	n 1)	n 1)	n 1)	v	v	n	n	v	v						
48/ 64 ⁴⁾	48/ 64 ⁴⁾	144	144	128	128	128	128								
								128	128						
								256	256						
16/ 32 ⁴⁾	16/ 32 ⁴⁾	96	96	128	128	128	128								
								128	128						
								256	256						

n Grundaussführung
 v Option
 x Funktion abhängig von Bedien-Software
 – Voraussetzung: Bedien-Software HMI-Advanced
 nicht möglich

Bestell-Nr.

II PLC area (continued)

I/O inputs, max. number in bytes

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

I/O outputs, max. number in bytes

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

Bit memories, max. number in bytes

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

Timers, max. number

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

Counters, max. number

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

FB, FC (max. number per type)

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

DB, max. number

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

Cyclic function block

Time-controlled function blocks

Equipment for PLC programming and program test with PG/PC

Max. number of I/O modules
 (central configuration)

See Basic Components

Distributed DP slaves on the PROFIBUS DP, max. number:

NCU 561.4/571.4/572.4/573.4

NCU 561.5/571.5/572.5/573.5

PP 72/48 I/O module

See Basic Components

Distributed I/O via PROFIBUS DP

- Via CP 342-5 DP, data transfer rate up to 1.5 Mbit/s
- Via integrated interface, data transfer rates up to 12 Mbit/s

See Communication

User machine data for configuring the
 PLC user program

1) Number = sum of inputs and outputs.
 2) Subroutines.
 3) Included in the basic package.

4) Max. number 64, depending on the complexity of the slaves.
 5) FBs, FCs and DBs in total max. 2048.

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline						Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
802S base line	802C base line	802D base line	802D	810DE power- line	810D power- line	840DiE	840Di	840DE power- line	840D power- line	HMI Ad- van- ced	HMI Em- bed- ded	Shop Mill	Man- ual Turn	Shop Turn	HT 6
48	48	144	144	768 ¹⁾	768 ¹⁾	2048 ¹⁾	2048 ¹⁾								
								2048 ¹⁾	2048 ¹⁾						
								4096	4096						
16	16	96	96	768 ¹⁾	768 ¹⁾	2048 ¹⁾	2048 ¹⁾								
								2048 ¹⁾	2048 ¹⁾						
								4096	4096						
1024	1024	3072	3072	4096	4096	4096	4096								
								4096	4096						
								4096	4096						
16	16	40	40	128	128	512	512								
								256	256						
								512	512						
32	32	32	32	64	64	512	512								
								256	256						
								512	512						
64 ²⁾	64 ²⁾	64 ²⁾	64 ²⁾	256	256	2048 ⁵⁾	2048 ⁵⁾								
								256	256						
								2048 ⁵⁾	2048 ⁵⁾						
-	-	-	-	399	399	2047 ⁵⁾	2047 ⁵⁾								
								399	399						
								2047 ⁵⁾	2047 ⁵⁾						
n	n	n	n	n	n	n	n	n	n						
-	-	-	-	n	n	n	n	n	n						
v	v	v	v	v	v	v	v	v	v						
-	-	v 2	v 2	v 24	v 24	-	-	v 24	v 24						
-	-	-	-	v 4)	v 4)	v 4)	v 4)								
								v 32	v 32						
								v 125	v 125						
-	-	n 3)	n 3)	-	-	v	v	-	-						
-	-	-	-	n	n	-	-	n	n						
-	-	n	n	v	v	n	n	v	v						
n	n	n	n	n	n	n	n	n	n						

- n Grundaussführung
- v Option
- x Funktion abhängig von Bedien-Software
- Voraussetzung: Bedien-Software HMI-Advanced nicht möglich

Bestell-Nr.

II Monitoring functions

Axis limitation from the PLC	
Spindle speed limitation	
Generator operation	6FC5 255-0AE00-0AA0
Extended stop and retract (ESR), incl. generator operation	6FC5 250-0AE01-0AA0
Tool and process monitoring ¹⁾	See HMI Software
PROFIBUS tool and process monitoring	6FC5 251-0AE71-0AA0

II Safety functions

SINUMERIK Safety Integrated safety functions for personnel and machine protection ²⁾	See Basic Components
Options up to and equal SW 6:	
• Basic functions for up to 4 axes/spindles	6FC5 250-0AC10-0AA0
• Supplementary function from the fifth axis/spindle for each axis/spindle	6FC5 250-0AC11-0AA0
• Axis/spindle package for additional 13 axes/spindles	6FC5 250-0AC12-0AA0
Options from SW 7 and higher:	
• SI-Basic (for up to 1 axis/spindle; up to 4 inputs/outputs can be used for safe programmable logic)	6FC5 250-0AG00-0AA0
• SI-Comfort (for up to 1 axis/spindle; up to 64 inputs/outputs can be used for safe programmable logic)	6FC5 250-0AG10-0AA0
• SI-Axis/spindle (from 2nd axis/spindle per axis/spindle)	6FC5 250-0AG11-0AA0
• SI-Axis/spindle Package (additional 15 axes/spindles)	6FC5 250-0AG12-0AA0
SinuCom NC SI	See HMI Software

II Start-up

Start-up software for converter system is integrated	
• SIMODRIVE 611 digital	
• SIMODRIVE 611 universal HRS	
Start-up software on external PC/PG	See HMI Software
• SIMODRIVE 611 digital	
• SIMODRIVE 611 universal HRS	
User-interface on PC/PG for start-up or servicing during operation without operator panel	See HMI Software
Start-up trace (drive optimization without an additional oscilloscope)	
SinuCom NC Trace	See HMI Software
SINUMERIK 840Di Startup (SimoCom U and SinuCom NC)	
Start-up software for CNC SinuCom NC	See HMI Software
Series start-up via a serial interface	
Series start-up by programming the PC card offline or online	

1) Product of the Solution Provider (currently for ARTIS)

2) Prerequisites: See Basic Components.

3) Included in the basic package.

4) Loadable compile cycle in SW Version 6.4 and higher in the NCU system software.

<ul style="list-style-type: none"> n Grundaussführung v Option x Funktion abhängig von Bedien-Software – Voraussetzung: Bedien-Software HMI-Advanced nicht möglich 	Bestell-Nr.
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ii Diagnostic functions

PLC status	
LAD display	
Process fault diagnosis for S7-HiGraph and S7-Graph for PCU 50/PCU 70 with TRANSLINE 2000 HMI Pro	See HMI Software
RCS remote diagnostics/host and viewer	See HMI Software
PLC remote diagnostics	6FC5 653-0AA01-0AA0
Alarms and messages	
Trip recorder can be activated for diagnostic purposes	

ii Tools

SinuCom FFS	See HMI Software
SinuCom ARC	See HMI Software
SINUCOPY-FFS for SIMATIC S7 PG 740	See HMI Software
Programming language SIMATIC STEP 7	See HMI Software
<ul style="list-style-type: none"> • LAD ladder diagram • FBD function block diagram • STL statement list 	
SIMATIC STEP 7 for SINUMERIK hardware (for service functions)	
SinuCom PCIN	See HMI Software
Data backup (Backup/Restore) with Ghost on hard disk/network	See HMI Software
CAD reader for PC	See HMI Software
Offline SINUMERIK 800/840D CNC program converter	On request

SINUMERIK 802				SINUMERIK 810D powerline/840Di/840D powerline											
802S base line	802C base line	802D base line	802D	810DE power-line	810D power-line	840DiE	840Di	840DE power-line	840D power-line	Hinweise zur Bedien-Software Leeres Feld: Funktion unabhängig von Bedien-Software					
										HMI Advanced	HMI Embedded	Shop Mill	Manual Turn	Shop Turn	HT 6
n	n	n	n	n	n	X	X	n	n	n	n	n	n	n	n
-	-	-	n	-	-	-	-	-	-			-	-	-	-
-	-	-	-	v	v	v	v	v	v						-
-	-	-	-	X	X	X	X	X	X	v	v	v	v	v	v
-	-	-	v	-	-	-	-	-	-						
n	n	n	n	n	n	n	n	n	n						
-	-	-	-	n	n	X	X	n	n	n	n	n	n	n	-
-	-	v	v	v	v	-	-	v	v						
-	-	v	v	v	v	-	-	v	v						
-	-	v	v	v	v	-	-	v	v						
n	n	n	n	v	v	v	v	v	v						
-	-	-	-	v	v	v	v	v	v						
-	-	-	-	v	v	v	v	v	v						
-	-	-	-	X	X	v	v	X	X	v	-				-
-	-	-	v	v	v	v	v	v	v						
-	-	-	-	n	n	n	n	n	n						
-	-	-	-	v	v	v	v	v	v						
-	-	-	-	v	v	v	v	v	v	-	-	-	-	-	-

Overview of the options for SINUMERIK 810D powerline/840Di/840D powerline

Option	Page	Bestell-Nr.	Option	Page	Bestell-Nr.
2nd additional machining channel and maximum memory expansion as a package	2/6	6FC5 451-0AF03-0AA0	Master/slave for drives	2/10	6FC5 251-0AC07-0AA0
3D tool radius compensation	2/32	6FC5 251-0AB13-0AA0	Master-value coupling and curve table interpolation	2/14	6FC5 251-0AD06-0AA0
Additional axis/spindle + channel (for NCU 561.4)	2/2	6FC5 251-0AD08-0AA0	Measurement level 2	2/18	6FC5 250-0AD00-0AA0
Advanced Position Control	2/12	6FC5 251-0AF04-0AA0	Mode group (MG), each additional	2/2	6FC5 251-0AD00-0AA0
Advanced Processing 1	2/16	6FC5 251-0AF10-0AA0	Multi-axis interpolation	2/14	6FC5 251-0AA16-0AA0
Advanced Processing 2	2/16	6FC5 251-0AF11-0AA0	Multi-channel sequence programming	2/26	6FC5 253-0AF03-0AA0
Analog axis	2/10	6FC5 251-0AC06-0AA0	Non mode-specific actions	2/20	6FC5 251-0AD04-0AA0
Axis container	2/12	6FC5 251-0AE01-0AA0	OA NCK compile cycles	2/20	6FC5 251-0AA20-0AA0
Axial coupling in the machine	2/16	6FC5 251-0AD11-0AA0	Online ISO dialect interpreter	2/24	6FC5 253-0AE00-0AA0
Axis/spindle interpolation, each additional	2/4	6FC5 251-0AA03-0AA0	Operation with tool management	2/34	6FC5 251-0AB12-0AA0
Clearance control, 1D/3D in position control cycle	2/20	6FC5 251-0AC05-0AA0	Oscillation functions	2/18	6FC5 251-0AB04-0AA0
CNC user memory expanded by 1 MB	2/4	6FC5 251-0AD02-0AA0	Pair of synchronized axes (gantry axes)	2/10	6FC5 255-0AB00-0AA0
Continue machining at the contour (retrace support)	2/16	6FC5 251-0AE72-0AA0	Path length evaluation	2/42	6FC5 251-0AF05-0AA0
Continuous-path control dependent analog value output	2/18	6FC5 251-0AC04-0AA0	PLC user memory expanded by 64 KB	2/44	6FC5 252-0AA03-0AA0
Contour monitoring with tunnel function	2/42	6FC5 251-0AB16-0AA0	Polynomial interpolation	2/14	6FC5 251-0AA15-0AA0
Control unit management	2/38	6FC5 253-0AE03-0AA0	Positioning axis/auxiliary spindle, each additional	2/6	6FC5 251-0AA04-0AA0
Cycle storage separate from CNC main memory	2/24	6FC5 251-0AF00-0AA0	Position switching signals/ cam controller	2/10	6FC5 251-0AB07-0AA0
Electronic gear unit	2/16	6FC5 251-0AE00-0AA0	Precontrol, acceleration-dependent	2/42	6FC5 250-0AA07-0AA0
Electronic transfer	2/18	6FC5 250-0AD05-0AA0	PROFIBUS tool and process monitoring	2/48	6FC5 251-0AE71-0AA0
Electronic weight counterbalance	2/42	6FC5 255-0AC00-0AA0	Program preprocessing	2/8	6FC5 251-0AC02-0AA0
Enabling of internal drive control 6th axis for interpolation tasks	2/6	6FC5 451-0AF02-0AA0	Punching/nibbling	2/18	6FC5 251-0AC00-0AA0
Enabling of internal drive control 6th axis for positioning tasks	2/6	6FC5 451-0AF01-0AA0	Quadrant error compensation, automatic	2/42	6FC5 251-0AB14-0AA0
Evaluation of internal drive variables	2/20	6FC5 251-0AB17-0AA0	Safety Integrated	2/48	6FC5 250-0AC12-0AA0
Extended stop and retract ESR	2/48	6FC5 250-0AE01-0AA0	• Axis/spindle package for additional 13 axes/spindles		
Fast interpolation link	2/12	6FC5 251-0AF03-0AA0	• Basic function	2/48	6FC5 250-0AC10-0AA0
Generator operation	2/48	6FC5 255-0AE00-0AA0	• Supplementary function from the 5th axis/spindle	2/48	6FC5 250-0AC11-0AA0
Handling transformation package	2/16	6FC5 251-0AD07-0AA0	Sag compensation, multi-dimensional	2/42	6FC5 251-0AB15-0AA0
Inclined axis	2/16	6FC5 251-0AB06-0AA0	Setpoint exchange	2/10	6FC5 251-0AE76-0AA0
Interrupt routines with high-speed retraction from the contour	2/20	6FC5 251-0AA00-0AA0	Setpoint linkage spanning NCUs	2/12	6FC5 251-0AF02-0AA0
Involute interpolation	2/14	6FC5 251-0AF01-0AA0	Spline interpolation for 3-axis machining	2/14	6FC5 251-0AF14-0AA0
I/O interfacing via PROFIBUS DP	2/36	6FC5 252-0AD00-0AA0	Spline interpolation for 5-axis machining	2/14	6FC5 251-0AA14-0AA0
Laser switching signal, high-speed	2/20	6FC5 251-0AE74-0AA0	Synchronous actions level 2	2/18	6FC5 251-0AD05-0AA0
Link axis	2/12	6FC5 251-0AD10-0AA0	Synchronous spindle/multi-edge turning	2/12	6FC5 255-0AB01-0AA0
Machining channel, each additional	2/2	6FC5 251-0AA07-0AA0	Tangential control	2/10	6FC5 251-0AB11-0AA0
Machining channels (4) and axes (13) as a package	2/6	6FC5 251-0AD01-0AA0	Temperature compensation	2/42	6FC5 251-0AA13-0AA0
Machining package milling	2/16	6FC5 251-0AG00-0AA0	TRANSMIT/ peripheral surface transformation	2/16	6FC5 251-0AB01-0AA0
Machining package 5 axes	2/16	6FC5 251-0AA10-0AA0	Traversing to fixed stop	2/10	6FC5 255-0AB02-0AA0

1.3 Positioning Modules

n Basic version v Option – Not possible	FM 353	FM 354	FM 357-2L FM 357-2LX FM 357-2H	SIMODRIVE 611 universal HR
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II Structure/application

Structure				
• SIMATIC S7-300	n	n	n	–
• SIMODRIVE 611	–	–	–	n
Axes per module	1	1	4	1/2
Channels per module	1	1	4 ³⁾	–
Interpolating axes, max.	–	–	4	2
Max. modules per SIMATIC programmable controller	1)	1)	3 ³⁾	–
Drives				
• FM STEPDRIVE (stepper motor control)	n	–	n	
• SIMODRIVE 611 universal HR (with analog setpoint interface)	–	n	n	
• SIMODRIVE 611 universal HR via PROFIBUS DP	–	–	n	
• SIMOVERT MASTERDRIVES MC via PROFIBUS DP	–	–	n	

II Measuring systems that can be connected

Indirect measuring systems				
• Incremental rotary measuring systems via RS 422	–	n	n ₂₎	
• Incremental encoder with sin/cos 1 V _{PP}	–	–	–	n
• Resolver	–	–	–	n
• Absolute rotary measuring systems with SSI	–	n	n ₂₎	
• Absolute rotary measuring systems with EnDat	–	–	–	v
Direct measuring systems				
• Incremental rotary measuring systems via RS 422	–	n	n ₂₎	
• Incremental encoder with sin/cos 1 V _{PP}	–	–	–	n
• Resolver	–	–	–	n
• Absolute rotary measuring systems with SSI	–	n	n ₂₎	
• Absolute linear scale with SSI	–	n	n ₂₎	
• Absolute linear scale with EnDat	–	–	–	n

1) Depending on requirements and module complement of the subrack.

2) Also in combination with stepper drive.

3) With FM 357-2H only 1.

	FM 353	FM 354	FM 357-2L FM 357-2LX FM 357-2H	SIMODRIVE 611 universal HR
n Basic version				
v Option				
– Not possible				
II Functionality				
Traversing range in m	±1000	±1000	±1000	±200
Speed in mm/min	–	0.01 ... 500 000	0.001 ... >10 000 000	1 ... 2 000 000.000
Max. stepping rate in kHz	200	–	750	–
Acceleration in m/s ²	–	0.001 ... 100	0.001 ... 100	0.001 ... 999
Acceleration in kHz/s for stepper drives	0.01 ... 10 000	–	0.001 ... 100	–
Jerk time in s	–	0 ... 10	0 ... 10	0 ... 0.2
Basic resolution				
• in mm	10 ⁻³	10 ⁻³	10 ⁻³	10 ⁻³
• in inch	10 ⁻⁴	10 ⁻⁴	10 ⁻⁴	10 ⁻⁴
• in degrees	10 ⁻² ,10 ⁻⁴	10 ⁻² ,10 ⁻⁴	10 ⁻² ,10 ⁻⁴	10 ⁻³
Position-controlled mode	–	n	n	n
Controlled running with stepper drives	n	–	n	–
Position control cycle in ms	–	2	2 ... 3	1 ... 4
Interpolation time in ms	2	2	6 ... 9	2 ... 20
Rotary axis	n	n	n	v
Automatic block search	n	n	n	v
Programmable acceleration	n	n	n	v
High-speed process signals				
• Inputs	4	4	12	1
• Outputs	4	4	8 1)	–
Options for assigning the high-speed inputs:				
• External start	n	n	n	v
• Enable input (Stop)	n	n	n	v
• External block change	n	n	n 2)	v
• Set actual value on-the-fly	n	n	n 2)	–
• Measurement on-the-fly	n	n	n	–
• Home position switch	n	n	n	v
• Reversing cam	n	n	n	–
Options for assigning the high-speed outputs:				
• Position reached Stop	n	n	n	–
• Up, down	n	n	n	–
• M function output M97/M98	n	n	n 2)	–
• Start enable	n	n	n 2)	–
• Direct output (for user)	n	n	n	–
• Cam output	–	–	n	–

1) Expandable using local bus segment.

2) Via synchronized actions.

n Basic version
 v Option
 – Not possible

FM 353	FM 354	FM 357-2L FM 357-2LX FM 357-2H	SIMODRIVE 611 universal HR
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n CNC programming

Programming language (DIN 66025)	n	n	n	–
No. of traversing programs	199 ³⁾	199 ³⁾	n ⁴⁾	1
Max. program length in blocks	100	100	n ⁴⁾	64
Max. block capacity per module	n ³⁾	n ³⁾	n ⁴⁾	64
Subroutine levels, max.	1	1	11	–
No. of subroutine passes, max.	250	250	≤ 9999	–
Max. number of different subroutines from one program	20	20	n ⁴⁾	–
Dimensions in mm, degrees, inch	n	n	n	v
Block skip	n	n	n	v
Subroutines	n	n	n	–
Endless loop with M18	n	n	n	With GOTO
M function, actual-value-specific	–	–	n	–
M function, time/acknowledgement driven	n	n	n	–
Syntax check	n	n	n	n

n Communication

Backup of user data on PG from				
• Hard disk, floppy disk	FM Param	FM Param	FM Param	v
• Memory card	–	–	n	–
I/O bus, S7-CPU ↔ FM	n	n	n	–
Software technology module for communication between CPU and positioning module	n	n	n	–
Multi-point interface MPI				
• Via SIMATIC S7-CPU	n	n	n	–
Networking with PROFIBUS DP via SIMATIC S7 CP 342-5 DP	v	v	v	–
PROFIBUS DP with Motion Control	–	–	n ⁵⁾	v
SIMODRIVE drive interface	–	±10 V	±10 V	–
FM STEPDRIVE drive interface (stepping rate, direction signal)	n	–	n	–
Data transfer via memory card	–	–	n	–

3) Limited by program memory (16 KB).
 4) Limited by program memory (770 KB).
 5) Cannot be used when HT 6 is used in combination with FM 357-2H.

	FM 353	FM 354	FM 357-2L FM 357-2LX FM 357-2H	SIMODRIVE 611 universal HR
n Basic version				
v Option				
– Not possible				

II Operation

Standard screens for OP7	n 1)	n 1)	–	–
Standard screens for OP17	n 1)	n 1)	n 1)	–
Standard screens for OP27	–	–	n 1)	–
Standard screens for TP 170B/MP 270B	–	–	n 1)	–

II Operating modes and machine functions

Incremental dimension, relative	n	n	n	n
Jog mode	n	n	n	n
Control	n	n	n	v
MDI	n	n	n 4)	–
Automatic	n	n	n	n
Reference point approach	n	n	n	n
Follow-up mode	–	n	n	v
Parking axis	n	n	n	v
Simulation	n	n	n	–
Length measurement	n	n	n	–
Retrigger reference point	n	n	n	–
Switch off enable input	n	n	n	–
Switch off software limit switch	n	n	n	–
Measurement on-the-fly	n	n	n 2)	–
Switch off automatic drift compensation	–	n	n	–
Preset (set actual value)	n	n	n	–
Block search	n	n	–	–
Teach In	n	n	n 3)	v
Delete distance-to-go	n	n	n	–
Restart	n	n	n	–
Handling transformation	–	–	n 3)	–

1) Included in the configuration package.

2) Not with FM 357-2L.

3) With FM 357-2H.

4) Only via start-up screen.

n Basic version v Option – Not possible	FM 353	FM 354	FM 357-2L FM 357-2LX FM 357-2H	SIMODRIVE 611 universal HR
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II Compensations and reference points

20 tool compensations	n	n	n	–
Tool compensations 1 length + 1 wear (add./abs.)	n	n	n	–
Tool compensation, 3 lengths	–	–	n	–
Work offset	n	n	n	n
Reference point offset	n	n	n	n
Automatic drift compensation for analog speed setpoints	–	n	n	–
Backlash compensation	n	n	n	n

II Axis monitoring functions

Software limit-switch monitoring	n	n	n	n
Position monitoring	–	n	n	n
Standstill monitoring	–	n	n	n
Rotation monitoring	n	–	n	–
Plausibility in data communication	n	n	n	–
Limit value	n	n	n	n
Following error	–	n	n	n
Cable break	–	n	n	n
Setpoint	n	n	n	–
Watchdog	n	n	n	–

II PLC area

FM can be used in SIMATIC S7-300	CPU 314 and higher	CPU 314 and higher	CPU 314C and higher	–
PLC programming with HiGraph Add-on package for STEP 7	–	–	v	–
SIMATIC S7 technology modules	n	n	n	–
Digital inputs/outputs, max.	1024	1024	992	8 ⁵⁾
No. of I/O modules, max.	32	32	31	–
Bit memories	2048	2048	2048	–
Counters/timers	256/256	256/256	256/256	–
Main memory in KB	48	48	48	–

5) Expansion is possible via options.

	FM 353	FM 354	FM 357-2L FM 357-2LX FM 357-2H	SIMODRIVE 611 universal HR
n Basic version				
v Option				
– Not possible				

II PLC area (continued)

Machining time				
• Bit commands, typ. in µs	0.1	0.1	0.1	–
• Word commands, typ. in µs	1.0	1.0	1.0	–
FB/FC/DB per type	512/512/511	512/512/511	512/512/511	–
Cyclic function block	n	n	n	–
Time-controlled function blocks	n	n	n	–
STEP 7 programming language	n	n	n	–
Programming: STL, SCL, LAD/FBD	n	n	n	–
Equipment for PLC programming and program testing	PG 7../PC	PG 7../PC	PG 7../PC	–
Memory card (flash EPROM)	CPU 314 CPU 315	CPU 314 CPU 315	CPU 314C CPU 315 CPU 316 CPU 318-2	–

II Diagnostic functions

PLC status	n	n	n	–
Diagnostic buffer specifying error ID-codes	n 1)	n 1)	n 1)	n
Servo alarms	n	n	n	n
Diagnostic alarms and messages	n	n	n	n

II Start-up/parameterization

PG 720, PG 740 and PG 760 programming devices	v	v	v	n
PC with RS 232 C	–	–	–	n
PC with MPI card	v	v	v	–
Windows-based start-up tool	n	n	n	n
Configured using SIMATIC STEP 7	n	n	n	n
Start-up functions	–	–	–	n
• Measuring functions	–	–	–	n

1) The last 5 events.

n Overview

As a consequence of the prevailing export restrictions applicable to the system software of numerical controls, in relation to particular control functions in accordance with the European/German Export List, SINUMERIK 810D powerline, SINUMERIK 840Di and SINUMERIK 840D powerline are available in two versions.

In the case of SINUMERIK 810D powerline, this applies to CCU components with integrated system software, with SINUMERIK 840Di to NCK system software and with SINUMERIK 840D powerline to NCU system software.

The **standard versions** of SINUMERIK 810D powerline, SINUMERIK 840Di and SINUMERIK 840D powerline offer the full scope of control functions, but require **official approval** when exported to countries outside the EU.

The **export versions** SINUMERIK 802S base line, SINUMERIK 802C base line, SINUMERIK 802D base line, SINUMERIK 802D, SINUMERIK 810DE powerline, SINUMERIK 840DiE and SINUMERIK 840DE powerline have limited functionality in accordance with the export list restrictions and

therefore do not require **official approval** as a result of their "Type" in accordance with EU or German law.

The approval status for the complete CNC system is correspondingly dependent on the hardware or software version used.

General note:

If any particular components require official re-export approval according to US law, this must be duly filed for. Information about official approval requirements for supplied components is given in the delivery documentation:

Goods labeled here with "AL not equal to N" are subject to European or German export authorization when they are exported out of the EU. Goods labeled with "ECCN not equal to N" are subject to US re-export authorization. Even if goods are not labeled or labeled with "AL:N" or "ECCN:N", they may still be subject to export authorization due to the final destination and end use of the goods.

Functional restrictions for export versions

Function	Bestell-Nr.	802S base line 802C base line 802D base line 802D	810DE power- line	840DiE	840DE power- line
Helical interpolation 2D+6	n	–	–	–	–
Machining package five axes	6FC5 251-0AA10-0AA0	–	–	–	–
Multi-axis interpolation (>4 interpolating axes)	6FC5 251-0AA16-0AA0	–	–	–	–
OA NCK compile cycles	6FC5 251-0AA20-0AA0	–	–	–	–
Handling transformation package	6FC5 251-0AD07-0AA0	–	–	–	–
Clearance control, 1D/3D in position control cycle ¹⁾	6FC5 251-0AC05-0AA0	–	–	–	–
Synchronized actions ¹⁾	n	–	☒	☒	☒
Sag compensation, multi-dimensional	6FC5 251-0AB15-0AA0	–	☒	☒	☒
Electronic transfer	6FC5 250-0AD05-0AA0	–	–	☒	☒
Master-value coupling and curve table interpolation	6FC5 251-0AD06-0AA0	–	☒	☒	☒
Electronic gear unit ¹⁾	6FC5 251-0AE00-0AA0	–	–	☒	☒
Synchronized actions level 2 ¹⁾	6FC5 251-0AD05-0AA0	–	☒	☒	☒
Continuous dressing ²⁾	n	–	☒	☒	☒
Evaluation of internal drive variables ²⁾	6FC5 251-0AB17-0AA0	–	☒	☒	☒
Measurement level 2 ²⁾	6FC5 250-0AD00-0AA0	–	☒	☒	☒

n Basic version

☒ Limited functionality, see "Glossary".

– Not possible

1) The functional restrictions for the export versions SINUMERIK 810DE powerline/840DE powerline, SW release 6.4 or higher, and SINUMERIK 840DiE, SW release 2.3 or higher, are limited to "4 interpolating axes".

2) The functional restrictions for the export versions SINUMERIK 810DE powerline/840DE powerline, SW release 6.5 or higher, have been canceled!

Important export information

Export of standard versions of components or systems can be subjected to a time-consuming official authorization process, so it is recom-

mended that **the export version** is used where applicable.

Machine and setting data

2

2.1 Explanations

Note

The Parameter Manual contains the abridged version of the information needed for commissioning a controller.

Not all of the details of the machine data could be specified due to a lack of space.

You can learn more about the functional contexts of the machine data if you follow the cross-reference.

In addition, the online help available on the controller provides all the detailed information on the machine data.

There is also a comprehensive description of the machine data and setting data on the DOCONCD:

/AMD/ Comprehensive Description of the Machine Data for 840D
sl/840D/840Di/810D

2.1.1 General information

Tables

There are various kinds of tables for the machine data and setting data.

For following tables are used for the following areas:

- General Machine Data
- Channelspecific Machine Data
- AxisSpecific Machine Data
- Setting Data

MD number	Name of identifier			Display filter	Reference
Unit	Name			Data type	Activation
Attributes					
System	Dimension	Default value	Minimum value	Maximum value	Protection

Expanded tables

Machine data values that differ depending on the system can be found in the additional lines under the table header. In such cases, the fourth row represents the default values and the fifth and remaining rows represent deviating values for the specified systems. A minus symbol in a field indicates: The default value from row 4 applies.

In the "Protection" field, the entry "-1" indicates that the machine data for the specified system is not available.

Example:

10050	SYSCLOCK.CYCLE_TIME			N01, N05, N11	G3
s	Basic system clock cycle			DOUBLE	POWER ON
				SFCO	
-	-	0.004	0.000125	0.031	7/2
710-2a2c	-	0.002	0.001	0.008	-/-
840di-universal	-	0.002	0.001	0.008	-/-

For following table is used for the area:

- Display machine data

MD number	Name of identifier			Display filter	Reference
Unit	Name			Data type	Activation
				SW version	
System		Default value	Minimum value	Maximum value	Protection

For following table is used for the area:

- Drive machine data

MD number	Name of identifier			Display filter	Reference
Unit	Name			Data type	Activation
			Type		Rot/Lin
System		Default value	Minimum value	Maximum value	Protection

For following table is used for the area:

- Machine data of the hydraulic module:

MD number	Name of identifier			Display filter	Reference
Unit	Name			Data type	Activation
			Type	SW version	
System		Default value	Minimum value	Maximum value	Protection

Explanations

Explanations of the terms specified in the table fields can be found in the following.

Number

In the "Number" field, the number of the machine data (MD) and the setting data (SD) is specified. This number is displayed via HMI in a list on the screen.

Name of identifier

In the field "Identifier", you see the name of the data. This name is displayed via HMI in a list on the screen.

Reference

The "Reference" field designates the document which contains the description of the context in which the machine data is used.

Reference is made to the following documents:

- /FB1/ Function Manual of basic machines, supporting manuals: A2, A3, B1, B2, D1, F1, G2, H2, K1, K2, N2, P1, P3pl, P3sl, R1, S1, V1, W1, Z1
- /FB2/ Function Manual of expanded functions, supporting manuals: A4, B3, B4, F3, H1, K3, K5, M1. M5, N2, N4, P2, P5, R2, S3, S7, T1, W3, W4
- /FB3/ Function Manual of special functions, supporting manuals: F2, G1, G3, K6, M3, S9, T3, TE01, TE02, TE1, TE2, TE3, TE4, TE6, TE7, TE8, V2, W5
- /FBA/ Function manual of drive functions, supporting manuals: DB1, DD1, DD2, DE1, DF1, DG1, DL1, DM1, DS1, DÜ1
- /FBU/ Description of Functions SIMODRIVE 611 universal
- /FBSI/ Description of Functions Safety Integrated
- /IAC/ 810D Installation & Start-Up Guide
- /IAD/ 840D/611D Installation & Start-Up Guide
- /POS3/ POSMO SI/CD/CA User Manual
- /FBHLA/ Description of Functions HLA module
- /IAM/ Commissioning CNC Part 2 (HMI), supporting manuals: BE1, HE1, IM2, IM4
- /FBO/ Configuring OP 030 Operator Interface
- /FBT/ Description of Functions ShopTurn
- /FBSP/ Description of Functions ShopMill
- /BAS/ Operating/Programming ShopMill
- /BAD/ Operator's Guide HMI Advanced
- /BEM/ HMI Embedded Operator's Guide

/FBW/	Description of Functions Tool Management
/FBMA/	Description of Functions ManualTurn
/FBFA/	ISO Dialects for SINUMERIK Description of Functions
/FBSY/	Description of Functions Synchronized Actions
/PGA/	Programming Manual Job Planning

Unit

The unit refers to the default setting of the machine data.

If the machine data is not based on a physical unit, then the field is marked with "-".

Note

For machine data of the Performance 2 [P2] control module, the unit(s) (together with a filter) are shown in row 2 column 1.

The following machine data influence the scaling of other machine data:

- MD_\$MN_10220_SCALING_USER_DEF_MASK
- MD_\$MN_10230_SCALING_FACTORS_USER_DEF
- MD_\$MN_10240_SCALING_SYSTEM IS METRIC
- MD_\$MN_SCALING_VALUE_INCH
- MD_\$MN_IS_ROT_AX

Depending on MD 10240 SCALING_SYSTEM_IS_METRIC, the physical units differ as follows:

MD 10240 = 1	MD 10240 = 2
mm	inch
mm/min	inch/min
m/s ²	inch/s ²
m/s ³	inch/s ³
mm/rev.	inch/rev.

Name

The function of the data is described in the "Name" field.

*Explanations***Activation**

In the "Activation" field, the following short designator specifies when the data takes effect after a change.

po	POWER ON	"RESET" key on the front plate of the NCU module
cf	NEW_CONF	<ul style="list-style-type: none"> – The "Activate MD" softkey on the HMI – "RESET" key on the control unit – It is possible to modify block limits during program operation
re	RESET	<ul style="list-style-type: none"> – at end of program M2/M30 or – "RESET" key on the control unit
so	IMMEDIATELY	After entry of value

The levels of effectiveness have been listed above in order of priority.

Protection

The levels of protection 0 to 7 are specified in the "Protection" field. The first number specifies the protection level for writing and the second number specifies the protection level for reading.

0 or 10: SIEMENS

1 or 11: OEM HIGH

2 or 12: OEM LOW

3 or 13: End user

4 or 14: Keyswitch setting

5 or 15: Key switch position 2

6 or 16: Key switch position 1

7 or 17: Key switch position 0

In expanded tables, the entry "-1" indicates that the machine data for the specified system is not available.

Complete protection:

The numbers in the range of 0 to 7 establish whether assigned data in the NC program and in MDA mode is writeable or readable.

Conditional protection:

The numbers in the range of 10 to 17 establish (only for user data (GUD)) whether the data in the NC program and in MDA mode is writeable or readable.

The operation and display are always under protection for both types of protection.

The locking for protection levels 0 to 3 can be cleared by setting the password, and the locking for 4 through 7 can be cleared via a keyswitch position.

The user only has access to information related to the current protection level and the levels below it. The machine data is assigned different protection levels by default.

The user can change the priority of the protection levels. Only protection levels of lower priority can be assigned to the machine data, setting data can also be assigned protection levels of higher priority.

The passwords are required for redefinition by the user.

Specify read access APR (Access protection read) and write access APW (Access protection write).

The protection level follows the password in the form of a number.

Example: Changing rights in individual machine data

%_N_SGUD_DEFFile for global variables

```
;$PATH=/_N_DEF_DIR
```

```
REDEF $MA_CTRLLOUT_SEGMENT_NR APR 2 APW 2
```

```
REDEF $MA_ENC_SEGMENT_NR APR 2 APW 2
```

```
REDEF $SN_JOG_CONT_MODE_LEVELTRIGGRD APR 2 APW 2
```

```
M30
```

The files become active when the next `_N_INITIAL_INI` is read in.

Display filter

A short designator for the filter setting is listed in the "Display filter" field. With the aid of this filter setting, it is possible to selectively reduce the number of the displayed machine/setting data of a section.

Display criteria:

EXP Expert mode:

- Active: the MD is assigned to the expert mode (display of MD)

Depending on the machine data section, there are different display filters. These short designations return in the operator interface to activate the filters.

The short designations of the display filter and their meanings are listed below for the individual machine data.

*Explanations***Drive machine data**

D01	Controller data
D02	Monitors/Limitations
D03	Message data
D04	Status data
D05	Motor / Power module
D06	Measuring system
D07	Safety Integrated
D08	Standard machine

General machine data

N01	Configuration / Scaling
N02	Memory configuration
N03	PLC machine data
N04	Drive control
N05	Status data/Diagnostics
N06	Monitors/Limitations
N07	Auxiliary functions
N08	Corrections/Compensations
N09	Technological functions
N10	Peripheral configuration
N11	Standard machine
N12	NC language ISO dialect

Channelspecific machine data

C01	Configuration
C02	Memory configuration
C03	Initial settings
C04	Auxiliary functions
C05	Velocities
C06	Monitors/Limitations
C07	Transformations
C08	Corrections/Compensations

C09	Technological functions
C10	Standard machine
C11	NC language ISO dialect

Axis-specific machine data

A01	Configuration (including memory)
A02	Measuring system
A03	Machine geometry
A04	Speeds/Accelerations
A05	Monitors/Limitations
A06	Spindle
A07	Controller data
A08	Status data
A09	Corrections/Compensations
A10	Technological functions
O11	Standard machine
A12	NC language ISO dialect

Display machine data

You will find the following short designators for the machine display data:

H01	ShopMill
H02	ShopTurn
H03	ManualTurn
H04	Access levels
H05	Standard machine

Default value

The machine data is preset using this value. If default values for the channels differ, this is indicated by "/".

Some machine data are preset with different default values depending on the NCU used.

Note

Inputs via HMI are limited to ten digits plus comma and sign.

Explanations**System**

The system is specified in the "System" field if the the machine data only applies to one system:

840D	840D systems
810D	810D system
Adv	HMI Advanced
Emb	HMI Embedded
OP30	OP030
MT	ManualTurn
SM	ShopMill
ST	ShopTurn

If the machine data applies to all systems, the field remains empty.

Other identifiers:

iajc	"i" stands for axes, "j" stands for channels, e.g. 6a2c = 6 axes, 2 channels
7x0- iaja	identifies solution line systems
x	1, 2, 3

Dimension

The number of elements of a machine data field is indicated in the field marked "Dimension".

The machine data can be accessed via the field index [n] or [n,AX<axis number>].

Value range

The input limits are specified in the fields "Minimum value", "Maximum value" and "Data type".

If no range of values is specified, the value in the "Data type" field determines the input limits and the field is marked with "****".

Data type

In the "Data type" field, the short designators indicate the data types. They have the following meanings:

BOOLEAN	Machine data bit (1 or 0)
BYT E	Integer values (from -128 to 127)
DOUBLE	Real and integer values (from $\pm 4.19 \times 10^{-307}$ to $\pm 1.67 \times 10^{308}$)

DWORD	Integer values (from $\pm 2.147 \times 10^9$ to $\pm 2.147 \times 10^9$)
DWORD	Hex values (from 00000000 to FFFFFFFF)
STRING	Character string (max. 16 characters) consisting of capital letters with digits and underscore
UNSIGNED WORD	Integer values (from 0 to 65536)
SIGNED WORD	Integer values (from -32768 to 32767)
UNSIGNED DWORD	Integer values (from 0 to 4294967300)
SIGNED DWORD	Integer values (from -2147483650 to 2147483649)
WORD	Hex values (from 0000 to FFFF)
FLOAT DWORD	Real values (from $\pm 8.43 \times 10^{-37}$ to $\pm 3.37 \times 10^{38}$)
UBYTE	Integer values (from 0 to -255)
LONG	Integer values (from 4294967296 to -4294967295)

Rot/Lin

The type of motor to which the machine data applies is indicated in the "Rot/Lin" field.

Rot	Rotary motors
Lin	Linear motors

Type

The abbreviations of the following drive types are given in the "Type" field:

MSD for Main Spindle Drive

SLM for Synchronous Linear Motor

FD for Feed Drive

SW version

The "SW version" field shows which software version the machine data and setting data apply to.

Attributes

Short designators are listed for some machine data in the "Attributes" field. They have the following meanings:

- NBUP no Back Up: The data is not entered in the data backup
- ODL only Download: Data can only be loaded from a file
- READ read Only: Data can only be read
- NDLD no Download: Data cannot be loaded from the file

Explanations

- SFCO safety Configuration: MD for Safety Integrated System
- SCAL scaling Alarm: Alarm regarding design
- LINK Link Description: MD describes NCU link
- CTEQ Container Equal: MD must be identical in all NCUs that are linked
- CTDE Container Description: MD describes axis container

2.1.2 Overview of machine and setting data

The machine data and setting data are divided into the following areas:

Range	Description
from 1000 to 1799	Machine data for SIMODRIVE drives
from 5000 to 6000	Machine data of the hydraulic module
from 9000 to 9999	Display machine data
from 10000 to 18999	General machine data
from 19000 to 19999	Reserved
from 20000 to 28999	Channelspecific machine data
from 29000 to 29999	Reserved
from 30000 to 38999	AxisSpecific Machine Data
From 39000 to 39999	Reserved
from 41000 to 41999	General setting data
from 42000 to 42999	Channel-specific setting data
From 43000 to 43999	Axis-specific setting data
From 51000 to 61999	General machine data for compile cycles
from 62000 to 62999	Channel-specific machine data for compile cycles
From 63000 to 63999	Axis-specific machine data for compile cycles

SINAMICS parameters

You can find a list of all SINAMICS parameters in Section 4.

Data IDs

With HMI, the designation of the machine data is displayed. The internal "designator" of the data requires additional IDs. If machine data is changed by programming or if it is read-in via the serial interface, these IDs must also be specified.

Data areas

\$MM_	Display machine data
\$MN_/\$SN_	General machine data/setting data
\$MC_/\$SC_	Channel-specific machine data/setting data
\$MA_/\$SA_	Axis-specific setting data/machine data
\$MD_	Drive machine data

The meanings are as follows:

\$	System variables
M (GND)	Machine data
S	Setting data
M, N, C, A, D	Subarea (second letter)

Axis data is addressed via the axis name. The axis name can be the internal axis designator (AX1, AX2 ... AX8) or the designator specified by MD 10000: AX-CONF_NAME_TAB.

Example:

`$MA_JOG_VELO[Y1]=2000`

The JOG speed of axis Y1 is 2000 mm/min.

If the contents of the machine data is a STRING (e.g. X1) or a hexadecimal value (e.g. H41), then the contents must be between " " (e.g. 'X1' or 'H41').

Example:

`$MN_DRIVE_INVERTER_CO[0]='H14'`

FD module 9/18 A on slot 1 of the drive bus.

For addressing different contents of the machine data, the specifications must be in brackets.

Example:

`$MA_FIX_POINT_POS[0,X1]=500.000`

The first fixed point position (0=1, 1=2, 2=3, etc.) of axis X1 is 500

Example:

`$MN_AUXFU_GROUP_SPEC[2]='H41'`

Output time of the auxiliary functions of the third auxiliary function group.

`$MN_AXCONF_MACHAX_NAME_TAB[0]='X1'`

The name of the first machine axis is X1.

`$MA_REF_SET_POS[0,X1]=100.00000`

The first reference point value of axis X1 is 100 mm.

Explanations

Assignment of channel-specific machine data:

CHANDATA (1)	Assignment of channel 1
\$MC_CHAN_NAME='CHAN1'	Channel name for channel 1
\$MC_AXCONF_GEOAX_NAME_TAB[1]='Y'	The name of the second geometry axis in channel 1 is Y
R10 = 33.75	R10 from channel 1
...	
CHANDATA (2)	Assignment of channel 2
\$MC_CHAN_NAME='CHAN2'	Channel name for channel 2
...	
R10 = 96.88	R10 from channel 2
...	

2.2 Drive Machine Data

Number	Identifier			Display filter	Reference
Unit	Name			Data type	Active
				SW	
System		Default value	Minimal value	Maximum value	Protection

9000	LCD_CONTRAST			H05	QV: A2
-	Contrast			BYTE	Power On
				-	
Adv, Emb		Emb: 7	0	15	3/4

9001	DISPLAY_TYPE			H05	QV: A2
-	Type of operator panel			BYTE	Power On
Adv, Emb		Emb: 1	0	2	0/0

9002	DISPLAY_MODE				QV: A2
-	External monitor			BYTE	Power On
				1	
			0	2	3/4

9003	FIRST_LANGUAGE			H05	QV: A2
-	Foreground language			BYTE	Power On
				1.1	
Emb		Emb: 1	1	2	3/4

9004	DISPLAY_RESOLUTION			H05	QV: A2
-	Display resolution			BYTE	Power On
				-	
Adv, Emb		Emb: 3	0	5	3/4

9004	DISPLAY_RESOLUTION			H05	QV: A2
-	Display resolution			BYTE	Immediately
				-	
Adv, Emb		Emb: 3	0	5	3/4

9005	PRG_DEFAULT_DIR			H05	QV: A2
-	Basic setting program directory			BYTE	Immediately
				-	
Emb		Emb: 1	1	5	3/4

Drive Machine Data

9006	DISPLAY_BLACK_TIME	H05	QV: A2
-	Time for screen saver	BYTE	Power On
		SW2	
Emb		Emb: 15	0
		60	3/4

9007	TABULATOR_SIZE	H05	QV: A2
-	Tab length	BYTE	Immediately
		SW2	
Emb		Emb: 4	0
		30	3/4

9008	KEYBOARD_TYPE	H05	QV: A2
-	Type of keyboard	BYTE	Power On
		SW3.6	
Adv, Emb		Emb: 0	0
		1	3/4

9009	KEYBOARD_STATE	H05	QV: A2
-	Keyboard shift behavior at booting	BYTE	Power On
		SW3.6	
Adv, Emb		Emb: 2	0
		2	3/4

9010	SPIND_DISPLAY_RESOLUTION	H05	QV: A2
-	Display resolution for spindle values	BYTE	Immediately
		SW 4	
Adv			0
		5	3/4

9011	DISPLAY_RESOLUTION_INCH	H05	QV: A2
-	Disp. resolution for INCH meas. system	BYTE	Immediately
		SW 5.1	
Adv, Emb		Emb: 4	0
		6	3/4

9011	DISPLAY_RESOLUTION_INCH	H05	QV: A2
-	Disp. resolution for INCH meas. system	BYTE	Power On
		SW 5.1	
Adv, Emb		Emb: 4	0
		6	3/4

9012	ACTION_LOG_MODE	H05	QV: IM1, IM3, IM4
-	Set action mode for trip recorder	INTEGER	Power On
		5.2	
Adv, Emb		Emb: 254	0
		0xFFFF	1/1

9013	SYS_CLOCK_SYNC_TIME	H05	QV:
-	Synchronization time MMC/HMI time with PLC	REAL	Power On
Emb		Emb: 0	0
		199	0/0

9014	USE_CHANNEL_DISPLAY_DATA			H05	QV: FBT, FBSP, EMB, ADV
-	Use channel-specific display MDs			INTEGER	Immediately
				6.3	
Adv, Emb		Emb: 0	0	1	3/4

9015	DARKTIME_TO_PLC				QV: -
-				BOOL	Power On
				SW 5	
			0	1	3/4

9016	SWITCH_TO_AREA			H05	QV: IAM, BE1
-	Default ramp-up menu selectable			INTEGER	Power On
				SW 5, Erw. 6.3	
Emb		Emb: -1	-1	10000	3/4

9017	PLC_HOTKEY				QV: FBO
-				STRING	Power On
			0	0	3/4

9020	TECHNOLOGY			H05	QV: A2, FBT
-	Technology for NC prog. and simulation			BYTE	Power On
				SW4.3, ST 6.1 SW5.1 MMC103	
Adv, Emb		Emb: 1	0	2	3/4

9021	LAYOUT_MODE			H05	QV: IM4
-	HMI design			BYTE	Power On
				6.3	
Adv, Emb		Emb: 0	1	1	3/4

9021	LAYOUT_MODE			H05	QV: IM4
-	HMI design			INTEGER	Power On
				6.3	
Adv, Emb		Emb: 0	0	0	3/4

9025	DISPLAY_BACKLIGHT				QV: IM2
-	Brightness level background lighting			BYTE	Power On
				5.3	
			0	31	3/4

9026	TEACH_MODE				QV: IM2
-	Teach mode to be activated			REAL	Power On
				5.3	
			0	0	3/4

Drive Machine Data

9027	NUM_AX_SEL				QV: IM2
-	Number of axis groups for traversing keys			REAL	Power On
				5.3	
			0	4	3/4
9030	EXPONENT_LIMIT			H05	QV: A2
-	Digits for represent. without exponent			BYTE	Power On
				SW 5.1	
Emb		Emb: 6	0	20	3/4
9031	EXPONENT_SCIENCE			H05	QV: A2
-	Exponent in technical representation			BYTE	Power On
				SW 5.1	
Emb		Emb: 1	0	1	3/4
9032	HMI_MONITOR			H05	QV: FBT, FBSP, EMB, ADV
-	Define PLC data for HMI screen info			STRING	Power On
				6.2	
Adv, Emb		Emb: 0	0	0	2/4
9033	MA_DISPL_INV_DIR_SPIND_M3			H05	QV: ADV
-	Display of spindle direction of rotation			INTEGER	Immediately
				6.2	
Adv			0	0x7FFFFFFF	3/4
9034	MA_NUM_DISPLAYED_CHANNELS			H05	QV: BAD
-	Number of machine channels displayed			REAL	Power On
				6.4	
Adv			0	2	3/4
9050	STARTUP_LOGO			H05	QV: FBT, FBSP, EMB, ADV
-	Activate OEM boot screen			BYTE	Power On
				6.2	
Adv, Emb		Emb: 0	0	1	1/4
9052	SHOW_CHANNEL_SPANNING_STATE			H05	QV: FBT, FBSP
-	Change cross-channel status display			BYTE	Power On
				6.3	
Adv, Emb		Emb: 0	0	1	2/4
9053	PLC_SYMBOL_SORT			H05	QV: IM4
-	Sorting algorithm for PLC symbols			INTEGER	Immediately
				6.3	
Adv, Emb		Emb: 0	0	4	3/4

9054	PLC_SYMBOL_FILTER	H05	QV: BAD, BEM
-	Filter settings for PLC symbols	REAL	Immediately
		6.3	
Adv, Emb		Emb: 0	0
		0xFFFF	3/4

9054	PLC_SYMBOL_FILTER	H05	QV: BAD, BEM
-	Filter settings for PLC symbols	REAL	Immediately
		6.3	
Adv, Emb		Emb: 0	0
		0xFFFF	3/4

9055	PLC_ALARM_PICTURE	H05	QV: IM4
-	Select acknowledgement symb. of PLC alarms	INTEGER	Power On
		6.3	
Adv, Emb		Emb: 1	-1
		1	3/4

9056	ALARM_ROTATION_CYCLE	H05	QV:
-	Rotation cycle time for alarm display	INTEGER	Immediately
		6.4	
Emb		Emb: 0	0
		10000	3/4

9180	USER_CLASS_READ_TCARR	H04, H05	QV: A2
-	Protect. level read tlh offsets	BYTE	Immediately
		6.1	
Emb		Emb: 7	0
		7	3/4

9181	USER_CLASS_WRITE_TCARR	H04, H05	QV: A2
-	Protect. level write tlh offsets	BYTE	Immediately
		6.1	
Emb		Emb: 7	0
		7	3/4

9182	USER_CLASS_INCH_METRIC	H04, H05	QV: EMB
-	Protect. level inch-metric switchover	BYTE	Immediately
		6.2	
Emb		Emb: 7	0
		7	3/4

9183	USER_WRITE_TOOLFRAME	H04, H05	QV: A2
-	Write toolholder protection level	BYTE	Immediately
		6.4	
Adv, Emb		Emb: 0	0
		7	3/4

9184	USER_WRITE_PARTFRAME	H04, H05	QV: A2
-	Write tool ref. point protection level	BYTE	Immediately
		6.4	
Adv, Emb		Emb: 0	0
		7	3/4

Drive Machine Data

9185	USER_WRITE_WPFRAME			H04, H05	QV: A2
-	Write workpiece ref. point protec. level			BYTE	Immediately
				6.4	
Adv, Emb		Emb: 0	0	7	3/4

9186	USER_WRITE_CYCFRAME			H04, H05	QV: A2
-	Write cycle frame protection level			BYTE	Immediately
				6.4	
Adv, Emb		Emb: 0	0	7	3/4

9187	USER_WRITE_TRAFRAME			H04, H05	QV: A2
-	Write transformation frame protec. level			BYTE	Immediately
				6.4	
Adv, Emb		Emb: 0	0	7	3/4

9188	USER_WRITE_EXTFRAME			H04, H05	QV: A2
-	Write external WO protection level			BYTE	Immediately
				6.4	
Adv, Emb		Emb: 0	0	7	3/4

9200	USER_CLASS_READ_TOA			H04, H05	QV: A2
-	Protect. level read tool offsets			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9201	USER_CLASS_WRITE_TOA_GEO			H04, H05	QV: A2
-	Protection level write tool geometry			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9202	USER_CLASS_WRITE_TOA_WEAR			H04, H05	QV: A2
-	Protection level write tool wear data			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9203	USER_CLASS_WRITE_FINE			H04, H05	QV: A2
-	Protection level fine			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9204	USER_CLASS_WRITE_TOA_SC			H04, H05	QV: A2
-	Change prot.level for tool sum offsets			BYTE	Immediately
				SW 5	
Adv			0	7	3/4

9205	USER_CLASS_WRITE_TOA_EC			H04, H05	QV: A2
-	Prot. level change tool setup offsets			BYTE	Immediately
				SW 5	
Adv			0	7	3/4

9206	USER_CLASS_WRITE_TOA_SUPVIS			H04, H05	QV: A2
-	Prot. level change tool mon. limits			BYTE	Immediately
				SW 5	
Adv, Emb		Emb: 7	0	7	3/4

9207	USER_CLASS_WRITE_TOA_ASSDNO			H04, H05	QV: A2
-	Modify assigned DNo of a tool cutting edge			BYTE	Immediately
				SW 5	
Adv			0	7	3/4

9208	USER_CLASS_WRITE_MAG_WGROUP			H04, H05	QV: A2
-	Modify wear group mag. pos./magazine			BYTE	Immediately
				SW 5	
Adv			0	7	3/4

9209	USER_CLASS_WRITE_TOA_ADAPT			H04, H05	QV: A2
-	Protect. level write tool adaptat. data			BYTE	Immediately
				SW5	
Adv, Emb		Emb: 7	0	7	3/4

9210	USER_CLASS_WRITE_ZOA			H04, H05	QV: A2
-	Write protect. level of sett. zero offs.			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9211	USER_CLASS_READ_GUD_LUD			H04, H05	QV: A2
-	Read protection level of user variables			BYTE	Immediately
				SW6.1	
Adv, Emb		Emb: 7	0	7	3/4

9213	USER_CLASS_OVERSTORE_HIGH			H04, H05	QV: A2
-	Protection level extended overstore			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9214	USER_CLASS_WRITE_PRG_CONDIT			H04, H05	QV: A2
-	Protection level program control			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

Drive Machine Data

9215	USER_CLASS_WRITE_SEA			H04, H05	QV: A2
-	Protection level write setting data			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9216	USER_CLASS_READ_PROGRAM			H04, H05	QV: A2
-	Read protection level of part program			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9217	USER_CLASS_WRITE_PROGRAM			H04, H05	QV: A2
-	Write part program protection level			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9218	USER_CLASS_SELECT_PROGRAM			H04, H05	QV: A2
-	Protection level program selection			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9219	USER_CLASS_TEACH_IN			H04, H05	QV: A2
-	Protection level TEACH IN			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9220	USER_CLASS_PRESET			H04, H05	QV: A2
-	Protection level PRESET			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9221	USER_CLASS_CLEAR_RPA			H04, H05	QV: A2
-	Protection level delete R variables			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9222	USER_CLASS_WRITE_RPA			H04, H05	QV: A2
-	Protection level write R variables			BYTE	Immediately
				-	
Adv, Emb		Emb: 7	0	7	3/4

9223	USER_CLASS_SET_V24			H04, H05	QV: A2
-	Prot. level RS-232-C parameterization			BYTE	Immediately
				-	
Emb		Emb: 7	0	7	3/4

9224	USER_CLASS_READ_IN			H04, H05	QV: A2
-	Protect. level read in data			BYTE	Immediately
				-	
Emb		Emb: 7	0	7	3/4

9225	USER_CLASS_READ_CST			H04, H05	QV: A2
-	Protect. level standard cycles			BYTE	Immediately
				SW2	
Emb		Emb: 7	0	7	3/4

9226	USER_CLASS_READ_CUS			H04, H05	QV: A2
-	Protect. level user cycles			BYTE	Immediately
				SW2	
Emb		Emb: 7	0	7	3/4

9227	USER_CLASS_SHOW_SBL2			H04, H05	QV: A2
-	Skip single block2 (SBL2)			BYTE	Immediately
				SW3.5	
Emb		Emb: 7	0	7	3/4

9228	USER_CLASS_READ_SYF			H04, H05	QV: A2
-	Access level for selecting directory SYF			BYTE	Immediately
				SW4.2	
Emb		Emb: 7	0	7	3/4

9229	USER_CLASS_READ_DEF			H04, H05	QV: A2
-	Access level for selecting directory DEF			BYTE	Immediately
				SW4.2	
Emb		Emb: 7	0	7	3/4

9230	USER_CLASS_READ_BD			H04, H05	QV: A2
-	Access level for selecting directory BD			BYTE	Immediately
				SW4.2	
Emb		Emb: 3	0	7	3/4

9231	USER_CLASS_WRITE_RPA_1			H04, H05	QV: A2
-	Protection level for the first RPA area			BYTE	Immediately
				SW5.1	
Adv			0	7	3/4

9232	USER_BEGIN_WRITE_RPA_1			H04, H05	QV: A2
-	Beginning of the first RPA area			WORT	Immediately
				SW5.1	
Adv			0	0	3/4

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9233	USER_END_WRITE_RPA_1	H04, H05	QV: A2
-	End of the first RPA area	WORT	Immediately
		SW5.1	
Adv		0	3/4

9234	USER_CLASS_WRITE_RPA_2	H04, H05	QV: A2
-	Protection level for the second RPA area	BYTE	Immediately
		SW5.1	
Adv		7	3/4

9235	USER_BEGIN_WRITE_RPA_2	H04, H05	QV: A2
-	Beginning of the second RPA area	WORT	Immediately
		SW5.1	
Adv		0	3/4

9236	USER_END_WRITE_RPA_2	H04, H05	QV: A2
-	End of the second RPA area	WORT	Immediately
		SW5.1	
Adv		0	3/4

9237	USER_CLASS_WRITE_RPA_3	H04, H05	QV: A2
-	Protection level for the third RPA area	BYTE	Immediately
		SW5.1	
Adv		7	3/4

9238	USER_BEGIN_WRITE_RPA_3	H04, H05	QV: A2
-	Beginning of the third RPA area	WORT	Immediately
		SW5.1	
Adv		0	3/4

9239	USER_END_WRITE_RPA_3	H04, H05	QV: A2
-	End of the third RPA area	WORT	Immediately
		SW5.1	
Adv		0	3/4

9240	USER_CLASS_WRITE_TOA_NAME	H04, H05	QV: A2
-	Change tool designation and duplo	BYTE	Immediately
		5	
Adv		7	3/4

9241	USER_CLASS_WRITE_TOA_TYPE	H04, H05	QV: A2
-	Change tool type	BYTE	Immediately
		5	
Adv		7	3/4

9242	MA_STAT_DISPLAY_BASE	H05	QV: K2
-	Number basis display articul. pos. STAT	WORT	Immediately
		6.1	
Adv, Emb		Emb: 0	0
		16	3/4

9243	MA_TU_DISPLAY_BASE	H05	QV: K2
-	Number basis display rot. axis pos. TU	WORT	Immediately
		6.1	
Adv, Emb		Emb: 0	0
		16	3/4

9244	MA_ORIAXES_EULER_ANGLE_NAME	H05	QV: K2
-	Orientation axes as Euler angle	WORT	Immediately
		6.1	
Adv			0
		1	3/4

9245	MA_PRESET_FRAMEIDX	H05	QV: K2
-	Scratching value storage + preset.act.val.	WORT	Immediately
		6.1	
Adv			1
		10	3/4

9246	USER_CLASS_SYS_ZERO_OFF	H04, H05	QV: A2
-	Access level write system frames	BYTE	Immediately
		Adv.: 6.03, Emb.: 6.02	
Adv, Emb		Emb: 7	0
		7	2/2

9247	USER_CLASS_BASE_ZERO_OFF_PA	H04, H05	QV: K2
-	Access level basic offset PA	BYTE	Immediately
		5.3	
Adv, Emb		Emb: 7	0
		7	2/2

9248	USER_CLASS_BASE_ZERO_OFF_MA	H04, H05	QV: IAM, IM1
-	Access level basic offset MA	BYTE	Immediately
		5.3	
Adv, Emb		Emb: 7	0
		7	2/2

9249	USER_CLASS_VERT_MODE_SK	H04, H05	QV: K2
-	Protect. level vertical SKs of area SKs	DOUBLE	Immediately
		SW6.1	
Emb		Emb: 2004318071	0
		0x77777777	3/4

9251	USER_CLASS_TM_SKTLIST	H04, H05	QV: FBW
-	Display of tool list	BYTE	Power On
		SW4.1	
Emb		Emb: 7	0
		7	3/4

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9252	USER_CLASS_TM_SKTOOLLOAD	H04, H05	QV: FBW
-	Protection level for loading tools	BYTE	Power On
		SW4.1	
Emb		Emb: 7	0
		7	3/4

9253	USER_CLASS_TM_SKTOOLUNLOAD	H04, H05	QV: FBW
-	Prot. level for unloading tools	BYTE	Power On
		SW4.1	
Emb		Emb: 7	0
		7	3/4

9254	USER_CLASS_TM_SKTOOLMOVE	H04, H05	QV: FBW
-	Protection level for tool relocation	BYTE	Power On
		SW4.1	
Emb		Emb: 7	0
		7	3/4

9256	USER_CLASS_TM_SKMGLREPR2	H04, H05	QV: FBW
-	Prot. level for display of 2nd mag. list	BYTE	Power On
		SW4.1	
Emb		Emb: 7	0
		7	3/4

9257	USER_CLASS_TM_SKMGLREPR3	H04, H05	QV: FBW
-	Prot. level for display of 3rd mag. list	BYTE	Power On
		SW4.1	
Emb		Emb: 7	0
		7	3/4

9258	USER_CLASS_TM_SKNCNEWTTOOLE	H04, H05	QV: FBW
-	Prot.level for creating new cutting edges	BYTE	Power On
		SW4.1	
Emb		Emb: 7	0
		7	3/4

9259	USER_CLASS_TM_SKNCDELTOOL	H04, H05	QV: FBW
-	Protection level for deleting tools	BYTE	Power On
		SW4.1	
Emb		Emb: 7	0
		7	3/4

9260	USER_CLASS_TM_SKMGBUFFER	H04, H05	QV: FBW
-	Prot. level for buffer on/off	BYTE	Power On
		SW4.1	
Emb		Emb: 7	0
		7	3/4

9261	USER_CLASS_TM_SKMGFIND	H04, H05	QV: FBW
-	Protection level for search	BYTE	Power On
		SW4.1	
Emb		Emb: 7	0
		7	3/4

9262	USER_CLASS_TM_SKMGLISTPOS			H04, H05	QV: FBW
-	Protection level for positioning			BYTE	Power On
				SW4.1	
Emb		Emb: 7	0	7	3/4

9263	USER_CLASS_TM_SKMGNEXT			H04, H05	QV: FBW
-	Prot. level f. paging to next magazine			BYTE	Power On
				SW4.1	
Emb		Emb: 7	0	7	3/4

9264	USER_CLASS_TM_SKTLNEWTOOL			H04, H05	QV: FBW
-	Protection level for creating tools			BYTE	Power On
				SW4.1	
Emb		Emb: 7	0	7	3/4

9265	USER_CLASS_TM_SKTLLREPR1			H04, H05	QV: FBW
-	Prot. level for display of 1st mag. list			BYTE	Power On
				SW4.1	
Emb		Emb: 7	0	7	3/4

9266	USER_CLASS_TM_SKTLLREPR2			H04, H05	QV: FBW
-	Prot. level for display of 2nd tool list			BYTE	Power On
				SW4.1	
Emb		Emb: 7	0	7	3/4

9267	USER_CLASS_TM_SKTLLREPR3			H04, H05	QV: FBW
-	Prot. level for display of 3rd tool list			BYTE	Power On
				SW4.1	
Emb		Emb: 7	0	7	3/4

9269	USER_CLASS_TM_SKFINDPLACE			H04, H05	QV: FBW
-	Empty softkey loc., display tool list			BYTE	Power On
				SW4.1	
Emb		Emb: 7	0	7	3/4

9270	USER_CLASS_TM_SKACTPLACE			H04, H05	QV: FBW
-	Prot. level f. load. to current location			BYTE	Power On
				SW4.1	
Emb		Emb: 7	0	7	3/4

9271	USER_CLASS_TM_SKLDTOOLDAT			H04, H05	QV: FBW
-	Check and edit the tool data			BYTE	Power On
				SW4.1	
Emb		Emb: 7	0	7	3/4

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9272	USER_CLASS_APPLICATION			H04, H05	QV: A2
-	Protec. level for operating area selection			BYTE	Immediately
				6.4	
Emb		Emb: 0	0	7	3/4

9273	USER_CLASS_APP_PARAMETER			H04, H05	QV:
-	Protection level for softkeys in parameter			BYTE	Immediately
				7.1	
Emb		Emb: 0	0	7	3/4

9300	V24_USER_XON			H05	QV: K4
-	User: X on character			REAL	Immediately
				-	
Emb		Emb: 17	0	0xFF	3/4

9301	V24_USER_XOFF			H05	QV: K4
-	User: X off character			REAL	Immediately
				-	
Emb		Emb: 19	0	0xFF	3/4

9302	V24_USER_EOF			H05	QV: K4
-	User: end-of-transmission character			REAL	Immediately
				-	
Emb		Emb: 26	0	0xFF	3/4

9303	V24_USER_CONTROLS			H05	QV: K4
-	User: special bits			REAL	Immediately
				-	
Emb		Emb: 76	0	0x3FF	3/4

9303	V24_USER_CONTROLS			H05	QV: K4
-	User: special bits			REAL	Immediately
				-	
Emb		Emb: 76	0	0x3FF	3/4

9304	V24_USER_RTS			H05	QV: K4
-	User: line-controlled			BYTE	Immediately
				-	
Emb		Emb: 0	0	1	3/4

9305	V24_USER_BAUD			H05	QV: K4
-	User: baud rate			BYTE	Immediately
				-	
Emb		Emb: 5	0	8	3/4

9306	V24_USER_DATABITS	H05	QV: K4
-	User: data bits	BYTE	Immediately
		-	
Emb		Emb: 1	0
		1	3/4

9307	V24_USER_PARITY	H05	QV: K4
-	User: parity bits	BYTE	Immediately
		-	
Emb		Emb: 0	0
		2	3/4

9308	V24_USER_STOPBIT	H05	QV: K4
-	User: stop bits	BYTE	Immediately
		-	
Emb		Emb: 0	0
		1	3/4

9309	V24_USER_LINE	H05	QV: K4
-	User: RS-232 interface (COM1/COM2)	BYTE	Immediately
		SW5	
Emb		Emb: 1	1
		2	3/4

9310	V24_PRINTER_XON	H05	QV: K4
-	Printer: X on character	REAL	Immediately
		-	
Emb		Emb: 17	0
		0xFF	3/4

9311	V24_PRINTER_XOFF	H05	QV: K4
-	Printer: X off character	REAL	Immediately
		-	
Emb		Emb: 19	0
		0xFF	3/4

9312	V24_PRINTER_EOF	H05	QV: K4
-	Printer: end-of-transmission character	REAL	Immediately
		-	
Emb		Emb: 12	0
		0xFF	3/4

9313	V24_PRINTER_CONTROLS	H05	QV: K4
-	Printer: special bits	REAL	Immediately
		-	
Emb		Emb: 76	0
		0x3FF	3/4

9313	V24_PRINTER_CONTROLS	H05	QV: K4
-	Printer: special bits	REAL	Immediately
		-	
Emb		Emb: 76	0
		0x3FF	3/4

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9314	V24_PRINTER_RTS			H05	QV: K4
-	Printer: line-controlled			BYTE	Immediately
				-	
Emb		Emb: 0	0	1	3/4

9315	V24_PRINTER_BAUD			H05	QV: K4
-	Printer: baud rate			BYTE	Immediately
				-	
Emb		Emb: 5	0	8	3/4

9316	V24_PRINTER_DATABITS			H05	QV: K4
-	Printer: data bits			BYTE	Immediately
				-	
Emb		Emb: 1	0	1	3/4

9317	V24_PRINTER_PARITY			H05	QV: K4
-	Printer: parity bits			BYTE	Immediately
				-	
Emb		Emb: 0	0	2	3/4

9318	V24_PRINTER_STOPBIT			H05	QV: K4
-	Printer: stop bits			BYTE	Immediately
				-	
Emb		Emb: 0	0	1	3/4

9319	V24_PRINTER_LINE			H05	QV: K4
-	Printer: RS-232 interface (COM1/COM2)			BYTE	Immediately
				-	
Emb		Emb: 1	1	2	3/4

9320	V24_PG_PC_XON			H05	QV: K4
-	PG: X on character			REAL	Immediately
				-	
Emb		Emb: 17	0	0xFF	3/4

9321	V24_PG_PC_XOFF			H05	QV: K4
-	PG: X off character			REAL	Immediately
				-	
Emb		Emb: 19	0	0xFF	3/4

9322	V24_PG_PC_EOF			H05	QV: K4
-	PG: end-of-transmission character			REAL	Immediately
				-	
Emb		Emb: 26	0	0xFF	3/4

9323	V24_PG_PC_CONTROLS			H05	QV: K4
-	PG: special bits			REAL	Immediately
				-	
Emb		Emb: 144	0	0x3FF	3/4

9323	V24_PG_PC_CONTROLS			H05	QV: K4
-	PG: special bits			REAL	Immediately
				-	
Emb		Emb: 144	0	0x3FF	3/4

9324	V24_PG_PC_RTS			H05	QV: K4
-	PG: line-controlled			BYTE	Immediately
				-	
Emb		Emb: 0	0	1	3/4

9325	V24_PG_PC_BAUD			H05	QV: K4
-	PG: baud rate			BYTE	Immediately
				-	
Emb		Emb: 5	0	8	3/4

9326	V24_PG_PC_DATABITS			H05	QV: K4
-	PG: data bits			BYTE	Immediately
				-	
Emb		Emb: 1	0	1	3/4

9327	V24_PG_PC_PARITY			H05	QV: K4
-	PG: parity bits			BYTE	Immediately
				-	
Emb		Emb: 0	0	2	3/4

9328	V24_PG_PC_STOPBIT			H05	QV: K4
-	PG: stop bits			BYTE	Immediately
				-	
Emb		Emb: 0	0	1	3/4

9329	V24_PG_PC_LINE			H05	QV: K4
-	PG: RS-232 interface (COM1/COM2)			BYTE	Immediately
				-	
Emb		Emb: 1	1	2	3/4

9400	TOOL_REF_GEO_AXIS1			H05	QV: BA
-	Abs.dim.f.tool length offset f.geoaxis 1			DOUBLE	Immediately
				-	
Emb		Emb: 0	0	0	3/4

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9401	TOOL_REF_GEO_AXIS2			H05	QV: BA
-	Abs.dim.f.tool length offset f.geoaxis 2			DOUBLE	Immediately
				-	
Emb		Emb: 0	0	0	3/4

9402	TOOL_REF_GEO_AXIS3			H05	QV: BA
-	Abs.dim.f.tool length offset f.geoaxis 3			DOUBLE	Immediately
				-	
Emb		Emb: 0	0	0	3/4

9410	TM_LOAD_PLACE			H05	QV: BA
-	Number of load location			INTEGER	Power On
				-	
Emb		Emb: 0	0	0	3/4

9411	TM_NUM_MAG			H05	QV: BA
-	Number of work magazine			INTEGER	Power On
				-	
Emb		Emb: 0	0	0	3/4

9412	TM_DEFAULT_TOOLSIZE			H05	QV: FBW
-	Preset value for tool size			REAL	Immediately
				SW4.1	
Emb		Emb: 1111	1111	7777	3/4

9414	TM_KIND_OF_TOOLMANAGEMENT			H01, H02, H05	QV: FBW
-	Type of tool management representation			BYTE	Power On
				SW5	
SM, ST, Emb		Emb: 0, SM: 0, ST: 0	0	1	3/4

9415	TM_DEFAULT_TOOLPLACESPEC			H05	QV: FBW
-	Default value for location type			BYTE	Immediately
				SW4.2	
Emb		Emb: 1	1	99	3/4

9416	TM_DEFAULT_TOOLTYPE			H05	QV: FBW
-	Preset value for type of location			REAL	Immediately
				SW4.1	
Emb		Emb: 120	100	900	3/4

9417	TM_DEFAULT_TOOLSTATE			H05	QV: FBW
-	Preset value for tool status loading			INTEGER	Immediately
				SW4.1	
Emb		Emb: 2	0	255	3/4

9419	TM_DEFAULT_DELETE_TOOL	H05	QV: FBW
-	Preset tool data for automatic deletion	BYTE	Immediately
		SW4.1	
Emb		Emb: 0	0
		1	3/4
9420	MA_ONLY_MKS_DIST_TO_GO	H05	QV: FBW
-	Distance-to-go display in work window	BYTE	Immediately
		SW4.1	
Emb		Emb: 0	0
		1	3/4
9421	MA_AXES_SHOW_GEO_FIRST	H05	QV: K1
-	Actual value display with leading axes	BYTE	Immediately
		SW2	
Adv, Emb		Emb: 1	0
		1	3/4
9422	MA_PRESET_MODE	H05	QV: K1
-	Select PRESET/Basic offset in JOG	BYTE	Immediately
		SW5	
Adv, Emb		Emb: 1	0
		3	3/4
9423	MA_MAX_SKP_LEVEL	H05	QV: K1
-	Max. skip levels in NC program	BYTE	Power On
		SW5	
Adv, Emb		Emb: 1	1
		10	3/4
9424	MA_COORDINATE_SYSTEM	H05	QV: K2
-	Coord.syst. for act.val. display	BYTE	Power On
		SW5	
Adv, Emb		Emb: 0	0
		1	3/4
9424	MA_COORDINATE_SYSTEM	H05	QV: K2
-	Coord.syst. for act.val. display	BYTE	Immediately
		SW5	
Adv, Emb		Emb: 0	0
		1	3/4
9425	MA_SCRATCH_DEFAULT_MODE	H05	QV: K2
-	Tool offset calculation Scratching	DOUBLE	Immediately
		5.3	
Emb		Emb: 0	0
		2236962	3/4
9426	MA_AX_DRIVELOAD_FROM_PLC1	H01, H02, H05	QV:
-	Mach.axis ind. analog spindle power displ.	BYTE	Power On
		Emb: 6.5 Adv: 6.4	
SM, ST, Adv, Emb		Emb: 0, SM: , ST:	0
		31	3/4

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9427	MA_AX_DRIVELOAD_FROM_PLC2			H01, H02, H05	QV:
-	Mach.axis ind. analog spindle power displ.			BYTE	Power On
				Emb: 6.5 Adv: 6.4	
SM, ST, Adv, Emb		Emb: 0, SM: , ST:	0	31	3/4
9428	MA_SPIND_MAX_POWER			H01, H02, H05	QV: IM4
%	Maximum value of spindle power rating disp			REAL	Power On
				Emb: 6.5 Adv: 6.4	
SM, ST, Adv, Emb		Emb: 100, SM: , ST:	100	0xFFFF	3/4
9429	MA_SPIND_POWER_RANGE			H01, H02, H05	QV: IM4
%	Display range of spindle power rating disp			REAL	Power On
				Emb: 6.5 Adv: 6.4	
SM, ST, Adv, Emb		Emb: 100, SM: , ST:	100	0xFFFF	3/4
9430	TM_UNLOAD_AND_DELETE				QV: FBO
-				BOOL	Power On
				SW5	
			0	1	3/4
9431	TM_LOAD_TOOL_NEW				QV: FBO
-				BOOL	Power On
				SW5	
			0	1	3/4
9432	TM_TOOL_STATE_DEF_VAL				QV: FBO
-				BYTE	Power On
			2	78	3/4
9433	TM_ACT_SEARCH_AND_POS				QV: FBO
-				BOOL	Power On
			0	1	3/4
9434	TM_LOAD_LOC1				QV: FBW
-				INTEGER	Power On
				4.2	
			0	600	3/7

9435	TM_LOAD_LOC2				QV: FBW
-				INTEGER	Power On
				4.2	
			0	600	3/7

9436	TM_LOAD_LOC3				QV: FBW
-				INTEGER	Power On
				4.2	
			0	600	3/7

9437	TM_LOAD_LOC4				QV: FBW
-				INTEGER	Power On
				4.2	
			0	600	3/7

9438	TM_LOAD_LOC5				QV: FBW
-				INTEGER	Power On
				4.2	
			0	600	3/7

9440	ACTIVATE_SEL_USER_DATA			H05	QV: K2
-	Activate active offset immediately			BYTE	Immediately
				SW4.3	
Adv, Emb		Emb: 0	0	1	3/4

9442	MA_AUXFU_GROUPS			H01, H02, H05	QV:
-	Auxiliary function groups displayed			STRING	Power On
				7.1	
SM, ST, Adv, Emb		Emb: 0, SM: , ST:	0	0	3/4

9449	WRITE_TOA_LIMIT_MASK			H05	QV: K2
-	MD9449 appl. to wear (bit0) SC(1) EC(2)			BYTE	Immediately
				5.2	
Adv			0	7	3/4

9450	WRITE_TOA_FINE_LIMIT			H05	QV: K2
mm	Limit value for wear fine			DOUBLE	Immediately
				SW4.2	
Adv, Emb		Emb: 0.999	0	0	3/4

9451	WRITE_ZOA_FINE_LIMIT			H05	QV: K2
mm	Limit value for offset fine			DOUBLE	Immediately
				SW4.2	
Adv, Emb		Emb: 0.999	0	0	3/4

Drive Machine Data

9459	PA_ZOA_MODE			H05	QV: K2, IM2
-	Display mode zero offset			BYTE	Immediately
				SW 6.1	
Emb		Emb: 1	0	1	3/4

9460	PROGRAM_SETTINGS			H05	QV: A2
-	Settings in Program area			INTEGER	Immediately
				SW5.1	
Adv, Emb		Emb: 128	0	0	3/4

9461	CONTOUR_END_TEXT			H05	QV: A2
-	String to be added to end of contour			STRING	Immediately
				SW5.1	
Emb		Emb: ""	0	0	3/4

9464	MAX_PROGRAMM_SIZE_CHECK			H05	QV:
-	File size from which no test is performed			INTEGER	Immediately
				6.4	
Emb		Emb: 102400	51200	0x7FFFFFFF	3/4

9477	TO_TRACE			H01, H02, H05	QV:
-	For internal test purposes			REAL	Power On
SM, ST, Emb		Emb: 0, SM: 0, ST: 0	0	0xFFFF	3/4

9477	TO_TRACE			H01, H02, H05	QV:
-	For internal test purposes			REAL	Power On
SM, ST, Emb		Emb: 0, SM: 0, ST: 0	0	0xFFFF	3/4

9478	TO_OPTION_MASK			H01, H02, H05	QV:
-	For internal purposes			INTEGER	Power On
SM, ST, Emb		Emb: 0, SM: 0, ST: 0	0	0	2/2

9479	TO_MAG_PLACE_DISTANCE			H02, H05	QV: FBSP
mm	Distance betw. indiv. magazine locations			DOUBLE	Power On
				6.3	
ST, Emb		Emb: 0, ST:	0	10000	3/4

9480	MA_SIMULATION_MODE			H05	QV: BAD
-	Simulation type			BYTE	Immediately
				6.4	
Adv			-1	2	3/4

9481	MA_STAND_SIMULATION_LIMIT	H05	QV: BAD
-	Standard simulation limit in KB	INTEGER	Immediately
		6.4	
Adv		200	2000000
			3/4

9500	NC_PROPERTIES	H05	QV: A2
-	NC properties	BYTE	Immediately
		SW2	
Emb		Emb: 255	0
			0xFF
			3/4

9500	NC_PROPERTIES	H05	QV: A2
-	NC properties	BYTE	Immediately
		SW2	
Emb		Emb: 255	0
			0xFF
			3/4

9509	USER_CLASS_DIRECTORY_CHG	H04, H05	QV: FBT, FBSP, EMB
-	Protect. level for network configuration	BYTE	Immediately
		6.2	
Emb		Emb: 1	0
			7
			3/4

9510	USER_CLASS_DIRECTORY1_P	H04, H05	QV: A2
-	Protection level for network drive1 progr.	BYTE	Immediately
		6.1	
Adv, Emb		Emb: 1	0
			7
			3/4

9511	USER_CLASS_DIRECTORY2_P	H04, H05	QV: A2
-	Protection level for network drive2 progr.	BYTE	Immediately
		6.1	
Adv, Emb		Emb: 1	0
			7
			3/4

9512	USER_CLASS_DIRECTORY3_P	H04, H05	QV: A2
-	Protection level for network drive3 progr.	BYTE	Immediately
		6.1	
Adv, Emb		Emb: 1	0
			7
			3/4

9513	USER_CLASS_DIRECTORY4_P	H04, H05	QV: A2
-	Protection level for network drive4 progr.	BYTE	Immediately
		6.1	
Adv, Emb		Emb: 1	0
			7
			3/4

9516	USER_CLASS_DIRECTORY1_M	H04, H05	QV: A2
-	Protection level for network drive1 mach.	BYTE	Immediately
		6.1	
Adv, Emb		Emb: 0	0
			7
			3/4

Drive Machine Data

9517	USER_CLASS_DIRECTORY2_M			H04, H05	QV: A2
-	Protection level for network drive2 mach.			BYTE	Immediately
				6.1	
Adv, Emb		Emb: 0	0	7	3/4

9518	USER_CLASS_DIRECTORY3_M			H04, H05	QV: A2
-	Protection level for network drive3 mach.			BYTE	Immediately
				6.1	
Adv, Emb		Emb: 0	0	7	3/4

9519	USER_CLASS_DIRECTORY4_M			H04, H05	QV: A2
-	Protection level for network drive4 mach.			BYTE	Immediately
				6.1	
Adv, Emb		Emb: 0	0	7	3/4

9550	CTM_CYC_ROUGH_RELEASE_DIST			H02, H03	QV: FBMA
mm	Return distance for contour roughing			DOUBLE	Immediately
				5.2 (840D), 3.2 (810D)	
ST, MT		MT: , ST:	0.001	10.0	3/4

9551	CTM_CYC_ROUGH_RELEASE_ANGLE			H02, H03	QV: FBMA
degrees	Return angle for contour roughing			DOUBLE	Immediately
				5.2 (840D), 3.2 (810D)	
ST, MT		MT: , ST:	0.0	90.0	3/4

9552	CTM_CYC_ROUGH_BLANC_OFFS			H02, H03	QV: FBMA
mm	Blank allowance for contour roughing			DOUBLE	Immediately
				5.2 (840D), 3.2 (810D)	
ST, MT		MT: , ST:	0.0	100.0	3/4

9553	CTM_CYC_ROUGH_TRACE_ANGLE			H02, H03	QV: FBMA
degrees	Rounding angle for contour cutting			DOUBLE	Immediately
				5.2 (840D), 3.2 (810D)	
ST, MT		MT: , ST:	0.0	90.0	3/4

9554	CTM_CYC_ROUGH_MIN_REST_MAT1			H02, H03	QV: FBMA
%	Diff. dimension resid. mat. machin. axis 1			DOUBLE	Immediately
				5.2 (840D), 3.2 (810D)	
ST, MT		MT: , ST:	0.0	1000.0	3/4

9555	CTM_CYC_ROUGH_MIN_REST_MAT2	H02, H03	QV: FBMA
%	Diff. dimension resid. mat. machin. axis 2	DOUBLE	Immediately
		5.2 (840D), 3.2 (810D)	
ST, MT	MT: , ST:	0.0	1000.0
			3/4

9556	CTM_CYC_ROUGH_VAR_DEPTH	H02, H03	QV: FBT
%	Percentage variable cutt. depth cont. rot.	BYTE	Immediately
		6.3	
ST, MT	MT: , ST:	0	50
			3/4

9557	CTM_CYC_ROUGH_FEED_INT_TIME	H02, H03	QV: FBMA
	Feed interrupt time contour turning	DOUBLE	Immediately
		6.4	
ST, MT	MT: , ST:	0	0
			3/4

9558	CTM_CYC_ROUGH_INT_REL_DIST	H02, H03	QV: FBMA
mm	Retr. path feed interrupt contour turning	DOUBLE	Immediately
		6.4	
ST, MT	MT: , ST:	0	10
			3/4

9560	CTM_TURN_GROOV_TOOL_BEND	H02, H03	QV: FBT
mm	Retr. due to tool bending plunge-turning	DOUBLE	Immediately
		6.3	
ST, MT	MT: , ST:	0.0	1.0
			3/4

9561	CTM_TURN_GROOV_FREE_CUT_VAL	H02, H03	QV: FBT
mm	Retr. depth prior to plunge turning oper.	DOUBLE	Immediately
		6.3	
ST, MT	MT: , ST:	0.0	1.0
			3/4

9599	CTM_OPTION_MASK	H03	QV: FBMA
-	ManualTurn settings	INTEGER	Immediately
		6.3	
MT	MT:	0	0
			2/2

9600	CTM_SIMULATION_DEF_X	H01, H02, H03, H05	QV: FBMA, FBSP
-	Simulation of default value X	INTEGER	Power On
		SW2.1 (810D), 4.3 (840D)	
SM, ST, MT, Emb	Emb: 0, MT: 0, SM: 0, ST: 0	-10000	10000
			3/4

Drive Machine Data

9601	CTM_SIMULATION_DEF_Y			H01, H02, H03, H05	QV: FBMA, FBSP
-	Simulation default value Z			INTEGER	Power On
				SW2.1 (810D), 4.3 (840D)	
SM, ST, MT, Emb		Emb: 0, MT: 0, SM: 0, ST: 0	-10000	10000	3/4

9602	CTM_SIMULATION_DEF_VIS_AREA			H01, H02, H03, H05	QV: FBMA, FBSP
-	Simulation of display area default value			INTEGER	Power On
				SW2.1 (810D), 4.3 (840D)	
SM, ST, MT, Emb		Emb: 100, MT: 100, SM: 100, ST: 100	-10000	10000	3/4

9603	CTM_SIMULATION_MAX_X			H01, H02, H03, H05	QV: FBMA, FBSP
-	Simulation of maximum display X			INTEGER	Power On
				SW2.1 (810D), 4.3 (840D)	
SM, ST, MT, Emb		Emb: 0, MT: 0, SM: 0, ST: 0	-10000	10000	3/4

9604	CTM_SIMULATION_MAX_Y			H01, H02, H03, H05	QV: FBMA, FBSP
-	Simulation maximum display Z			INTEGER	Power On
				840D SW 4.3, 810D SW 2.1	
SM, ST, MT, Emb		Emb: 0, MT: 0, SM: 0, ST: 0	-10000	10000	3/4

9605	CTM_SIMULATION_MAX_VIS_AREA			H01, H02, H03, H05	QV: FBMA, FBSP
-	Simulation of maximum display area			INTEGER	Power On
				840D SW 4.3, 810D SW 2.1	
SM, ST, MT, Emb		Emb: 1000, MT: 1000, SM: 1000, ST: 1000	-10000	10000	3/4

9606	CTM_SIMULATION_TIME_NEW_POS			H01, H02, H03, H05	QV: FBMA, FBT
-	Simulation of actual value update rate			INTEGER	Power On
				840D SW 4.3, 810D SW 2.1, ST 6.1	
SM, ST, MT, Emb		Emb: 100, MT: 100, SM: 100, ST: 100	0	4000	3/4

9607	CTM_ENABLE_RAPID_FEED	H03	QV: FBMA
-	Enable selection option rapid traverse	BYTE	Immediately
		840D SW 4.3, 810D SW 2.1	
MT		MT: 0	1 3/4

9608	CTM_ENABLE_FEED_P_MIN	H03	QV: FBMA
-	Enable selection option feed in mm/min	BYTE	Immediately
		840D SW 4.3, 810D SW 2.1	
MT		MT: 0	1 3/4

9609	CTM_SPEED_FIELD_DISPLAY_RES	H03	QV: FBMA
-	Decimal places in speed entry field	BYTE	Immediately
		840D SW 4.3, 810D SW 2.1	
MT		MT: 0	4 3/4

9610	CTM_POS_COORDINATE_SYSTEM	H03, H05	QV: FBMA
-	Position of coord. system for turning	BYTE	Immediately
		840D SW 4.3, 810D SW 2.1	
MT, Adv, Emb		Emb: 2, MT: 2	0 7 3/4

9611	CTM_CROSS_AX_DIAMETER_ON	H02, H03, H05	QV: FBMA, FBT
-	Diameter display active for transv. axes	BYTE	Immediately
		840D SW 4.3, 810D SW 2.1, ST 6.1	
ST, MT, Emb		Emb: 1, MT: 1, ST: 1	0 1 3/4

9612	CTM_TEACH_STORE_MANUAL_ABS	H03	QV: FBMA
-	Save setup motions as absolute values	BYTE	Immediately
		840D SW 4.3, 810D SW 2.1	
MT		MT: 0	1 3/4

9613	CTM_TEACH_STORE_START_ABS	H03	QV: FBMA
-	Save starting position as absolute value	BYTE	Immediately
		840D SW 4.3, 810D SW 2.1	
MT		MT: 0	1 3/4

9614	CTM_TEACH_STORE_MANUAL_AUTO	H03	QV: FBMA
-	Save setup motions automatically	BYTE	Immediately
		840D SW 4.3, 810D SW 2.1	
MT		MT: 0	1 3/4

Drive Machine Data

9615	CTM_TEACH_HANDW_FEED		H03	QV: FBMA
-	Handwheel feedrate		BYTE	Immediately
			840D SW 4.3, 810D SW 2.1	
MT		MT:	0	2
				3/4

9616	CTM_TEACH_HANDW_FEED_P_MIN		H03	QV: FBMA
mm/min	Path feed		DOUBLE	Immediately
			840D SW 4.3, 810D SW 2.1	
MT		MT:	1	3000
				3/4

9617	CTM_TEACH_HANDW_FEED_P_REV		H03	QV: FBMA
	Revolutional feedrate		DOUBLE	Immediately
			840D SW 4.3, 810D SW 2.1	
MT		MT:	0.01	10000
				3/4

9618	CTM_ENABLE_C_AXIS		H03	QV: FBMA
-	Enable C axis for interface		BYTE	Power On
			840D SW 4.3, 810D SW 2.1	
MT		MT:	0	2
				3/4

9619	CTM_G91_DIAMETER_ON		H02, H03, H05	QV: FBMA, FBT
-	Incremental infeed		BYTE	Immediately
			840D SW 4.3, 810D SW 2.1, ST 6.1	
ST, MT, Emb		Emb: 1, MT: 1, ST: 1	0	1
				3/4

9620	CTM_CYCLE_SAFETY_CLEARANCE		H03	QV: FBMA
mm	Safety clearance ManualTurn cycles		DOUBLE	Immediately
			840D SW 4.3, 810D SW 2.1	
MT		MT:	0.0	1000
				3/4

9621	CTM_CYCLE_DWELL_TIME		H03	QV: FBMA
	Tool clearance time for cycles		DOUBLE	Immediately
			840D SW 4.3, 810D SW 2.1	
MT		MT:	-100	100
				3/4

9622	CTM_ENABLE_REFPOINT		H03	QV: FBMA
-	Enable ref. pt. approach for ManualTurn		REAL	Immediately
			840D SW 4.3, 810D SW 2.1	
MT		MT:	0	1
				3/4

9623	CTM_START_WITHOUT_REFPOINT	H03	QV: FBMA
-	Enable NC start without referenced axes	BYTE	Power On
		840D SW 4.3, 810D SW 2.1	
MT		MT: 0	1 3/4

9624	CTM_MODE_SELECT_BY_SOFTKEY	H03	QV: FBMA
-	Mode switchover via vertical softkeys	BYTE	Power On
		840D SW 4.3, 810D SW 2.1	
MT		MT: 0	1 3/4

9625	CTM_CUSTOMER_START_PICTURE	H03	QV: FBMA
-	Customer start-up screen	BYTE	Power On
		840D SW 4.3, 810D SW 2.1	
MT		MT: 0	1 3/4

9626	CTM_TRACE	H01, H02, H03	QV: FBMA
-	Testflags f. intern ManualTurn diagnosis	INTEGER	Immediately
		840D SW 4.3, 810D SW 2.1	
SM, ST, MT		MT: , SM: , ST: 0	0x7FFFFFFF 3/4

9626	CTM_TRACE	H01, H02, H03	QV: FBMA
-	Testflags f. intern ManualTurn diagnosis	INTEGER	Immediately
		840D SW 4.3, 810D SW 2.1	
SM, ST, MT		MT: , SM: , ST: 0	0x7FFFFFFF 3/4

9627	CTM_COUNT_GEAR_STEPS	H03	QV: FBMA
-	Number of gear stages	BYTE	Immediately
		840D SW 4.3, 810D SW 2.1	
MT		MT: 0	5 3/4

9628	CTM_TOOL_INPUT_DIAM_ON	H03	QV: FBMA
-	Display tool data X as diameter	BYTE	Immediately
		840D SW 4.3, 810D SW 2.1	
MT		MT: 0	1 3/4

9629	CTM_WEAR_INPUT_DIAM_ON	H03	QV: FBMA
-	Display tool wear data X diameter	BYTE	Immediately
		840D SW 4.3, 810D SW 2.1	
MT		MT: 0	1 3/4

Drive Machine Data

9630	CTM_FIN_FEED_PERCENT	H02, H03	QV: FBMA, FBT
%	Roughing feedrate in percent	REAL	Immediately
		840D SW 4.3, 810D SW 2.3, ST 6.1	
ST, MT		MT: , ST: 1	100 3/4

9631	CTM_CYCLE_DWELL_TIME_SEC	H03	QV: FBMA
	Dwell time for cycles in seconds	DOUBLE	Immediately
		840D SW 4.4, 810D SW 2.4	
MT		MT: 0	100 3/4

9632	CTM_ANGLE_REFERENCE_AXIS	H03, H05	QV: FBMA
-	Angle reference axis	REAL	Immediately
		840D SW 4.4, 810D SW 2.4	
MT, Emb		Emb: 1, MT: 1 0	1 3/4

9633	CTM_INC_DEC_FEED_PER_MIN	H03	QV: FBMA
mm/min	Increments for feedrate in mm/min	DOUBLE	Immediately
		840D SW 4.4, 810D SW 2.4	
MT		MT: 0.001	1000 3/4

9634	CTM_INC_DEC_FEED_PER_ROT	H03	QV: FBMA
mm	Increments for feedrate in mm/rev	DOUBLE	Immediately
		840D SW 4.4, 810D SW 2.4	
MT		MT: 0.001	10 3/4

9636	CTM_ENABLE_S_TOOL_TABLE	H03	QV: FBMA
-	Enable cutting speed from tool table	BYTE	Immediately
		840D SW 4.4, 810D SW 2.4	
MT		MT: 0	1 3/4

9637	CTM_MAX_INP_FEED_P_MIN	H03	QV: FBMA
mm/min	Upper input limit for feedrate in mm/min	DOUBLE	Immediately
		840D SW 4.4, 810D SW 2.4	
MT		MT: 0	100000 3/4

9638	CTM_MAX_INP_FEED_P_ROT	H03	QV: FBMA
mm	Upper input limit for feedrate in mm/rev	DOUBLE	Immediately
		840D SW 4.4, 810D SW 2.4	
MT		MT: 0	10000 3/4

9639	CTM_MAX_TOOL_WEAR	H03, H05	QV: FBMA
mm	Upper limit tool wear input	DOUBLE	Power On
		840D SW 4.4, 810D SW 2.4	
MT, Adv		MT: 0	10 3/4

9640	CTM_ENABLE_CALC_THREAD_PITC	H01, H02, H03	QV: FBMA
-	Automatic calculation of thread depth	BYTE	Immediately
		840D SW 4.4, 810D SW 2.4	
SM, ST, MT		MT: , SM: , ST: 0	1 3/4

9641	CTM_ENABLE_G_CODE_INPUT	H03	QV: FBMA
-	Enable of G code input	BYTE	Immediately
		840D SW 4.4, 810D SW 2.4	
MT		MT: 0	1 3/4

9642	CTM_ENABLE_CIRCLE_HOLE_CYCL	H03	QV: FBMA
-	Enable drilling of hole circle	BYTE	Immediately
		840D SW 4.4, 810D SW 2.4	
MT		MT: 0	1 3/4

9643	CTM_ENABLE_DRIVEN_TOOL	H03	QV: FBMA
-	Enable support of driven tools	BYTE	Immediately
		840D SW 4.4, 810D SW 2.4	
MT		MT: 0	2 3/4

9644	CTM_CIRC_TAP_DWELL_TIME_1	H03	QV: FBMA
	Dwell time bottom, tapping on hole circle	DOUBLE	Immediately
		840D SW 4.4, 810D SW 2.4	
MT		MT: 0	100 3/4

9645	CTM_CIRC_TAP_DWELL_TIME_2	H03	QV: FBMA
	Dwell time top, tapping on hole circle	DOUBLE	Immediately
		840D SW 4.4, 810D SW 2.4	
MT		MT: 0	100 3/4

9646	CTM_FACTOR_O_CALC_THR_PITCH	H01, H02, H03	QV: FBMA, FBT
-	Mode for retraction distance external mach	DOUBLE	Immediately
		6.3	
SM, ST, MT		MT: , SM: , ST: 0	0 3/4

Drive Machine Data

9647	CTM_FACTOR_I_CALC_THR_PITCH			H01, H02, H03	QV: FBMA, FBT
-	Mode for return dist. stock rem. int.mach.			DOUBLE	Immediately
				6.3	
SM, ST, MT		MT: , SM: , ST:	0	0	3/4

9648	CTM_ROUGH_O_RELEASE_DIST			H02, H03	QV: FBMA, FBT
mm	Return dist. stock rem. for ext.machining			DOUBLE	Immediately
				840D SW 4.4, 810D SW 2.4, ST 6.1	
ST, MT		MT: , ST:	-1	100	3/4

9649	CTM_ROUGH_I_RELEASE_DIST			H02, H03	QV: FBMA, FBT
mm	Return dist. stock rem. for int.machining			DOUBLE	Immediately
				840D SW 4.4, 810D SW 2.4, ST 6.1	
ST, MT		MT: , ST:	-1	100	3/4

9650	CMM_POS_COORDINATE_SYSTEM			H01, H02, H05	QV: FBSP, FBT
-	Coordinate system position			BYTE	Immediately
				SW4.3 , ST 6.1	
SM, ST, Adv, Emb		Emb: 0, SM: 0, ST: 0	0	47	3/4

9651	CMM_TOOL_MANAGEMENT			H01, H02, H05	QV: FBSP, FBT
-	Tool management concept			BYTE	Power On
				6.1, ST 6.1	
SM, ST, Adv, Emb		Emb: 4, SM: 4, ST: 4	1	4	3/4

9652	CMM_TOOL_LIFE_CONTROL			H01, H02, H05	QV: FBSP, FBT
-	Tool monitoring			BYTE	Power On
				6.1	
SM, ST, Adv, Emb		Emb: 1, SM: 1, ST: 1	0	1	3/4

9653	CMM_ENABLE_A_AXIS			H01	QV: FBSP
-	Enable 4th axis for user interface			BYTE	Immediately
				840D SW 4.3, 810D SW 2.3	
SM		SM:	0	3	3/4

9654	CMM_SPEED_FIELD_DISPLAY_RES			H01, H02	QV: FBSP, FBT
-	Decimal places in speed entry field			BYTE	Immediately
				840D SW 4.3, 810D SW 2.3, ST 6.1	
SM, ST		SM: , ST:	0	4	3/4

9655	CMM_CYC_PECKING_DIST	H01	QV: FBSP
mm	Amount of retract.for deep hole drilling	DOUBLE	Immediately
		840D SW 4.3, 810D SW 2.3	
SM	SM:	-1.0	100.0
			3/4

9656	CMM_CYC_DRILL_RELEASE_DIST	H01, H02	QV: FBSP
mm	Amount of retraction for boring	DOUBLE	Immediately
		840D SW 4.3, 810D SW 2.3	
SM, ST	SM: , ST:	-1.0	10.0
			3/4

9657	CMM_CYC_MIN_CONT_PO_TO_RAD	H01, H02	QV: FBSP, FBT
%	Deviation from minimum cutter radius	REAL	Immediately
		840D SW 4.3, 810D SW 2.3, ST 6.1	
SM, ST	SM: , ST:	0	50
			3/4

9658	CMM_CYC_MAX_CONT_PO_TO_RAD	H01, H02	QV: FBSP, FBT
mm	Deviation from maximum cutter radius	DOUBLE	Immediately
		840D SW 4.3, 810D SW 2.3, ST 6.1	
SM, ST	SM: , ST:	0.0	10
			3/4

9659	CMM_CYC_DRILL_RELEASE_ANGLE	H01	QV: FBSP
degrees	Retraction angle for boring	DOUBLE	Immediately
		840D SW 4.3, 810D SW 2.3	
SM	SM:	-1.0	360.0
			3/4

9660	CMM_ENABLE_PLANE_CHANGE	H01	QV: FBSP
-	Switch to machining plane	BYTE	Immediately
		840D SW 4.3, 810D SW 2.3	
SM	SM:	0	1
			3/4

9662	CMM_COUNT_GEAR_STEPS	H01	QV: FBSP
-	Number of gear stages	BYTE	Immediately
		840D SW 4.3, 810D SW 2.3	
SM	SM:	0	5
			3/4

Drive Machine Data

9663	CMM_TOOL_DISPLAY_IN_DIAM			H01, H02, H05	QV: FBSP, FBT
-	Display of radius/diameter for tool			BYTE	Power On
				840D SW 4.3, 810D SW 2.3, ST 6.1	
SM, ST, Adv, Emb		Emb: 1, SM: 1, ST: 1	0	1	3/4

9664	CMM_MAX_INP_FEED_P_MIN			H01, H02	QV: FBSP, FBT
mm/min	Feedrate in mm/min			DOUBLE	Immediately
				840D SW 4.3, 810D SW 2.3, ST 6.1	
SM, ST		SM: , ST:	0	100000	3/4

9665	CMM_MAX_INP_FEED_P_ROT			H01, H02	QV: FBSP, FBT
	Feedrate in mm/rev			DOUBLE	Immediately
				840D SW 4.3, 810D SW 2.3, ST 6.1	
SM, ST		SM: , ST:	0	10	3/4

9666	CMM_MAX_INP_FEED_P_TOOTH			H01, H02	QV: FBSP, FBT
	Feedrate in mm/tooth			DOUBLE	Immediately
				840D SW 4.3, 810D SW 2.3, ST 6.1	
SM, ST		SM: , ST:	0	5	3/4

9667	CMM_FOLLOW_ON_TOOL_ACTIVE			H01, H02	QV: FBSP, FBT
-	Tool preselection active			BYTE	Immediately
				840D SW 4.3, 810D SW 2.3, ST 6.1	
SM, ST		SM: , ST:	0	1	3/4

9668	CMM_M_CODE_COOLANT_I_AND_II			H01, H02	QV: FBSP, FBT
-	M code coolants I and II			INTEGER	Immediately
				840D SW 4.4, 810D SW 2.4, ST 6.1	
SM, ST		SM: , ST:	-1	32767	3/4

9669	CMM_FACE_MILL_EFF_TOOL_DIAM			H01, H02	QV: FBSP
%	Effective mill diameter for face milling			DOUBLE	Immediately
				840D SW 4.4, 810D SW 2.4	
SM, ST		SM: , ST:	50.0	100.0	3/4

9670	CMM_START_RAD_CONTOUR_POCKE	H01, H02	QV: FBSP, FBT
mm	Approach circle rad. finish. cont. pock.	DOUBLE	Immediately
		840D SW 4.4, 810D SW 2.4, ST 6.1	
SM, ST		SM: , ST: -1.0	100.0 3/4

9671	CMM_TOOL_LOAD_DEFAULT_MAG	H01, H02	QV: FBSP
-	Load default magazine tool	BYTE	Power On
		6.4	
SM, ST		SM: , ST: 0	30 3/4

9672	CMM_FIXED_TOOL_PLACE	H01, H02, H05	QV: FBSP, FBT
-	Fixed location coding	BYTE	Power On
		840D SW 4.4, 810D SW 2.4, ST 6.1	
SM, ST, Adv, Emb		Emb: 0, SM: 0, ST: 0	0 1 3/4

9673	CMM_TOOL_LOAD_STATION	H01, H02, H05	QV: FBSP, FBT
-	Number of load station	BYTE	Power On
		840D SW 4.4, 810D SW 2.4, ST 6.1	
SM, ST, Adv, Emb		Emb: 1, SM: 1, ST: 1	1 2 3/4

9674	CMM_ENABLE_TOOL_MAGAZINE	H01, H02, H05	QV: FBSP, FBT
-	Display of magazine list	BYTE	Power On
		840D SW 4.4, 810D SW 2.4, ST 6.1	
SM, ST, Adv, Emb		Emb: 1, SM: 1, ST: 1	0 1 3/4

9675	CMM_CUSTOMER_START_PICTURE	H01, H02	QV: FBSP, FBT
-	Customer start-up screen	BYTE	Immediately
		840D SW 4.4, 810D SW 2.4 mit SM	
SM, ST		SM: , ST: 0	1 3/4

9676	CMM_DIRECTORY_SOFTKEY_PATH1	H01, H02, H05	QV: FBSP, FBT
-	Path to drive names in directory manag.	STRING	Power On
		840D SW 4.4, 810D SW 2.4 mit SM	
SM, ST, Adv, Emb		Emb: 0, SM: , ST:	0 0 3/4

Drive Machine Data

9677	CMM_DIRECTORY_SOFTKEY_PATH2			H01, H02, H05	QV: FBSP, FBT
-	Path to drive names in directory manag.			STRING	Power On
				840D SW 4.4, 810D SW 2.4 mit SM	
SM, ST, Adv, Emb		Emb: 0, SM: , ST:	0	0	3/4

9678	CMM_DIRECTORY_SOFTKEY_PATH3			H01, H02, H05	QV: FBSP, FBT
-	Path to drive names in directory manag.			STRING	Power On
				840D SW 4.4, 810D SW 2.4 mit SM	
SM, ST, Adv, Emb		Emb: 0, SM: , ST:	0	0	3/4

9679	CMM_DIRECTORY_SOFTKEY_PATH4			H01, H02, H05	QV: FBSP, FBT
-	Path to drive names in directory manag.			STRING	Power On
				840D SW 4.4, 810D SW 2.4 mit SM	
SM, ST, Adv, Emb		Emb: 0, SM: , ST:	0	0	3/4

9680	CMM_M_CODE_COOLANT_I			H01, H02	QV: FBSP
-	M code coolant I			INTEGER	Immediately
				840D SW 4.4, 810D SW 2.4 mit SM	
SM, ST		SM: , ST:	0	32767	3/4

9681	CMM_M_CODE_COOLANT_II			H01, H02	QV: FBSP
-	M code coolant II			INTEGER	Immediately
				840D SW 4.4, 810D SW 2.4 mit SM	
SM, ST		SM: , ST:	0	32767	3/4

9682	CMM_CYC_BGF_BORE_DIST			H01	QV: FBSP
mm	Mode for return value boring			DOUBLE	Immediately
				6.3	
SM		SM:	0.0	100.0	3/4

9686	CMM_M_CODE_COOLANT_OFF			H01, H02	QV: BAS
-	M code for coolant OFF			INTEGER	Immediately
				6.3	
SM, ST		SM: , ST:	0	32767	3/4

9687	CMM_TOOL_MOVE_DEFAULT_MAG	H01, H02	QV: FBSP
-	Relocate default magazine tool	BYTE	Power On
		6.4	
SM, ST	SM: , ST:	0	30
			3/4

9688	CMM_COUNT_GEAR_STEPS_S2	H01	QV:
-	Number of gear stages for 2nd spindle	BYTE	Immediately
SM	SM:	0	5
			3/4

9690	CMM_OEM_FUNCTION_MASK_1	H01	QV: BAS
-	OEM display machine data 1	INTEGER	Immediately
		6.2	
SM	SM:	0	0
			6/6

9691	CMM_OEM_FUNCTION_MASK_2	H01	QV: BAS
-	OEM display machine data 2	INTEGER	Immediately
		6.2	
SM	SM:	0	0
			6/6

9703	CMM_INDEX_AXIS_4	H01	QV: FBSP
-	Axis index for 4th axis	BYTE	Immediately
		840D SW 5.3, 810D SW 3.3	
SM	SM:	0	127
			3/4

9704	CMM_INDEX_AXIS_5	H01	QV: FBSP
-	Axis index for 5th axis	BYTE	Immediately
		840D SW 5.3, 810D SW 3.3	
SM	SM:	0	127
			3/4

9705	CMM_INDEX_SPINDLE	H01	QV: FBSP
-	Axis index for spindle	BYTE	Immediately
		840D SW 5.3, 810D SW 3.3	
SM	SM:	1	127
			3/4

9706	CMM_GEOAX_ASSIGN_AXIS_4	H01	QV: FBSP
-	Fourth axis assigned to geometry axis	BYTE	Immediately
		6.4	
SM	SM:	0	6
			3/4

9707	CMM_GEOAX_ASSIGN_AXIS_5	H01	QV: FBSP
-	Fifth axis assigned to geometry axis	BYTE	Immediately
		6.4	
SM	SM:	0	6
			3/4

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9708	CMM_INDEX_SPINDLE_2		H01	QV:
-	Axis index for 2nd spindle		BYTE	Immediately
SM		SM: 1	127	3/4

9718	CMM_OPTION_MASK_2		H01, H02	QV: FBSP, FBT
-	Settings for ShopMill 2		INTEGER	Immediately
			6.3	
SM, ST		SM: , ST: 0	0	2/2

9719	CMM_OPTION_MASK		H01, H02	QV: FBSP
-	Settings for ShopMill		INTEGER	Immediately
			840D SW 5.3, 810D SW 3.3	
SM, ST		SM: , ST: 0	0	2/2

9720	CMM_ENABLE_B_AXIS		H01	QV: FBSP
-	Enable B axis		BYTE	Immediately
			840D SW 4.4, 810D SW 2.4 mit SM	
SM		SM: 0	3	3/4

9721	CMM_ENABLE_TRACYL		H01	QV: FBSP
-	Enable cylinder periph. transformation		BYTE	Immediately
			840D SW 4.4, 810D SW 2.4 mit SM	
SM		SM: 0	1	3/4

9723	CMM_ENABLE_SWIVELLING_HEAD		H01, H02	QV: FBSP
-	Enable inclinable heads		BYTE	Immediately
			840D SW 4.4, 810D SW 2.4 mit SM	
SM, ST		SM: , ST: 0	1	3/4

9724	CMM_CIRCLE_RAPID_FEED		H01, H02	QV: FBT
mm/min	Rap. trav. feed positioning on circle path		DOUBLE	Immediately
			840D SW 6.1, 810D SW 4.1	
SM, ST		SM: , ST: 0	100000	3/4

9725	CMM_ENABLE_QUICK_M_CODES		H01, H02	QV: FBSP
-	Enable fast M functions		BYTE	Immediately
			6.4	
SM, ST		SM: , ST: 0	0	3/4

9725	CMM_ENABLE_QUICK_M_CODES	H01, H02	QV: FBSP
-	Enable fast M functions	BYTE	Immediately
		6.4	
SM, ST	SM: , ST:	0	0
			3/4

9726	CMM_DISPLAY_MD_IS_METRIC	H01, H02	QV: FBSP
-	Display machine data unit (inch/mm)	BYTE	Immediately
		6.4	
SM, ST	SM: , ST:	0	0
			3/4

9727	CMM_ENABLE_POS_A_B_AXIS	H01	QV: FBSP
-	A/B axis support enable	BYTE	Immediately
		6.4	
SM	SM:	0	0
			3/4

9728	CMM_DISPL_DIR_A_B_AXIS_INV	H01	QV: FBSP
-	Direction of rotation of A/B axis adjusted	BYTE	Immediately
		6.4	
SM	SM:	0	1
			3/4

9729	CMM_G_CODE_TOOL_CHANGE_PROG	H01, H02	QV: FBSP
-	Tool change program in G code	STRING	Immediately
		6.4	
SM, ST	SM: , ST:	0	0
			3/4

9739	CMM_M_CODE_TOOL_FUNC_1_ON	H01	QV: FBST
-	M code for tool-specific function 1 ON	INTEGER	Immediately
SM	SM:	-1	32767
			3/4

9740	CMM_M_CODE_TOOL_FUNC_1_OFF	H01	QV: FBST
-	M code for tool-specific function 1 OFF	INTEGER	Immediately
SM	SM:	-1	32767
			3/4

9741	CMM_M_CODE_TOOL_FUNC_2_ON	H01	QV: FBSP
-	M code for tool-specific function 2 ON	INTEGER	Immediately
SM	SM:	-1	32767
			3/4

9742	CMM_M_CODE_TOOL_FUNC_2_OFF	H01	QV: FBSP
-	M code for tool-specific function 2 OFF	INTEGER	Immediately
SM	SM:	-1	32767
			3/4

Drive Machine Data

9743	CMM_M_CODE_TOOL_FUNC_3_ON	H01	QV: FBST
-	M code for tool-specific function 3 ON	INTEGER	Immediately
SM		SM: -1	32767 3/4

9744	CMM_M_CODE_TOOL_FUNC_3_OFF	H01	QV: FBST
-	M code for tool-specific function 3 OFF	INTEGER	Immediately
SM		SM: -1	32767 3/4

9745	CMM_M_CODE_TOOL_FUNC_4_ON	H01	QV: FBST
-	M code for tool-specific function 4 ON	INTEGER	Immediately
SM		SM: -1	32767 3/4

9746	CMM_M_CODE_TOOL_FUNC_4_OFF	H01	QV: FBST
-	M code for tool-specific function 4 OFF	INTEGER	Immediately
SM		SM: -1	32767 3/4

9747	CMM_ENABLE_MEAS_AUTO	H01	QV:
-	Automatic workpiece measurement enable	BYTE	Immediately
		7.1	
SM		SM: 0	1 3/4

9748	CMM_MKS_POSITION_MAN_MEAS	H01	QV: FBSP
mm	Posit. of man. tool meas. with fixed point	DOUBLE	Immediately
		6.4	
SM		SM: 0	0 3/4

9749	CMM_ENABLE_MEAS_T_AUTO	H01, H02	QV: FBSP, FBT
-	Enable automatic tool measuring	INTEGER	Immediately
		6.3	
SM, ST		SM: , ST: 0	1 3/4

9750	CMM_MEAS_PROBE_INPUT	H01, H02	QV: FBSP, FBT
-	Measuring input for workpiece probe	REAL	Immediately
		6.3	
SM, ST		SM: , ST: 0	1 3/4

9751	CMM_MEAS_T_PROBE_INPUT	H01, H02	QV: FBSP, FBT
-	Measuring input for tool probe	REAL	Immediately
		6.3	
SM, ST		SM: , ST: 0	1 3/4

9752	CMM_MEASURING_DISTANCE	H01, H02	QV: FBSP, FBT
mm	Max. meas. dist. f. workp. meas. in progr.	DOUBLE	Immediately
		6.3	
SM, ST		SM: , ST:	1 1000 3/4

9753	CMM_MEAS_DIST_MAN	H01, H02	QV: FBSP, FBT
mm	Max. meas. dist. f. manual workp. meas.	DOUBLE	Immediately
		6.3	
SM, ST		SM: , ST:	0.01 1000 3/4

9754	CMM_MEAS_DIST_TOOL_LENGTH	H01, H02	QV: FBSP, FBT
mm	Max. meas. dist. f. tool lgth rotat. spin.	DOUBLE	Immediately
		6.3	
SM, ST		SM: , ST:	0.001 1000 3/4

9755	CMM_MEAS_DIST_TOOL_RADIUS	H01, H02	QV: FBSP, FBT
mm	Max. meas. dist. f. tool rad. rotat. spin.	DOUBLE	Immediately
		6.3	
SM, ST		SM: , ST:	0.001 1000 3/4

9756	CMM_MEASURING_FEED	H01, H02	QV: FBSP, FBT
mm/min	Meas. feedrate f. workpiece meas.	DOUBLE	Immediately
		6.3	
SM, ST		SM: , ST:	10 5000 3/4

9757	CMM_FEED_WITH_COLL_CTRL	H01, H02	QV: FBSP, FBT
mm/min	Plane feed with collision detection	DOUBLE	Immediately
		6.3	
SM, ST		SM: , ST:	10 5000 3/4

9758	CMM_POS_FEED_WITH_COLL_CTRL	H01, H02	QV: FBSP, FBT
mm/min	Infeed rate with collision detection	DOUBLE	Immediately
		6.3	
SM, ST		SM: , ST:	10 5000 3/4

9759	CMM_MAX_CIRC_SPEED_ROT_SP	H01, H02	QV: FBSP, FBT
	Max.periph.speed f.tool meas.w.rot.spin.	DOUBLE	Immediately
		6.3	
SM, ST		SM: , ST:	1 200 3/4

9760	CMM_MAX_SPIND_SPEED_ROT_SP	H01, H02	QV: FBSP, FBT
	Max. speed f. tool meas. w. rot. spindle	DOUBLE	Immediately
		6.3	
SM, ST		SM: , ST:	100 25000 3/4

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9761	CMM_MIN_FEED_ROT_SP	H01, H02	QV: FBSP, FBT
mm/min	Min. feedr. f. tool meas. w. rot.spindle	DOUBLE	Immediately
		6.3	
SM, ST	SM: , ST:	1	1000
			3/4

9762	CMM_MEAS_TOL_ROT_SP	H01, H02	QV: FBSP, FBT
mm	Meas. acc. f. tool meas. w. rot. spindle	DOUBLE	Immediately
		6.3	
SM, ST	SM: , ST:	0.001	1
			3/4

9763	CMM_TOOL_PROBE_TYPE	H01, H02	QV: FBSP, FBT
-	Type of tool probe	REAL	Immediately
		6.3	
SM, ST	SM: , ST:	0	999
			3/4

9764	CMM_TOOL_PROBE_ALLOW_AXIS	H01, H02	QV: FBSP, FBT
-	Permiss. axis direct. tool probe	REAL	Immediately
		6.3	
SM, ST	SM: , ST:	0	333
			3/4

9765	CMM_T_PROBE_DIAM_LENGTH_MEA	H01, H02	QV: FBSP, FBT
mm	Dia. of tool probe f. length measurement	DOUBLE	Immediately
		6.3	
SM, ST	SM: , ST:	0	100000
			3/4

9766	CMM_T_PROBE_DIAM_RAD_MEAS	H01, H02	QV: FBSP, FBT
mm	Dia. of tool probe f. radius measurement	DOUBLE	Immediately
		6.3	
SM, ST	SM: , ST:	0	100000
			3/4

9767	CMM_T_PROBE_DIST_RAD_MEAS	H01, H02	QV: FBSP, FBT
mm	Infeed f.top edge of t-probe f.rad.meas.	DOUBLE	Immediately
		6.3	
SM, ST	SM: , ST:	0	100000
			3/4

9768	CMM_T_PROBE_APPROACH_DIR	H01, H02	QV: FBSP, FBT
-	Plane approach dir. tool probe	BYTE	Immediately
		6.3	
SM, ST	SM: , ST:	-2	2
			3/4

9769	CMM_FEED_FACTOR_1_ROT_SP	H01, H02	QV: FBSP
-	Feedrate fact. 1 tool meas. w. rot. spin.	DOUBLE	Immediately
		6.3	
SM, ST	SM: , ST:	0	100
			3/4

9770	CMM_FEED_FACTOR_2_ROT_SP	H01, H02	QV: FBSP
-	Feedrate fact. 2 tool meas. w. rot. spin.	DOUBLE	Immediately
		6.3	
SM, ST	SM: , ST:	0	50
			3/4

9771	CMM_MAX_FEED_ROT_SP	H01, H02	QV: FBSP
mm/min	Max. feedr. f. tool meas. w. rot. spindle	DOUBLE	Immediately
		6.3	
SM, ST	SM: , ST:	1	1000
			3/4

9772	CMM_T_PROBE_MEASURING_DIST	H01, H02	QV: FBSP
mm	Meas.dist. f. tool meas. w. non-rot. spin.	DOUBLE	Immediately
		6.3	
SM, ST	SM: , ST:	0.01	1000
			3/4

9773	CMM_T_PROBE_MEASURING_FEED	H01, H02	QV: FBSP
mm/min	Feedrate f. tool meas. w. non-rot. spindle	DOUBLE	Immediately
		6.3	
SM, ST	SM: , ST:	10	5000
			3/4

9774	CMM_T_PROBE_MANUFACTURER	H01, H02	QV: FBSP
-	Tool probe manufacturer	INTEGER	Immediately
		6.3	
SM, ST	SM: , ST:	0	2
			3/4

9775	CMM_T_PROBE_OFFSET	H01, H02	QV: FBSP
-	Tool meas. offset w. rot. spindle	INTEGER	Immediately
		6.3	
SM, ST	SM: , ST:	0	2
			3/4

9776	CMM_MEAS_SETTINGS	H01, H02	QV: FBSP
-	Settings for measuring cycles	INTEGER	Immediately
		6.4	
SM, ST	SM: , ST:	0	0
			3/4

9777	CMM_ENABLE_TIME_DISPLAY	H01	QV: FBSP
-	Time display enable	BYTE	Immediately
		6.4	
SM	SM:	0	0
			3/4

9778	CMM_MEAS_PROBE_SOUTH_POLE	H01	QV: FBST
-	Probe length in relation to the lower edge	BYTE	Immediately
SM	SM:	0	1
			3/4

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9779	CMM_MEAS_PROBE_IS_MONO	H01	QV: FBST
-	Workpiece probe is mono probe	BYTE	Immediately
SM		SM: 0	1 3/4

9803	ST_INDEX_AXIS_4	H02	QV: FBT
-	Axis index for 4th axis	BYTE	Immediately
		840D SW 6.1, 810D SW 4.1	
ST		ST: 0	127 3/4

9804	ST_INDEX_SPINDLE_MAIN	H02, H03	QV: FBT
-	Axis index for main spindle	BYTE	Immediately
		840D SW 6.1, 810D SW 4.1	
ST, MT		MT: , ST: 1	127 3/4

9805	ST_INDEX_SPINDLE_TOOL	H02, H03	QV: FBT
-	Axis index for tool spindle	BYTE	Immediately
		840D SW 6.1, 810D SW 4.1	
ST, MT		MT: , ST: 0	127 3/4

9806	ST_INDEX_SPINDLE_SUB	H02	QV: FBT
-	Axis index for counterspindle	BYTE	Immediately
		840D SW 6.1, 810D SW 4.1	
ST		ST: 0	127 3/4

9807	ST_INDEX_AXIS_C	H02	QV: FBT
-	Axis index for C axis	BYTE	Immediately
		6.3	
ST		ST: 0	127 3/4

9810	ST_GEAR_STEPS_SPINDLE_MAIN	H02	QV: FBT
-	Number of main spindle threads	BYTE	Immediately
		840D SW 6.1, 810D SW 4.1	
ST		ST: 0	5 3/4

9811	ST_GEAR_STEPS_SPINDLE_TOOL	H02	QV: FBT
-	Number of tool spindle threads	BYTE	Immediately
		840D SW 6.1, 810D SW 4.1	
ST		ST: 0	5 3/4

9812	ST_GEAR_STEPS_SPINDLE_SUB			H02	QV: FBT
-	Number of counter spindle threads			BYTE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	0	5	3/4

9820	ST_MAGN_GLASS_POS_1			H02	QV: FBT
mm	Measure zoom-in pos. to tool, 1st axis			DOUBLE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	0	0	3/4

9821	ST_MAGN_GLASS_POS_2			H02	QV: FBT
mm	Measure zoom-in pos. to tool, 2nd axis			DOUBLE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	0	0	3/4

9822	ST_DISPL_DIR_MAIN_SPIND_M3			H02	QV: FBT
-	Displ. direction of rot. main spindle M3			BYTE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	0	1	3/4

9823	ST_DISPL_DIR_SUB_SPIND_M3			H02	QV: FBT
-	Displ. direction of rot. counterspindle M3			BYTE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	0	1	3/4

9824	ST_DISPL_DIR_MAIN_C_AX_INV			H02	QV: FBT
-	Direction of rotation of C axis main spind			BYTE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	0	1	3/4

9825	ST_DISPL_DIR_SUB_C_AX_INV			H02	QV: FBT
-	Direction of rotation of C axis counterspi			BYTE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	0	1	3/4

9826	ST_DEFAULT_DIR_TURN_TOOLS			H02	QV: FBT
-	Main dir. of rot. for all turning tools			BYTE	Power On
				840D SW 6.1, 810D SW 4.1	
ST		ST:	3	4	3/4

Drive Machine Data

9827	ST_DEFAULT_MACHINING_SENSE		H02	QV: FBT
-	Basic sett. f. machining direction milling		BYTE	Immediately
			840D SW 6.1, 810D SW 4.1	
ST		ST: 0	1	3/4

9828	ST_MEAS_T_PROBE_INPUT_SUB		H02	QV: FBT
-	Meas. input f. tool probe counterspindle		REAL	Immediately
			6.3	
ST		ST: 0	1	3/4

9829	ST_SPINDLE_CHUCK_TYPES		H02	QV: FBT
-	Spindle chuck selection		BYTE	Immediately
			6.4	
ST		ST: 0	0	3/4

9829	ST_SPINDLE_CHUCK_TYPES		H02	QV: FBT
-	Spindle chuck selection		BYTE	Immediately
			6.4	
ST		ST: 0	0	3/4

9830	ST_SPINDLE_PARA_ZL0		H02	QV: FBT
mm	Main spindle chuck dimension		DOUBLE	Immediately
			6.4	
ST		ST: 0	0	3/4

9831	ST_SPINDLE_PARA_ZL1		H02	QV: FBT
mm	Counterspindle chuck dimension		DOUBLE	Immediately
			6.4	
ST		ST: 0	0	3/4

9832	ST_SPINDLE_PARA_ZL2		H02	QV: FBT
mm	Counterspindle stop dimension		DOUBLE	Immediately
			6.4	
ST		ST: 0	0	3/4

9833	ST_SPINDLE_PARA_ZL3		H02	QV: FBT
mm	Counterspindle jaw dimension		DOUBLE	Immediately
			6.4	
ST		ST: 0	0	3/4

9836	ST_TAILSTOCK_DIAM		H02	QV: FBT
mm	Tailstock diameter		DOUBLE	Immediately
			7.1	
ST		ST: 0	0	3/4

9837	ST_TAILSTOCK_LENGTH			H02	QV: FBT
mm	Tailstock length			DOUBLE	Immediately
				7.1	
ST		ST:	0	0	3/4

9838	ST_BORDER_TOOL_LEN_X_REV_2			H02	QV:
mm	Limit value of tool length X for 2nd turret			DOUBLE	Immediately
ST		ST:	0	0	3/4

9840	ST_ENABLE_MAGN_GLASS			H02	QV: FBT
-	Zoom-in under manual: tool meas.			BYTE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	0	1	3/4

9841	ST_ENABLE_PART_OFF_RECEPT			H02	QV: FBT
-	Enable receptacle function for cut-off			BYTE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	0	1	3/4

9842	ST_ENABLE_TAILSTOCK			H02	QV: FBT
-	Enable tailstock			BYTE	Immediately
				6.2	
ST		ST:	0	1	3/4

9843	ST_ENABLE_SPINDLE_CLAMPING			H02	QV: FBT
-	Spindle clamping enable (C axis)			BYTE	Immediately
				6.3	
ST		ST:	0	1	3/4

9850	ST_CYCLE_THREAD_RETURN_DIST			H02	QV: FBT
mm	Return distance f. thread turning			DOUBLE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	0.001	1000	3/4

9851	ST_CYCLE_SUB_SP_WORK_POS			H02	QV: FBT
mm	Retract position Z for counterspindle			DOUBLE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	0	0	3/4

9852	ST_CYCLE_SUB_SP_DIST			H02	QV: FBT
mm	Counterspindle: travel path to fixed stop			DOUBLE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	0.001	1000	3/4

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9853	ST_CYCLE_SUB_SP_FEED			H02	QV: FBT
mm/min	Counterspindle: travel feed to fixed stop			DOUBLE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	0	0	3/4

9854	ST_CYCLE_SUB_SP_FORCE			H02	QV: FBT
	Counterspin.: travel force to fixed stop			BYTE	Immediately
				840D SW 6.1, 810D SW 4.1	
ST		ST:	1	100	3/4

9855	ST_CYCLE_TAP_SETTINGS			H02	QV: FBT
-	Tapping settings			INTEGER	Immediately
				6.3	
ST		ST:	0	0	3/4

9856	ST_CYCLE_TAP_MID_SETTINGS			H02	QV: FBT
-	Centric tapping settings			INTEGER	Immediately
ST		ST:	0	0	3/4

9857	ST_CYCLE_RET_DIST_FIXEDSTOP			H02	QV: FBT
mm	Retr.path prior to chuck. after fixed stop			DOUBLE	Immediately
				6.3	
ST		ST:	0	10	3/4

9858	ST_CYCLE_RET_DIST_PART_OFF			H02	QV: FBT
mm	Retr. path prior to cut-off w. count.sp.			DOUBLE	Immediately
				6.3	
ST		ST:	0	1	3/4

9859	ST_CYCLE_PART_OFF_CTRL_DIST			H02	QV: FBT
mm	Path for cut-off check			DOUBLE	Immediately
				6.3	
ST		ST:	0	10	3/4

9860	ST_CYCLE_PART_OFF_CTRL_FEED			H02	QV: FBT
mm/min	Feedrate for cut-off check			DOUBLE	Immediately
ST		ST:	0	0	3/4

9861	ST_CYCLE_PART_OFF_CTRL_FORC			H02	QV: FBT
%	Force in percent for cut-off check			BYTE	Immediately
				6.3	
ST		ST:	1	100	3/4

9862	ST_CYC_DRILL_MID_MAX_ECCENT			H02	QV: FBT
mm	Max. center offset f. center boring			DOUBLE	Immediately
				6.4	
ST		ST:	0.0	10.0	3/4

9890	ST_USER_CLASS_MEAS_T_CAL			H02	QV:
-	Protection level for calibration of tool p			BYTE	Immediately
				7.1	
ST		ST:	0	7	3/4

9897	ST_OPTION_MASK_MAN_FUNC			H02	QV: FBT
-	Settings for ShopTurn manual functions			INTEGER	Immediately
				7.1	
ST		ST:	0	0	3/4

9898	ST_OPTION_MASK			H02	QV: FBT
-	ShopTurn settings			INTEGER	Immediately
				6.3	
ST		ST:	0	0	2/2

9899	ST_TRACE			H02	QV: FBT
-	Test flags internal ShopTurn diagnosis			REAL	Immediately
				6.3	
ST		ST:	0	0xFFFF	3/4

9899	ST_TRACE			H02	QV: FBT
-	Test flags internal ShopTurn diagnosis			REAL	Immediately
				6.3	
ST		ST:	0	0xFFFF	3/4

9900	MD_TEXT_SWITCH			H05	QV: -
-	Plaintexts instead of MD identifier			BOOL	Immediately
				SW2	
Adv, Emb		Emb: 0	0	0	3/4

9950	MD_NC_TEA_FILTER			H05	QV:
-	General machine data display options			INTEGER	Power On
Emb		Emb: 67108865	0	0	0/0

9950	MD_NC_TEA_FILTER			H05	QV:
-	General machine data display options			INTEGER	Power On
Emb		Emb: 67108865	0	0	0/0

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9951	MD_NC_TEA_IDX_LIMIT	H05	QV:
-	Index filter for general machine data	INTEGER	Power On
Emb		Emb: 0	0
		0	0/0

9952	MD_AX_TEA_FILTER	H05	QV:
-	Axis machine data display options	INTEGER	Power On
Emb		Emb: 67108865	0
		0	0/0

9952	MD_AX_TEA_FILTER	H05	QV:
-	Axis machine data display options	INTEGER	Power On
Emb		Emb: 67108865	0
		0	0/0

9953	MD_AX_TEA_IDX_LIMIT	H05	QV:
-	Index filter for axis machine data	INTEGER	Power On
Emb		Emb: 0	0
		0	0/0

9954	MD_CH_TEA_FILTER	H05	QV:
-	Channel machine data display options	INTEGER	Power On
Emb		Emb: 33554433	0
		0	0/0

9954	MD_CH_TEA_FILTER	H05	QV:
-	Channel machine data display options	INTEGER	Power On
Emb		Emb: 33554433	0
		0	0/0

9955	MD_CH_TEA_IDX_LIMIT	H05	QV:
-	Index filter for channel machine data	INTEGER	Power On
Emb		Emb: 0	0
		0	0/0

9956	MD_DRV_TEA_FILTER	H05	QV:
-	Drive machine data display options	INTEGER	Power On
Emb		Emb: 8388609	0
		0	0/0

9956	MD_DRV_TEA_FILTER	H05	QV:
-	Drive machine data display options	INTEGER	Power On
Emb		Emb: 8388609	0
		0	0/0

9957	MD_DRV_TEA_IDX_LIMIT	H05	QV:
-	Index filter for drive machine data	INTEGER	Power On
Emb	Emb: 0	0	0/0

9958	MD_SNX_FILTER	H05	QV:
-	Display options Sinamics parameters	INTEGER	Power On
Emb	Emb: 0	0	0/0

9958	MD_SNX_FILTER	H05	QV:
-	Display options Sinamics parameters	INTEGER	Power On
Emb	Emb: 0	0	0/0

9959	MD_SNX_IDX_LIMIT	H05	QV:
-	Index filter for Sinamics parameters	INTEGER	Power On
Emb	Emb: 0	0	0/0

9980	LANGUAGE_SETTINGS	H05	QV:
-	Internal language settings	INTEGER	Power On
Emb	Emb: 513	0	0/0

9990	SW_OPTIONS	H05	QV: FBSP, FBT
-	Enable MMC/HMI software options	INTEGER	Power On
Adv, Emb	Emb: 0	0	2/2

9991	HMI_HELP_SYSTEMS	H05	QV: FBSP, FBT
-	Enable MMC/HMI auxiliary systems	INTEGER	Power On
Emb	Emb: 1	0	2/2

9992	HMI_TESTAUTOMAT_OPTION	H05	QV: FBT, FBSP, EMB
-	Options for autom. HMI test machine	INTEGER	Power On
Emb	Emb: 0	0	2/2

9993	HMI_WIZARD_OPTION	H05	QV: FBT, FBSP, EMB
-	Options for wizard	INTEGER	Power On
Emb	Emb: 0	0	2/2

Drive Machine Data

9999	TRACE			H05	QV: -
-	Test flags for internal diagnosis			INTEGER	Power On
				-	
Adv, Emb		Emb: 0	0	0xFFFF	2/2

2.3 General machine data

Number	Identifier			Display filters	Reference
Unit	Name			Data type	Active
Attributes					
System	Dimension	Default value	Minimum value	Maximum value	Protection

2.3.1 System settings

10000	AXCONF_MACHAX_NAME_TAB			N01, N11	K2
-	Machine axis name			STRING	POWER ON
-					
-	31	"X1","Y1","Z1","A1", "B1","C1","U1"...	-	-	7/2
710-2a2c	2	"X1","Y1"	-	-	-/-
710-6a2c	-	"X1","Y1","Z1","A1", "B1","C1"	-	-	-/-
840d-2a2c	2	"X1","Y1"	-	-	-/-
840d-4a1cg	4	"X1","Y1","Z1","A1"	-	-	-/-
840d-6a2c	-	"X1","Y1","Z1","A1", "B1","C1"	-	-	-/-
840di-basic	-	"X1","Y1","Z1","A1", "B1","C1"	-	-	-/-

10002	AXCONF_LOGIC_MACHAX_TAB			N01	B3
-	Logical NCK machine axis image			STRING	POWER ON
-					
-	31	"AX1","AX2","AX3", AX4","AX5","AX6"...	-	-	3/2
710-2a2c	2	-	-	-	-/-
840d-2a2c	2	-	-	-	-/-
840d-4a1cg	4	-	-	-	-/-

General machine data

10010	ASSIGN_CHAN_TO_MODE_GROUP			N01, N02, N11	K1,IAD
-	Channel valid in mode group			DWORD	POWER ON
-					
-	10	1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	0	10	7/2
710-2a2c	2	-	-	2	-/-
710-6a2c	-	-	-	2	-/-
710-12a2c	-	-	-	4	-/-
840d-2a2c	2	-	-	-	-/-
840d-4a1cg	1	-	-	-	-/-
840di-basic	-	-	-	2	-/-
840di-universal	-	-	-	2	-/-
840di-plus	-	-	-	6	-/-

10050	SYSCLOCK_CYCLE_TIME			N01, N05, N11, -	G3
s	System clock cycle			DOUBLE	POWER ON
SFCO					
-	-	0.004	0.000125	0.031	7/2
710-2a2c	-	0.002	0.001	0.008	-/-
710-6a2c	-	0.002	0.001	0.008	-/-
710-12a2c	-	0.002	0.001	0.008	-/-
710-31a10c	-	0.002	0.001	0.008	-/-
840di-basic	-	0.002	0.001	0.008	-/-
840di-universal	-	0.002	0.001	0.008	-/-
840di-plus	-	0.002	0.001	0.008	-/-

10059	PROFIBUS_ALARM_MARKER			N05	G3
-	Profibus alarm flag (internal only)			BYTE	POWER ON
NBUP, NDLD					
-	-	0	-	-	0/0

10060	POSCTRL_SYSCLOCK_TIME_RATIO			N01, N05	G3
-	Factor for position control cycle			DWORD	POWER ON
SFCO					
-	-	1	1	31	7/2
840di-basic	-	-	-	-	0/0
840di-universal	-	-	-	-	0/0
840di-plus	-	-	-	-	0/0

10061	POSCTRL_CYCLE_TIME			N01, N05	G3
-	Position control cycle			DOUBLE	POWER ON
READ					
-	-	0.0	-	-	7/0

10062	POSCTRL_CYCLE_DELAY			N01, N05	G3
s	Position control cycle offset			DOUBLE	POWER ON
-					
-	-	0.003	0.000	0.008	7/2
710-2a2c	-	0.001550	-	-	-/-
710-6a2c	-	0.001550	-	-	-/-
710-12a2c	-	0.001550	-	-	-/-
710-31a10c	-	0.001550	-	-	-/-
840di-basic	-	0.001550	-	-	-/-
840di-universal	-	0.001550	-	-	-/-
840di-plus	-	0.001550	-	-	-/-

10065	POSCTRL_DESVAL_DELAY			N01	B3
s	Position setpoint delay			DOUBLE	POWER ON
-					
-	-	0.0	-0.1	0.1	7/2

10070	IPO_SYSCLOCK_TIME_RATIO			N01, N05, N11, -	G3
-	Factor for interpolation cycle			DWORD	POWER ON
SFCO					
-	-	4	1	100	7/2
840d-2a2c	-	3	-	-	-/-
840d-4a1cg	-	3	-	-	-/-
840d-6a2c	-	3	-	-	-/-
840d-12a2c	-	3	-	-	-/-

10071	IPO_CYCLE_TIME			N01, N05, N11, -	G3
-	Interpolator cycle			DOUBLE	POWER ON
READ					
-	-	0.0	-	-	7/0

10072	COM_IPO_TIME_RATIO			N01, N05	-
-	Division ratio between IPO and communication task			DOUBLE	POWER ON
-					
-	-	1.0	0.0	100.0	7/2

10073	COM_IPO_STRATEGY			EXP	-
-	Strategy for activation of communication.			DWORD	POWER ON
-					
-	-	0x2B	1	0x7F	0/0

10074	PLC_IPO_TIME_RATIO			N01, N05	-
-	Factor of PLC task for the main run.			DWORD	POWER ON
-					
-	-	1	1	50	0/0

General machine data

10075	PLC_CYCLE_TIME			N01, N05	-
-	PLC cycle time			DOUBLE	POWER ON
READ					
-	-	0.0	-	-	1/1

10080	SYSCLOCK_SAMPL_TIME_RATIO			EXP, N01	G3
-	Division ratio for actual value recording cycle time			DWORD	POWER ON
-					
-	-	5	1	31	0/0
840d-2a2c	-	4	-	-	-/-
840d-4a1cg	-	4	-	-	-/-
840d-6a2c	-	4	-	-	-/-
840d-12a2c	-	4	-	-	-/-

10082	CTRLOUT_LEAD_TIME			EXP, N01, -	K3
%	Shift of setpoint transfer time			DOUBLE	POWER ON
-					
-	-	0.0	0.0	100.0	7/2

10083	CTRLOUT_LEAD_TIME_MAX			EXP, N01	K3
%	Max. settable offset of setpoint transfer time			DOUBLE	NEW CONF
-					
-	-	100.0	0.0	100.0	7/2

10088	REBOOT_DELAY_TIME			EXP	-
s	Reboot delay			DOUBLE	SOFORT
-					
-	-	0.2	0.0	1.0	2/2

10089	SAFE_PULSE_DIS_TIME_BUSFAIL			N01, N06, -	FBSI
s	Delay time pulse suppr. for bus failure			DOUBLE	POWER ON
-					
-	-	0.0	0	0.8	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

10090	SAFETY_SYSCLOCK_TIME_RATIO			N01, N06, -	FBSI
-	Factor for monitoring cycle			DWORD	POWER ON
SFCO					
-	-	3	1	50	7/1
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

10091	INFO_SAFETY_CYCLE_TIME			N01, N06, N05, -	FBSI
s	Display of monitoring cycle time			DOUBLE	POWER ON
READ					
-	-	0.0	-	-	7/0
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

10092	INFO_CROSSCHECK_CYCLE_TIME			N01, N06, N05, -	FBSI
s	Display of cycle time for cross-checking			DOUBLE	POWER ON
READ					
-	-	0.0	-	-	7/0
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

10093	INFO_NUM_SAFE_FILE_ACCESS			EXP, N06, N05, -	FBSI
-	Number of SPL file accesses			DWORD	POWER ON
READ					
-	-	0	-	-	0/0
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

10094	SAFE_ALARM_SUPPRESS_LEVEL			EXP, N06, N05, -	FBSI
-	Alarm suppress level			BYTE	POWER ON
-					
-	-	2	0	13	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

10095	SAFE_MODE_MASK			EXP, N05, -	FBSI
-	'Safety Integrated' operating modes			DWORD	POWER ON
-					
-	-	0	0	0x0001	7/2
710-2a2c	-	-	-	-	-1/-
710-6a2c	-	-	-	-	-1/-
710-12a2c	-	-	-	-	-1/-
710-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

General machine data

10096	SAFE_DIAGNOSIS_MASK			EXP, N06, N05, -	FBSI
-	'Safety Integrated' diagnosis functions			DWORD	NEW CONF
-					
-	-	1	0	0x0003	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

10097	SAFE_SPL_STOP_MODE			N01, N06, -	FBSI
-	Stop reaction for SPL errors			BYTE	POWER ON
-					
-	-	3	3	4	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

10098	PROFISAFE_IPO_TIME_RATIO			N01, N06, -	FBSI
-	Factor for PROFIsafe communication			DWORD	POWER ON
SFCO					
-	-	1	1	25	7/1
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

10099	INFO_PROFISAFE_CYCLE_TIME			N01, N06, N05, -	FBSI
s	PROFIsafe communication cycle time			DOUBLE	POWER ON
READ					
-	-	0.0	-	-	7/0
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

10100	PLC_CYCLIC_TIMEOUT			EXP, N01, N06	P3
s	Maximum PLC cycle time			DOUBLE	POWER ON
-					
-	-	0.1	-	-	7/2

10110	PLC_CYCLE_TIME_AVERAGE			N01, N07	B1
s	Average PLC acknowledgement time			DOUBLE	POWER ON
-					
-	-	0.05	-	-	7/2

10120	PLC_RUNNINGUP_TIMEOUT	EXP, N01, N06	H2
s	Monitoring time for PLC power up	DOUBLE	POWER ON
-			
-	-	50.0	-
			7/2

10130	TIME_LIMIT_NETTO_COM_TASK	EXP, N01	OEM
s	Runtime limitation of communication to HMI	DOUBLE	POWER ON
-			
-	-	0.005	.001
		0.100	7/1

10131	SUPPRESS_SCREEN_REFRESH	EXP	A2
-	Screen refresh response under overload	BYTE	POWER ON
-			
-	-	0	0
		2	7/2

10132	MMC_CMD_TIMEOUT	EXP, N01, N06	PA,M4
s	Monitoring time for HMI command in the part program	DOUBLE	POWER ON
-			
-	-	3.0	0.0
		100.0	7/2

10134	MM_NUM_MMC_UNITS	EXP, N01, N02	B3
-	Possible number of simultaneous HMI communication partners	DWORD	POWER ON
-			
-	-	6	1
		10	2/2

10136	DISPLAY_MODE_POSITION	N01	-
-	Display mode for actual position in the WCS	DWORD	RESET
-			
-	-	0	0
		1	7/1

10140	TIME_LIMIT_NETTO_DRIVE_TASK	EXP, N01	ECO
s	Runtime limit of drive communications sub-task	DOUBLE	POWER ON
-			
-	-	0.02	.001
		.5	7/1

10150	PREP_DRIVE_TASK_CYCLE_RATIO	EXP, N01	ECO
-	Factor for communication with drive	DWORD	POWER ON
-			
-	-	2	1
		50	7/1

10160	PREP_COM_TASK_CYCLE_RATIO	EXP, N01	ECO
-	Factor for communication with HMI	DWORD	POWER ON
-			
-	-	3	1
		50	7/1

General machine data

10161	COM_CONFIGURATION		EXP, N01	-
-	Configuration of communication		DWORD	POWER ON
-				
-	8	5, 5,18, 1,16, 8,18,18	-	0/0

10185	NCK_PCOS_TIME_RATIO		EXP, N01	-
-	Processing time share NCK		DWORD	POWER ON
-				
-	-	100	0	100
710-2a2c	-	65	10	90
710-6a2c	-	65	10	90
710-12a2c	-	65	10	90
710-31a10c	-	65	10	90
840di-basic	-	50	10	75
840di-universal	-	50	10	75
840di-plus	-	50	10	75

10190	TOOL_CHANGE_TIME		N01	BA
-	Tool changing time for simulation		DOUBLE	POWER ON
-				
-	-	0.	-	7/2

10192	GEAR_CHANGE_WAIT_TIME		N01	S1
s	Gear stage change waiting time		DOUBLE	POWER ON
-				
-	-	10.0	0.0	1.0e5

10200	INT_INCR_PER_MM		N01	G2
-	Calculation resolution for linear positions		DOUBLE	POWER ON
-				
-	-	1000.	1.0	1.0e9

10210	INT_INCR_PER_DEG		N01	G2
-	Calculation resolution for angular positions		DOUBLE	POWER ON
-				
-	-	1000.0	1.0	1.0e9

10220	SCALING_USER_DEF_MASK		EXP, N01	G2
-	Activation of scaling factors		DWORD	POWER ON
SCAL				
-	-	0x200	0	0x3FFF

10230	SCALING_FACTORS_USER_DEF			EXP, N01	G2
-	Scaling factors of physical variables			DOUBLE	POWER ON
SCAL					
-	15	1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0...	1e-9	-	7/2
10240	SCALING_SYSTEM_IS_METRIC			N01	G2
-	Basic system metric			BOOLEAN	POWER ON
SCAL					
-	-	TRUE	-	-	7/2
10250	SCALING_VALUE_INCH			EXP	G2
-	Conversion factor for INCH			DOUBLE	POWER ON
SCAL					
-	-	25.4	1e-9	-	0/0
10260	CONVERT_SCALING_SYSTEM			EXP	A3,G2
-	Enable basic system conversion			BOOLEAN	POWER ON
LINK					
-	-	FALSE	-	-	1/1
10270	POS_TAB_SCALING_SYSTEM			N01, N09	T1
-	System of units of position tables			BYTE	RESET
-					
-	-	0	0	1	7/2
10280	PROG_FUNCTION_MASK			EXP, N01	K1
-	Comparing (> and <) compatible with SW6.3			DWORD	POWER ON
-					
-	-	0x0	0	0x1	7/2
10284	DISPLAY_FUNCTION_MASK			EXP, N01	-
-	BTSS-variable lastBlockNoStr active			DWORD	POWER ON
-					
-	-	0x0	-	-	7/2
10290	CC_TDA_PARAM_UNIT			N09	G2
-	Physical units of tool data for compile cycles			DWORD	POWER ON
-					
-	10	0,0,0,0,0,0,0,0,0,0	0	9	2/2
10291	CCS_TDA_PARAM_UNIT			N09	-
-	physical units of SIEMENS-OEM tool data			DWORD	POWER ON
-					
-	10	0,0,0,0,0,0,0,0,0,0	0	9	2/2

General machine data

10292	CC_TOA_PARAM_UNIT		N09	G2	
-	Physical units of cutting edge data for compile cycles		DWORD	POWER ON	
-					
-	10	0,0,0,0,0,0,0,0,0,0	0	9	2/2

10293	CCS_TOA_PARAM_UNIT		N09	-	
-	Physical units of SIEMENS-OEM cutting edge data		DWORD	POWER ON	
-					
-	10	0,0,0,0,0,0,0,0,0,0	0	9	2/2

10300	FASTIO_ANA_NUM_INPUTS		N10	A4	
-	Number of active analog NCK inputs		BYTE	POWER ON	
-					
-	-	0	0	8	7/2

10310	FASTIO_ANA_NUM_OUTPUTS		N10	A4	
-	Number of active analog NCK outputs		BYTE	POWER ON	
-					
-	-	0	0	8	7/2

10320	FASTIO_ANA_INPUT_WEIGHT		N10	A4	
-	Weighting factor for analog NCK inputs		DWORD	POWER ON	
-					
-	8	10000,10000,10000 ,10000,10000,1000 0...	1	10000000	7/2

10330	FASTIO_ANA_OUTPUT_WEIGHT		N10	A4	
-	Weighting factor for analog NCK outputs		DWORD	POWER ON	
-					
-	8	10000,10000,10000 ,10000,10000,1000 0...	1	10000000	7/2

10350	FASTIO_DIG_NUM_INPUTS		N10	A4	
-	Number of active digital NCK input bytes		BYTE	POWER ON	
-					
-	-	1	0	5	7/2

10360	FASTIO_DIG_NUM_OUTPUTS		N10	A4	
-	Number of active digital NCK output bytes		BYTE	POWER ON	
-					
-	-	0	0	5	7/2

10361	FASTIO_DIG_SHORT_CIRCUIT		N10	A2
-	Short circuit of digital inputs and outputs		DWORD	POWER ON
-				
-	10	0,0,0,0,0,0,0,0,0,0	-	7/2

10362	HW_ASSIGN_ANA_FASTIN		N10	A4
-	Hardware assignment of the fast analog NCK inputs		DWORD	POWER ON
-				
-	8	0x01000000,0x01000000,0x01000000,0x01000000. ..	0x01000000	0x060003FF

10364	HW_ASSIGN_ANA_FASTOUT		N10	A4
-	Hardware assignment of external analog NCK outputs		DWORD	POWER ON
-				
-	8	0x01000000,0x01000000,0x01000000,0x01000000. ..	0x01000000	0x060003FF

10366	HW_ASSIGN_DIG_FASTIN		N10	A4
-	Hardware assignment of external digital NCK inputs		DWORD	POWER ON
-				
-	10	0x01000000,0x01000000,0x01000000,0x01000000. ..	0x01000000	0x060003FF

10368	HW_ASSIGN_DIG_FASTOUT		N10	A4
-	Hardware assignment of external digital NCK outputs		DWORD	POWER ON
-				
-	4	0x01000000,0x01000000,0x01000000,0x01000000. ..	0x01000000	0x060003FF

10380	HW_UPDATE_RATE_FASTIO		EXP, N10	A4
-	Updating rate of clocked external NCK I/Os		BYTE	POWER ON
-				
-	5	2,2,2,2,3	2	3

10382	HW_LEAD_TIME_FASTIO		EXP, N10	A4
-	Lead time of clocked external NCK I/Os		DWORD	POWER ON
-				
-	5	100,100,100,100,100	-	7/2

10389	PROFISAFE_OUT_ASSIGN			N01, N06, -	FBSI
-	Outp.assignment \$A_OUTSE to PROFIsafe module			DWORD	POWER ON
-					
-	16	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	0	64064	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

10390	SAFE_IN_HW_ASSIGN			N01, N06, -	FBSI
-	Input assignment of external SPL interface			DWORD	POWER ON
-					
-	8	0,0,0,0,0,0,0,0,0	-	-	7/2
710-2a2c	-	-	-	-	-1/-
710-6a2c	-	-	-	-	-1/-
710-12a2c	-	-	-	-	-1/-
710-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

10392	SAFE_OUT_HW_ASSIGN			N01, N06, -	FBSI
-	Output assignment ext. interface SPL			DWORD	POWER ON
-					
-	8	0,0,0,0,0,0,0,0,0	-	-	7/2
710-2a2c	-	-	-	-	-1/-
710-6a2c	-	-	-	-	-1/-
710-12a2c	-	-	-	-	-1/-
710-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

10393	SAFE_DRIVE_LOGIC_ADDRESS			N01, N06, -	-
-	Logical drive addresses SI			DWORD	POWER ON
-					
-	31	6700,6724,6748,6772,6796,6820,6844..	258	8191	7/2
840d-2a2c	-	-	-	-	-1/-
840d-6a2c	-	-	-	-	-1/-
840d-12a2c	-	-	-	-	-1/-
840d-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

General machine data

10394	PLCIO_NUM_BYTES_IN	N10	A2
-	Number of directly readable input bytes of the PLC I/Os	BYTE	POWER ON
-			
-	-	0	0
		32	7/2

10395	PLCIO_LOGIC_ADDRESS_IN	N10	A2
-	Start addr. of the directly readable input bytes of the PLC I/Os	DWORD	POWER ON
-			
-	-	0	-
		-	7/2

10396	PLCIO_NUM_BYTES_OUT	N10	A2
-	Number of directly writable output bytes of the PLC I/Os	BYTE	POWER ON
-			
-	-	0	0
		32	7/2

10397	PLCIO_LOGIC_ADDRESS_OUT	N10	A2
-	Start addr. of the directly writable output bytes of PLC I/O	DWORD	POWER ON
-			
-	-	0	-
		-	7/2

10398	PLCIO_IN_UPDATE_TIME	N10	A4
s	Update time for PLCIO input cycle	DOUBLE	POWER ON
-			
-	-	0.0	0
		10000	7/2

10399	PLCIO_TYPE_REPRESENTATION	N10	A4
-	Little/Big Endian for PLCIO	BYTE	POWER ON
-			
-	-	0	0
		1	7/2

10400	CC_VDI_IN_DATA	EXP, N02	OEM
-	Number of input bytes for compile cycles	DWORD	POWER ON
-			
-	-	0	0
		1024	7/1

10410	CC_VDI_OUT_DATA	EXP, N02	OEM
-	Number of output bytes for compile cycles	DWORD	POWER ON
-			
-	-	0	0
		1024	7/1

General machine data

10473	SW_CAM_ASSIGN_FASTOUT_4	N09	N3		
-	Configuration cams 25 - 32 to I/Os	DWORD	POWER ON		
-					
-	-	0	-	-	7/2

10480	SW_CAM_TIMER_FASTOUT_MASK	N09	N3		
-	Mask for output of cam signals via timer interr. to NCU	DWORD	POWER ON		
-					
-	-	0	-	-	7/2

10485	SW_CAM_MODE	N09	N3		
-	Behavior of SW cams	DWORD	POWER ON		
-					
-	-	0	-	-	7/2

10530	COMPAR_ASSIGN_ANA_INPUT_1	N10	A4		
-	Hardware assignment of analog inputs for comparator byte 1	BYTE	POWER ON		
-					
-	8	0,0,0,0,0,0,0,0	-	-	7/2

10531	COMPAR_ASSIGN_ANA_INPUT_2	N10	A4		
-	Hardware assignment of analog inputs for comparator byte 2	BYTE	POWER ON		
-					
-	8	0,0,0,0,0,0,0,0	-	-	7/2

10540	COMPAR_TYPE_1	N10	A4		
-	Parameterization for comparator byte 1	DWORD	POWER ON		
-					
-	-	0	-	-	7/2

10541	COMPAR_TYPE_2	N10	A4		
-	Parameterization of comparator byte 2	DWORD	POWER ON		
-					
-	-	0	-	-	7/2

10600	FRAME_ANGLE_INPUT_MODE	EXP, N01, N09	K2		
-	Sequence of rotation in FRAME	BYTE	POWER ON		
-					
-	-	1	1	2	7/2

10602	FRAME_GEOAX_CHANGE_MODE	EXP, N01, N09	K2		
-	Frames when changing geometry axes	BYTE	POWER ON		
-					
-	-	0	0	5	7/2

10604	WALIM_GEOAX_CHANGE_MODE	EXP, N01, N09	A3
-	Working area limitation by changing geometry axes	BYTE	POWER ON
-			
-	-	0	0
-			1
-			7/2
10610	MIRROR_REF_AX	EXP, N01, N09	K2
-	Reference axis for mirroring	BYTE	POWER ON
-			
-	-	0	0
-			3
-			7/2
10612	MIRROR_TOGGLE	EXP, N01, N09	K2
-	Mirror toggle	BYTE	POWER ON
-			
-	-	1	0
-			1
-			7/2
10613	NCBFRAME_RESET_MASK	EXP	K2
-	Active NCU global base frames after reset	DWORD	RESET
-			
-	-	0xFFFF	0
-			0xFFFF
-			7/2
10615	NCBFRAME_POWERON_MASK	EXP, N12	K2
-	Reset global base frames after power on	DWORD	POWER ON
-			
-	-	0	0
-			0xFFFF
-			7/2
10617	FRAME_SAVE_MASK	EXP	K1,PGA
-	Behavior of frames in SAVE subroutines	DWORD	POWER ON
-			
-	-	0	0
-			0x3
-			7/2
10618	PROTAREA_GEOAX_CHANGE_MODE	EXP, N01, N09	A3
-	Protection range on change of geometry axes	BYTE	POWER ON
-			
-	-	0	0
-			3
-			7/2
10619	COLLISION_TOLERANCE	EXP	-
mm	Tolerance for collision check	DOUBLE	NEW CONF
-			
-	-	1	0.001
-			1000.0
-			7/2
10620	EULER_ANGLE_NAME_TAB	N01, N09	F2
-	Name of Euler angle	STRING	POWER ON
-			
-	3	"A2", "B2", "C2"	-
-			7/2

General machine data

10624	ORIPATH_LIFT_VECTOR_TAB		N01, N09	-
-	Name of retraction vector for path-relative orientation.		STRING	POWER ON
-				
-	3	"A8", "B8", "C8"	-	7/2

10626	ORIPATH_LIFT_FACTOR_NAME		N01, N09	-
-	Name of relative safety clearance with ORIPATH		STRING	POWER ON
-				
-	-	"ORIPLF"	-	7/2

10630	NORMAL_VECTOR_NAME_TAB		N01, N09	F2
-	Name of normal vectors		STRING	POWER ON
-				
-	6	"A4", "B4", "C4", "A5", "B5", "C5"	-	7/2

10640	DIR_VECTOR_NAME_TAB		N01, N09	F2
-	Name of direction vectors		STRING	POWER ON
-				
-	6	"A3", "B3", "C3", "AN3", "BN3", "CN3"	-	7/2

10642	ROT_VECTOR_NAME_TAB		N01, N09	F2
-	Name of rotation vectors		STRING	POWER ON
-				
-	3	"A6", "B6", "C6"	-	7/2

10644	INTER_VECTOR_NAME_TAB		N01, N09	F2
-	Name of intermediate vector components		STRING	POWER ON
-				
-	3	"A7", "B7", "C7"	-	7/2

10646	ORIENTATION_NAME_TAB		N01, N09	F2
-	Identifiers for programming a second orientation path		STRING	POWER ON
-				
-	3	"XH", "YH", "ZH"	-	7/2

10648	NUTATION_ANGLE_NAME		N01, N09	F2
-	Name of aperture angle		STRING	POWER ON
-				
-	-	"NUT"	-	7/2

10650	IPO_PARAM_NAME_TAB		EXP, N01	K2
-	Name of interpolation parameters		STRING	POWER ON
-				
-	3	"I","J","K"	-	7/2

10652	CONTOUR_DEF_ANGLE_NAME		EXP, N01, N12	FBFA
-	Name of angle for contour definitions		STRING	POWER ON
-				
-	-	"ANG"	-	0/0

10654	RADIUS_NAME		EXP, N01, N12	FBFA
-	Name of radius for contour definitions		STRING	POWER ON
-				
-	-	"RND"	-	0/0

10656	CHAMFER_NAME		EXP, N01, N12	FBFA
-	Name of chamfer for contour definitions		STRING	POWER ON
-				
-	-	"CHR"	-	0/0

10660	INTERMEDIATE_POINT_NAME_TAB		EXP, N01	K2
-	Name of interpolation point coordinates for G2/G3		STRING	POWER ON
-				
-	3	"I1","J1","K1"	-	7/2

10670	STAT_NAME		N01, N09	F2
-	Name of state information		STRING	POWER ON
-				
-	-	"STAT"	-	7/2

10672	TU_NAME		N01, N09	F2
-	Name of state information of axes		STRING	POWER ON
-				
-	-	"TU"	-	7/2

10674	PO_WITHOUT_POLY		N01	F2
-	Polynomial programming programmable without G function POLY		BOOLEAN	POWER ON
-				
-	-	FALSE	-	7/2

10700	PREPROCESSING_LEVEL		N01, N02	V2
-	Program preprocessing level		BYTE	POWER ON
-				
-	-	1	-	2/2

General machine data

10722	AXCHANGE_MASK	EXP, N01	K5
-	Parameters for axis replacement behavior	DWORD	POWER ON
-			
-	-	0	0
		0xFFFF	7/2

10731	JOG_MODE_KEYS_EDGETRIGGRD	EXP, N01	IAF
-	Functioning of the JOG keys	BOOLEAN	POWER ON
-			
-	-	TRUE	-
			0/0

10735	JOG_MODE_MASK	EXP, N01	-
-	Enable JOG in automatic	DWORD	POWER ON
-			
-	-	0	0
		0x1	7/2

10760	G53_TOOLCORR	N12	FBFA
-	Method of operation of G53, G153 and SUPA	BOOLEAN	POWER ON
-			
-	-	FALSE	-
			7/2

10780	UNLOCK_EDIT_MODESWITCH	EXP, N01	-
-	Cancel start disable when editing a part program	BOOLEAN	POWER ON
-			
-	-	FALSE	-
			0/0

10800	EXTERN_CHAN_SYNC_M_NO_MIN	EXP, N12	FBFA
-	1st M function for channel synchronization	DWORD	POWER ON
-			
-	-	-1	-
			7/2

10802	EXTERN_CHAN_SYNC_M_NO_MAX	EXP, N12	FBFA
-	Last M function for channel synchronization	DWORD	POWER ON
-			
-	-	-1	-
			7/2

10804	EXTERN_M_NO_SET_INT	EXP, N12	FBFA
-	M function to activate ASUB	DWORD	POWER ON
-			
-	-	96	-
			7/2

10806	EXTERN_M_NO_DISABLE_INT	EXP, N12	FBFA
-	M function to deactivate ASUB	DWORD	POWER ON
-			
-	-	97	-
			7/2

10808	EXTERN_INTERRUPT_BITS_M96		EXP, N12	FBFA
-	Activate interrupt program (ASUB)		DWORD	POWER ON
-				
-	-	0	-	7/2

10810	EXTERN_MEAS_G31_P_SIGNAL		EXP, N12	FBFA
-	Config. of measuring inputs for G31 P..		BYTE	POWER ON
-				
-	4	1,1,1,1	0	3

10812	EXTERN_DOUBLE_TURRET_ON		EXP, N12	FBFA
-	Double turret with G68		BOOLEAN	POWER ON
-				
-	-	FALSE	-	7/2

10814	EXTERN_M_NO_MAC_CYCLE		EXP, N12	FBFA
-	Macro call via M function		DWORD	POWER ON
-				
-	10	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1	-	7/2

10815	EXTERN_M_NO_MAC_CYCLE_NAME		EXP, N12	FBFA
-	Name of subroutine for M function macro call		STRING	POWER ON
-				
-	10		-	7/2

10816	EXTERN_G_NO_MAC_CYCLE		EXP, N12	FBFA
-	Macro call via G function		DOUBLE	POWER ON
-				
-	50	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1....	-	7/2

10817	EXTERN_G_NO_MAC_CYCLE_NAME		EXP, N12	FBFA
-	Name of subroutine for G function macro call		STRING	POWER ON
-				
-	50		-	7/2

10818	EXTERN_INTERRUPT_NUM_ASUP		EXP, N12	FBFA
-	Interrupt number for ASUP start (M96)		BYTE	POWER ON
-				
-	-	1	1	8

10820	EXTERN_INTERRUPT_NUM_RETRAC		EXP, N12	FBFA
-	Interrupt number for rapid retraction (G10.6)		BYTE	POWER ON
-				
-	-	2	1	8

General machine data

10850	MM_EXTERN_MAXNUM_OEM_GCODES	EXP, N01, N12	-
-	Maximum number of OEM G codes	DWORD	POWER ON
-			
-	-	0	0
		1000	1/1

10880	MM_EXTERN_CNC_SYSTEM	N01, N12	FBFA
-	Definition of the control system to be adapted	DWORD	POWER ON
-			
-	-	1	1
		3	7/2

10881	MM_EXTERN_GCODE_SYSTEM	N01, N12	FBFA
-	ISO_3 Mode: GCodeSystem	DWORD	POWER ON
-			
-	-	0	0
		2	7/2

10882	NC_USER_EXTERN_GCODES_TAB	N12	FBFA
-	List of user-specific G commands of an external NC language	STRING	POWER ON
-			
-	60	-	-
			2/2

10884	EXTERN_FLOATINGPOINT_PROG	N12	FBFA
-	Evaluation of programmed values without decimal point	BOOLEAN	POWER ON
-			
-	-	TRUE	-
			7/2

10886	EXTERN_INCREMENT_SYSTEM	N12	FBFA
-	Incremental system in external language mode	BOOLEAN	POWER ON
-			
-	-	FALSE	-
			7/2

10888	EXTERN_DIGITS_TOOL_NO	N12	FBFA
-	Digits for T number in ISO mode	BYTE	POWER ON
-			
-	-	2	0
		8	7/2

10890	EXTERN_TOOLPROG_MODE	N12	FBFA
-	Tool change programming for external language	DWORD	POWER ON
-			
-	-	0	-
			7/2

10900	INDEX_AX_LENGTH_POS_TAB_1	N09	T1
-	Number of positions for indexing axis table 1	DWORD	RESET
-			
-	-	0	0
		60	7/2

General machine data

11160	ACCESS_EXEC_CST	N01	-
-	Execution right for /_N_CST_DIR	BYTE	POWER ON
-			
-	-	7	-
-	-	-	7/2

11161	ACCESS_EXEC_CMA	N01	-
-	Execution right for /_N_CMA_DIR	BYTE	POWER ON
-			
-	-	7	-
-	-	-	7/2

11162	ACCESS_EXEC_CUS	N01	-
-	Execution right for /_N_CUS_DIR	BYTE	POWER ON
-			
-	-	7	-
-	-	-	7/3

11165	ACCESS_WRITE_CST	N01	-
-	Write protection for directory /_N_CST_DIR	DWORD	POWER ON
-			
-	-	-1	-
-	-	-	7/2

11166	ACCESS_WRITE_CMA	N01	-
-	Write protection for directory /_N_CMA_DIR	DWORD	POWER ON
-			
-	-	-1	-
-	-	-	7/2

11167	ACCESS_WRITE_CUS	N01	-
-	Write protection for directory /_N_CUS_DIR	DWORD	POWER ON
-			
-	-	-1	-
-	-	-	7/3

11170	ACCESS_WRITE_SACCESS	N01	-
-	Write protection for _N_SACCESS_DEF	BYTE	POWER ON
-			
-	-	7	-
-	-	-	7/2

11171	ACCESS_WRITE_MACCESS	N01	-
-	Write protection for _N_MACCESS_DEF	BYTE	POWER ON
-			
-	-	7	-
-	-	-	7/2

11172	ACCESS_WRITE_UACCESS	N01	-
-	Write protection for _N_UACCESS_DEF	BYTE	POWER ON
-			
-	-	7	-
-	-	-	7/3

11200	INIT_MD			EXP, N01	IAF,IAD,IA
-	Standard machine data loaded at next Power On			BYTE	POWER ON
-					
-	-	0	-	-	7/2

11210	UPLOAD_MD_CHANGES_ONLY			N01, N05	IAD
-	Machine data backup of changed machine data only			BYTE	SOFORT
-					
-	-	0xFF	-	-	7/3

11220	INI_FILE_MODE			N01, N05	IAD
-	Error response to INI file errors			BYTE	RESET
-					
-	-	1	0	2	7/2

11230	MD_FILE_STYLE			N01, N05	IAD
-	Structure of machine data backup files			BYTE	SOFORT
-					
-	-	3	-	-	7/3

11240	PROFIBUS_SDB_NUMBER			N01, N05	K4,FBU
-	SDB number			DWORD	POWER ON
-					
-	4	-1,-1,-1,-1	-1	7	2/2
710-2a2c	-	-	-	-	-1/-
710-6a2c	-	-	-	-	-1/-
710-12a2c	-	-	-	-	-1/-
710-31a10c	-	-	-	-	-1/-
840d-2a2c	-	-	-	-	-1/-
840d-4a1cg	-	-	-	-	-1/-
840d-6a2c	-	-	-	-	-1/-
840d-12a2c	-	-	-	-	-1/-
840d-31a10c	-	-	-	-	-1/-

11250	PROFIBUS_SHUTDOWN_TYPE			EXP, N01	G3,FBU
-	Profibus shutdown handling			BYTE	POWER ON
-					
-	-	0	0	2	7/2

11270	DEFAULT_VALUES_MEM_MASK			N01	PGA
-	Activation of default values for NC language elements			DWORD	POWER ON
-					
-	-	0	-	-	7/2

General machine data

11280	WPD_INI_MODE			N01	IAD
-	Handling of INI files in workpiece directory			BYTE	POWER ON
-					
-	-	0	0	1	7/2

11290	DRAM_FILESYSTEM_MASK			N01	IAD
-	Select directories in DRAM			DWORD	POWER ON
-					
-	-	0	-	-	2/2
710-2a2c	-	0x3f	-	-	0/0
710-6a2c	-	0x3f	-	-	0/0
710-12a2c	-	0x3f	-	-	0/0
710-31a10c	-	0x3f	-	-	0/0

11291	DRAM_FILESYST_SAVE_MASK			N01	IAD
-	Selection of directories in DRAM			DWORD	POWER ON
-					
-	-	0x07	-	-	2/2
710-2a2c	-	0x3f	-	-	0/0
710-6a2c	-	0x3f	-	-	0/0
710-12a2c	-	0x3f	-	-	0/0
710-31a10c	-	0x3f	-	-	0/0

11292	DRAM_FILESYST_CONFIG			EXP	-
-	Configuration of the DRAM file system			BYTE	POWER ON
-					
-	-	0x01	-	-	0/0
710-2a2c	-	0x22	-	-	-/-
710-6a2c	-	0x22	-	-	-/-
710-12a2c	-	0x22	-	-	-/-
710-31a10c	-	0x22	-	-	-/-

11294	SIEM_TRACEFILES_CONFIG			EXP	-
-	Configuration of the SIEM* trace file			DWORD	POWER ON
-					
-	-	0	-	-	2/2

11295	PROTOK_FILE_MEM			N01	-
-	Memory type for log files			BYTE	POWER ON
-					
-	10	0,0,0,0,0,0,0,0,0,0	0	1	1/1
710-6a2c	-	1,1,1,1,1,0,0,1,1,1	-	-	-/-
710-12a2c	-	1,1,1,1,1,0,0,1,1,1	-	-	-/-

11297	PROTOK_IPOCYCLE_CONTROL			N01	-
-	Prevent overrun of IPO time level			BYTE	POWER ON
-					
-	10	1,1,1,1,1,1,1,1,1,1	0	1	1/1
11298	PROTOK_PREPTIME_CONTROL			N01	-
-	Interruption time prep time level in seconds.			DOUBLE	POWER ON
-					
-	10	1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0...	-	-	1/1
11300	JOG_INC_MODE_LEVELTRIGGRD			N01	H1
-	INC and REF in jog mode			BOOLEAN	POWER ON
-					
-	-	TRUE	-	-	7/2
11310	HANDWH_REVERSE			N09	H1
-	Threshold for direction change handwheel			BYTE	POWER ON
-					
-	-	2	-	-	7/2
11320	HANDWH_IMP_PER_LATCH			N09	H1
-	Handwheel pulses per detent position			DOUBLE	POWER ON
-					
-	6	1.,1.,1.,1.,1.,1.	-	-	7/2
11322	CONTOURHANDWH_IMP_PER_LATCH			N09	H1
-	Contour handwheel pulses per detent position			DOUBLE	POWER ON
-					
-	6	1.,1.,1.,1.,1.,1.	-	-	7/2
11324	HANDWH_VDI_REPRESENTATION			N01	OEM
-	Display of handwheel number in VDI Interface			DWORD	POWER ON
-					
-	-	0	0	1	7/2
11330	JOG_INCR_SIZE_TAB			EXP, N09	H1
-	Increment size for INC/handwheel			DOUBLE	POWER ON
-					
-	5	1.,10.,100.,1000.,10000.	-	-	7/2
11340	ENC_HANDWHEEL_SEGMENT_NR			EXP, N01	FBMA
-	3rd handwheel: type of drive			BYTE	POWER ON
-					
-	-	1	1	1	0/0

General machine data

11342	ENC_HANDWHEEL_MODULE_NR			N01	FBMA
-	3rd handwheel: drive number / measuring circuit number			BYTE	POWER ON
-					
-	-	0	0	31	7/2

11344	ENC_HANDWHEEL_INPUT_NR			N01	FBMA
-	3rd handwheel: Input to module/meas. circ. Board			BYTE	POWER ON
-					
-	-	1	1	2	7/2

11346	HANDWH_TRUE_DISTANCE			N01	FBMA
-	Handwheel default path or velocity			BYTE	POWER ON
-					
-	-	1	0	3	7/2

11350	HANDWHEEL_SEGMENT			N09	-
-	Handwheel segment			BYTE	POWER ON
-					
-	6	0,0,0,0,0,0	-	-	7/2
840d-2a2c	-	1,1,1,0,0,0	-	-	-/-
840d-4a1cg	-	1,1,1,0,0,0	-	-	-/-
840d-6a2c	-	1,1,1,0,0,0	-	-	-/-
840d-12a2c	-	1,1,1,0,0,0	-	-	-/-
840d-31a10c	-	1,1,1,0,0,0	-	-	-/-
840di-basic	-	1,1,0,0,0,0	-	-	-/-
840di-universal	-	1,1,0,0,0,0	-	-	-/-
840di-plus	-	1,1,0,0,0,0	-	-	-/-

11351	HANDWHEEL_MODULE			N09	-
-	Handwheel module			BYTE	POWER ON
-					
-	6	0,0,0,0,0,0	0	6	7/2
840d-2a2c	-	1,1,1,0,0,0	-	-	-/-
840d-4a1cg	-	1,1,1,0,0,0	-	-	-/-
840d-6a2c	-	1,1,1,0,0,0	-	-	-/-
840d-12a2c	-	1,1,1,0,0,0	-	-	-/-
840d-31a10c	-	1,1,1,0,0,0	-	-	-/-
840di-basic	-	1,1,0,0,0,0	-	-	-/-
840di-universal	-	1,1,0,0,0,0	-	-	-/-
840di-plus	-	1,1,0,0,0,0	-	-	-/-

11352	HANDWHEEL_INPUT			N09	-
-	Handwheel connection			BYTE	POWER ON
-					
-	6	0,0,0,0,0,0	0	6	7/2
840d-2a2c	-	1,2,3,0,0,0	-	-	-/-
840d-4a1cg	-	1,2,3,0,0,0	-	-	-/-
840d-6a2c	-	1,2,3,0,0,0	-	-	-/-
840d-12a2c	-	1,2,3,0,0,0	-	-	-/-
840d-31a10c	-	1,2,3,0,0,0	-	-	-/-
840di-basic	-	1,2,0,0,0,0	-	-	-/-
840di-universal	-	1,2,0,0,0,0	-	-	-/-
840di-plus	-	1,2,0,0,0,0	-	-	-/-

11353	HANDWHEEL_LOGIC_ADDRESS			N04, N10	-
-	Logical handwheel slot addresses			DWORD	POWER ON
-					
-	6	0,0,0,0,0,0	0	8191	7/2

11380	MONITOR_ADDRESS			EXP, N06	STZ
-	Test MD for changing the NCK code or data for Safety Integrated			DWORD	SOFORT
NBUP, NDLD					
-	-	0	-	-	0/0

11382	MONITOR_DISPLAY_INT			EXP, N06	STZ
-	INTEGER display of the addressed location			DWORD	SOFORT
NBUP, NDLD					
-	-	0	-	-	0/0

11384	MONITOR_DISPLAY_REAL			EXP, N06	STZ
-	REAL display of the addressed location			DOUBLE	SOFORT
NBUP, NDLD					
-	-	0.0	-	-	0/0

11386	MONITOR_INPUT_INT			EXP, N06	STZ
-	INTEGER input for the addressed location			DWORD	SOFORT
NBUP, NDLD					
-	-	0	-	-	0/0

11388	MONITOR_INPUT_REAL			EXP, N06	STZ
-	REAL input for addressed location			DOUBLE	SOFORT
NBUP, NDLD					
-	-	0.0	-	-	0/0

General machine data

11390	MONITOR_INPUT_STROBE	EXP, N06	STZ
-	Overwrite the addressed location with MONITOR_INT/REAL	BYTE	SOFORT
NBUP, NDLD			
-	-	0	0
		2	0/0
11398	AXIS_VAR_SERVER_SENSITIVE	EXP	B3
-	Axis-Var server response	BYTE	POWER ON
-			
-	-	0	-
			7/2
11400	TRACE_SELECT	EXP	-
-	Activation of internal trace functions	DWORD	POWER ON
-			
-	-	0	-
			0/0
11405	TCI_TRACE_ACTIVE	EXP	-
-	Activation of internal task trace functions	BOOLEAN	POWER ON
-			
-	-	FALSE	-
			0/0
11410	SUPPRESS_ALARM_MASK	EXP, N06	D1
-	Mask for support of special alarm outputs	DWORD	POWER ON
-			
-	-	0x108000	-
			7/2
11411	ENABLE_ALARM_MASK	EXP	-
-	Activation of warnings	DWORD	RESET
-			
-	-	0	-
			7/2
11412	ALARM_REACTION_CHAN_NOREADY	EXP, N01	D1
-	Alarm response CHAN_NOREADY permitted	BOOLEAN	POWER ON
-			
-	-	FALSE	-
			7/2
11413	ALARM_PAR_DISPLAY_TEXT	EXP, N01	D1
-	Alarm parameter as text output	BOOLEAN	POWER ON
-			
-	-	FALSE	-
			0/0
11414	ALARM_CLR_NCSTART_W_CANCEL	EXP, N01	D1
-	Deleting of NCSTARTalarms with CANCEL	BOOLEAN	POWER ON
-			
-	-	FALSE	-
			7/2

11415	SUPPRESS_ALARM_MASK_2	EXP, N06	-
-	Masking of alarm outputs	DWORD	POWER ON
-			
-	-	0x0	-
-			7/2
11420	LEN_PROTOCOL_FILE	N01	PGA
-	Size of protocol files (kB)	DWORD	POWER ON
-			
-	-	1	1
-			1000000
-			7/2
11450	SEARCH_RUN_MODE	EXP, N01	K1
-	Parameterization for search run	DWORD	POWER ON
-			
-	-	0	0
-			0x1F
-			7/2
11460	OSCILL_MODE_MASK	N09	P5
-	Mode mask for asynchronous oscillation	DWORD	POWER ON
-			
-	-	0x0	0
-			0xFFFF
-			7/2
11470	REPOS_MODE_MASK	EXP, N01	K1
-	Repositioning properties	DWORD	POWER ON
-			
-	-	0x8	0
-			0xFFFF
-			7/2
11480	PLC_OB1_TRACE_DEPTH	EXP, N03, N09	-
-	Buffer depth of PLC trace data in OB1	DWORD	POWER ON
-			
-	-	2	2
-			8
-			2/2
11481	PLC_OB35_TRACE_DEPTH	EXP, N03, N09	-
-	Buffer depth of PLC trace data in OB35	DWORD	POWER ON
-			
-	-	2	2
-			8
-			2/2
11482	PLC_OB40_TRACE_DEPTH	EXP, N03, N09	-
-	Buffer depth of PLC trace data in OB40	DWORD	POWER ON
-			
-	-	2	2
-			8
-			2/2
11500	PREVENT_SYNACT_LOCK	N01, N09	S5,FBSY
-	Protected synchronized actions	DWORD	POWER ON
-			
-	2	0,0	0
-			255
-			7/2

General machine data

11510	IPO_MAX_LOAD			N01, N05	-
%	Max. permitted IPO load			DOUBLE	POWER ON
-					
-	-	0.00	0.0	100.0	7/2
11550	STOP_MODE_MASK			N01	-
-	Defines the stop behavior.			DWORD	POWER ON
-					
-	-	0	0	0x1	7/2
11600	BAG_MASK			N01	K1
-	Defines the mode group behavior			DWORD	POWER ON
-					
-	-	0	0	0x3	7/2
11602	ASUP_START_MASK			N01, -	K1
-	Ignore stop conditions for ASUP			DWORD	POWER ON
-					
-	-	0	0	0x7	7/2
11604	ASUP_START_PRIO_LEVEL			N01, -	K1
-	Priorities from which 'ASUP_START_MASK' is effective			DWORD	POWER ON
-					
-	-	0	0	128	7/2
11610	ASUP_EDITABLE			N01	K1
-	Activation of a user-specific ASUP program			DWORD	POWER ON
-					
-	-	0	0	3	7/2
11612	ASUP_EDIT_PROTECTION_LEVEL			N01	K1
-	Protection level of the user-specific ASUP program			DWORD	POWER ON
-					
-	-	2	0	7	7/2
11620	PROG_EVENT_NAME			EXP, N12	-
-	Program name for PROG_EVENT			STRING	POWER ON
-					
-	-		-	-	7/2
11640	ENABLE_CHAN_AX_GAP			N01, N11	K2
-	Allow channel axis gaps in AXCONF_MACHAX_USED			DWORD	POWER ON
-					
-	-	0x0	0	0x1	2/2

11660	NUM_EG			N09	M3
-	Number of possible 'electronic gear units'			BYTE	POWER ON
-					
-	-	0	-	-	1/1

11700	PERMISSIVE_FLASH_TAB			EXP, N01	IAD
-	Codes for NC card			DWORD	POWER ON
-					
-	6	0,0,0,0,0,0,0,0	-	-	1/1

11717	D_NO_FCT_CYCLE_NAME			EXP, N12, N07	-
-	Subroutine name for D function replacement			STRING	POWER ON
-					
-	-		-	-	7/2

11750	NCK_LEAD_FUNCTION_MASK			N09	-
-	Functions for master value coupling			DWORD	NEW CONF
-					
-	-	0x00	0	0x10	1/1

11752	NCK_TRAIL_FUNCTION_MASK			N09	-
-	Functions for coupled motion			DWORD	NEW CONF
-					
-	-	0x200	0	0x210	1/1

2.3.2 Override switch settings

12000	OVR_AX_IS_GRAY_CODE			EXP, N10	V1
-	Axis feedrate override switch Gray-coded			BOOLEAN	POWER ON
-					
-	-	TRUE	-	-	7/2

12010	OVR_FACTOR_AX_SPEED			EXP, N10	V1
-	Evaluation of axis feedrate override switch			DOUBLE	POWER ON
-					
-	31	0.00,0.01,0.02,0.04, 0.06,0.08,0.10...	0.00	2.00	7/2

12020	OVR_FEED_IS_GRAY_CODE			EXP, N10	V1
-	Path feedrate override switch Gray-coded			BOOLEAN	POWER ON
-					
-	-	TRUE	-	-	7/2

General machine data

12030	OVR_FACTOR_FEEDRATE		EXP, N10	V1
-	Evaluation of path feedrate override switch		DOUBLE	POWER ON
-				
-	31	0.00,0.01,0.02,0.04, 0.06,0.08,0.10...	0.00	2.00
				7/2

12040	OVR_RAPID_IS_GRAY_CODE		EXP, N10	V1
-	Rapid traverse override switch Gray-coded		BOOLEAN	POWER ON
-				
-	-	TRUE	-	-
				7/2

12050	OVR_FACTOR_RAPID_TRA		EXP, N10	V1
-	Evaluation of rapid traverse override switch		DOUBLE	POWER ON
-				
-	31	0.00,0.01,0.02,0.04, 0.06,0.08,0.10...	0.00	1.00
				7/2

12060	OVR_SPIND_IS_GRAY_CODE		EXP, N10	V1
-	Spindle override switch Gray-coded		BOOLEAN	POWER ON
-				
-	-	TRUE	-	-
				7/2

12070	OVR_FACTOR_SPIND_SPEED		EXP, N10	V1
-	Evaluation of spindle override switch		DOUBLE	POWER ON
-				
-	31	0.5,0.55,0.60,0.65,0 .70,0.75,0.80...	0.00	2.00
				7/2

12080	OVR_REFERENCE_IS_PROG_FEED		N10, N09	V1
-	Override reference speed		BOOLEAN	POWER ON
-				
-	-	TRUE	-	-
				7/2

12082	OVR_REFERENCE_IS_MIN_FEED		N10, N09	V1
-	Specification of the reference of the path override		BOOLEAN	POWER ON
-				
-	-	FALSE	-	-
				7/2

12090	OVR_FUNCTION_MASK		N01, N10, N09	-
-	Selection of override specifications		DWORD	RESET
-				
-	-	0	0	0x01
				7/2

12100	OVR_FACTOR_LIMIT_BIN		EXP, N10	V1
-	Limitation for binary-coded override switch		DOUBLE	POWER ON
-				
-	-	1.2	0.0	2.0
				7/2

12200	RUN_OVERRIDE_0		N01, N09	FBMA, V1
-	Traversing response with override 0		BOOLEAN	POWER ON
-				
-	-	FALSE	-	7/2

12202	PERMANENT_FEED		N01, N09	FBMA, V1
mm/min	Fixed feedrates for linear axes		DOUBLE	RESET
-				
-	4	0.,0.,0.,0.	-	7/2

12204	PERMANENT_ROT_AX_FEED		N01, N09	FBMA
rev/min	Fixed feedrates for rotary axes		DOUBLE	RESET
-				
-	4	0.,0.,0.,0.	-	7/2

12205	PERMANENT_SPINDLE_FEED		N01, N09	FBMA
rev/min	Fixed feedrates for spindles		DOUBLE	RESET
-				
-	4	0.,0.,0.,0.	-	7/2

12300	CENTRAL_LUBRICATION		N01, N09	-
-	Central lubrication active		BOOLEAN	POWER ON
-				
-	-	FALSE	-	7/2

12510	NCU_LINKNO		N01	B3
-	NCU number in an NCU cluster		DWORD	POWER ON
-				
-	-	1	1	16

12520	LINK_TERMINATION		N01	B3
-	NCU numbers for which bus termination resistances are activated		BYTE	POWER ON
LINK				
-	2	0,1	0	15

12540	LINK_BAUDRATE_SWITCH		N01	B3
-	Link bus baud rate		DWORD	POWER ON
LINK				
-	-	9	0	9

12550	LINK_RETRY_CTR		N01	B3
-	maximum number of message frame transmission retries		DWORD	POWER ON
LINK				
-	-	4	1	15

General machine data

12701	AXCT_AXCONF_ASSIGN_TAB1		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32		-	3/2

12702	AXCT_AXCONF_ASSIGN_TAB2		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32		-	3/2

12703	AXCT_AXCONF_ASSIGN_TAB3		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32		-	3/2

12704	AXCT_AXCONF_ASSIGN_TAB4		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32		-	3/2

12705	AXCT_AXCONF_ASSIGN_TAB5		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32		-	3/2

12706	AXCT_AXCONF_ASSIGN_TAB6		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32		-	3/2

12707	AXCT_AXCONF_ASSIGN_TAB7		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32		-	3/2

12708	AXCT_AXCONF_ASSIGN_TAB8		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32		-	3/2

12709	AXCT_AXCONF_ASSIGN_TAB9		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32		-	3/2

12710	AXCT_AXCONF_ASSIGN_TAB10		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32	-	-	3/2

12711	AXCT_AXCONF_ASSIGN_TAB11		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32	-	-	3/2

12712	AXCT_AXCONF_ASSIGN_TAB12		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32	-	-	3/2

12713	AXCT_AXCONF_ASSIGN_TAB13		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32	-	-	3/2

12714	AXCT_AXCONF_ASSIGN_TAB14		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32	-	-	3/2

12715	AXCT_AXCONF_ASSIGN_TAB15		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32	-	-	3/2

12716	AXCT_AXCONF_ASSIGN_TAB16		N01	B3
-	Assignment of an axis container location		STRING	POWER ON
CTDE				
-	32	-	-	3/2

12750	AXCT_NAME_TAB		N01	B3
-	Axis container identifier		STRING	POWER ON
CTDE				
-	16	"CT1","CT2","CT3", CT4","CT5","CT6"...	-	1/1

12970	PLC_DIG_IN_LOGIC_ADDRESS		N10	-
-	Logical start address of the digital PLC input address		DWORD	POWER ON
-				
-	-	0	0	1023
				0/0

General machine data

12971	PLC_DIG_IN_NUM		N10	-
-	Number of digital input addresses		DWORD	POWER ON
-				
-	-	64	1	1023
				0/0

12974	PLC_DIG_OUT_LOGIC_ADDRESS		N10	-
-	Logical start address of the digital PLC output addresses		DWORD	POWER ON
-				
-	-	0	0	1023
				0/0

12975	PLC_DIG_OUT_NUM		N10	-
-	Number of digital output addresses		DWORD	POWER ON
-				
-	-	48	1	1023
				0/0

12978	PLC_ANA_IN_LOGIC_ADDRESS		N10	-
-	Logical start address of the analog PLC input addresses		DWORD	POWER ON
-				
-	-	0	0	1023
				0/0

12979	PLC_ANA_IN_NUM		N10	-
-	Number of analog input addresses		DWORD	POWER ON
-				
-	-	0	0	1023
				0/0

12982	PLC_ANA_OUT_LOGIC_ADDRESS		N10	-
-	Logical start address of the analog PLC output addresses		DWORD	POWER ON
-				
-	-	0	0	1023
				0/0

12983	PLC_ANA_OUT_NUM		N10	-
-	Number of analog output addresses		DWORD	POWER ON
-				
-	-	0	0	1023
				0/0

General machine data

13120	CONTROL_UNIT_LOGIC_ADDRESS			N04, N10	-
-	Logical address of SINAMICS CU			DWORD	POWER ON
-					
-	7	0,0,0,0,0,0,0	0	8191	7/2
710-2a2c	-	6500,0,0,0,0,0,0	-	-	-/-
710-6a2c	-	6500,0,0,0,0,0,0	-	-	-/-
710-12a2c	-	6500,0,0,0,0,0,0	-	-	-/-
710-31a10c	-	6500,0,0,0,0,0,0	-	-	-/-
840d-2a2c	-	-	-	-	-1/-
840d-4a1cg	-	-	-	-	-1/-
840d-6a2c	-	-	-	-	-1/-
840d-12a2c	-	-	-	-	-1/-
840d-31a10c	-	-	-	-	-1/-

13150	SINAMICS_ALARM_MASK			N04, N05	-
-	Activate fault and warning buffer output for Sinamics			DWORD	POWER ON
-					
-	-	0x0	-	-	7/2
840d-2a2c	-	-	-	-	-1/-
840d-4a1cg	-	-	-	-	-1/-
840d-6a2c	-	-	-	-	-1/-
840d-12a2c	-	-	-	-	-1/-
840d-31a10c	-	-	-	-	-1/-

13200	MEAS_PROBE_LOW_ACTIVE			N10, N09	M5
-	Polarity reversal of sensor			BOOLEAN	POWER ON
-					
-	2	FALSE,FALSE	-	-	7/2

13210	MEAS_TYPE			N10, N09	M5
-	Meas. type with decentralized drives			BYTE	POWER ON
-					
-	-	1	0	1	7/2
710-2a2c	-	0	-	-	-/-
710-6a2c	-	0	-	-	-/-
710-12a2c	-	0	-	-	-/-
710-31a10c	-	0	-	-	-/-
840d-2a2c	-	0	-	-	-/-
840d-4a1cg	-	0	-	-	-/-
840d-6a2c	-	0	-	-	-/-
840d-12a2c	-	0	-	-	-/-
840d-31a10c	-	0	-	-	-/-
840di-basic	-	0	-	-	-/-
840di-universal	-	0	-	-	-/-
840di-plus	-	0	-	-	-/-

13211	MEAS_CENTRAL_SOURCE			N10, N09	-
-	Data source for central measurement with Profibus drives			BYTE	POWER ON
-					
-	-	3	1	3	0/0
840di-basic	-	1	-	-	-/-
840di-universal	-	1	-	-	-/-
840di-plus	-	1	-	-	-/-

13220	MEAS_PROBE_DELAY_TIME			N10, N09	FBA/IAD
s	Delay time between probe deflection and recognition			DOUBLE	POWER ON
-					
-	2	0.0,0.0	0	0.1	7/2

13300	PROFISAFE_IN_FILTER			N01, N06, -	-
-	Useful F data filter IN			DWORD	POWER ON
-					
-	16	0xFFFFFFFF,0xFFFF FFFFFF,0xFFFF FF...	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

13301	PROFISAFE_OUT_FILTER			N01, N06, -	-
-	Useful F data filter OUT			DWORD	POWER ON
-					
-	16	0xFFFFFFFF,0xFFFF FFFFFF,0xFFFF FF...	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

13310	SAFE_SPL_START_TIMEOUT			N01, N05, -	FBSI
-	Delay in display of alarm 27097			DOUBLE	POWER ON
-					
-	-	20.	1.	60.	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

14504	MAXNUM_USER_DATA_INT			N03	P3
-	Number of user data (INT)			DWORD	POWER ON
-					
-	-	0	0	256	7/2

17200	GMMC_INFO_NO_UNIT		EXP	K1
-	Global HMI information (without physical unit)		DOUBLE	POWER ON
-				
-	16	3.,4.,3.,1.,0.,0.,0.,0., 0.,0.,0.,0.,0....	-	0/7

17201	GMMC_INFO_NO_UNIT_STATUS		EXP	K1
-	Global HMI status info (without physical unit)		BYTE	POWER ON
-				
-	16	1,1,1,1,0,0,0,0,0,0, ,0,0,0,0,0	-	0/7

17400	OEM_GLOBAL_INFO		A01, A11	-
-	OEM version information		STRING	POWER ON
-				
-	5		-	7/2

17500	MAXNUM_REPLACEMENT_TOOLS		N09	FBW
-	Maximal number of replacement tools.		DWORD	POWER ON
-				
-	-	0	0	32
				7/2

17510	TOOL_UNLOAD_MASK		N09	FBW
-	Behavior of tool data when unloading		DWORD	POWER ON
-				
-	-	0	0	0xF
				7/2

17515	TOOL_RESETMON_MASK		N09	-
-	Tool data behavior with RESETMON		DWORD	POWER ON
-				
-	-	0x14	0	0x69F
				7/2

17520	TOOL_DEFAULT_DATA_MASK		N09	FBW
-	Create new tool: default settings		DWORD	POWER ON
-				
-	-	0	0	0x1F
				7/2

17530	TOOL_DATA_CHANGE_COUNTER		EXP, N01	FBW
-	Mark tool data change for HMI		DWORD	POWER ON
-				
-	-	0	0	0xF
				7/2

General machine data

17540	TOOLTYPES_ALLOWED			N09	-
-	Permitted tool types			DWORD	POWER ON
-					
-	-	0x3FF	0	0x3FF	7/2
840d-4a1cg	-	0x10	-	-	-1/-

17600	DEPTH_OF_LOGFILE_OPT			EXP, N01	-
-	Depth of log memory optimization in REORG			DWORD	RESET
-					
-	-	5	0	300	3/3

17610	DEPTH_OF_LOGFILE_OPT_PF			EXP, N01	-
-	Depth of the PowerFail log memory optimization			DWORD	RESET
-					
-	3	10,0,4	0	300	0/0

17900	VDI_FUNCTION_MASK			EXP, N09	-
-	Setting to VDI signals			DWORD	POWER ON
-					
-	-	0x0	0	0x1	7/2

2.3.4 System specific memory settings

18000	VDI_UPDATE_IN_ONE_IPO_CYCLE			EXP, N01	P3
-	PLC interface update			BOOLEAN	POWER ON
-					
-	-	FALSE	-	-	0/0

18030	HW_SERIAL_NUMBER			N05	-
-	Hardware series number			STRING	POWER ON
READ					
-	1		-	-	7/2

18040	VERSION_INFO			N05	IAD
-	Version and possibly data of the PCMCIA card, not FM-NC			STRING	POWER ON
READ					

18050	INFO_FREE_MEM_DYNAMIC		N01, N02, N05	S7
-	Display data of free dynamic memory		DWORD	POWER ON
READ				
-	-	430080	-	7/2
710-2a2c	-	1048576	-	-/-
710-6a2c	-	1048576	-	-/-
710-12a2c	-	1048576	-	-/-
710-31a10c	-	1048576	-	-/-
840di-basic	-	1048576	-	-/-
840di-universal	-	1048576	-	-/-
840di-plus	-	1048576	-	-/-

18060	INFO_FREE_MEM_STATIC		N01, N02, N05	S7
-	Display data of free static memory		DWORD	POWER ON
READ				
-	-	1048576	-	7/2
840d-2a2c	-	3145728	-	-/-
840d-4a1cg	-	3145728	-	-/-
840d-6a2c	-	3145728	-	-/-
840d-12a2c	-	3145728	-	-/-
840d-31a10c	-	3145728	-	-/-
840di-basic	-	1048576	-	-/-
840di-universal	-	1048576	-	-/-
840di-plus	-	1048576	-	-/-

18070	INFO_FREE_MEM_DPR		EXP, N01, N02, N05	S7
-	Display data of free memory in DUAL PORT RAM		DWORD	POWER ON
READ				
-	-	0	-	7/2

18072	INFO_FREE_MEM_CC_MD		EXP, N01, N05	-
-	Display of free memory in CC-MD memory		DWORD	POWER ON
READ				
-	-	0	-	0/0

18078	MM_MAX_NUM_OF_HIERARCHIES		N02, N09	/FBW/ "Description of Functions, Tool Management"
-	Max. number of definable hierarchies for magazine location types		DWORD	POWER ON
-				
-	-	8	0	32
				7/2

General machine data

18079	MM_MAX_HIERARCHY_ENTRIES			N02, N09	/FBW, "Description of Functions, Tool Management"
-	Max. permitt. no. of entries in a magazine loc. type hierarchy			DWORD	POWER ON
-					
-	-	8	1	32	7/2

18080	MM_TOOL_MANAGEMENT_MASK			N02, N09	FBW
-	Step-by-step memory reservation for tool management (SRAM)			DWORD	POWER ON
-					
-	-	0x0	0	0xFFFF	7/1

18082	MM_NUM_TOOL			N02, N09	FBW,S7
-	Number of tools the NCK can manage (SRAM)			DWORD	POWER ON
-					
-	-	30	0	600	7/2

18084	MM_NUM_MAGAZINE			N02, N09	FBW
-	Number of magazines the NCK can manage (SRAM)			DWORD	POWER ON
-					
-	-	3	0	32	7/2

18086	MM_NUM_MAGAZINE_LOCATION			N02, N09	FBW
-	Number of magazine locations the NCK can manage (SRAM)			DWORD	POWER ON
-					
-	-	30	0	600	7/2

18088	MM_NUM_TOOL_CARRIER			N02, N09	W1
-	Maximum number of definable tool holders			DWORD	POWER ON
-					
-	-	0	0	99999999	7/2

18090	MM_NUM_CC_MAGAZINE_PARAM			N02, N09	FBW
-	Number of magazine data generated and evaluated by the CC (SRAM)			DWORD	POWER ON
-					
-	-	0	0	10	2/2

18091	MM_TYPE_CC_MAGAZINE_PARAM			N02, N09	-
-	Type of OEM magazine data (SRAM)			DWORD	POWER ON
-					
-	10	3,3,3,3,3,3,3,3,3,3	1	6	2/2

18092	MM_NUM_CC_MAGLOC_PARAM			N02, N09	FBW
-	Number of OEM magazine location data (SRAM)			DWORD	POWER ON
-					
-	-	0	0	10	2/2

18093	MM_TYPE_CC_MAGLOC_PARAM			N02, N09	-
-	Type of OEM magazine location data (SRAM)			DWORD	POWER ON
-					
-	10	3,3,3,3,3,3,3,3,3	1	6	2/2

18094	MM_NUM_CC_TDA_PARAM			N02, N09	FBW
-	Number of OEM tool data (SRAM)			DWORD	POWER ON
-					
-	-	0	0	10	2/2

18095	MM_TYPE_CC_TDA_PARAM			N02, N09	-
-	Type of OEM tool data (SRAM)			DWORD	POWER ON
-					
-	10	4,4,4,4,4,4,4,4,4	1	6	2/2

18096	MM_NUM_CC_TOA_PARAM			N02, N09	FBW
-	Number of data per tool edge for compile cycles (SRAM)			DWORD	POWER ON
-					
-	-	0	0	10	2/2

18097	MM_TYPE_CC_TOA_PARAM			N02, N09	-
-	Type of OEM data per cutting edge (SRAM)			DWORD	POWER ON
-					
-	10	4,4,4,4,4,4,4,4,4	1	6	2/2

18098	MM_NUM_CC_MON_PARAM			N02, N09	FBW
-	Number of monitoring data per tool for compile cycles			DWORD	POWER ON
-					
-	-	0	0	10	2/2

18099	MM_TYPE_CC_MON_PARAM			N02, N09	FBW
-	Type of OEM monitor data (SRAM)			DWORD	POWER ON
-					
-	10	3,3,3,3,3,3,3,3,3	1	6	2/2

18100	MM_NUM_CUTTING_EDGES_IN_TOA			N02, N09	S7
-	Tool offsets in the TO range (SRAM)			DWORD	POWER ON
-					
-	-	30	0	1500	7/2

General machine data

18102	MM_TYPE_OF_CUTTING_EDGE			N02, N09	W1
-	Type of D No. programming (SRAM)			DWORD	POWER ON
-					
-	-	0	0	1	7/2

18104	MM_NUM_TOOL_ADAPTER			N02, N09	FBW
-	Tool adapters in TO area (SRAM)			DWORD	POWER ON
-					
-	-	-1	-1	600	7/2

18105	MM_MAX_CUTTING_EDGE_NO			N02, N09	W1
-	maximum value of D number (DRAM)			DWORD	POWER ON
-					
-	-	9	1	32000	7/2

18106	MM_MAX_CUTTING_EDGE_PERTOOL			N02, N09	W1
-	maximum number of D numbers per tool (DRAM)			DWORD	POWER ON
-					
-	-	9	1	12	7/2

18108	MM_NUM_SUMCORR			N02, N09	W1
-	Resulting offsets in TO area (SRAM)			DWORD	POWER ON
-					
-	-	-1	-1	9000	7/2

18110	MM_MAX_SUMCORR_PER_CUTTEDGE			N02, N09	S7
-	Max. number of additive offsets per edge			DWORD	POWER ON
-					
-	-	1	1	6	7/2

18112	MM_KIND_OF_SUMCORR			N02, N09	W1
-	Properties of resulting offsets in TO area (SRAM)			DWORD	POWER ON
-					
-	-	0	0	0x1F	7/2

18114	MM_ENABLE_TOOL_ORIENT			N02, N09	W1
-	Assign tool cutting edge orientation			DWORD	POWER ON
-					
-	-	0	0	3	7/2

18116	MM_NUM_TOOL_ENV			N02, N09	S7
-	Number of tool environments in the TO area (SRAM)			DWORD	POWER ON
-					
-	-	0	-	-	7/2

18118	MM_NUM_GUD_MODULES		N02	S7
-	Number of GUD files in active file system (SRAM)		DWORD	POWER ON
-				
-	-	7	1	9
				7/2

18120	MM_NUM_GUD_NAMES_NCK		N02	S7
-	Number of global user variable names (SRAM)		DWORD	POWER ON
-				
-	-	50	-	-
				7/2
840d-2a2c	-	10	-	-
840d-4a1cg	-	10	-	-
840d-6a2c	-	10	-	-
840d-12a2c	-	10	-	-
840d-31a10c	-	10	-	-

18130	MM_NUM_GUD_NAMES_CHAN		N02	S7
-	Number of channel-specific user variable names (SRAM)		DWORD	POWER ON
-				
-	-	150	-	-
				7/2

18150	MM_GUD_VALUES_MEM		N02	S7
-	Memory location for global user variable values (SRAM)		DWORD	POWER ON
-				
-	-	32	-	-
				7/2
840d-2a2c	-	16	-	-
840d-4a1cg	-	16	-	-
840d-6a2c	-	16	-	-
840d-12a2c	-	16	-	-
840d-31a10c	-	16	-	-

18160	MM_NUM_USER_MACROS		N02	S7
-	Number of macros (DRAM)		DWORD	POWER ON
-				
-	-	50	-	-
				7/2
840d-2a2c	-	10	-	-
840d-4a1cg	-	10	-	-
840d-6a2c	-	10	-	-
840d-12a2c	-	10	-	-
840d-31a10c	-	10	-	-

General machine data

18170	MM_NUM_MAX_FUNC_NAMES		N02	S7
-	Number of miscellaneous functions (cycles, DRAM)		DWORD	POWER ON
-				
-	-	100	-	7/2
840d-2a2c	-	40	-	-/-
840d-4a1cg	-	40	-	-/-
840d-6a2c	-	40	-	-/-
840d-12a2c	-	40	-	-/-
840d-31a10c	-	40	-	-/-

18180	MM_NUM_MAX_FUNC_PARAM		N02	S7
-	Number of additional parameters for cycles according to MD 18170		DWORD	POWER ON
-				
-	-	1000	-	7/2

18190	MM_NUM_PROTECT_AREA_NCK		N12, N02, N06, N09	S7
-	Number of files for machine-related protection zones (SRAM)		DWORD	POWER ON
-				
-	-	0	0	10
				7/2

18200	MM_NUM_CCS_MAGAZINE_PARAM		N02, N09	FBW
-	Number of Siemens OEM magazine data (SRAM)		DWORD	POWER ON
-				
-	-	0	0	10
				2/2

18201	MM_TYPE_CCS_MAGAZINE_PARAM		N02, N09	FBW
-	Type of Siemens OEM magazine data (SRAM)		DWORD	POWER ON
-				
-	10	3,3,3,3,3,3,3,3,3	1	6
				2/2

18202	MM_NUM_CCS_MAGLOC_PARAM		N02, N09	FBW
-	No. of Siemens OEM magazine location data (SRAM)		DWORD	POWER ON
-				
-	-	0	0	10
				2/2

18203	MM_TYPE_CCS_MAGLOC_PARAM		N02, N09	FBW
-	Type of Siemens OEM magazine location data (SRAM)		DWORD	POWER ON
-				
-	10	3,3,3,3,3,3,3,3,3	1	6
				2/2

18204	MM_NUM_CCS_TDA_PARAM			N02, N09	FBW
-	Number of Siemens OEM tool data (SRAM)			DWORD	POWER ON
-					
-	-	0	0	10	2/2

18205	MM_TYPE_CCS_TDA_PARAM			N02, N09	FBW
-	Type of Siemens OEM tool data (SRAM)			DWORD	POWER ON
-					
-	10	4,4,4,4,4,4,4,4,4,4	1	6	2/2

18206	MM_NUM_CCS_TOA_PARAM			N02, N09	FBW
-	No. of Siemens OEM data per cutting edge (SRAM)			DWORD	POWER ON
-					
-	-	0	0	10	2/2

18207	MM_TYPE_CCS_TOA_PARAM			N02, N09	FBW
-	Type of Siemens OEM data per cutting edge (SRAM)			DWORD	POWER ON
-					
-	10	4,4,4,4,4,4,4,4,4,4	1	6	2/2

18208	MM_NUM_CCS_MON_PARAM			N02, N09	FBW
-	No. of Siemens OEM monitor data (SRAM)			DWORD	POWER ON
-					
-	-	0	0	10	2/2

18209	MM_TYPE_CCS_MON_PARAM			N02, N09	FBW
-	Type of Siemens OEM monitor data (SRAM)			DWORD	POWER ON
-					
-	10	3,3,3,3,3,3,3,3,3,3	1	6	2/2

18210	MM_USER_MEM_DYNAMIC			EXP, N02	S7
-	User memory in DRAM [KB]			DWORD	POWER ON
-					
-	-	3000	0	2147483647	7/2
710-2a2c	-	-	-	15000	-/-
710-6a2c	-	-	-	15000	-/-
710-12a2c	-	-	-	24000	-/-
710-31a10c	-	-	-	52000	-/-

18220	MM_USER_MEM_DPR			EXP, N02	-
-	User memory in DUAL PORT RAM (DPR)			DWORD	POWER ON
-					
-	-	0	-	-	0/0

General machine data

18230	MM_USER_MEM_BUFFERED			N02	S7
-	User memory in SRAM			DWORD	POWER ON
-					
-	-	0	0	2147483647	7/1
710-2a2c	-	-	-	12288	-/-
710-6a2c	-	-	-	12288	-/-
710-12a2c	-	-	-	12288	-/-
710-31a10c	-	-	-	12288	-/-

18231	MM_USER_MEM_BUFFERED_TYPEOF			N02	-
-	Technology for data buffering			DWORD	POWER ON
-					
-	3	0,0,0	0	1	0/0
710-2a2c	-	1,1,1	-	-	-/-
710-6a2c	-	1,1,1	-	-	-/-
710-12a2c	-	1,1,1	-	-	-/-
710-31a10c	-	1,1,1	-	-	-/-

18232	MM_ACTFILESYS_LOG_FILE_MEM			N02	-
-	System: logfile size in SRAM [KB]			DWORD	POWER ON
-					
-	3	0,0,0	-	-	0/0
710-2a2c	-	200,5,30	-	-	-/-
710-6a2c	-	200,5,30	-	-	-/-
710-12a2c	-	200,5,30	-	-	-/-
710-31a10c	-	200,5,30	-	-	-/-

18233	IS_CONTINOUS_DATA_SAVE_ON			EXP, N02	-
-	System: Automatic saving of persistent data			BOOLEAN	POWER ON
-					
-	3	FALSE,FALSE,FALSE	-	-	7/2
710-2a2c	-	TRUE,TRUE,TRUE	-	-	-/-
710-6a2c	-	TRUE,TRUE,TRUE	-	-	-/-
710-12a2c	-	TRUE,TRUE,TRUE	-	-	-/-
710-31a10c	-	TRUE,TRUE,TRUE	-	-	-/-

18238	MM_CC_MD_MEM_SIZE			N02	-
-	Compile cycle machine data in SRAM [kB]			DWORD	POWER ON
-					
-	-	1	1	-	7/1

18240	MM_LUD_HASH_TABLE_SIZE		EXP, N02	S7	
-	Hash table size for LUD (DRAM)		DWORD	POWER ON	
-					
-	-	37	11	107	0/0
840d-2a2c	-	11	-	-	-/-
840d-4a1cg	-	11	-	-	-/-
840d-6a2c	-	11	-	-	-/-
840d-12a2c	-	11	-	-	-/-
840d-31a10c	-	11	-	-	-/-

18242	MM_MAX_SIZE_OF_LUD_VALUE		N02	S7	
-	Maximum memory block size for LUD/GUD values		DWORD	POWER ON	
-					
-	-	920	920	SLMAXVARBYTES	0/0

18250	MM_CHAN_HASH_TABLE_SIZE		EXP, N02	S7	
-	Hash table size for channel-specific data (DRAM)		DWORD	POWER ON	
-					
-	-	23	3	193	0/0

18260	MM_NCK_HASH_TABLE_SIZE		EXP, N02	S7	
-	Hash table size for global data (DRAM)		DWORD	POWER ON	
-					
-	-	4001	537	4327	0/0

18270	MM_NUM_SUBDIR_PER_DIR		N02	S7	
-	Number of subdirectories (DRAM)		DWORD	POWER ON	
-					
-	-	30	24	250	7/1

18280	MM_NUM_FILES_PER_DIR		N02	S7	
-	Number of files per directory (DRAM)		DWORD	POWER ON	
-					
-	-	100	64	512	7/1

18290	MM_FILE_HASH_TABLE_SIZE		EXP, N02	S7	
-	Hash table size for files of a directory (SRAM)		DWORD	POWER ON	
-					
-	-	47	3	299	0/0

18300	MM_DIR_HASH_TABLE_SIZE		EXP, N02	S7	
-	Hash table size for subdirectories (SRAM)		DWORD	POWER ON	
-					
-	-	11	3	349	0/0

18352	MM_U_FILE_MEM_SIZE			EXP, N02	-
-	End user memory for part programs/cycles/files			DWORD	POWER ON
-					
-	3	0,0,0	0	0	2/2
710-2a2c	-	2560,0,0	-	9216	-/-
710-6a2c	-	2560,0,0	-	9216	-/-
710-12a2c	-	2560,0,0	-	15360	-/-
710-31a10c	-	2560,0,0	-	15360	-/-

18353	MM_M_FILE_MEM_SIZE			EXP, N02	-
-	Memory capacity for machine manufacturer's cycles/files			DWORD	POWER ON
-					
-	3	0,0,0	0	0	1/1
710-2a2c	-	512,0,0	-	9216	-/-
710-6a2c	-	512,0,0	-	9216	-/-
710-12a2c	-	512,0,0	-	15360	-/-
710-31a10c	-	512,0,0	-	15360	-/-

18354	MM_S_FILE_MEM_SIZE			EXP, N02	-
-	Memory capacity for NC manufacturer's cycles/files			DWORD	POWER ON
-					
-	3	0,0,0	0	0	0/0
710-2a2c	-	2048,0,100	-	3072	-/-
710-6a2c	-	2048,0,100	-	3072	-/-
710-12a2c	-	2048,0,100	-	3072	-/-
710-31a10c	-	2048,0,100	-	3072	-/-

18355	MM_T_FILE_MEM_SIZE			EXP, N02	-
-	Memory size for temporary files			DWORD	POWER ON
-					
-	-	1000	-	-	7/2

18360	MM_EXT_PROG_BUFFER_SIZE			N01	A2
-	FIFO buffer size for processing from external source (DRAM)			DWORD	POWER ON
-					
-	-	50	30	1000000	7/2
840d-2a2c	-	30	-	-	-/-
840d-4a1cg	-	30	-	-	-/-
840d-6a2c	-	30	-	-	-/-
840d-12a2c	-	30	-	-	-/-
840d-31a10c	-	30	-	-	-/-

18400	MM_NUM_CURVE_TABS	N02, N09	M3
-	Number of curve tables (SRAM)	DWORD	POWER ON
-			
-	-	0	-
-			1/1

18402	MM_NUM_CURVE_SEGMENTS	N02, N09	M3
-	Number of curve segments (SRAM)	DWORD	POWER ON
-			
-	-	0	-
-			1/1

18403	MM_NUM_CURVE_SEG_LIN	N02, N09	-
-	Number of linear curve segments (SRAM)	DWORD	POWER ON
-			
-	-	0	-
-			1/1

18404	MM_NUM_CURVE_POLYNOMS	N02, N09	M3
-	Number of curve table polynomials (SRAM)	DWORD	POWER ON
-			
-	-	0	-
-			1/1

18406	MM_NUM_CURVE_TABS_DRAM	N02, N09	M3
-	Number of curve tables (DRAM)	DWORD	POWER ON
-			
-	-	0	-
-			1/1

18408	MM_NUM_CURVE_SEGMENTS_DRAM	N02, N09	M3
-	Number of curve segments (DRAM)	DWORD	POWER ON
-			
-	-	0	-
-			1/1

18409	MM_NUM_CURVE_SEG_LIN_DRAM	N02, N09	-
-	Number of linear curve segments (DRAM)	DWORD	POWER ON
-			
-	-	0	-
-			1/1

18410	MM_NUM_CURVE_POLYNOMS_DRAM	N02, N09	M3
-	Number of curve table polynomials (DRAM)	DWORD	POWER ON
-			
-	-	0	-
-			1/1

18450	MM_NUM_CP_MODULES	N02, N09	-
-	Max. number of CP modules	DWORD	POWER ON
-			
-	5	0,0,0,0,0	-
-			1/1

General machine data

18452	MM_NUM_CP_MODUL_LEAD			N02, N09	-
-	Max. number of master values for each CP coupling module			DWORD	POWER ON
-					
-	5	1,1,1,1,1	1	5	1/1
18500	MM_EXTCOM_TASK_STACK_SIZE			EXP, N02	S7
-	Stack size for external communications task (DRAM)			DWORD	POWER ON
-					
-	-	19	10	60	0/0
18502	MM_COM_TASK_STACK_SIZE			EXP, N02	-
-	Stack size in KB for communication task (DRAM)			DWORD	POWER ON
-					
-	-	20	4	40	0/0
18510	MM_SERVO_TASK_STACK_SIZE			EXP, N02	S7
-	Stack size of servo task (DRAM)			DWORD	POWER ON
-					
-	-	20	4	40	0/0
18512	MM_IPO_TASK_STACK_SIZE			EXP, C02	-
-	Stack size of IPO task (DRAM)			DWORD	POWER ON
-					
-	-	30	12	40	0/0
18520	MM_DRIVE_TASK_STACK_SIZE			EXP, N02	S7,ECO
-	Stack size of drive task (DRAM)			DWORD	POWER ON
-					
-	-	20	6	40	0/0
18540	MM_PLC_TASK_STACK_SIZE			EXP, N02	-
-	Stack size of the PLC task (DRAM)			DWORD	POWER ON
-					
-	-	30	20	40	0/0
18600	MM_FRAME_FINE_TRANS			N02	K2
-	Fine offset with FRAME (SRAM)			DWORD	POWER ON
-					
-	-	1	0	1	7/2
18601	MM_NUM_GLOBAL_USER_FRAMES			N02	K2
-	Number of global predefined user frames (SRAM).			DWORD	POWER ON
-					
-	-	0	0	100	7/2

18602	MM_NUM_GLOBAL_BASE_FRAMES		N02	K2
-	Number of global base frames (SRAM).		DWORD	POWER ON
-				
-	-	0	0	16
				7/2

18660	MM_NUM_SYNACT_GUD_REAL		N02	-
-	Number of configurable GUD variables of type REAL		DWORD	POWER ON
-				
-	9	0,0,0,0,0,0,0,0,0	0	32767
				7/2

18661	MM_NUM_SYNACT_GUD_INT		N02	-
-	Number of configurable GUD variables of type integer		DWORD	POWER ON
-				
-	9	0,0,0,0,0,0,0,0,0	0	32767
				7/2

18662	MM_NUM_SYNACT_GUD_BOOL		N02	-
-	Number of configurable GUD variables of type Boolean		DWORD	POWER ON
-				
-	9	0,0,0,0,0,0,0,0,0	0	32767
				7/2

18663	MM_NUM_SYNACT_GUD_AXIS		N02	-
-	Number of configurable GUD variables of type Axis		DWORD	POWER ON
-				
-	9	0,0,0,0,0,0,0,0,0	0	32767
				7/2

18664	MM_NUM_SYNACT_GUD_CHAR		N02	-
-	Configurable GUD variable of type Char		DWORD	POWER ON
-				
-	9	0,0,0,0,0,0,0,0,0	0	32767
				7/2

18665	MM_NUM_SYNACT_GUD_STRING		N02	-
-	Configurable GUD variable of type STRING		DWORD	POWER ON
-				
-	9	0,0,0,0,0,0,0,0,0	0	25
				7/2

18700	MM_SIZEOF_LINKVAR_DATA		N02	B3
-	Size of NCU-link variable memory		DWORD	POWER ON
LINK				
-	-	0	-	-
				7/2

18710	MM_NUM_AN_TIMER		N02	-
-	Number of global time variable for synchronized actions		DWORD	POWER ON
-				
-	-	0	0	10000
				7/2

General machine data

18720	MM_SERVO_FIFO_SIZE			EXP, N01	-
-	Setpoint value for buffer size between IPO and position control			DWORD	POWER ON
-					
-	-	2	2	35	3/2
18780	MM_NCU_LINK_MASK			N01	B3
-	Activation of NCU-link communication			DWORD	POWER ON
-					
-	-	0	0	3	3/2
18781	NCU_LINK_CONNECTIONS			N01	B3
-	Number of internal link connections			DWORD	POWER ON
LINK					
-	-	0	0	32	3/1
18782	MM_LINK_NUM_OF_MODULES			N01, N02	B3
-	Number of NCU-link modules			DWORD	POWER ON
-					
-	-	2	2	16	3/2
18790	MM_MAX_TRACE_LINK_POINTS			EXP, N02, N06	B3
-	Trace data buffer size for NCU-Link			DWORD	POWER ON
NBUP					
-	-	8	0	20000	2/2
18792	MM_TRACE_LINK_DATA_FUNCTION			EXP, N02, N06	B3
-	Specifies the contents of the NCU-link files			DWORD	POWER ON
NBUP					
-	-	0	0	0x7FFFFFFF	2/2
18794	MM_TRACE_VDI_SIGNAL			EXP, N02, N06	-
-	Trace specification of VDI signals			DWORD	POWER ON
NBUP					
-	-	0	0	0x7FFFFFFF	2/2
18800	MM_EXTERN_LANGUAGE			N01, N12	FBFA
-	Activation of external NC languages			DWORD	POWER ON
-					
-	-	0x0000	0x0000	0x0001	7/2
18860	MM_MAINTENANCE_MON			EXP, N01	-
-	Activation of maintenance data recording			BOOLEAN	POWER ON
-					
-	-	FALSE	-	-	7/2

18870	MM_MAXNUM_KIN_CHAINS	EXP, N01	-
-	Max. number of kinematic chains	DWORD	POWER ON
-			
-	-	0	-
		200	7/2

18880	MM_MAXNUM_KIN_CHAIN_ELEM	EXP, N01	-
-	maximum number of elements in kinematic chains	DWORD	POWER ON
-			
-	-	0	-
		1000	7/2

18890	MM_MAXNUM_3D_PROT_AREAS	EXP, N01	-
-	Maximum number of elements in 3D protection areas	DWORD	POWER ON
-			
-	-	0	-
		200	7/2

18892	MM_MAXNUM_3D_PROT_AREA_ELEM	EXP, N01	-
-	Max. number of protection zone elements	DWORD	POWER ON
-			
-	-	0	0
		1000	7/2

18894	MM_MAXNUM_3D_PROT_GROUPS	EXP, N01	-
-	Max. number of protection zone groups	DWORD	POWER ON
-			
-	-	0	0
		100	7/2

18896	MM_MAXNUM_3D_COLLISION	EXP, N01	-
-	Max. number of temp. memories for collision check	DWORD	POWER ON
-			
-	-	0	0
		MAX_SIZE_3D_S_MATRIX_MD	7/2

18898	PROT_AREA_3D_TYPE_NAME_TAB	EXP, N12, N07	-
-	Table of names for protection zone types	STRING	POWER ON
-			
-	10	"BOX", "SPHERE", "CYLINDER", "CONE" "..."	-
			7/2

18900	FPU_ERROR_MODE	EXP	-
-	System reaction to FPU calculation error	DWORD	POWER ON
NBUP, NDLD			
-	-	0x1	-
			0/0

General machine data

18910	FPU_CTRLWORD_INIT			EXP	-
-	Basic initialization of FPU control word			DWORD	POWER ON
NBUP, NDLD					
-	-	0x37F	-	-	0/0

18920	FPU_EXEPTION_MASK			EXP	-
-	Exception mask for FPU calculation errors			DWORD	POWER ON
NBUP, NDLD					
-	-	0xD	-	-	0/0

2.4 Channel-specific machine data

Number	Identifier			Display filters	Reference
Unit	Name			Data type	Active
Attributes					
System	Dimension	Default value	Minimum value	Maximum value	Protection

2.4.1 Basic channel machine data

20000	CHAN_NAME			C01, C10	K1
-	Channel name			STRING	POWER ON
-					
-	-	"CHAN1", "CHAN2", "CHAN3", "CHAN4". ..	-	-	7/2

20050	AXCONF_GEOAX_ASSIGN_TAB			C01, C10	K2
-	Assignment of geometry axis to channel axis			BYTE	POWER ON
-					
-	3	1, 2, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/2
710-2a2c	-	0, 0, 0	-	-	-/-
840d-2a2c	-	0, 0, 0	-	-	-/-

20060	AXCONF_GEOAX_NAME_TAB			C01, C11, C10	K2
-	Geometry axis name in channel			STRING	POWER ON
-					
-	3	"X", "Y", "Z", "X", "Y", "Z"...	-	-	7/2

Channel-specific machine data

20107	PROG_EVENT_IGN_INHIBIT		N01	-
-	Prog-Events ignore read-in disable		DWORD	POWER ON
-				
-	-	0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0...	0	0x1F 7/2

20108	PROG_EVENT_MASK		N01, -	K1
-	Setting of event-driven programm calls		DWORD	POWER ON
-				
-	-	0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0...	0	0xF 7/2

20109	PROG_EVENT_MASK_PROPERTIES		N01	K1
-	Properties of Prog-Events		DWORD	POWER ON
-				
-	-	0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0...	0	0x1 7/2

20110	RESET_MODE_MASK		C11, C03	K1
-	Definition of basic control settings after reset/PP end		DWORD	RESET
-				
-	-	0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0...	0	0x3FFFF 7/2
710-2a2c	-	0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1...	-	-/-
710-6a2c	-	0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1...	-	-/-
710-12a2c	-	0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1...	-	-/-
710-31a10c	-	0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1...	-	-/-
840di-basic	-	0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1...	-	-/-
840di-universal	-	0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1...	-	-/-
840di-plus	-	0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1...	-	-/-

20112	START_MODE_MASK		C03	K1
-	Definition of basic control settings at NC Start		DWORD	RESET
-				
-	-	0x400,0x400,0x400,0x400,0x400,0x400,0x400,0x400,0x400,0x400...	0	0x3FFFF 7/2

Channel-specific machine data

20123	USEKT_RESET_VALUE		C03	-
-	Preselected value of \$P_USEKT on RESET		DWORD	RESET
-				
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	0	0xF
		,0,0,0,0,0		7/2

20124	TOOL_MANAGEMENT_TOOLHOLDER		C03	FBW
-	Tool holder number		DWORD	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	0	20
		,0,0,0,0,0		7/2

20126	TOOL_CARRIER_RESET_VALUE		C03	W1
-	Active tool holder on RESET		DWORD	RESET
-				
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	-	-
		,0,0,0,0,0		7/2

20128	COLLECT_TOOL_CHANGE		C04	FBW,K1
-	Tool change commands to PLC after search run		DWORD	POWER ON
-				
-	-	1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1	-	-
		,1,1,1,1,1		1/1

20130	CUTTING_EDGE_RESET_VALUE		C03	K1
-	Tool edge with length compens. during runup (reset/end of pp)		DWORD	RESET
-				
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	0	32000
		,0,0,0,0,0		7/2

20132	SUMCORR_RESET_VALUE		C03	W1
-	Effective resulting offset on RESET		DWORD	RESET
-				
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	0	6
		,0,0,0,0,0		7/2

20140	TRAFO_RESET_VALUE		C03	K1
-	Transformation data block selected during runup (reset/pp end)		BYTE	RESET
-				
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	0	8
		,0,0,0,0,0		7/2

Channel-specific machine data

20172	COMPRESS_VELO_TOL			C09	V1,PGA
mm/min	Max. permissible deviation of path feedrate with compression			DOUBLE	POWER ON
-					
-	-	60000.0,60000.0,60000.0,60000.0...	-	-	7/2
20180	TOCARR_ROT_ANGLE_INCR			C08	W1
-	Rotary axis increment of orientable tool holder			DOUBLE	NEW CONF
-					
-	2	0.0, 0.0,0.0, 0.0,0.0, 0.0,0.0, 0.0...	-	-	7/3
20182	TOCARR_ROT_ANGLE_OFFSET			C08	W1
-	Rotary axis offset of orientable tool holder			DOUBLE	NEW CONF
-					
-	2	0.0, 0.0,0.0, 0.0,0.0, 0.0,0.0, 0.0...	-	-	7/3
20184	TOCARR_BASE_FRAME_NUMBER			C08	W1
-	Base frame number for holding machine table offset			DWORD	NEW CONF
-					
-	-	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1...	-1	15	7/3
20188	TOCARR_FINE_LIM_LIN			C07	-
mm	Limit of linear fine offset TCARR			DOUBLE	SOFORT
-					
-	-	1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0...	-	-	7/3
20190	TOCARR_FINE_LIM_ROT			C07	-
degrees	Limit of rotary fine offset TCARR			DOUBLE	SOFORT
-					
-	-	1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0...	-	-	7/3
20200	CHFRND_MAXNUM_DUMMY_BLOCKS			EXP, C02, C06, C09	K1
-	Empty blocks with chamfer/radii			BYTE	POWER ON
-					
-	-	3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3	0	15	7/2

Channel-specific machine data

20250	CUTCOM_MAXNUM_DUMMY_BLOCKS		C08, C02	W1
-	maximum number of blocks without traversing motion in TRC		DWORD	POWER ON
-				
-	-	3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3	-	7/2

20252	CUTCOM_MAXNUM_SUPPR_BLOCKS		EXP, C01, C08, C02	W1
-	Maximum number of blocks with compensation suppression		DWORD	POWER ON
-				
-	-	5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5	-	7/2

20254	ONLINE_CUTCOM_ENABLE		EXP, C01, C08	W4
-	Real-time tool radius compensation enabled		BOOLEAN	POWER ON
-				
-	-	FALSE,FALSE,FALSE,FALSE,FALSE,FALSE...	-	7/2

20256	CUTCOM_INTERS_POLY_ENABLE		C09	W1
-	Intersection procedure for polynomials is possible		BOOLEAN	POWER ON
-				
-	-	TRUE,TRUE,TRUE,TRUE,TRUE,TRUE,TRUE,TRUE...	-	7/2

20260	PATH_IPO_IS_ON_TCP		EXP, C09, C05	-
-	Velocity control with spline		BOOLEAN	POWER ON
-				
-	-	FALSE,FALSE,FALSE,FALSE,FALSE,FALSE...	-	0/0

20262	SPLINE_FEED_PRECISION		EXP, C09, C05	-
-	Permissible rel. error of path velocity for spline		DOUBLE	POWER ON
-				
-	-	0.001,0.001,0.001,0.001,0.001,0.001,0.001,0.001...	0.000001	1.0

20270	CUTTING_EDGE_DEFAULT		C11, C03	W1
-	Initial position of tool cutting edge without programming		DWORD	POWER ON
-				
-	-	1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1	-2	32000

Channel-specific machine data

20380	TOOL_CORR_MODE_G43G44		C01, C08, C11	FBFA
-	Treatment of tool length compensation with G43 / G44		BYTE	RESET
-				
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	2	7/2

20382	TOOL_CORR_MOVE_MODE		C01, C08	FBFA
-	Traversing of tool length compensation		BOOLEAN	RESET
-				
-	-	FALSE,FALSE,FALSE,FALSE,FALSE,FALSE...	-	7/2

20384	TOOL_CORR_MULTIPLE_AXES		C01, C08, C11	FBFA
-	Tool length compensation in several axes simultaneously		BOOLEAN	RESET
-				
-	-	TRUE,TRUE,TRUE,TRUE,TRUE,TRUE,TRUE...	-	7/2

20390	TOOL_TEMP_COMP_ON		C01, C08	W1
-	Activation of temperature compensation for tool length		BOOLEAN	RESET
-				
-	-	FALSE,FALSE,FALSE,FALSE,FALSE,FALSE...	-	7/2

20392	TOOL_TEMP_COMP_LIMIT		C01, C08	W1,BAS,PG
mm	Max. temperature compensation for tool length		DOUBLE	RESET
-				
-	3	1.0, 1.0 , 1.0,1.0, 1.0 , 1.0...	-	7/7

Channel-specific machine data

20602	CURV_EFFECT_ON_PATH_ACCEL		EXP, C05	B1
-	Effect of path curvature on path dynamic		DOUBLE	NEW CONF
-				
-	5	0., 0., 0., 0., 0., 0., 0., 0., 0., 0....	0.	0.95
20603	CURV_EFFECT_ON_PATH_JERK		EXP, C05	B1
-	Effect of path curvature on path jerk		DOUBLE	NEW CONF
-				
-	5	0., 0., 0., 0., 0., 0., 0., 0., 0., 0....	0.	1000.
20610	ADD_MOVE_ACCEL_RESERVE		C05	K1,B1,B2
-	Acceleration margin for overlaid movements		DOUBLE	POWER ON
-				
-	-	.2,.2,.2,.2,.2,.2,.2, .2,.2,.2,.2...	0.	0.9
20620	HANDWH_GEOAX_MAX_INCR_SIZE		C08, C06	H1
mm	Limitation handwheel increment for geometry axes		DOUBLE	POWER ON
-				
-	-	0.0,0.0,0.0,0.0,0.0, .0,0.0,0.0,0.0...	-	7/2
20621	HANDWH_ORIAX_MAX_INCR_SIZE		C08, C06	F2
degrees	Limiting of handwheel increment for orientation axes		DOUBLE	POWER ON
-				
-	-	0.0,0.0,0.0,0.0,0.0, .0,0.0,0.0,0.0...	-	7/2
20622	HANDWH_GEOAX_MAX_INCR_VSIZE		C08, C06, C05	H1
mm/min	Path velocity override		DOUBLE	POWER ON
-				
-	-	500.,500.,500.,500., 500.,500.,500....	-	7/2
20623	HANDWH_ORIAX_MAX_INCR_VSIZE		C08, C06, C05	F2
rev/min	Orientation velocity overlay		DOUBLE	POWER ON
-				
-	-	0.1,0.1,0.1,0.1,0.1, .1,0.1,0.1,0.1...	-	7/2

Channel-specific machine data

20850	SPOS_TO_VDI	C04, C03	S1
-	Output of M19 to PLC on SPOS/SPOSA	BYTE	POWER ON
-			
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/2
20900	CTAB_ENABLE_NO_LEADMOTION	EXP	M3
-	Curve tables with jump of slave axis	BYTE	RESET
-			
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/2
20905	CTAB_DEFAULT_MEMORY_TYPE	EXP	M3
-	Default memory type for curve tables	BYTE	RESET
-			
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/2
21000	CIRCLE_ERROR_CONST	C06	K1
mm	Circle end point monitoring constant	DOUBLE	POWER ON
-			
-	-	0.01,0.01,0.01,0.01,0.01,0.01,0.01,0.01...	7/2
21010	CIRCLE_ERROR_FACTOR	C06	K1
-	Circle end point monitoring factor	DOUBLE	POWER ON
-			
-	-	0.001,0.001,0.001,0.001,0.001,0.001,0.001...	7/2
21015	INVOLUTE_RADIUS_DELTA	C06	PG
mm	Involute end point monitoring	DOUBLE	POWER ON
-			
-	-	0.01,0.01,0.01,0.01,0.01,0.01,0.01...	7/2
21016	INVOLUTE_AUTO_ANGLE_LIMIT	C06	PG
-	Automatic angle limitation during involute interpolation	BOOLEAN	POWER ON
-			
-	-	FALSE,FALSE,FALSE,FALSE,FALSE,FALSE...	7/2

21106	CART_JOG_SYSTEM		C01, C07	H1
-	Coordinate systems for Cartesian JOG		DWORD	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	0	7
		,0,0,0,0,0		7/2

21108	POLE_ORI_MODE		C07	-
-	Response with vector interpolation in pole position		DWORD	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	0	122
		,0,0,0,0,0		7/7

21110	X_AXIS_IN_OLD_X_Z_PLANE		EXP, C01, C09	M1
-	Coordinate system for automatic frame definition		BOOLEAN	POWER ON
-				
-	-	TRUE,TRUE,TRUE,TRUE,TRUE,TRUE,TRUE,TRUE...	-	7/7

21120	ORIAX_TURN_TAB_1		C07	F2
-	Definition of reference axes for orientation axes		BYTE	RESET
-				
-	3	1, 2, 3,1, 2, 3,1, 2, 3,1, 2, 3...	0	3
				7/2

21130	ORIAX_TURN_TAB_2		C07	F2
-	Definition of reference axes for orientation axes		BYTE	RESET
-				
-	3	1, 2, 3,1, 2, 3,1, 2, 3,1, 2, 3...	0	3
				7/2

21150	JOG_VELO_RAPID_ORI		C07	-
rev/min	JOG rapid traverse for orientation axes		DOUBLE	RESET
-				
-	3	10.0, 10.0, 10.0,10.0, 10.0, 10.0...	-	7/2

21155	JOG_VELO_ORI		C07	-
rev/min	Jog feedrate for orientation axes		DOUBLE	RESET
-				
-	3	2.0, 2.0, 2.0,2.0, 2.0, 2.0...	-	7/2

Channel-specific machine data

21160	JOG_VELO_RAPID_GEO		C07	F2
mm/min	JOG rapid traverse for geometry axes		DOUBLE	RESET
-				
-	3	10000., 10000.0, 10000.,10000., 10000.0, 10000....	-	7/2

21165	JOG_VELO_GEO		C07	F2
mm/min	Jog feedrate for geometry axes		DOUBLE	RESET
-				
-	3	1000., 1000., 1000.,1000., 1000., 1000....	-	7/2

21170	ACCEL_ORI		C07	-
rev/s ²	Acceleration for ORI axes		DOUBLE	NEW CONF
-				
-	3	.05, .05, .05,.05, .05, .05...	-	7/2

21180	ROT_AX_SWL_CHECK_MODE		C07	F2
-	Check of software limits for orientation axes		DWORD	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	112	7/7

21186	TOCARR_ROT_OFFSET_FROM_FR		C01, C07	-
-	Offset of TOCARR rotary axes from WO		BOOLEAN	SOFORT
-				
-	-	FALSE,FALSE,FAL SE,FALSE,FALSE, FALSE...	-	7/2

21190	TOFF_MODE		C08	F2
-	Mode of correction in tool direction		BYTE	RESET
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	-	7/2

21194	TOFF_VELO		C08	F2
mm/min	Feedrate for online correction in tool direction		DOUBLE	NEW CONF
-				
-	3	0., 0., 0.,0., 0., 0.,0., 0., 0....	-	7/2

21196	TOFF_ACCEL		C08	F2
m/s ²	Acceleration for online correction in tool direction		DOUBLE	NEW CONF
-				
-	3	100., 100., 100.,100., 100., 100....	1.0e-3	-
				7/2

21200	LIFTFAST_DIST		C09	K1
mm	Traversing distance on rapid lift from contour		DOUBLE	POWER ON
-				
-	-	0.1,0.1,0.1,0.1,0.1,0 .1,0.1,0.1,0.1...	-	-
				7/2

21202	LIFTFAST_WITH_MIRROR		C09	K1
-	Rapid retract with mirroring		BOOLEAN	POWER ON
-				
-	-	FALSE,FALSE,FAL SE,FALSE,FALSE, FALSE...	-	-
				7/2

21204	LIFTFAST_STOP_COND		C09	PGA
-	Stop behavior with fast retraction		DWORD	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	-	-
				7/2

21210	SETINT_ASSIGN_FASTIN		C01, C09	K1
-	HW assignment of ext. NCK input byte for NC progr. interrupts		DWORD	POWER ON
-				
-	-	1,1,1,1,1,1,1,1,1,1 ,1,1,1,1,1	-	-
				7/2

21220	MULTFEED_ASSIGN_FASTIN		C01, C09	V1
-	Assignment of the NCK I/Os for 'several feedrates in the block'		DWORD	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	-	-
				7/2

21230	MULTFEED_STORE_MASK		C01, C09	V1
-	Memory response for 'several feedrates in the block'		BYTE	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	-	-
				7/2

Channel-specific machine data

21240	PREVENT_SYNACT_LOCK_CHAN	C01, C09	FBSY
-	Protected synchronized actions	DWORD	POWER ON
-			
-	2	-1, -1, -1, -1, -1, -1, -1, -1 -1, -1, -1...	255 7/2
21300	COUPLE_AXIS_1	C09	S3
-	Synchr.spindle pair def, mach.axis no: follow.sp[0], lead.sp[1]	BYTE	POWER ON
-			
-	2	0, 0, 0, 0, 0, 0, 0, 0, 0 0, 0, 0, 0, 0...	31 7/2
21310	COUPLING_MODE_1	C03, C09	S3
-	Type of coupling in synchronous spindle operation	BYTE	POWER ON
-			
-	-	1, 1, 1, 1, 1, 1, 1, 1, 1, 1 , 1, 1, 1, 1, 1	0 2 7/2
21320	COUPLE_BLOCK_CHANGE_CTRL_1	C09	S3
-	Block change behavior in synchronous spindle operation	BYTE	POWER ON
-			
-	-	3, 3, 3, 3, 3, 3, 3, 3, 3, 3 , 3, 3, 3, 3	0 3 7/2
21330	COUPLE_RESET_MODE_1	C03, C09	S3
-	Coupling abort behavior	DWORD	POWER ON
-			
-	-	1, 1, 1, 1, 1, 1, 1, 1, 1, 1 , 1, 1, 1, 1, 1	0 0x3FF 7/2
21340	COUPLE_IS_WRITE_PROT_1	C09	S3
-	Coupling parameters cannot be altered	BOOLEAN	POWER ON
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	- 7/2
21380	ESR_DELAY_TIME1	EXP, N09	M3
s	Delay time ESR axes	DOUBLE	NEW CONF
-			
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0 .0, 0.0, 0.0, 0.0...	- 7/2

Channel-specific machine data

21508	TRACLG_VERT_DIR_SUPPORTAX_1	C07	S8
-	Vertical component of work blade direction vector for Q1	DOUBLE	POWER ON
-			
-	-	1.,1.,1.,1.,1.,1.,1.,1.,1., 1.,1.,1.,1.,1....	-
			7/2

21510	TRACLG_HOR_DIR_SUPPORTAX_1	C07	S8
-	Horizontal component of work blade direction vector for Q1	DOUBLE	POWER ON
-			
-	-	0.,0.,0.,0.,0.,0.,0.,0.,0., 0.,0.,0.,0.,0....	-
			7/2

21512	TRACLG_VERT_DIR_SUPPORTAX_2	C07	S8
-	Vertical component of work blade direction vector for Q2	DOUBLE	POWER ON
-			
-	-	0.,0.,0.,0.,0.,0.,0.,0.,0., 0.,0.,0.,0.,0....	-
			7/2

21514	TRACLG_HOR_DIR_SUPPORTAX_2	C07	S8
-	Horizontal component of work blade direction vector for Q2	DOUBLE	POWER ON
-			
-	-	1.,1.,1.,1.,1.,1.,1.,1.,1., 1.,1.,1.,1.,1....	-
			7/2

21516	TRACLG_SUPPORT_LEAD_ANGLE	C07	S8
degrees	Lead angle of work blade in centerless grinding	DOUBLE	POWER ON
-			
-	-	0.,0.,0.,0.,0.,0.,0.,0.,0., 0.,0.,0.,0.,0....	-90.
			90.
			7/2

21518	TRACLG_CONTACT_UPPER_LIMIT	C07	S8
mm	Upper contact limit of work blade with work in centerl. grinding	DOUBLE	POWER ON
-			
-	-	0.,0.,0.,0.,0.,0.,0.,0.,0., 0.,0.,0.,0.,0....	-
			7/2

21520	TRACLG_CONTACT_LOWER_LIMIT	C07	S8
mm	Lower contact limit of work blade with work in centerl. grinding	DOUBLE	POWER ON
-			
-	-	0.,0.,0.,0.,0.,0.,0.,0.,0., 0.,0.,0.,0.,0....	-
			7/2

22080	AUXFU_PREDEF_SPEC		C04	H2
-	Output specification		DWORD	POWER ON
-				
-	33	0x81, 0x81, 0x81, 0x81, 0x81, 0x21, 0x21, 0x21, 0x21, 0x21,0x21...	-	7/2

22100	AUXFU_QUICK_BLOCKCHANGE		C04	H2
-	Block change delay with quick auxiliary functions.		DWORD	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	1	7/2

22110	AUXFU_H_TYPE_INT		C11, C04	H2
-	Data format of H auxiliary functions (integer/real)		DWORD	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	1	7/2

22200	AUXFU_M_SYNC_TYPE		C04	H2
-	Output time of M functions		BYTE	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	3	7/2

22210	AUXFU_S_SYNC_TYPE		C04	H2
-	Output time of S functions (see MD22200 for values)		BYTE	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	4	7/2

22220	AUXFU_T_SYNC_TYPE		C11, C04	H2
-	Output time for T functions (see MD22200 for values)		BYTE	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	4	7/2

22230	AUXFU_H_SYNC_TYPE		C04	H2
-	Output time for H functions (see MD22200 for values)		BYTE	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	3	7/2

Channel-specific machine data

22240	AUXFU_F_SYNC_TYPE		C04	H2
-	Output time for F functions (see MD22200 for values)		BYTE	POWER ON
-				
-	-	3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3	0	4
		,3,3,3,3,3		7/2

22250	AUXFU_D_SYNC_TYPE		C04	H2
-	Output time for D functions (see MD22200 for values)		BYTE	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	0	4
		,0,0,0,0,0		7/2

22252	AUXFU_DL_SYNC_TYPE		C04	H2
-	Output time of DL functions		BYTE	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	0	4
		,0,0,0,0,0		7/2

22254	AUXFU_ASSOC_M0_VALUE		C01, C03, C10	H2
-	Additional M function to stop a program		DWORD	POWER ON
-				
-	-	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1	-	7/2
		1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1		

22256	AUXFU_ASSOC_M1_VALUE		C01, C03, C10	H2
-	Additional M function for conditional stop		DWORD	POWER ON
-				
-	-	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1	-	7/2
		1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1		

22400	S_VALUES_ACTIVE_AFTER_RESET		C04, C03, C05	S1
-	S function active beyond RESET		BOOLEAN	POWER ON
-				
-	-	FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE	-	7/2

22410	F_VALUES_ACTIVE_AFTER_RESET		C04, C03, C05	V1
-	F function active beyond RESET		BOOLEAN	POWER ON
-				
-	-	FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE,FALSE	-	7/2

22420	FGROUP_DEFAULT_AXES		C11	FBFA
-	Default setting for FGROUP command		BYTE	POWER ON
-				
-	8	0, 0, 0, 0, 0, 0, 0, 0,0, 0, 0, 0, 0, 0, 0, 0...	-	7/7

22510	GCODE_GROUPS_TO_PLC		C04	K1
-	G codes output at NCK-PLC interface on block change/RESET		BYTE	POWER ON
-				
-	8	0, 0, 0, 0, 0, 0, 0, 0,0, 0, 0, 0, 0, 0, 0, 0...	-	7/2

22512	EXTERN_GCODE_GROUPS_TO_PLC		C11, C04	FBFA
-	Send G commands of an external NC language to PLC		BYTE	POWER ON
-				
-	8	0, 0, 0, 0, 0, 0, 0, 0,0, 0, 0, 0, 0, 0, 0, 0...	-	7/2

22515	GCODE_GROUPS_TO_PLC_MODE		C04	-
-	Behavior of G group transfer to PLC		DWORD	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	0 1	7/2

22530	TOCARR_CHANGE_M_CODE		C04	W1
-	M code at change of tool holder		DWORD	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	-99999999 99999999	7/2

22532	GEOAX_CHANGE_M_CODE		C04	K2
-	M code at change of geo axes		DWORD	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	0 99999999	7/2

22534	TRAFO_CHANGE_M_CODE		C04	M1
-	M code at change of transformation		DWORD	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	0 99999999	7/2

Channel-specific machine data

22710	TRACE_VARIABLE_NAME		-	BA,S5,FBSY
-	Definition of trace data		STRING	POWER ON
NBUP				
-	10	"BL_NR", "TR_POINT", "EV_TYPE", "EV_SRC", "CS_ASTEP"...	-	2/2

22712	TRACE_VARIABLE_INDEX		EXP, C06	BA,S5,FBSY
-	Index for trace recording data		DWORD	POWER ON
NBUP				
-	10	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0xFFFF

22714	MM_TRACE_DATA_FUNCTION		EXP, C02, C06	BA,S5,FBSY
-	Activating diagnostics		DWORD	POWER ON
NBUP				
-	-	0x0,0x0,0x0,0x0,0x0, 0,0x0,0x0,0x0,0x0...	0	0xFFFF

22800	TRACE_COMPRESSOR_OUTPUT		EXP, C01	D1
-	Activation of trace output for compressor		BYTE	POWER ON
NBUP				
-	-	0,0,0,0,0,0,0,0,0,0, ,0,0,0,0,0	-	0/0

22900	STROKE_CHECK_INSIDE		EXP, C01, C11	FBFA
-	Direction (inside/outside) in which prot. zone 3 is effective		BOOLEAN	POWER ON
-				
-	-	FALSE,FALSE,FALSE, FALSE,FALSE,FALSE, FALSE...	-	7/2

22910	WEIGHTING_FACTOR_FOR_SCALE		EXP, C01, C11	FBFA
-	Input resolution for scaling factor		BOOLEAN	POWER ON
-				
-	-	FALSE,FALSE,FALSE, FALSE,FALSE,FALSE, FALSE...	-	7/2

22914	AXES_SCALE_ENABLE		EXP, C01, C11	FBFA
-	Activation for axial scaling factor (G51)		BOOLEAN	POWER ON
-				
-	-	FALSE,FALSE,FALSE, FALSE,FALSE,FALSE, FALSE...	-	7/2

22920	EXTERN_FIXED_FEEDRATE_F1_ON		EXP, C01, C11	FBFA
-	Activation of fixed feedrates F1 - F9		BOOLEAN	POWER ON
-				
-	-	FALSE,FALSE,FALSE,FALSE,FALSE, FALSE...	-	7/2

22930	EXTERN_PARALLEL_GEOAX		EXP, C01, C11	FBFA
-	Assignment of a parallel channel axis to the geometry axis		BYTE	POWER ON
-				
-	3	0, 0, 0,0, 0, 0,0, 0, 0,0, 0, 0...	0	20

24000	FRAME_ADD_COMPONENTS		C03	K2
-	Frame components for G58 and G59		BOOLEAN	POWER ON
-				
-	-	FALSE,FALSE,FALSE,FALSE,FALSE, FALSE...	-	7/7

24002	CHBFRAME_RESET_MASK		C03	K2
-	Active channel-specific base frames after reset		DWORD	RESET
-				
-	-	0xFFFF,0xFFFF,0xFFFF,0xFFFF,0xFFFF,0xFFFF...	0	0xFFFF

24004	CHBFRAME_POWERON_MASK		C03	FBFA
-	Reset channel-specific base frames after power on		DWORD	POWER ON
-				
-	-	0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0...	0	0xFFFF

24006	CHSFRAME_RESET_MASK		C03	K2
-	Active system frames after reset		DWORD	RESET
-				
-	-	0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1,0x1...	0	0x0000007F

24007	CHSFRAME_RESET_CLEAR_MASK		C03	-
-	Deletion of system frames after reset		DWORD	RESET
-				
-	-	0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0...	0	0x0000007F

24426	TRAFO_INCLUDES_TOOL_4		C07	M1,F2
-	Tool handling with active 4th transformation		BOOLEAN	NEW CONF
-				
-	-	TRUE,TRUE,TRUE, TRUE,TRUE,TRUE, TRUE...	-	7/7

24430	TRAFO_TYPE_5		C07	F2,M1
-	Type of transformation 5 in the channel		DWORD	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0, ,0,0,0,0,0	-	7/7

24432	TRAFO_AXES_IN_5		C07	F2,M1
-	Axis assignment for transformation 5		BYTE	NEW CONF
-				
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20

24434	TRAFO_GEOAX_ASSIGN_TAB_5		C07	F2,M1
-	Assignment of geometry axes to channel axes for transformation 5		BYTE	NEW CONF
-				
-	3	0, 0, 0,0, 0, 0,0, 0, 0,0, 0, 0...	0	20

24436	TRAFO_INCLUDES_TOOL_5		C07	M1,F2
-	Tool handling with active 5th transformation		BOOLEAN	NEW CONF
-				
-	-	TRUE,TRUE,TRUE, TRUE,TRUE,TRUE, TRUE...	-	7/7

24440	TRAFO_TYPE_6		C07	F2,M1
-	Type of transformation 6 in the channel		DWORD	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0, ,0,0,0,0,0	-	7/7

24442	TRAFO_AXES_IN_6		C07	F2,M1
-	Axis assignment for transformation 6		BYTE	NEW CONF
-				
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20

Channel-specific machine data

24444	TRAFO_GEOAX_ASSIGN_TAB_6		C07	F2,M1
-	Assignment of geometry axes to channel axes for transformation 6		BYTE	NEW CONF
-				
-	3	0, 0, 0,0, 0, 0,0, 0, 0,0, 0, 0...	0	20
				7/7

24446	TRAFO_INCLUDES_TOOL_6		C07	M1,F2
-	Tool handling with active 6th transformation		BOOLEAN	NEW CONF
-				
-	-	TRUE,TRUE,TRUE, TRUE,TRUE,TRUE, TRUE...	-	7/7

24450	TRAFO_TYPE_7		C07	F2,M1
-	Type of transformation 7 in the channel		DWORD	NEW CONF
-				
-	-	0,0	-	7/7

24452	TRAFO_AXES_IN_7		C07	F2,M1
-	Axis assignment for transformation 7		BYTE	NEW CONF
-				
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20
				7/7

24454	TRAFO_GEOAX_ASSIGN_TAB_7		C07	F2,M1
-	Assignment of geometry axes to channel axes for transformation 7		BYTE	NEW CONF
-				
-	3	0, 0, 0,0, 0, 0,0, 0, 0,0, 0, 0...	0	20
				7/7

24456	TRAFO_INCLUDES_TOOL_7		C07	M1,F2
-	Tool handling with active 7th transformation		BOOLEAN	NEW CONF
-				
-	-	TRUE,TRUE,TRUE, TRUE,TRUE,TRUE, TRUE...	-	7/7

24460	TRAFO_TYPE_8		C07	F2,M1
-	Type of transformation 8 in the channel		DWORD	NEW CONF
-				
-	-	0,0	-	7/7

24462	TRAFO_AXES_IN_8		C07	F2,M1
-	Axis assignment for transformation 8		BYTE	NEW CONF
-				
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20
				7/7

24464	TRAFO_GEOAX_ASSIGN_TAB_8		C07	F2,M1
-	Assignment of geometry axes to channel axes for transformation 8		BYTE	NEW CONF
-				
-	3	0, 0, 0,0, 0, 0,0, 0, 0,0, 0, 0...	0	20
				7/7

24466	TRAFO_INCLUDES_TOOL_8		C07	M1,F2
-	Tool handling with 8th active transformation		BOOLEAN	NEW CONF
-				
-	-	TRUE,TRUE,TRUE, TRUE,TRUE,TRUE, TRUE...	-	-
				7/7

24470	TRAFO_TYPE_9		C07	M1
-	Type of transformation 9 in the channel		DWORD	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0, ,0,0,0,0,0	-	-
				7/7

24472	TRAFO_AXES_IN_9		C07	M1
-	Axis assignment for transformation 9		BYTE	NEW CONF
-				
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20
				7/7

24474	TRAFO_GEOAX_ASSIGN_TAB_9		C07	M1
-	Assignment of geometry axes to channel axes for transformation 9		BYTE	NEW CONF
-				
-	3	0, 0, 0,0, 0, 0,0, 0, 0,0, 0, 0...	0	20
				7/7

24476	TRAFO_INCLUDES_TOOL_9		C07	M1
-	Treatment of tool with active 9th transformation		BOOLEAN	NEW CONF
-				
-	-	TRUE,TRUE,TRUE, TRUE,TRUE,TRUE, TRUE...	-	-
				7/7

24530	TRAF05_NON_POLE_LIMIT_1		C07	F2
degrees	Definition of pole range for 5-axis transformation 1		DOUBLE	NEW CONF
-				
-	-	2.0,2.0,2.0,2.0,2.0,2.0,2.0,2.0,2.0,2.0...	-	7/7

24540	TRAF05_POLE_LIMIT_1		C07	F2
degrees	End angle toler. with interpol. through pole for 5-axis transf.		DOUBLE	NEW CONF
-				
-	-	2.0,2.0,2.0,2.0,2.0,2.0,2.0,2.0,2.0,2.0...	-	7/7

24542	TRAF05_POLE_TOL_1		C07	-
degrees	End angle tolerance for pole interpolation		DOUBLE	NEW CONF
-				
-	-	0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0...	0	7/7

24550	TRAF05_BASE_TOOL_1		C07	F2
mm	Vector of base tool on activation of 5-axis transformation 1		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24558	TRAF05_JOINT_OFFSET_PART_1		C07	F2
mm	Vector of kinematic table offset		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24560	TRAF05_JOINT_OFFSET_1		C07	F2
mm	Vector of the kinem.offset of the 1st 5-axis transf. in channel		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24561	TRAF06_JOINT_OFFSET_2_3_1		C07	-
mm	Vector of kinematic offset		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

Channel-specific machine data

24562	TRAF05_TOOL_ROT_AX_OFFSET_1		C07	F2
mm	Offset of swivel point of 1st rotary axis on 5-axis transform. 1		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24564	TRAF05_NUTATOR_AX_ANGLE_1		C07	F2
degrees	Nutating head angle in 5-axis transformation		DOUBLE	NEW CONF
-				
-	-	45.0,45.0,45.0,45.0, -89. 45.0,45.0,45.0...	89.	7/7

24566	TRAF05_NUTATOR_VIRT_ORIAX_1		C07	-
-	Virtual orientation axes		BOOLEAN	NEW CONF
-				
-	-	FALSE,FALSE,FAL SE,FALSE,FALSE, FALSE...	-	7/7

24570	TRAF05_AXIS1_1		C07	F2
-	Direction of 1st rotary axis		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24572	TRAF05_AXIS2_1		C07	F2
-	Direction of 2nd rotary axis		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24573	TRAF05_AXIS3_1		C07	-
-	Direction of third rotary axis		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24574	TRAF05_BASE_ORIENT_1		C07	-
-	Vector of the tool base orientation for 5-axis transformation		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24576	TRAF06_BASE_ORIENT_NORMAL_1		C07	-
-	Normal tool vector in 6-axis transformation		DOUBLE	NEW CONF
-				
-	3	0.0, 1.0 , 0.0,0.0, 1.0 , 0.0...	-	7/7

24580	TRAF05_TOOL_VECTOR_1		C07	F2
-	Direction of orientation vector for the first 5-axis transf.		BYTE	POWER ON
-				
-	-	2,2,2,2,2,2,2,2,2,2,2,2 ,2,2,2,2,2	0	2

24582	TRAF05_TCARR_NO_1		C07	-
-	TCARR number for the first 5-axis transformation		DWORD	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	-	7/7

24585	TRAF05_ORIAX_ASSIGN_TAB_1		C07	F2
-	Orientation axis / channel axis assignment transformation 1		BYTE	POWER ON
-				
-	3	0, 0, 0,0, 0, 0,0, 0, 0,0, 0, 0...	0	20

24590	TRAF05_ROT_OFFSET_FROM_FR_1		C01, C07	-
-	Offset of transformation rotary axes from WO.		BOOLEAN	SOFORT
-				
-	-	FALSE,FALSE,FAL SE,FALSE,FALSE, FALSE...	-	7/2

24600	TRAF05_PART_OFFSET_2		C07	F2
mm	Offset vector of the 2nd 5-axis transformation in the channel		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24610	TRAF05_ROT_AX_OFFSET_2		C07	-
degrees	Position offset of rotary axes 1/2/3		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0, 0.0,0.0, 0.0, 0.0...	-	7/7

Channel-specific machine data

24620	TRAF05_ROT_SIGN_IS_PLUS_2		C07	F2
-	Sign of rotary axis 1/2/3 for 5-axis transformation 2		BOOLEAN	NEW CONF
-				
-	3	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	7/7

24630	TRAF05_NON_POLE_LIMIT_2		C07	F2
degrees	Definition of pole range for 5-axis transformation 2		DOUBLE	NEW CONF
-				
-	-	2.0,2.0,2.0,2.0,2.0,2.0,2.0,2.0,2.0,2.0...	-	7/7

24640	TRAF05_POLE_LIMIT_2		C07	F2
degrees	End angle toler. with interpol. through pole for 5-axis transf.		DOUBLE	NEW CONF
-				
-	-	2.0,2.0,2.0,2.0,2.0,2.0,2.0,2.0,2.0,2.0...	-	7/7

24642	TRAF05_POLE_TOL_2		C07	-
degrees	End angle tolerance for pole interpolation		DOUBLE	NEW CONF
-				
-	-	0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0...	0	7/7

24650	TRAF05_BASE_TOOL_2		C07	F2
mm	Vector of base tool on activation of 5-axis transformation 2		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24658	TRAF05_JOINT_OFFSET_PART_2		C07	F2
mm	Vector of kinematic table offset		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24660	TRAF05_JOINT_OFFSET_2		C07	F2
mm	Vector of the kinem.offset of the 2nd 5-axis transformation		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24661	TRAF06_JOINT_OFFSET_2_3_2		C07	-
mm	Vector of kinematic offset		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24662	TRAF05_TOOL_ROT_AX_OFFSET_2		C07	F2
mm	Offset swivel point of 2nd 5-axis transf. (swivelled lin.axis)		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24664	TRAF05_NUTATOR_AX_ANGLE_2		C07	F2
degrees	Nutating head angle		DOUBLE	NEW CONF
-				
-	-	45.0,45.0,45.0,45.0, 45.0,45.0,45.0...	-89.	89.

24666	TRAF05_NUTATOR_VIRT_ORIAX_2		C07	-
-	Virtual orientation axes		BOOLEAN	NEW CONF
-				
-	-	FALSE,FALSE,FAL SE,FALSE,FALSE, FALSE...	-	7/7

24670	TRAF05_AXIS1_2		C07	F2
-	Direction of 1st rotary axis		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24672	TRAF05_AXIS2_2		C07	F2
-	Direction of 2nd rotary axis		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24673	TRAF05_AXIS3_2		C07	-
-	Direction of third rotary axis		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

Channel-specific machine data

24674	TRAF05_BASE_ORIENT_2		C07	F2
-	Basic tool orientation		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24676	TRAF06_BASE_ORIENT_NORMAL_2		C07	-
-	Normal tool vector		DOUBLE	NEW CONF
-				
-	3	0.0, 1.0 , 0.0,0.0, 1.0 , 0.0...	-	7/7

24680	TRAF05_TOOL_VECTOR_2		C07	F2
-	Direction of orientation vector		BYTE	POWER ON
-				
-	-	2,2,2,2,2,2,2,2,2,2 ,2,2,2,2,2	0 2	7/2

24682	TRAF05_TCARR_NO_2		C07	-
-	TCARR number for the second 5-axis transformation		DWORD	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0, ,0,0,0,0,0	-	7/7

24685	TRAF05_ORIAX_ASSIGN_TAB_2		C07	F2
-	Orientation axis / channel axis assignment transformation 1		BYTE	POWER ON
-				
-	3	0, 0, 0,0, 0, 0,0, 0, 0,0, 0, 0...	0 20	7/2

24690	TRAF05_ROT_OFFSET_FROM_FR_2		C01, C07	-
-	Offset of transformation rotary axes from WO.		BOOLEAN	SOFORT
-				
-	-	FALSE,FALSE,FAL SE,FALSE,FALSE, FALSE...	-	7/2

24700	TRAANG_ANGLE_1		C07	M1
degrees	Angle between Cartesian axis and real (inclined) axis		DOUBLE	NEW CONF
-				
-	-	0.0,0.0,0.0,0.0,0.0, .0,0.0,0.0,0.0...	-	7/7

24710	TRAANG_BASE_TOOL_1		C07	M1
mm	Vector of base tool for 1st TRAANG transformation		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24720	TRAANG_PARALLEL_VELO_RES_1		C07	M1
-	Velocity margin for 1st TRAANG transformation		DOUBLE	NEW CONF
-				
-	-	0.0,0.0,0.0,0.0,0.0,0 .0,0.0,0.0,0.0...	0.0	1.0

24721	TRAANG_PARALLEL_ACCEL_RES_1		C07	M1
-	Acceleration margin of parallel axis for the 1st TRAANG transf.		DOUBLE	NEW CONF
-				
-	-	0.0,0.0,0.0,0.0,0.0,0 .0,0.0,0.0,0.0...	0.0	1.0

24750	TRAANG_ANGLE_2		C07	M1
degrees	Angle between Cartesian axis and real (inclined) axis		DOUBLE	NEW CONF
-				
-	-	0.0,0.0,0.0,0.0,0.0,0 .0,0.0,0.0,0.0...	-	7/7

24760	TRAANG_BASE_TOOL_2		C07	M1
mm	Vector of base tool for 2nd TRAANG transformation		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24770	TRAANG_PARALLEL_VELO_RES_2		C07	M1
-	Velocity margin for 2nd TRAANG transformation		DOUBLE	NEW CONF
-				
-	-	0.0,0.0,0.0,0.0,0.0,0 .0,0.0,0.0,0.0...	0.0	1.0

24771	TRAANG_PARALLEL_ACCEL_RES_2		C07	M1
-	Acceler. margin of parallel axis for the 2nd TRAANG transform.		DOUBLE	NEW CONF
-				
-	-	0.0,0.0,0.0,0.0,0.0,0 .0,0.0,0.0,0.0...	0.0	1.0

Channel-specific machine data

24800	TRACYL_ROT_AX_OFFSET_1		C07	M1
degrees	Offset of rotary axis for the 1st TRACYL transformation		DOUBLE	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0,0,0,0...	-	7/7

24805	TRACYL_ROT_AX_FRAME_1		C07	-
-	Rotary axis offset TRACYL 1		BYTE	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	0	2

24808	TRACYL_DEFAULT_MODE_1		C07	M1
-	TRACYL mode selection		BYTE	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	0	1

24810	TRACYL_ROT_SIGN_IS_PLUS_1		C07	M1
-	Sign of rotary axis for 1st TRACYL transformation		BOOLEAN	NEW CONF
-				
-	-	TRUE,TRUE,TRUE, TRUE,TRUE,TRUE, TRUE...	-	7/7

24820	TRACYL_BASE_TOOL_1		C07	M1
mm	Vector of base tool for 1st TRACYL transformation		DOUBLE	NEW CONF
-				
-	3	0,0,0,0,0,0,0,0,0,0, 0,0,0,0,0...	-	7/7

24850	TRACYL_ROT_AX_OFFSET_2		C07	M1
degrees	Offset of rotary axis for the 2nd TRACYL transformation		DOUBLE	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0,0,0,0...	-	7/7

24855	TRACYL_ROT_AX_FRAME_2		C07	-
-	Rotary axis offset TRACYL 2		BYTE	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	0	2

Channel-specific machine data

24920	TRANSMIT_BASE_TOOL_1		C07	M1
mm	Vector of base tool for 1st TRANSMIT transformation		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24950	TRANSMIT_ROT_AX_OFFSET_2		C07	M1
degrees	Offset of rotary axis for the 2nd TRANSMIT transformation		DOUBLE	NEW CONF
-				
-	-	0.0,0.0,0.0,0.0,0.0,0 .0,0.0,0.0,0.0...	-	7/7

24955	TRANSMIT_ROT_AX_FRAME_2		C07	-
-	Rotary axis offset TRANSMIT 2		BYTE	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	0	2 7/7

24960	TRANSMIT_ROT_SIGN_IS_PLUS_2		C07	M1
-	Sign of rotary axis for 2nd TRANSMIT transformation		BOOLEAN	NEW CONF
-				
-	-	TRUE,TRUE,TRUE, TRUE,TRUE,TRUE, TRUE...	-	7/7

24961	TRANSMIT_POLE_SIDE_FIX_2		C07	M1
-	Restr. of working range before/behind the pole, 2. TRANSMIT		BYTE	NEW CONF
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	0	2 7/7

24970	TRANSMIT_BASE_TOOL_2		C07	M1
mm	Vector of base tool for 2nd TRANSMIT transformation		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0 , 0.0,0.0, 0.0 , 0.0...	-	7/7

24995	TRACON_CHAIN_1		C07	M1
-	Transformation grouping		DWORD	NEW CONF
-				
-	4	0, 0, 0, 0,0, 0, 0, 0,0, 0, 0, 0...	0	8 7/7

Channel-specific machine data

26006	NIBBLE_PUNCH_INMASK		C01, C09	N4
-	Mask for fast input bits		BYTE	POWER ON
-				
-	8	1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-	7/2
26008	NIBBLE_PUNCH_CODE		C09	N4
-	Definition of M functions		DWORD	POWER ON
-				
-	8	0, 23, 22, 25, 26, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-	7/2
26010	PUNCHNIB_AXIS_MASK		C09	N4
-	Definition of punching and nibbling axes		DWORD	POWER ON
-				
-	-	7, 0, 0, 0, 0, 0, 0, 0, 0, 0, , 0, 0, 0, 0, 0	-	7/2
26012	PUNCHNIB_ACTIVATION		C09	N4
-	Activation of punching and nibbling functions		DWORD	POWER ON
-				
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, , 0, 0, 0, 0, 0	-	7/2
26014	PUNCH_PATH_SPLITTING		C09	N4
-	Activation of automatic path segmentation		DWORD	POWER ON
-				
-	-	2, 2, 2, 2, 2, 2, 2, 2, 2, 2, , 2, 2, 2, 2, 2	-	7/2
26016	PUNCH_PARTITION_TYPE		C09	N4
-	Behavior of individual axes with automatic path segmentation		DWORD	POWER ON
-				
-	-	1, 0, 0, 0, 0, 0, 0, 0, 0, 0, , 0, 0, 0, 0, 0	-	7/2
26018	NIBBLE_PRE_START_TIME		C09	N4
s	Delay time for nibbling/punching with G603		DOUBLE	POWER ON
-				
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0....	-	7/2

Channel-specific machine data

28085	MM_LINK_TOA_UNIT	C02, C09	FBW,S7
-	Assignment of a TO unit to a channel (SRAM)	DWORD	POWER ON
-			
-	-	1,2,3,4,5,6,7,8,9,10, 11,12,13,14,15,16	1 10 7/2
28090	MM_NUM_CC_BLOCK_ELEMENTS	EXP, C02	S7
-	Number of block elements for compile cycles (DRAM)	DWORD	POWER ON
-			
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	0 130 7/1
28100	MM_NUM_CC_BLOCK_USER_MEM	EXP, C02	S7
-	Size of block memory for compile cycles (DRAM), in KB	DWORD	POWER ON
-			
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	0 - 7/1
28105	MM_NUM_CC_HEAP_MEM	EXP, C02	S7
-	Heap memory in kbytes for compile-cycle applications (DRAM)	DWORD	POWER ON
-			
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	- - 7/2
28150	MM_NUM_VDIVAR_ELEMENTS	C02	P3
-	Number of elements for writing PLC variables	DWORD	POWER ON
-			
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	- - 7/2
28160	MM_NUM_LINKVAR_ELEMENTS	C02	B3
-	Number of elements for writing NCU-link variables	DWORD	POWER ON
-			
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	- - 7/2
28180	MM_MAX_TRACE_DATAPPOINTS	EXP, C02, C06	BA,S5,FBSY
-	Length of the trace data buffer	DWORD	POWER ON
NBUP			
-	-	100,100,100,100,100 0,100,100,100,100.. .	0 20000 2/2

28580	MM_ORIPATH_CONFIG		C02	-
-	Setting for ORIPATH path-relative orientation		BYTE	POWER ON
-				
-	-	0,0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	0	1
				1/1

2.5 Axis-specific machine data

Number	Identifier			Display filters	Reference
Unit	Name			Data type	Active
Attributes					
System	Dimension	Default value	Minimum value	Maximum value	Protection

2.5.1 Configuration

30100	CTRLOUT_SEGMENT_NR			EXP, A01	G2
-	Setpoint assignment: bus segment number			BYTE	POWER ON
-					
-	1	1	1	5	7/2
710-2a2c	-	5	5	5	-1/-
710-6a2c	-	5	5	5	-1/-
710-12a2c	-	5	5	5	-1/-
710-31a10c	-	5	5	5	-1/-
840di-basic	-	5	5	5	-1/-
840di-universal	-	5	5	5	-1/-
840di-plus	-	5	5	5	-1/-

30110	CTRLOUT_MODULE_NR			A01, A11, -	G2
-	Setpoint assignment: module number			BYTE	POWER ON
-					
-	1	1,2,3,4,5,6,7,8,9,10, 11,12,13,14,15,16,17,18...	1	31	7/2

30120	CTRLOUT_NR			EXP, A01	G2
-	Setpoint assignment: Setpoint output on drive submodule/module			BYTE	POWER ON
-					
-	1	1	1	3	2/2

30130	CTRLOUT_TYPE			A01, A11	G2,S6
-	Output type of setpoint			BYTE	POWER ON
-					
-	1	0	0	3	7/2

Axis-specific machine data

30132	IS_VIRTUAL_AX			A01	M3
-	Axis is a virtual axis			BOOLEAN	POWER ON
CTEQ					
-	1	FALSE	-	-	7/2

30134	IS_UNIPOLAR_OUTPUT			A01	G2
-	Setpoint output is unipolar			BYTE	POWER ON
-					
-	1	0	0	2	7/2

30200	NUM_ENCS			A01, A02, -	G2
-	Number of encoders			BYTE	POWER ON
-					
-	-	1	0	2	7/2

30210	ENC_SEGMENT_NR			EXP, A01, A02	G2
-	Actual value assignment: bus segment number.			BYTE	POWER ON
-					
-	2	1, 1	1	5	7/2
710-2a2c	-	5, 5	5	5	-1/-
710-6a2c	-	5, 5	5	5	-1/-
710-12a2c	-	5, 5	5	5	-1/-
710-31a10c	-	5, 5	5	5	-1/-
840di-basic	-	5, 5	5	5	-1/-
840di-universal	-	5, 5	5	5	-1/-
840di-plus	-	5, 5	5	5	-1/-

30220	ENC_MODULE_NR			A01, A02, A11	G2
-	Actual value assignment: Drive number/measuring circuit number			BYTE	POWER ON
-					
-	2	1, 1,2, 2,3, 3,4, 4,5, 5,6, 6,7, 7...	1	31	7/2

30230	ENC_INPUT_NR			A01, A02, A11, -	G2
-	Actual value assignm.: Input on drive module/meas. circuit board			BYTE	POWER ON
-					
-	2	1, 2	1	3	7/2

30240	ENC_TYPE			A01, A02, A11, -	G2,R1
-	Encoder type of actual value sensing (actual position value).			BYTE	POWER ON
-					
-	2	0, 0	0	5	7/2

30242	ENC_IS_INDEPENDENT			A02, A11, -	G2
-	Encoder is independent			BYTE	NEW CONF
-					
-	2	0, 0	0	3	7/2

30244	ENC_MEAS_TYPE			A01, A02, A11	-
-	Encoder measurement type			BYTE	POWER ON
-					
-	2	1, 1	0	1	7/2
840d-2a2c	-	-	-	-	0/0
840d-6a2c	-	-	-	-	0/0
840d-12a2c	-	-	-	-	0/0
840d-31a10c	-	-	-	-	0/0

30250	ACT_POS_ABS			EXP, A02, A08	R1
-	Internal encoder position			DOUBLE	POWER ON
ODLD, -, -					
-	2	0.0, 0.0	-	-	7/2

30260	ABS_INC_RATIO			EXP, A01, A02	R1
-	Absolute encoder: Ratio of absolute to incremental resolution			DWORD	POWER ON
-					
-	2	4, 4	-	-	7/2

30270	ENC_ABS_BUFFERING			EXP, A01, A02	FBA,R1
-	Absolute encoder: Traversing range extension			BYTE	POWER ON
-					
-	2	0, 0	0	1	7/2

30300	IS_ROT_AX			A01, A06, A11, -	R2
-	Rotary axis / spindle			BOOLEAN	POWER ON
SCAL, CTEQ					
-	-	FALSE	-	-	7/2

30310	ROT_IS_MODULO			A01, A06, A11, -	R2
-	Modulo conversion for rotary axis / spindle			BOOLEAN	POWER ON
CTEQ					
-	-	FALSE	-	-	7/2

30320	DISPLAY_IS_MODULO			A01, A06, A11	R2
-	Modulo 360 degrees displayed for rotary axis or spindle.			BOOLEAN	POWER ON
CTEQ					
-	-	FALSE	-	-	7/2

Axis-specific machine data

30330	MODULO_RANGE	EXP, A01, -	R2
degrees	Size of modulo range.	DOUBLE	RESET
CTEQ			
-	-	360.0	1.0
		360000000.0	7/2

30340	MODULO_RANGE_START	EXP, A01	R2
degrees	Modulo range start position	DOUBLE	RESET
CTEQ			
-	-	0.0	-
		-	7/2

30350	SIMU_AX_VDI_OUTPUT	A01, A06	G2
-	Axis signals output for simulation axis	BOOLEAN	POWER ON
CTEQ			
-	-	FALSE	-
		-	7/2

30450	IS_CONCURRENT_POS_AX	EXP, A01	P2
-	Default for reset: neutral/channel axis	BOOLEAN	RESET
CTEQ			
-	-	FALSE	-
		-	7/2

30455	MISC_FUNCTION_MASK	A06, A10	R2
-	Axis functions	DWORD	RESET
CTEQ			
-	-	0x00	0
		0x80	7/2

30460	BASE_FUNCTION_MASK	A01	-
-	Axis functions	DWORD	POWER ON
CTEQ			
-	-	0x00	0
		0xFF	7/2

30465	AXIS_LANG_SUB_MASK	N01	-
-	Substitution of NC language commands	DWORD	POWER ON
-			
-	-	0	0
		3	7/2

30500	INDEX_AX_ASSIGN_POS_TAB	A01, A10	T1
-	Axis is an indexing axis	BYTE	RESET
-			
-	-	0	0
		3	7/2

30501	INDEX_AX_NUMERATOR	A01, A10	T1
mm, degrees	Indexing axis equidistant positions numerator	DOUBLE	RESET
-			
-	-	0.0	-
		-	7/2

30502	INDEX_AX_DENOMINATOR			A01, A10	T1
-	Indexing axis equidistant positions denominator			DWORD	RESET
-					
-	-	1	1	-	7/2

30503	INDEX_AX_OFFSET			A01, A10	T1
mm, degrees	Indexing axis with equidistant positions first index position			DOUBLE	RESET
-					
-	-	0.0	-	-	7/2

30505	HIRTH_IS_ACTIVE			A01, A10	T1
-	Axis is an indexing axis with Hirth tooth system			BOOLEAN	RESET
CTEQ					
-	-	FALSE	-	-	7/2

30550	AXCONF_ASSIGN_MASTER_CHAN			A01, A06, A10	K5
-	Initial setting of channel for change of axis			BYTE	POWER ON
-					
-	-	0	0	10	7/2

30552	AUTO_GET_TYPE			EXP, A06, A10	S1,K5
-	Automatic GET for get axis			BYTE	POWER ON
-					
-	-	1	0	2	7/2

30554	AXCONF_ASSIGN_MASTER_NCU			A01, A06, A10	B3
-	Initial setting which NCU creates setpoints for the axis			BYTE	POWER ON
-					
-	-	0	0	16	7/2

30560	IS_LOCAL_LINK_AXIS			EXP, A01	B3
-	Axis is a local link axis			BOOLEAN	POWER ON
-					
-	-	FALSE	-	-	7/2

30600	FIX_POINT_POS			A03, A10	K1
mm, degrees	Fixed-value positions of axis with G75			DOUBLE	POWER ON
-					
-	2	0.0, 0.0	-	-	7/2

30800	WORKAREA_CHECK_TYPE			-	A2
-	Type of check of working area limitations.			BOOLEAN	NEW CONF
CTEQ					
-	-	FALSE	-	-	7/2

2.5.2 Encoder matching

31000	ENC_IS_LINEAR		A02, A11, -	G2
-	Linear scale		BOOLEAN	POWER ON
-				
-	2	FALSE, FALSE	-	7/2

31010	ENC_GRID_POINT_DIST		A02, A11, -	G2
mm	Division period for linear scales		DOUBLE	POWER ON
-				
-	2	0.01, 0.01	-	7/2

31020	ENC_RESOL		A02, A11, -	G2
-	Encoder lines per revolution		DWORD	POWER ON
-				
-	2	2048, 2048	-	7/2

31025	ENC_PULSE_MULT		EXP, A01, A02	K4
-	Encoder multiplication (high-resolution)		DWORD	POWER ON
-				
-	2	2048, 2048	-	7/2

31030	LEADSCREW_PITCH		A02, A11, -	G2
mm	Pitch of leadscrew		DOUBLE	POWER ON
-				
-	-	10.0	-	7/2

31040	ENC_IS_DIRECT		A02, A11, -	G2
-	Direct measuring system (no compilation to load position)		BOOLEAN	POWER ON
-				
-	2	FALSE, FALSE	-	7/2

31044	ENC_IS_DIRECT2		A02, -	-
-	Encoder mounted on the additional gearbox		BOOLEAN	NEW CONF
-				
-	2	FALSE, FALSE	-	7/2

31050	DRIVE_AX_RATIO_DENOM		A02, A11, -	G2
-	Denominator load gearbox		DWORD	POWER ON
-				
-	6	1, 1, 1, 1, 1, 1	1	2147000000 7/2

31060	DRIVE_AX_RATIO_NUMERA			A02, A11, -	G2
-	Numerator load gearbox			DWORD	POWER ON
-					
-	6	1, 1, 1, 1, 1, 1	-2147000000	2147000000	7/2

31064	DRIVE_AX_RATIO2_DENOM			A02, -	-
-	Denominator additional gearbox			DWORD	NEW CONF
-					
-	-	1	1	2147000000	7/2

31066	DRIVE_AX_RATIO2_NUMERA			A02, -	-
-	Numerator additional gearbox			DWORD	NEW CONF
-					
-	-	1	-2147000000	2147000000	7/2

31070	DRIVE_ENC_RATIO_DENOM			A02, A11, -	G2
-	Denominator measuring gearbox			DWORD	POWER ON
-					
-	2	1, 1	1	2147000000	7/2

31080	DRIVE_ENC_RATIO_NUMERA			A02, A11, -	G2
-	Numerator measuring gearbox			DWORD	POWER ON
-					
-	2	1, 1	1	2147000000	7/2

31090	JOG_INCR_WEIGHT			A01, A12	H1,G2
mm, degrees	Evaluation of an increment with INC/handwheel			DOUBLE	RESET
CTEQ					
-	2	0.001, 0.00254	-	-	7/2

31122	BERO_DELAY_TIME_PLUS			A02, A06	S1
s	BERO delay time Plus			DOUBLE	NEW CONF
-					
-	2	0.000110, 0.000110	-	-	7/2

31123	BERO_DELAY_TIME_MINUS			A02, A06	S1
s	BERO delay time minus			DOUBLE	NEW CONF
-					
-	2	0.000078, 0.000078	-	-	7/2

31200	SCALING_FACTOR_G70_G71			EXP, A01	G2
-	Factor for converting values while G70/G71 is active			DOUBLE	POWER ON
CTEQ					
-	-	25.4	1.e-9	-	7/2

Axis-specific machine data

31500	AXIS_NUMBER_FOR_MONITORING			A01	S6
-	Output setpoint of this axis for service purposes			DWORD	POWER ON
-					
-	1	0	0	31	7/2

31510	OFFSETVALUE_FOR_MONITORING			A01	S6
V	Offset voltage for service setpoint			DOUBLE	NEW CONF
-					
-	1	0.0	-10.0	10.0	7/2

31520	GAIN_FOR_MONITORING			A01	S6
-	Gain for service setpoint			DOUBLE	NEW CONF
-					
-	1	1.0	-100.0	100.0	7/2

31600	TRACE_VDI_AX			EXP, N06	-
-	Trace-specification for axial VDI signals			BOOLEAN	POWER ON
NBUP					
-	-	FALSE	-	-	2/2

2.5.3 Closed-loop control

32000	MAX_AX_VELO			A11, A04	G2
mm/min, rev/min	maximum axis velocity			DOUBLE	NEW CONF
CTEQ					
-	-	10000.	1.e-9	-	7/2

32010	JOG_VELO_RAPID			A11, A04	H1
mm/min, rev/min	Rapid traverse in jog mode			DOUBLE	RESET
CTEQ					
-	-	10000.	-	-	7/2

32020	JOG_VELO			A11, A04	H1
mm/min, rev/min	Jog axis velocity			DOUBLE	RESET
CTEQ					
-	-	2000.	-	-	7/2

32040	JOG_REV_VELO_RAPID			A11, A04	H1
mm/rev	Revolutional feedrate in JOG with rapid traverse override			DOUBLE	RESET
CTEQ					
-	-	2.5	-	-	7/2

32050	JOG_REV_VELO		A11, A04	H1
mm/rev	Revolutional feedrate in JOG		DOUBLE	RESET
CTEQ				
-	-	0.5	-	7/2

32060	POS_AX_VELO		A12, A04	P2
mm/min, rev/min	Initial setting for positioning axis velocity		DOUBLE	RESET
CTEQ				
-	-	10000.	-	7/2

32070	CORR_VELO		A04	H1,K2,W4
%	Axis velocity for override		DOUBLE	RESET
CTEQ				
-	-	50.0	-	7/2

32074	FRAME_OR_CORRPOS_NOTALLOWED		A01	H1,K2,W4
-	Frame or tool length compensation are not permissible		DWORD	POWER ON
CTEQ				
-	-	0	0	0xFFFF

32080	HANDWH_MAX_INCR_SIZE		A05, A10	H1
mm, degrees	Limitation of selected increment		DOUBLE	RESET
CTEQ				
-	-	0.0	-	7/2

32082	HANDWH_MAX_INCR_VELO_SIZE		A05, A10, A04	H1
mm/min, rev/min	Limitation for velocity override		DOUBLE	RESET
CTEQ				
-	-	500.0	-	7/2

32084	HANDWH_STOP_COND		EXP, A10	H1
-	Effect of VDI signals on handwheel travel		DWORD	RESET
CTEQ				
-	-	0xFF	0	0x7FF

32090	HANDWH_VELO_OVERLAY_FACTOR		A10, A04	H1
-	Ratio of JOG velocity to handwheel velocity (DRF)		DOUBLE	RESET
CTEQ				
-	-	0.5	-	7/2

32100	AX_MOTION_DIR		A07, A03, A11, -	G2
-	Traversing direction (not control direction)		DWORD	POWER ON
-				
-	-	1	-1	1

Axis-specific machine data

32110	ENC_FEEDBACK_POL			A07, A02, A11	G2
-	Sign actual value (control direction)			DWORD	POWER ON
-					
-	2	1, 1	-1	1	7/2

32200	POSCTRL_GAIN			A07, A11	G2
1000/min	Servo gain factor			DOUBLE	NEW CONF
CTEQ					
-	6	16.66666667, 16.66666667, 16.66666667, 16.66666667, 16.66666667...	0	2000.	7/2

32210	POSCTRL_INTEGR_TIME			A07	G2
s	Position controller integral time			DOUBLE	NEW CONF
-					
-	-	1.0	0	10000.0	7/2

32220	POSCTRL_INTEGR_ENABLE			A07	G2
-	Enable integral component position controller			BOOLEAN	POWER ON
-					
-	-	FALSE	-	-	7/2

32230	POSCTRL_CONFIG			A07	-
-	Configuration of the position controller structure			BYTE	POWER ON
-					
-	-	0	0	17	7/2

32250	RATED_OUTVAL			A01, A11	G2
%	Rated output voltage			DOUBLE	NEW CONF
CTEQ					
-	1	80.0	-	-	7/2
710-2a2c	-	0.0	-	-	-/-
710-6a2c	-	0.0	-	-	-/-
710-12a2c	-	0.0	-	-	-/-
710-31a10c	-	0.0	-	-	-/-
840di-basic	-	0.0	-	-	-/-
840di-universal	-	0.0	-	-	-/-
840di-plus	-	0.0	-	-	-/-

32260	RATED_VELO			A01, A11	G2
rev/min	Rated motor speed			DOUBLE	NEW CONF
CTEQ					
-	1	3000.0	-	-	7/2

32300	MAX_AX_ACCEL			A11, A04, -	B2
m/s ² , rev/s ²	maximum axis acceleration			DOUBLE	NEW CONF
CTEQ					
-	5	1.0, 1.0, 1.0, 1.0, 1.0	1.0e-3	-	7/2
32310	MAX_ACCEL_OVL_FACTOR			A04	B1
-	Overload factor for axial velocity steps			DOUBLE	NEW CONF
CTEQ					
-	5	1.2, 1.2, 1.2, 1.2, 1.2	-	-	3/3
32320	DYN_LIMIT_RESET_MASK			A05, A06, A10, A04	-
-	Reset behavior of dynamic response limitation.			DWORD	RESET
CTEQ					
-	-	0	0	0x01	7/2
32400	AX_JERK_ENABLE			A07, A04, -	B2
-	Axial jerk limitation			BOOLEAN	NEW CONF
CTEQ					
-	-	FALSE	-	-	7/2
32402	AX_JERK_MODE			A07, A04	B2,G2,B3
-	Filter type for axial jerk limitation			BYTE	POWER ON
CTEQ					
-	-	1	1	3	7/2
32410	AX_JERK_TIME			A07, A04	B2
s	Time constant for axial jerk filter			DOUBLE	NEW CONF
-					
-	-	0.001	-	-	7/2
32412	AX_JERK_FREQ			A07, A04	P6
-	Blocking frequency of axial jerk filter			DOUBLE	NEW CONF
-					
-	-	10.0	-	-	7/2
32414	AX_JERK_DAMP			A07, A04	P6
-	Damping of axial jerk filter			DOUBLE	NEW CONF
-					
-	-	0.0	-	-	7/2
32420	JOG_AND_POS_JERK_ENABLE			A04	B2
-	Default setting of axis jerk limitation			BOOLEAN	RESET
CTEQ					
-	-	FALSE	-	-	7/2

Axis-specific machine data

32430	JOG_AND_POS_MAX_JERK			A04	B2
m/s ³ , rev/s ³	Axial jerk			DOUBLE	RESET
CTEQ					
-	-	1000.0	1.e-9	-	7/2
32431	MAX_AX_JERK			A04	B1
m/s ³ , rev/s ³	maximum axial jerk for path movement			DOUBLE	NEW CONF
-					
-	5	1.e6, 1.e6, 1.e6, 1.e6, 1.e6	1.e-9	-	3/3
32432	PATH_TRANS_JERK_LIM			A04	B1
m/s ³ , rev/s ³	maximum axial jerk at block transition in continuous-path mode			DOUBLE	NEW CONF
CTEQ					
-	5	1.e6, 1.e6, 1.e6, 1.e6, 1.e6	-	-	3/3
32433	SOFT_ACCEL_FACTOR			A04, -	B1
-	Scaling of acceleration limitation with SOFT			DOUBLE	NEW CONF
-					
-	5	1., 1., 1., 1., 1.	1e-9	-	3/3
32434	G00_ACCEL_FACTOR			A04, -	B1
-	Scaling of acceleration limitation with G00.			DOUBLE	NEW CONF
-					
-	-	1.	1e-9	-	3/3
32435	G00_JERK_FACTOR			A04	B1
-	Scaling of jerk limitation with G00.			DOUBLE	NEW CONF
-					
-	-	1.	1e-9	-	3/3
32440	LOOKAH_FREQUENCY			EXP, A04	B1
-	Smoothing frequency for Look Ahead			DOUBLE	NEW CONF
-					
-	-	10.	-	-	7/2
32450	BACKLASH			A09	K3
mm, degrees	Backlash			DOUBLE	NEW CONF
-					
-	2	0.0, 0.0	-	-	7/2

32452	BACKLASH_FACTOR			A09	K3
-	Evaluation factor for backlash			DOUBLE	NEW CONF
-					
-	6	1.0, 1.0, 1.0, 1.0, 1.0, 1.0	0.01	100.0	7/2

32460	TORQUE_OFFSET			A09	K3
%	Additional torque for electronic weight compensation			DOUBLE	NEW CONF
-					
-	1	0.0	-100.0	100.0	7/2

32490	FRICT_COMP_MODE			A09	K3
-	Type of friction compensation			BYTE	POWER ON
-					
-	1	1	0	2	7/2

32500	FRICT_COMP_ENABLE			A09	K3
-	Friction compensation active			BOOLEAN	NEW CONF
-					
-	-	FALSE	-	-	7/2

32510	FRICT_COMP_ADAPT_ENABLE			EXP, A09	K3
-	Adaptation friction compensation active			BOOLEAN	NEW CONF
-					
-	1	FALSE	-	-	7/2

32520	FRICT_COMP_CONST_MAX			EXP, A09	K3
mm/min, rev/min	Maximum friction compensation value			DOUBLE	NEW CONF
-					
-	1	0.0	-	-	7/2

32530	FRICT_COMP_CONST_MIN			EXP, A09	K3
mm/min, rev/min	Minimum friction compensation value			DOUBLE	NEW CONF
-					
-	1	0.0	-	-	7/2

32540	FRICT_COMP_TIME			EXP, A09	K3
s	Friction compensation time constant			DOUBLE	NEW CONF
-					
-	1	0.015	-	-	7/2

32550	FRICT_COMP_ACCEL1			EXP, A09	K3
m/s ² , rev/s ²	Adaptation acceleration value 1			DOUBLE	NEW CONF
-					
-	1	0.0	-	-	7/2

Axis-specific machine data

32560	FRICT_COMP_ACCEL2			EXP, A09	K3
m/s ² , rev/s ²	Adaptation acceleration value 2			DOUBLE	NEW CONF
-					
-	1	0.0	-	-	7/2

32570	FRICT_COMP_ACCEL3			EXP, A09	K3
m/s ² , rev/s ²	Adaptation acceleration value 3			DOUBLE	NEW CONF
-					
-	1	0.0	-	-	7/2

32580	FRICT_COMP_INC_FACTOR			A09	K3
%	Weighting factor of friction comp. value w/ short trav. movem.			DOUBLE	NEW CONF
-					
-	1	0.0	0	100.0	7/2

32610	VELO_FFW_WEIGHT			A07, A09	K3
-	Feedforward control factor f. velocity/speed feedforward control			DOUBLE	NEW CONF
-					
-	6	1.0, 1.0, 1.0, 1.0, 1.0, 1.0	-	-	7/2

32620	FFW_MODE			A07, A09	K3
-	Feedforward control mode			BYTE	RESET
-					
-	-	1	0	4	7/2

32630	FFW_ACTIVATION_MODE			A07, A09	K3,PA1
-	Activate feedforward control from program			BYTE	RESET
CTEQ					
-	-	1	-	-	7/2

32640	STIFFNESS_CONTROL_ENABLE			A01, A07	K3,FBA
-	Dynamic stiffness control			BOOLEAN	NEW CONF
CTEQ					
-	1	FALSE	-	-	7/2

32642	STIFFNESS_CONTROL_CONFIG			A01, A07	K3,FBA
-	Dynamic stiffness control configuration			BYTE	NEW CONF
CTEQ					
-	1	0	0	1	7/2

32644	STIFFNESS_DELAY_TIME			A01, A07	K3,FBA
s	dynamic stiffness control: Delay			DOUBLE	POWER ON
CTEQ					
-	1	0.0	-0.02	0.02	7/2

32650	AX_INERTIA			EXP, A07, A09	K3
kgm ²	Inertia for torque feedforward control			DOUBLE	NEW CONF
-					
-	-	0.0	-	-	7/2

32652	AX_MASS			EXP, A07, A09	K3
kg	Axis mass for torque feedforward control			DOUBLE	NEW CONF
-					
-	-	0.0	-	-	7/2

32700	ENC_COMP_ENABLE			A09	K3
-	Encoder/spindle error compensation.			BOOLEAN	NEW CONF
-					
-	2	FALSE, FALSE	-	-	7/2

32710	CEC_ENABLE			A09	K3
-	Enable of sag compensation			BOOLEAN	NEW CONF
-					
-	-	FALSE	-	-	7/2

32711	CEC_SCALING_SYSTEM_METRIC			A09	K3
-	Measuring system of sag compensation			BOOLEAN	NEW CONF
-					
-	-	TRUE	-	-	7/2

32720	CEC_MAX_SUM			A09	K3
mm, degrees	Maximum compensation value for sag compensation			DOUBLE	NEW CONF
-					
-	-	1.0	0	10.0	7/2

32730	CEC_MAX_VELO			EXP, A09, A04	K3
%	Change in velocity at 1			DOUBLE	NEW CONF
-					
-	-	10.0	0	100.0	7/2

32750	TEMP_COMP_TYPE			A09	K3,W1
-	Temperature compensation type			BYTE	POWER ON
CTEQ					
-	-	0	0	7	7/2

32760	COMP_ADD_VELO_FACTOR			EXP, A09, A04	K3
-	Excessive velocity due to compensation			DOUBLE	POWER ON
CTEQ					
-	-	0.01	0.	0.10	7/2

Axis-specific machine data

32800	EQUIV_CURRCTRL_TIME		EXP, A07, A09	K3,G2
s	Equiv. time const. current control loop for feedforward control		DOUBLE	NEW CONF
-				
-	6	0.0005, 0.0005, 0.0005, 0.0005, 0.0005, 0.0005	-	7/2

32810	EQUIV_SPEEDCTRL_TIME		A07, A09	K3,G2
s	Equiv. time constant speed control loop for feedforward control		DOUBLE	NEW CONF
-				
-	6	0.008, 0.008, 0.008, 0.008, 0.008, 0.008	-	7/2
840di-basic	-	0.004, 0.004, 0.004, 0.004, 0.004...	-	-/-
840di-universal	-	0.004, 0.004, 0.004, 0.004, 0.004...	-	-/-
840di-plus	-	0.004, 0.004, 0.004, 0.004, 0.004...	-	-/-

32900	DYN_MATCH_ENABLE		A07	G2
-	Dynamic response adaptation		BOOLEAN	NEW CONF
CTEQ				
-	-	FALSE	-	7/2

32910	DYN_MATCH_TIME		A07	G2
s	Time constant of dynamic response adaptation		DOUBLE	NEW CONF
-				
-	6	0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	7/2

32920	AC_FILTER_TIME		A10	S5,FBSY
s	Smoothing filter time constant for adaptive control		DOUBLE	POWER ON
-				
-	-	0.0	-	7/2

32930	POSCTRL_OUT_FILTER_ENABLE		A07	G2
-	Activation of low-pass filter at position controller output		BOOLEAN	NEW CONF
CTEQ				
-	-	FALSE	-	7/2

32940	POSCTRL_OUT_FILTER_TIME		A07	G2
s	Time constant of low-pass filter at position controller output		DOUBLE	NEW CONF
-				
-	-	0.0	-	7/2

32950	POSCTRL_DAMPING	EXP, A07	G2
%	Damping of the speed control circuit.	DOUBLE	NEW CONF
-			
-	0.0	-	7/2

32990	POSCTRL_DESVAL_DELAY_INFO	EXP, A01, A07	B3
s	Actual setpoint position delay	DOUBLE	NEW CONF
READ			
-	3 0.0, 0.0, 0.0	-	7/0

33000	FIPO_TYPE	EXP, A07	G2
-	Fine interpolator type	BYTE	POWER ON
CTEQ			
-	2 1 3		7/2

33050	LUBRICATION_DIST	A03, A10	A2
mm, degrees	Traversing path for lubrication from PLC	DOUBLE	NEW CONF
-			
-	1.0e8	-	7/2

33060	MAINTENANCE_DATA	A10	-
-	Configuration of maintenance data recording	DWORD	RESET
-			
-	1	-	7/2

33100	COMPRESS_POS_TOL	A10	K1,PGA
mm, degrees	Maximum deviation during compression	DOUBLE	NEW CONF
CTEQ			
-	0.1 1.e-9	-	7/7

2.5.4 Reference point approach

34000	REFP_CAM_IS_ACTIVE	A03, A11	R1
-	Axis with reference point cam	BOOLEAN	RESET
-			
-	TRUE	-	7/2

34010	REFP_CAM_DIR_IS_MINUS	A03, A11	R1
-	Approach reference point in minus direction	BOOLEAN	RESET
-			
-	FALSE	-	7/2

Axis-specific machine data

34020	REFP_VELO_SEARCH_CAM	A03, A11, A04	R1
mm/min, rev/min	Reference point approach velocity	DOUBLE	RESET
-			
-	5000.00	-	7/2

34030	REFP_MAX_CAM_DIST	A03, A11	R1
mm, degrees	Maximum distance to reference cam	DOUBLE	RESET
-			
-	10000.0	-	7/2

34040	REFP_VELO_SEARCH_MARKER	A03, A11, A04	R1
mm/min, rev/min	Creep velocity	DOUBLE	RESET
-			
-	2 300.00, 300.00	-	7/2

34050	REFP_SEARCH_MARKER_REVERSE	A03, A11	R1
-	Direction reversal to reference cam	BOOLEAN	RESET
-			
-	2 FALSE, FALSE	-	7/2

34060	REFP_MAX_MARKER_DIST	A03, A11	R1
mm, degrees	maximum distance to reference mark	DOUBLE	RESET
-			
-	2 20.0, 20.0	-	7/2

34070	REFP_VELO_POS	A03, A11, A04	R1
mm/min, rev/min	Reference point positioning velocity	DOUBLE	RESET
-			
-	10000.00	-	7/2

34080	REFP_MOVE_DIST	A03, A11	R1
mm, degrees	Reference point distance	DOUBLE	NEW CONF
-			
-	2 -2.0, -2.0	-	7/2

34090	REFP_MOVE_DIST_CORR	A03, A02, A08, A11	R1
mm, degrees	Reference point offset/absolute offset	DOUBLE	NEW CONF
-, -			
-	2 0.0, 0.0	-1e15	1e15 7/2

34092	REFP_CAM_SHIFT	A03, A11	R1
mm, degrees	electronic cam offset for incremental measuring systems	DOUBLE	RESET
-			
-	2 0.0, 0.0	-	7/2

34093	REFP_CAM_MARKER_DIST		A03, A11	R1
mm, degrees	Reference cam/reference mark distance		DOUBLE	POWER ON
READ				
-	2	0.0, 0.0	-	7/2

34100	REFP_SET_POS		A03, A11	R1
mm, degrees	Reference point value/target point for distance-coded system		DOUBLE	RESET
-				
-	4	0., 0., 0., 0.	-45000000	45000000
				7/2

34102	REFP_SYNC_ENCS		A03, A02	R1
-	Calibration of measuring systems		BYTE	RESET
-				
-	-	0	0	1
				7/2

34104	REFP_PERMITTED_IN_FOLLOWUP		A03, A02	-
-	Enable referencing in follow-up mode		BOOLEAN	RESET
-				
-	-	FALSE	-	-
				7/2

34110	REFP_CYCLE_NR		A03	R1
-	Sequence of axes in channel-specific referencing		DWORD	POWER ON
-				
-	-	1,2,3,4,5,6,7,8,9,10, 11,12,13,14,15,16,17,18...	-1	31
				7/2

34120	REFP_BERO_LOW_ACTIVE		A02	M5
-	BERO polarity change		BOOLEAN	POWER ON
-				
-	-	FALSE	-	-
				7/2

34200	ENC_REFP_MODE		A03, A02	R1
-	Referencing mode		BYTE	POWER ON
-				
-	2	1, 1	0	8
				7/2

34210	ENC_REFP_STATE		A07, A03, A02	R1
-	Adjustment status of absolute encoder		BYTE	SOFORT
-				
-	2	0, 0	0	2
				7/4

34220	ENC_ABS_TURNS_MODULO		A03, A02	R2
-	Modulo range for rotary absolute encoder		DWORD	POWER ON
-				
-	2	4096, 4096	1	100000
				7/2

Axis-specific machine data

34230	ENC_SERIAL_NUMBER			A02	R1
-	Encoder serial number			DWORD	POWER ON
-					
-	2	0, 0	-	-	7/2

34232	EVERY_ENC_SERIAL_NUMBER			A02	R1
-	Range of encoder serial number			BOOLEAN	POWER ON
-					
-	2	TRUE, TRUE	-	-	7/2

34300	ENC_REFP_MARKER_DIST			A03, A02	R1
mm, degrees	Basic distance of reference marks of distance-coded encoders.			DOUBLE	POWER ON
-					
-	2	10.0, 10.0	-	-	7/2

34310	ENC_MARKER_INC			A03, A02	R1
mm, degrees	Interval between two reference marks for distance-coded scales			DOUBLE	RESET
-					
-	2	0.02, 0.02	-	-	7/2

34320	ENC_INVERS			A03, A02	G2,R1
-	Length measuring system inverse to axis movement.			BOOLEAN	RESET
-					
-	2	FALSE, FALSE	-	-	7/2

34330	REFP_STOP_AT_ABS_MARKER			A03	R1
-	Distance-coded linear measuring system without target point			BOOLEAN	RESET
-					
-	2	TRUE, TRUE	-	-	7/2

34990	ENC_ACTVAL_SMOOTH_TIME			A02	V1
s	Smoothing time constant for actual values.			DOUBLE	RESET
-					
-	2	0.0, 0.0	0.0	0.5	7/2

2.5.5 Spindles

35000	SPIND_ASSIGN_TO_MACHAX			A01, A06, A11	S1
-	Assignment of spindle to machine axis			BYTE	POWER ON
-					
-	-	0	0	20	7/2

35010	GEAR_STEP_CHANGE_ENABLE		A06, A11	S1
-	Parameterize gear stage change		DWORD	RESET
CTEQ				
-	-	0x00	0	0x2B
				7/2

35012	GEAR_STEP_CHANGE_POSITION		A06, A11	S1
mm, degrees	Gear stage change position		DOUBLE	NEW CONF
CTEQ				
-	6	0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-
				7/2

35014	GEAR_STEP_USED_IN_AXISMODE		A01, A06, A11	-
-	Gear stage for axis mode with M70		DWORD	NEW CONF
CTEQ				
-	-	0	0	5
				7/2

35020	SPIND_DEFAULT_MODE		A06, A10	S1
-	Initial spindle setting		BYTE	RESET
CTEQ				
-	-	0	0	3
				7/2

35030	SPIND_DEFAULT_ACT_MASK		A06, A10	S1
-	Time at which initial spindle setting is effective		BYTE	RESET
CTEQ				
-	-	0x00	0	0x03
				7/2

35032	SPIND_FUNC_RESET_MODE		A06, A10	W4
-	Reset response of individual spindle functions		DWORD	POWER ON
CTEQ				
-	-	0x00	0	0x01
				7/2

35035	SPIND_FUNCTION_MASK		A06, A10	S1
-	Spindle functions		DWORD	RESET
CTEQ				
-	-	0x510	0	0x1137
				7/2

35040	SPIND_ACTIVE_AFTER_RESET		A06, A10	S1
-	Own spindle RESET		BYTE	POWER ON
CTEQ				
-	-	0	0	2
				7/2

35090	NUM_GEAR_STEPS		A06, A10	S1
-	Number of gear stages		DWORD	RESET
-				
-	-	MAXNUM_GEAR_ STEPS	1	5
				2/2

Axis-specific machine data

35092	NUM_GEAR_STEPS2			A06, A10	S1
-	Number of gear stages of 2nd gear stage data set			DWORD	RESET
-					
-	-	MAXNUM_GEAR_STEPS	1	5	2/2

35100	SPIND_VELO_LIMIT			A06, A11, A04	S1
rev/min	Maximum spindle speed			DOUBLE	POWER ON
CTEQ					
-	-	10000.0	1.0e-3	-	7/2

35110	GEAR_STEP_MAX_VELO			A06, A11, A04	S1
rev/min	Maximum speed for gear stage change			DOUBLE	NEW CONF
CTEQ					
-	6	500., 500., 1000., 2000., 4000., 8000.	-	-	7/2

35112	GEAR_STEP_MAX_VELO2			A06, A11, A04	S1
rev/min	2nd data set: Maximum speed for gear stage change			DOUBLE	NEW CONF
CTEQ					
-	6	500., 500., 1000., 2000., 4000., 8000.	0	-	2/2

35120	GEAR_STEP_MIN_VELO			A06, A11, A04	S1
rev/min	Minimum speed for gear stage change			DOUBLE	NEW CONF
CTEQ					
-	6	50., 50., 400., 800., 1500., 3000.	-	-	7/2

35122	GEAR_STEP_MIN_VELO2			A06, A11, A04	S1
rev/min	2nd data set: Minimum speed for gear stage change			DOUBLE	NEW CONF
CTEQ					
-	6	50., 50., 400., 800., 1500., 3000.	0	-	2/2

35130	GEAR_STEP_MAX_VELO_LIMIT			A06, A11, A04	S1
rev/min	Maximum speed of gear stage			DOUBLE	NEW CONF
CTEQ					
-	6	500., 500., 1000., 2000., 4000., 8000.	1.0e-3	-	7/2

35140	GEAR_STEP_MIN_VELO_LIMIT			A06, A11, A04	S1
rev/min	Minimum speed of gear stage			DOUBLE	NEW CONF
CTEQ					
-	6	5., 5., 10., 20., 40., 80.	-	-	7/2

35150	SPIND_DES_VELO_TOL			A03, A05, A06, A10, A04	S1
-	Spindle speed tolerance			DOUBLE	RESET
-					
-	-	0.1	0.0	1.0	7/2

35160	SPIND_EXTERN_VELO_LIMIT			A06, A04	S1
rev/min	Spindle speed limitation from PLC			DOUBLE	NEW CONF
CTEQ					
-	-	1000.0	1.0e-3	-	7/2

35200	GEAR_STEP_SPEEDCTRL_ACCEL			A06, A11, A04, -	S1
rev/s ²	Acceleration in speed control mode			DOUBLE	NEW CONF
CTEQ					
-	6	30.0, 30.0, 25.0, 20.0, 15.0, 10.0	1.0e-3	-	7/2

35210	GEAR_STEP_POSCTRL_ACCEL			A06, A11, A04, -	S1
rev/s ²	Acceleration in position control mode			DOUBLE	NEW CONF
CTEQ					
-	6	30.0, 30.0, 25.0, 20.0, 15.0, 10.0	1.0e-3	-	7/2

35212	GEAR_STEP_POSCTRL_ACCEL2			A06, A11, A04, -	S1
rev/s ²	2nd data set: Acceleration in position control mode			DOUBLE	NEW CONF
CTEQ					
-	6	30.0, 30.0, 25.0, 20.0, 15.0, 10.0	1.0e-3	-	2/2

35220	ACCEL_REDUCTION_SPEED_POINT			A06, A04	S1,S6,B2
-	Speed for reduced acceleration			DOUBLE	RESET
-					
-	-	1.0	0.0	1.0	7/2

35230	ACCEL_REDUCTION_FACTOR			A06, A04	S1,S6,B2
-	Reduced acceleration			DOUBLE	RESET
CTEQ					
-	-	0.0	0.0	0.95	7/2

35240	ACCEL_TYPE_DRIVE			A04	S6
-	Acceleration curve DRIVE for axes ON/OFF			BOOLEAN	RESET
CTEQ					
-	-	FALSE	-	-	7/2

Axis-specific machine data

35242	ACCEL_REDUCTION_TYPE		A04	S6
-	Type of acceleration reduction		BYTE	RESET
CTEQ				
-	-	1	0	2
				7/2

35300	SPIND_POSCTRL_VELO		A06, A04	S1
rev/min	Position control activation speed		DOUBLE	NEW CONF
CTEQ				
-	-	500.0	-	-
				7/2

35310	SPIND_POSIT_DELAY_TIME		A06, A04	S1
s	Positioning delay time		DOUBLE	NEW CONF
CTEQ				
-	6	0.0, 0.05, 0.1, 0.2, 0.4, 0.8	-	-
				7/2

35350	SPIND_POSITIONING_DIR		A06	S1
-	Direction of rotation when positioning		BYTE	RESET
CTEQ				
-	-	3	3	4
				7/2

35400	SPIND_OSCILL_DES_VELO		A06, A04	S1
rev/min	Oscillation speed		DOUBLE	NEW CONF
CTEQ				
-	-	500.0	-	-
				7/2

35410	SPIND_OSCILL_ACCEL		A06, A04, -	S1
rev/s ²	Acceleration during oscillation		DOUBLE	NEW CONF
CTEQ				
-	-	16.0	1.0e-3	-
				7/2

35430	SPIND_OSCILL_START_DIR		A06	S1
-	Start direction during oscillation		BYTE	RESET
CTEQ				
-	-	0	0	4
				7/2

35440	SPIND_OSCILL_TIME_CW		A06	S1
s	Oscillation time for M3 direction		DOUBLE	NEW CONF
CTEQ				
-	-	1.0	-	-
				7/2

35450	SPIND_OSCILL_TIME_CCW		A06	S1
s	Oscillation time for M4 direction		DOUBLE	NEW CONF
CTEQ				
-	-	0.5	-	-
				7/2

35500	SPIND_ON_SPEED_AT_IPO_START			A03, A06, A10	S1
-	Feedrate enable for spindle in the set range			BYTE	RESET
CTEQ					
-	-	1	0	2	7/2

35510	SPIND_STOPPED_AT_IPO_START			A03, A06, A10	S1
-	Feedrate enable for spindle stopped			BOOLEAN	RESET
CTEQ					
-	-	FALSE	-	-	7/2

35550	DRILL_VELO_LIMIT			A06, A11, A04	-
rev/min	Maximum speeds for tapping			DOUBLE	NEW CONF
CTEQ					
-	6	10000., 10000., 10000., 10000., 10000., 10000.	1	-	7/2

35590	PARAMSET_CHANGE_ENABLE			EXP, A05	A2
-	Parameter set can be changed			BYTE	POWER ON
CTEQ					
-	-	0	0	2	7/2

2.5.6 Monitoring functions

36000	STOP_LIMIT_COARSE			A05	B1
mm, degrees	Exact stop coarse			DOUBLE	NEW CONF
-					
-	-	0.04	-	-	7/2

36010	STOP_LIMIT_FINE			A05	B1
mm, degrees	Exact stop fine			DOUBLE	NEW CONF
-					
-	-	0.01	-	-	7/2

36012	STOP_LIMIT_FACTOR			A05	B1
-	Factor for exact stop coarse/fine and standstill			DOUBLE	NEW CONF
-					
-	6	1.0, 1.0, 1.0, 1.0, 1.0, 1.0	0.001	1000.0	7/2

36020	POSITIONING_TIME			A05	B1,A3
s	Delay time exact stop fine			DOUBLE	NEW CONF
-					
-	-	1.0	-	-	7/2

Axis-specific machine data

36030	STANDSTILL_POS_TOL	A05	A3
mm, degrees	Standstill tolerance	DOUBLE	NEW CONF
-			
-	-	0.2	-
			7/2

36040	STANDSTILL_DELAY_TIME	A05	A3
s	Delay time for standstill monitoring	DOUBLE	NEW CONF
-			
-	-	0.4	-
			7/2

36042	FOC_STANDSTILL_DELAY_TIME	A05	F1
s	Delay time for standstill monit. w/ active torque or force lim.	DOUBLE	NEW CONF
-			
-	-	0.4	-
			7/2

36050	CLAMP_POS_TOL	A05	A3
mm, degrees	Clamping tolerance	DOUBLE	NEW CONF
-			
-	-	0.5	-
			7/2

36052	STOP_ON_CLAMPING	A10	-
-	Special functions with clamped axis	BYTE	NEW CONF
CTEQ			
-	-	0	0
			0x07
			2/1

36060	STANDSTILL_VELO_TOL	A05, A04	A2
mm/min, rev/min	Threshold velocity/speed 'Axis/spindle in stop'	DOUBLE	NEW CONF
-			
-	-	5.00	-
			7/2

36100	POS_LIMIT_MINUS	A03, A05, A11	A3
mm, degrees	1st software limit switch minus	DOUBLE	NEW CONF
CTEQ			
-	-	-1.0e8	-
			7/2

36110	POS_LIMIT_PLUS	A03, A05, A11	A3
mm, degrees	1st software limit switch plus	DOUBLE	NEW CONF
CTEQ			
-	-	1.0e8	-
			7/2

36120	POS_LIMIT_MINUS2	A03, A05	A3
mm, degrees	2nd software limit switch minus	DOUBLE	NEW CONF
CTEQ			
-	-	-1.0e8	-
			7/2

36130	POS_LIMIT_PLUS2			A03, A05	A3
mm, degrees	2nd software limit switch plus			DOUBLE	NEW CONF
CTEQ					
-	-	1.0e8	-	-	7/2

36200	AX_VELO_LIMIT			A05, A11, A04	A3,G2
mm/min, rev/min	Threshold value for velocity monitoring			DOUBLE	NEW CONF
CTEQ					
-	6	11500., 11500., 11500., 11500., 11500., 11500.	-	-	7/2

36210	CTRLOUT_LIMIT			EXP, A05	G2
%	Maximum speed setpoint			DOUBLE	NEW CONF
CTEQ					
-	1	110.0	0	200	7/2

36220	CTRLOUT_LIMIT_TIME			EXP, A05	A3
s	Delay time for speed setpoint monitoring			DOUBLE	NEW CONF
-					
-	1	0.0	-	-	7/2

36300	ENC_FREQ_LIMIT			EXP, A02, A05, A06	A3
-	Encoder limit frequency			DOUBLE	POWER ON
-					
-	2	3.0e5, 3.0e5	-	-	7/2

36302	ENC_FREQ_LIMIT_LOW			EXP, A02, A05, A06	A3
%	Encoder limit frequency for new encoder synchronization.			DOUBLE	NEW CONF
-					
-	2	99.9, 99.9	0	100	7/2

36310	ENC_ZERO_MONITORING			EXP, A02, A05	A3
-	Zero mark monitoring			DWORD	NEW CONF
-					
-	2	0, 0	-	-	7/2

36400	CONTOUR_TOL			A05, A11	A3
mm, degrees	Tolerance band for contour monitoring			DOUBLE	NEW CONF
-					
-	-	1.0	-	-	7/2

Axis-specific machine data

36500	ENC_CHANGE_TOL		A02, A05	G2
mm, degrees	Tolerance at actual position value change.		DOUBLE	NEW CONF
-				
-	-	0.1	-	7/2
36510	ENC_DIFF_TOL		A02, A05	G2
mm, degrees	Tolerance of measuring system synchronization		DOUBLE	NEW CONF
-				
-	-	0.0	-	7/2
36520	DES_VELO_LIMIT		A02, A05	DA
%	Threshold for setpoint velocity monitoring		DOUBLE	NEW CONF
-				
-	-	125.0	-	7/2
36600	BRAKE_MODE_CHOICE		EXP, A05	A3
-	Deceleration response on hardware limit switch		BYTE	POWER ON
CTEQ				
-	-	1	0	1
-	-			7/2
36610	AX_EMERGENCY_STOP_TIME		A05, -	A3
s	Maximum time for braking ramp in case of error.		DOUBLE	NEW CONF
-				
-	-	0.05	-	7/2
36620	SERVO_DISABLE_DELAY_TIME		A05, -	A2
s	Cutout delay servo enable		DOUBLE	NEW CONF
-				
-	-	0.1	-	7/2
36690	AXIS_DIAGNOSIS		EXP, A08	-
-	Internal data for test purposes		DWORD	POWER ON
NBUP				
-	-	0	-	0/0
36700	DRIFT_ENABLE		EXP, A07, A09	K3
-	Automatic drift compensation		BOOLEAN	NEW CONF
-				
-	-	FALSE	-	1/1
36710	DRIFT_LIMIT		EXP, A07, A09	K3
%	Drift limit value for automatic drift compensation		DOUBLE	NEW CONF
-				
-	1	0.0	0	1.e9
-				1/1

36720	DRIFT_VALUE			EXP, A07, A09	K3
%	Basic drift value			DOUBLE	NEW CONF
-					
-	1	0.0	-	-	1/1

36730	DRIVE_SIGNAL_TRACKING			A10	S5
-	Acquisition of additional drive actual values			BYTE	POWER ON
-					
-	-	0	0	4	7/2

36750	AA_OFF_MODE			A10	FBSY
-	Effect of value assignment for axial override of synchr. action.			BYTE	POWER ON
CTEQ					
-	-	0	0	7	7/2

2.5.7 Safety Integrated

36901	SAFE_FUNCTION_ENABLE			A05, -	FBSI
-	Enable safety functions			DWORD	POWER ON
-					
-	-	0	0	0xFFFFB	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36902	SAFE_IS_ROT_AX			A01, A05, A06, -	FBSI
-	Rotary axis			BOOLEAN	POWER ON
-					
-	-	FALSE	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

Axis-specific machine data

36903	SAFE_CAM_ENABLE			A05, -	-
-	Function enable safe cams			DWORD	POWER ON
-					
-	-	0	0	0x3FFFFFFF	7/2
710-2a2c	-	-	-	-	-1/-
710-6a2c	-	-	-	-	-1/-
710-12a2c	-	-	-	-	-1/-
710-31a10c	-	-	-	-	-1/-
840d-2a2c	-	-	-	-	-1/-
840d-4a1cg	-	-	-	-	-1/-
840d-6a2c	-	-	-	-	-1/-
840d-12a2c	-	-	-	-	-1/-
840d-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36905	SAFE_MODULO_RANGE			A02, -	FBSI
degrees	Modulo value Safe cams			DOUBLE	POWER ON
-					
-	-	0.0	0.0	737280.0	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36906	SAFE_CTRLOUT_MODULE_NR			A01, A05, -	-
-	SI drive assignment			BYTE	POWER ON
-					
-	-	1,2,3,4,5,6,7,8,9,10, 11,12,13,14,15,16,17, 18...	1	31	7/2
840d-2a2c	-	-	-	-	-1/-
840d-4a1cg	-	-	-	-	-1/-
840d-6a2c	-	-	-	-	-1/-
840d-12a2c	-	-	-	-	-1/-
840d-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36907	SAFE_DRIVE_PS_ADDRESS			A01, A05, -	-
-	PROFIsafe address of the drive			DWORD	POWER ON
READ					
-	-	0	-	-	7/0
840d-2a2c	-	-	-	-	-1/-
840d-4a1cg	-	-	-	-	-1/-
840d-6a2c	-	-	-	-	-1/-
840d-12a2c	-	-	-	-	-1/-
840d-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36910	SAFE_ENC_SEGMENT_NR			EXP, A01, A02, A05, -	FBSI
-	Actual value assignment: type of drive			BYTE	POWER ON
-					
-	-	5	5	5	0/0
710-2a2c	-	-	-	-	-1/-
710-6a2c	-	-	-	-	-1/-
710-12a2c	-	-	-	-	-1/-
710-31a10c	-	-	-	-	-1/-
840d-2a2c	-	1	1	1	-1/-
840d-4a1cg	-	1	1	1	-1/-
840d-6a2c	-	1	1	1	-1/-
840d-12a2c	-	1	1	1	-1/-
840d-31a10c	-	1	1	1	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36914	SAFE_SINGLE_ENC			A01, A02, A05, -	-
-	SI single-encoder system			BOOLEAN	POWER ON
-					
-	-	TRUE	-	-	7/2
840d-2a2c	-	-	-	-	-1/-
840d-4a1cg	-	-	-	-	-1/-
840d-6a2c	-	-	-	-	-1/-
840d-12a2c	-	-	-	-	-1/-
840d-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36915	SAFE_ENC_TYPE			A01, A02, A05, -	FBSI
-	Encoder type			BYTE	POWER ON
-					
-	-	0	0	4	7/2
710-2a2c	-	-	-	-	-1/-
710-6a2c	-	-	-	-	-1/-
710-12a2c	-	-	-	-	-1/-
710-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36916	SAFE_ENC_IS_LINEAR			A02, A05, -	FBSI
-	Linear scale			BOOLEAN	POWER ON
-					
-	-	FALSE	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36917	SAFE_ENC_GRID_POINT_DIST			A02, A05, -	FBSI
mm	Scale division for linear scale			DOUBLE	POWER ON
-					
-	-	0.01	0.00001	8	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

Axis-specific machine data

36918	SAFE_ENC_RESOL			A02, A05, -	FBSI
-	Encoder lines per revolution			DWORD	POWER ON
-					
-	-	2048	1	100000	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36919	SAFE_ENC_PULSE_SHIFT			A02, A05, -	-
-	Shift factor of encoder multiplication			BYTE	POWER ON
-					
-	-	11	2	18	7/2
840d-2a2c	-	-	-	-	-1/-
840d-4a1cg	-	-	-	-	-1/-
840d-6a2c	-	-	-	-	-1/-
840d-12a2c	-	-	-	-	-1/-
840d-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36920	SAFE_ENC_GEAR_PITCH			A02, A05, -	FBSI
mm	Lead screw pitch			DOUBLE	POWER ON
-					
-	-	10.0	0.1	10000.	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36921	SAFE_ENC_GEAR_DENOM			A02, A05, -	FBSI
-	Denominator of gearbox encoder/load			DWORD	POWER ON
-					
-	8	1, 1, 1, 1, 1, 1, 1, 1, 1	1	2147000000	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36922	SAFE_ENC_GEAR_NUMERA			A02, A05, -	FBSI
-	Numerator of gearbox encoder/load			DWORD	POWER ON
-					
-	8	1, 1, 1, 1, 1, 1, 1, 1, 1	1	2147000000	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36923	SAFE_INFO_ENC_RESOL			A02, A05, -	-
mm, degrees	Safe encoder resolution			DOUBLE	POWER ON
READ					
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/0
840d-2a2c	-	-	-	-	-1/-
840d-4a1cg	-	-	-	-	-1/-
840d-6a2c	-	-	-	-	-1/-
840d-12a2c	-	-	-	-	-1/-
840d-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36925	SAFE_ENC_POLARITY			A02, A05, -	FBSI
-	Direction reversal of actual value			DWORD	POWER ON
-					
-	-	1	-1	1	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36926	SAFE_ENC_FREQ_LIMIT			A02, A05, -	FBSI
-	Encoder frequency limit for safe operation			DWORD	POWER ON
-					
-	-	300000	300000	420000	7/2
710-2a2c	-	500000	500000	500000	-1/-
710-6a2c	-	500000	500000	500000	-1/-
710-12a2c	-	500000	500000	500000	-1/-
710-31a10c	-	500000	500000	500000	-1/-
840di-basic	-	500000	500000	500000	-1/-
840di-universal	-	500000	500000	500000	-1/-
840di-plus	-	500000	500000	500000	-1/-

Axis-specific machine data

36927	SAFE_ENC_MOD_TYPE			A02, A05, -	-
-	Encoder evaluation type			BYTE	POWER ON
READ					
-	-	0	-	-	7/0
840d-2a2c	-	-	-	-	-1/-
840d-4a1cg	-	-	-	-	-1/-
840d-6a2c	-	-	-	-	-1/-
840d-12a2c	-	-	-	-	-1/-
840d-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36928	SAFE_ENC_IDENT			A02, A05, -	-
-	Encoder identification			DWORD	POWER ON
READ					
-	3	0, 0, 0	-	-	7/0
840d-2a2c	-	-	-	-	-1/-
840d-4a1cg	-	-	-	-	-1/-
840d-6a2c	-	-	-	-	-1/-
840d-12a2c	-	-	-	-	-1/-
840d-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36930	SAFE_STANDSTILL_TOL			A05, -	FBSI
mm, degrees	Standstill tolerance			DOUBLE	POWER ON
-					
-	-	1.	0.	100.	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36931	SAFE_VELO_LIMIT			A05, A04, -	FBSI
mm/min, rev/min	Limit value for safe velocity			DOUBLE	POWER ON
-					
-	4	2000., 2000., 2000., 2000.	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36932	SAFE_VELO_OVR_FACTOR			A05, -	FBSI
%	SG offset values			DOUBLE	POWER ON
-					
-	16	100.0, 100.0, 100.0, 100.0, 100.0, 100.0, 100.0, 100.0, 100.0...	1.0	100.0	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36933	SAFE_DES_VELO_LIMIT			A05, A04, -	FBSI
%	SG setpoint speed limit			DOUBLE	RESET
-					
-	-	0.0	0	100	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36934	SAFE_POS_LIMIT_PLUS			A03, A05, -	FBSI
mm, degrees	Upper limit of safe end position			DOUBLE	POWER ON
-					
-	2	100000., 100000.	-2147000	2147000	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36935	SAFE_POS_LIMIT_MINUS			A03, A05, -	FBSI
mm, degrees	Lower limit of safe end position			DOUBLE	POWER ON
-					
-	2	-100000., -100000.	-2147000	2147000	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36936	SAFE_CAM_POS_PLUS			A03, A05, -	FBSI
mm, degrees	Plus cam position for safe cams			DOUBLE	POWER ON
-					
-	4	10., 10., 10., 10.	-2147000	2147000	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

Axis-specific machine data

36937	SAFE_CAM_POS_MINUS			A03, A05, -	FBSI
mm, degrees	Minus cam position for safe cams			DOUBLE	POWER ON
-					
-	4	-10., -10., -10., -10.	-2147000	2147000	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36940	SAFE_CAM_TOL			A05, -	FBSI
mm, degrees	Tolerance for safe cams			DOUBLE	POWER ON
-					
-	-	0.1	0.001	10	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36942	SAFE_POS_TOL			A05, -	FBSI
mm, degrees	Tolerance actual value cross-check			DOUBLE	POWER ON
-					
-	-	0.1	0.001	360	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36944	SAFE_REFP_POS_TOL			A05, -	FBSI
mm, degrees	Tolerance actual value check (referencing)			DOUBLE	POWER ON
-					
-	-	0.01	0	36	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36946	SAFE_VELO_X			A05, -	FBSI
mm/min, rev/min	Velocity limit n_x			DOUBLE	POWER ON
-					
-	-	20.	0.	6000.	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36948	SAFE_STOP_VELO_TOL			A05, -	FBSI
mm/min, rev/min	Velocity tolerance for Safe braking ramp			DOUBLE	POWER ON
-					
-	-	300.	0.	120000.	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36949	SAFE_SLIP_VELO_TOL			A05, -	FBSI
mm/min, rev/min	Slip velocity tolerance			DOUBLE	POWER ON
-					
-	-	6.	0.	6000.	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36950	SAFE_MODE_SWITCH_TIME			A05, -	FBSI
s	Tolerance time for SGE switchover			DOUBLE	POWER ON
-					
-	-	0.5	0	10.	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36951	SAFE_VELO_SWITCH_DELAY			A05, -	FBSI
s	Delay time for velocity changeover			DOUBLE	POWER ON
-					
-	-	0.1	0	60	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36952	SAFE_STOP_SWITCH_TIME_C			A05, -	FBSI
s	Transition time STOP C to safe standstill			DOUBLE	POWER ON
-					
-	-	0.1	0	10	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

Axis-specific machine data

36953	SAFE_STOP_SWITCH_TIME_D			A05, -	FBSI
s	Transition time STOP D to safe standstill			DOUBLE	POWER ON
-					
-	-	0.1	0	60	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36954	SAFE_STOP_SWITCH_TIME_E			A05, -	FBSI
s	Transitional period STOP E to safe standstill			DOUBLE	POWER ON
-					
-	-	0.1	0	60	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36955	SAFE_STOP_SWITCH_TIME_F			A05, -	FBSI
s	Transition time STOP F to STOP B			DOUBLE	POWER ON
-					
-	-	0.0	0	60	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36956	SAFE_PULSE_DISABLE_DELAY			A05, -	FBSI
s	Delay time for pulse suppression			DOUBLE	POWER ON
-					
-	-	0.1	0	10	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36957	SAFE_PULSE_DIS_CHECK_TIME			A05, -	FBSI
s	Time for checking pulse suppression			DOUBLE	POWER ON
-					
-	-	0.1	0	10	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36958	SAFE_ACCEPTANCE_TST_TIMEOUT			A05, -	FBSI
s	Time limit for acceptance test duration			DOUBLE	POWER ON
-					
-	-	40.0	5	100	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36960	SAFE_STANDSTILL_VELO_TOL			A05, A04, -	FBSI
mm/min, rev/min	Creep speed for pulse suppression			DOUBLE	POWER ON
-					
-	-	0.0	0.0	6000.	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36961	SAFE_VELO_STOP_MODE			A05, -	FBSI
-	Stop reaction for safe velocity			BYTE	POWER ON
-					
-	-	5	0	14	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36962	SAFE_POS_STOP_MODE			A05, -	FBSI
-	Stop reaction for safe end position			BYTE	POWER ON
-					
-	-	2	2	4	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36963	SAFE_VELO_STOP_REACTION			A05, -	FBSI
-	Stop reaction for safe velocity			BYTE	POWER ON
-					
-	4	2, 2, 2, 2	0	14	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

Axis-specific machine data

36964	SAFE_IPO_STOP_GROUP			A01, A05, -	FBSI
-	Safety-integrated IPO-response grouping			BYTE	RESET
-					
-	-	0	0	1	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36965	SAFE_PARK_ALARM_SUPPRESS			A01, -	FBSI
-	Alarm suppression on parking axis			BOOLEAN	POWER ON
-					
-	-	FALSE	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36966	SAFE_BRAKETEST_TORQUE			A05, A10, -	FBSI
%	Holding torque for brake test			DOUBLE	POWER ON
CTEQ					
-	-	5.0	0.0	800.0	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36967	SAFE_BRAKETEST_POS_TOL			A05, A10, -	FBSI
mm, degrees	Position tolerance for brake test			DOUBLE	POWER ON
CTEQ					
-	-	1.0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36968	SAFE_BRAKETEST_CONTROL			A05, A10, -	-
-	Program check for the brake test			DWORD	POWER ON
CTEQ					
-	-	0	0	1	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36970	SAFE_SVSS_DISABLE_INPUT			A01, A05, -	FBSI
-	Input assignment SBH/SG deselection			DWORD	POWER ON
-					
-	-	0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36971	SAFE_SS_DISABLE_INPUT			A01, A05, -	FBSI
-	Input assignment SBH deselection			DWORD	POWER ON
-					
-	-	0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36972	SAFE_VELO_SELECT_INPUT			A01, A05, -	FBSI
-	Input assignment SG selection			DWORD	POWER ON
-					
-	2	0, 0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36973	SAFE_POS_SELECT_INPUT			A01, A05, -	FBSI
-	Input assignment SE selection			DWORD	POWER ON
-					
-	-	0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36974	SAFE_GEAR_SELECT_INPUT			A01, A05, -	FBSI
-	Input assignment speed ratio selection			DWORD	POWER ON
-					
-	3	0, 0, 0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

Axis-specific machine data

36975	SAFE_STOP_REQUEST_INPUT			A01, A05, -	FBSI
-	Input assignment test stop selection			DWORD	POWER ON
-					
-	-	0	-	-	7/2
710-2a2c	-	-	-	-	-1/-
710-6a2c	-	-	-	-	-1/-
710-12a2c	-	-	-	-	-1/-
710-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36976	SAFE_PULSE_STATUS_INPUT			A01, A05, -	FBSI
-	Input assignment status pulses suppressed			DWORD	POWER ON
-					
-	-	0	-	-	7/2
710-2a2c	-	-	-	-	-1/-
710-6a2c	-	-	-	-	-1/-
710-12a2c	-	-	-	-	-1/-
710-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36977	SAFE_EXT_STOP_INPUT			A01, A05, -	FBSI
-	Input assignment for external stop request			DWORD	POWER ON
-					
-	4	0, 0, 0, 0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36978	SAFE_OVR_INPUT			A01, A05, -	FBSI
-	Input assignment for SG override			DWORD	POWER ON
-					
-	4	0, 0, 0, 0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36979	SAFE_STOP_REQUEST_EXT_INPUT			A01, A05, -	FBSI
-	Input assignment for test of external shutdown			DWORD	POWER ON
-					
-	-	0	-	-	7/2
710-2a2c	-	-	-	-	-1/-
710-6a2c	-	-	-	-	-1/-
710-12a2c	-	-	-	-	-1/-
710-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36980	SAFE_SVSS_STATUS_OUTPUT			A01, A05, -	FBSI
-	Output assignment SBH/SG active			DWORD	POWER ON
-					
-	-	0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36981	SAFE_SS_STATUS_OUTPUT			A01, A05, -	FBSI
-	Output assignment SBH active			DWORD	POWER ON
-					
-	-	0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36982	SAFE_VELO_STATUS_OUTPUT			A01, A05, -	FBSI
-	Output assignment for active SG selection			DWORD	POWER ON
-					
-	2	0, 0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

Axis-specific machine data

36984	SAFE_EXT_PULSE_ENAB_OUTPUT			A01, A05, -	FBSI
-	Output assignment enable for pulses external			DWORD	POWER ON
-					
-	-	0	-	-	7/2
710-2a2c	-	-	-	-	-1/-
710-6a2c	-	-	-	-	-1/-
710-12a2c	-	-	-	-	-1/-
710-31a10c	-	-	-	-	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36985	SAFE_VELO_X_STATUS_OUTPUT			A01, A05, -	FBSI
-	Output assignment n < n_x			DWORD	POWER ON
-					
-	-	0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36986	SAFE_PULSE_ENABLE_OUTPUT			A01, A05, -	FBSI
-	Output assignment enable pulses			DWORD	POWER ON
-					
-	-	0	0x0	0xFFFFFFFF	7/2
710-2a2c	-	-	-	0xCFFFFFFF	-1/-
710-6a2c	-	-	-	0xCFFFFFFF	-1/-
710-12a2c	-	-	-	0xCFFFFFFF	-1/-
710-31a10c	-	-	-	0xCFFFFFFF	-1/-
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36987	SAFE_REFP_STATUS_OUTPUT			A01, A05, -	FBSI
-	Output assignment axis safely referenced			DWORD	POWER ON
-					
-	-	0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36988	SAFE_CAM_PLUS_OUTPUT			A01, A05, -	FBSI
-	Output assignment SN1 + to SN4 +			DWORD	POWER ON
-					
-	4	0, 0, 0, 0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36989	SAFE_CAM_MINUS_OUTPUT			A01, A05, -	FBSI
-	Output assignment SN1 - to SN4 -			DWORD	POWER ON
-					
-	4	0, 0, 0, 0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36990	SAFE_ACT_STOP_OUTPUT			A01, A05, -	FBSI
-	Output assignment of active stop			DWORD	POWER ON
-					
-	4	0, 0, 0, 0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36992	SAFE_CROSSCHECK_CYCLE			A01, A05, A08, -	FBSI
s	Display of axial cross-check cycle			DOUBLE	POWER ON
READ					
-	-	0.0	-	-	7/0
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36993	SAFE_CONFIG_CHANGE_DATE			EXP, A07, A05, -	FBSI
-	Date/time of last change of SI-NCK MD			STRING	POWER ON
READ					
-	7	"" , "" , "" , "" , "" , "" , ""	-	-	7/0
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

Axis-specific machine data

36994	SAFE_PREV_CONFIG			EXP, A07, A05, -	FBSI
-	Data of previous safety configuration			DWORD	POWER ON
READ					
-	7	0, 0, 0, 0, 0, 0, 0	-	-	0/0
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36995	SAFE_STANDSTILL_POS			A07, A05, -	FBSI
-	Standstill position			DWORD	POWER ON
-					
-	-	0	-	-	0/0
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36997	SAFE_ACKN			A07, A05, -	FBSI
-	User acknowledge			DWORD	POWER ON
-					
-	-	0	-	-	7/2
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36998	SAFE_ACT_CHECKSUM			EXP, A07, A05, -	FBSI
-	Actual checksum			DWORD	POWER ON
READ					
-	2	0, 0	-	-	7/0
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

36999	SAFE_DES_CHECKSUM			EXP, A07, A05, -	FBSI
-	Desired (expected) checksum			DWORD	POWER ON
-					
-	2	0, 0	-	-	7/1
840di-basic	-	-	-	-	-1/-
840di-universal	-	-	-	-	-1/-
840di-plus	-	-	-	-	-1/-

2.5.8 Travel to fixed stop

37000	FIXED_STOP_MODE			A10, -	F1
-	Travel to fixed stop mode			BYTE	POWER ON
CTEQ					
-	-	0	0	3	7/2

37002	FIXED_STOP_CONTROL			A10	F1
-	Sequence control for travel to fixed stop			BYTE	POWER ON
-					
-	-	0	0	3	7/2

37010	FIXED_STOP_TORQUE_DEF			A10	F1
%	Default fixed stop clamping torque			DOUBLE	POWER ON
CTEQ					
-	-	5.0	0.0	100.0	7/2

37012	FIXED_STOP_TORQUE_RAMP_TIME			A10	F1
s	Time period until reaching the changed torque limit			DOUBLE	NEW CONF
-					
-	-	0.0	-	-	7/2

37014	FIXED_STOP_TORQUE_FACTOR			A10	F1
-	Adaption factor torque limit			DOUBLE	NEW CONF
-					
-	-	1.0	-	-	7/2

37020	FIXED_STOP_WINDOW_DEF			A05, A10	F1
mm, degrees	Default fixed-stop monitoring window			DOUBLE	POWER ON
CTEQ					
-	-	1.0	-	-	7/2

37030	FIXED_STOP_THRESHOLD			A10, -	F1
mm, degrees	Threshold for fixed stop detection			DOUBLE	NEW CONF
-					
-	-	2.0	-	-	7/2

37040	FIXED_STOP_BY_SENSOR			A10	F1
-	Fixed stop detection by sensor			BYTE	SOFORT
CTEQ					
-	-	0	0	3	7/2

37050	FIXED_STOP_ALARM_MASK			A05, A10	F1
-	Enable of the fixed stop alarms			BYTE	NEW CONF
-					
-	-	1	0	15	7/2

Axis-specific machine data

37052	FIXED_STOP_ALARM_REACTION			A05, A10	F1
-	Reaction with fixed stop alarms			BYTE	POWER ON
-					
-	-	0	-	-	7/1

37060	FIXED_STOP_ACKN_MASK			A10	F1
-	Waiting for PLC acknowledgements during travel to fixed stop			BYTE	POWER ON
CTEQ					
-	-	0	0	3	7/2

37070	FIXED_STOP_ANA_TORQUE			A10	F1
%	Torque limit when approaching the fixed stop for analog drives			DOUBLE	POWER ON
CTEQ					
-	-	5.0	0.0	100.0	7/2

37080	FOC_ACTIVATION_MODE			A10	F1
-	Initial setting of modal torque/force limitation			BYTE	POWER ON
-					
-	-	0	0	3	7/2

37100	GANTRY_AXIS_TYPE			A01, A10	G1
-	Gantry axis definition			BYTE	POWER ON
CTEQ					
-	-	0	0	33	7/2

37110	GANTRY_POS_TOL_WARNING			A05, A10	G1
mm, degrees	Gantry warning limit			DOUBLE	RESET
-					
-	-	0.0	-	-	7/2

37120	GANTRY_POS_TOL_ERROR			A05, A10	G1
mm, degrees	Gantry trip limit			DOUBLE	POWER ON
-					
-	-	0.0	-	-	7/2

37130	GANTRY_POS_TOL_REF			A05, A10	G1
mm, degrees	Gantry trip limit during referencing			DOUBLE	POWER ON
-					
-	-	0.0	-	-	7/2

37135	GANTRY_ACT_POS_TOL_ERROR			A05, A10	-
mm, degrees	Current gantry trip limit			DOUBLE	RESET
-					
-	-	0.0	-	-	7/2

37140	GANTRY_BREAK_UP	EXP, A01, A10	G1
-	Invalidate gantry axis grouping	BOOLEAN	RESET
CTEQ			
-	-	FALSE	-
			7/2

37150	GANTRY_FUNCTION_MASK	A10	-
-	Gantry functions	DWORD	RESET
-			
-	-	0x00	0
			0x3
			7/2

37160	LEAD_FUNCTION_MASK	A10	-
-	Functions for master value coupling	DWORD	NEW CONF
CTEQ			
-	-	0x01	0
			0x1
			1/1

37200	COUPLE_POS_TOL_COARSE	A05, A10	S3
mm, degrees	Threshold value for 'Synchronism coarse'	DOUBLE	NEW CONF
-			
-	-	1.0	-
			7/2

37210	COUPLE_POS_TOL_FINE	A05, A10	S3
mm, degrees	Threshold value for 'Synchronism fine'	DOUBLE	NEW CONF
-			
-	-	0.5	-
			7/2

37220	COUPLE_VELO_TOL_COARSE	A05, A10	S3
mm/min, rev/min	Velocity tolerance 'coarse'	DOUBLE	NEW CONF
-			
-	-	60.0	-
			7/2

37230	COUPLE_VELO_TOL_FINE	A05, A10	S3
mm/min, rev/min	Velocity tolerance 'fine'	DOUBLE	NEW CONF
-			
-	-	30.0	-
			7/2

37250	MS_ASSIGN_MASTER_SPEED_CMD	A10	TE3
-	Master axis number for speed setpoint coupling	DWORD	POWER ON
-			
-	-	0	0
			31
			7/2
710-2a2c	-	-	-
			2
840d-2a2c	-	-	-
			2
840d-4a1cg	-	-	-
			4
			-/-

Axis-specific machine data

37252	MS_ASSIGN_MASTER_TORQUE_CTRL	A10	TE3		
-	Master axis number for torque control	DWORD	POWER ON		
-					
-	-	0	0	31	7/2

37253	MS_FUNCTION_MASK	A10	-		
-	Master/slave settings	DWORD	NEW CONF		
-					
-	-	0x0	-	-	7/2

37254	MS_TORQUE_CTRL_MODE	A10	TE3		
-	Torque compensatory controller interconnection	DWORD	SOFORT		
-					
-	-	0	0	3	7/2

37255	MS_TORQUE_CTRL_ACTIVATION	A10	TE3		
-	Torque compensatory controller activation	BYTE	NEW CONF		
-					
-	-	0	0	1	7/2

37256	MS_TORQUE_CTRL_P_GAIN	A10	TE3		
%	Torque compensatory controller gain factor	DOUBLE	NEW CONF		
-					
-	-	0.0	0.0	100.0	7/2

37258	MS_TORQUE_CTRL_I_TIME	A10	TE3		
s	Torque compensatory controller integral action time	DOUBLE	NEW CONF		
-					
-	-	0.0	0.0	100.0	7/2

37260	MS_MAX_CTRL_VELO	A10	TE3		
%	Torque compensatory controller limit	DOUBLE	NEW CONF		
-					
-	-	100.0	0.0	100.0	7/2

37262	MS_COUPLING_ALWAYS_ACTIVE	A10	TE3		
-	Permanent master/slave link	BYTE	NEW CONF		
-					
-	-	0	0	1	7/2

37263	MS_SPIND_COUPLING_MODE	A10	-		
-	Link response of a spindle	BYTE	NEW CONF		
-					
-	-	0	0	1	7/2

37264	MS_TENSION_TORQUE	A10	TE3
%	Master/slave tension torque	DOUBLE	SOFORT
-			
-	-	0.0	-100.0
		100.0	7/2

37266	MS_TENSION_TORQ_FILTER_TIME	A10	TE3
s	Filter time constant tension torque	DOUBLE	NEW CONF
-			
-	-	0.0	0.0
		100.0	7/2

37268	MS_TORQUE_WEIGHT_SLAVE	A10	TE3
%	Torque weighting of slave axis	DOUBLE	NEW CONF
-			
-	-	50.0	1.0
		100.0	7/2

37270	MS_VELO_TOL_COARSE	A10	TE3
%	Master/slave speed tolerance coarse	DOUBLE	NEW CONF
-			
-	-	5.0	-
		-	7/2

37272	MS_VELO_TOL_FINE	A10	TE3
%	Master/slave speed tolerance fine	DOUBLE	NEW CONF
-			
-	-	1.0	-
		-	7/2

37274	MS_MOTION_DIR_REVERSE	A10	TE3
-	Inverting traversing direction slave axis	BYTE	NEW CONF
-			
-	-	0	0
		1	7/2

37400	EPS_TLIFT_TANG_STEP	A10	T3
mm, degrees	Tangent angle for corner recognition	DOUBLE	RESET
CTEQ			
-	-	5.0	-
		-	7/2

37402	TANG_OFFSET	A10	T3
mm, degrees	Default angle for tangential correction	DOUBLE	RESET
CTEQ			
-	-	0.0	-
		-	7/2

37500	ESR_REACTION	EXP, A01, A10,	M3
-	Axial mode of "Extended Stop and Retract"	BYTE	NEW CONF
CTEQ			
-	-	0	0
		22	7/2

Axis-specific machine data

37510	AX_ESR_DELAY_TIME1	EXP, A01, A10, -	-
s	Delay time ESR single axis	DOUBLE	NEW CONF
CTEQ			
-	-	0.0	-
-	-	-	7/2
37511	AX_ESR_DELAY_TIME2	EXP, A01, A10, -	-
s	ESR time for interpolatory deceleration of single axis	DOUBLE	NEW CONF
CTEQ			
-	-	0.0	-
-	-	-	7/2
37550	EG_VEL_WARNING	A05, A10	M3
%	Threshold value for velocity warning threshold.	DOUBLE	NEW CONF
-			
-	-	90.0	0
-	-	-	100
-	-	-	7/2
37560	EG_ACC_TOL	A05, A10	M3
%	Threshold value for 'Axis accelerating'	DOUBLE	NEW CONF
-			
-	-	25.0	-
-	-	-	-
-	-	-	7/2
37600	PROFIBUS_ACTVAL_LEAD_TIME	EXP, A01, A02	G3
s	Actual value acquisition time (Profibus Ti)	DOUBLE	POWER ON
-			
-	-	0.000125	0.0
-	-	-	0.032
-	-	-	0/0
37602	PROFIBUS_OUTVAL_DELAY_TIME	EXP, A01, A02	G3
s	Setpoint delay time (Profibus To)	DOUBLE	POWER ON
-			
-	-	0.003	0.0
-	-	-	0.032
-	-	-	0/0
37610	PROFIBUS_CTRL_CONFIG	EXP, A01	K4
-	Profibus control bit configuration	BYTE	POWER ON
-			
-	-	0	0
-	-	-	2
-	-	-	7/2
37620	PROFIBUS_TORQUE_RED_RESOL	EXP, A01	-
%	Resolution Profibus torque reduction	DOUBLE	NEW CONF
-			
-	-	1.0	0.005
-	-	-	10.0
-	-	-	7/2
37800	OEM_AXIS_INFO	A01, A11	-
-	OEM version information	STRING	POWER ON
-			
-	2	"" , ""	-
-	-	-	-
-	-	-	7/2

2.5.9 Axis-specific memory settings

38000	MM_ENC_COMP_MAX_POINTS			A01, A09, A02	K3
-	Number of intermediate points for interpol. compensation (SRAM)			DWORD	POWER ON
-					
-	2	0, 0	0	5000	7/2

38010	MM_QEC_MAX_POINTS			A01, A09	K3
-	Number of values for quadrant error compens. with neural network			DWORD	POWER ON
-					
-	1	0	0	1040	7/2

2.6 Setting data

Number	Identifier			Display filters	Reference
Unit	Name			Data type	Active
Attributes					
System	Dimension	Default value	Minimum value	Maximum value	Protection

2.6.1 General setting data

41010	JOG_VAR_INCR_SIZE			-	H1
-	Size of the variable increment for JOG			DOUBLE	SOFORT
-					
-	-	0.	-	-	7/7

41050	JOG_CONT_MODE_LEVELTRIGGRD			-	H1
-	Jog mode / continuous operation with continuous JOG			BOOLEAN	SOFORT
-					
-	-	TRUE	-	-	7/7

41100	JOG_REV_IS_ACTIVE			-	H1
-	JOG mode: (1) revolutional feedrate / (0) feedrate			BOOLEAN	SOFORT
-					
-	-	FALSE	-	-	7/7

41110	JOG_SET_VELO			-	H1
mm/min	Axis velocity in JOG			DOUBLE	SOFORT
-					
-	-	0.0	-	-	7/7

41120	JOG_REV_SET_VELO			-	H1
mm/rev	Revolutional feedrate of axes in JOG mode			DOUBLE	SOFORT
-					
-	-	0.0	-	-	7/7

41130	JOG_ROT_AX_SET_VELO			-	H1
rev/min	Axis velocity for rotary axes in JOG mode			DOUBLE	SOFORT
-					
-	-	0.0	-	-	7/7

Setting data

41200	JOG_SPIND_SET_VELO		-	H1
rev/min	Speed for spindle JOG mode		DOUBLE	SOFORT
-				
-	-	0.0	-	7/7

41300	CEC_TABLE_ENABLE		-	K3
-	Compensation table enable		BOOLEAN	SOFORT
-				
-	62	FALSE,FALSE,FALSE,FALSE,FALSE...	-	7/7

41310	CEC_TABLE_WEIGHT		-	K3
-	Weighting factor compensation table		DOUBLE	SOFORT
-				
-	62	1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0,1.0...	-	7/7

41500	SW_CAM_MINUS_POS_TAB_1		-	N3
mm/inch, degrees	Trigger points at falling cam 1-8		DOUBLE	SOFORT
-				
-	8	0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0	-	7/7

41501	SW_CAM_PLUS_POS_TAB_1		-	N3
mm/inch, degrees	Trigger points at rising cam edge 1-8		DOUBLE	SOFORT
-				
-	8	0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0	-	7/7

41502	SW_CAM_MINUS_POS_TAB_2		-	N3
mm/inch, degrees	Trigger points at falling cam edge 9-16		DOUBLE	SOFORT
-				
-	8	0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0	-	7/7

41503	SW_CAM_PLUS_POS_TAB_2		-	N3
mm/inch, degrees	Trigger points at rising cam edge 9-16		DOUBLE	SOFORT
-				
-	8	0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0	-	7/7

41504	SW_CAM_MINUS_POS_TAB_3		-	N3
mm/inch, degrees	Trigger points at falling cam edge 17-24		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

41505	SW_CAM_PLUS_POS_TAB_3		-	N3
mm/inch, degrees	Trigger points at rising cam edge 17-24		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

41506	SW_CAM_MINUS_POS_TAB_4		-	N3
mm/inch, degrees	Trigger points at falling cam edge 25-32		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

41507	SW_CAM_PLUS_POS_TAB_4		-	N3
mm/inch, degrees	Trigger points at rising cam edge 25-32		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

41520	SW_CAM_MINUS_TIME_TAB_1		-	N3
s	Rate time for '-' trigger points of cams 1-8		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

41521	SW_CAM_PLUS_TIME_TAB_1		-	N3
s	Rate time for '+' trigger points of cams 1-8		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

41522	SW_CAM_MINUS_TIME_TAB_2		-	N3
s	Rate time for '-' trigger points of cams 9-16		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

Setting data

41523	SW_CAM_PLUS_TIME_TAB_2		-	N3
s	Rate time for '+' trigger points of cams 9-16		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

41524	SW_CAM_MINUS_TIME_TAB_3		-	N3
s	Rate time for '-' trigger points of cams 17-24		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

41525	SW_CAM_PLUS_TIME_TAB_3		-	N3
s	Rate time for '+' trigger points of cams 17-24		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

41526	SW_CAM_MINUS_TIME_TAB_4		-	N3
s	Rate time for '-' trigger points of cams 25-32		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

41527	SW_CAM_PLUS_TIME_TAB_4		-	N3
s	Rate time for '+' trigger points of cams 25-32		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

41600	COMPAR_THRESHOLD_1		-	A4
-	Threshold value of the 1st comparator		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

41601	COMPAR_THRESHOLD_2		-	A4
-	Threshold value of the 2nd comparator		DOUBLE	SOFORT
-				
-	8	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-	7/7

41700	AXCT_SWWIDTH		-	B3
-	Default rotation of axis container		DWORD	NEW CONF
CTDE				
-	16	0,0,0,0,0,0,0,0,0,0 .0,0,0,0,0	-32	32
				7/7

2.6.2 Channel-specific setting data

42000	THREAD_START_ANGLE		-	K1
degrees	Starting angle for thread		DOUBLE	SOFORT
-				
-	-	0.,0.,0.,0.,0.,0.,0.,0., 0.,0.,0.,0.,0....	-	7/7

42010	THREAD_RAMP_DISP		-	V1
mm	Acceleration behavior of axis when thread cutting		DOUBLE	SOFORT
-				
-	2	-1., -1.,-1., -1.,-1., - 1.,-1., -1....	-1.	999999.

42100	DRY_RUN_FEED		-	V1
mm/min	Dry run feedrate		DOUBLE	SOFORT
-				
-	-	5000.,5000.,5000.,5 000.,5000.,5000....	-	7/7

42101	DRY_RUN_FEED_MODE		-	V1
-	Mode for dry run velocity		BYTE	SOFORT
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	0	12

42110	DEFAULT_FEED		-	V1,FBFA
mm/min	Path feed default value		DOUBLE	SOFORT
-				
-	-	0.,0.,0.,0.,0.,0.,0.,0., 0.,0.,0.,0.,0....	-	7/7

42120	APPROACH_FEED		-	-
mm/min	Path feedrate in approach blocks		DOUBLE	SOFORT
-				
-	-	0.,0.,0.,0.,0.,0.,0.,0., 0.,0.,0.,0.,0....	-	7/7

42125	SERUPRO_SYNC_MASK		-	-
-	Ssynchronization in approach blocks		DWORD	SOFORT
-				
-	-	0,0,0,0,0,0,0,0,0,0 ,0,0,0,0,0	-	7/7

Setting data

42465	SMOOTH_CONTUR_TOL		-	B1	
mm	maximum contour tolerance on smoothing		DOUBLE	SOFORT	
-					
-	-	0.05,0.05,0.05,0.05, 0.05,0.05,0.05...	0.000001	999999.	7/7

42466	SMOOTH_ORI_TOL		-	B1	
degrees	Maximum deviation of tool orientation during smoothing.		DOUBLE	SOFORT	
-					
-	-	0.05,0.05,0.05,0.05, 0.05,0.05,0.05...	0.000001	90.	7/7

42470	CRIT_SPLINE_ANGLE		-	W1,PGA	
degrees	Corner limit angle for compressor		DOUBLE	SOFORT	
-					
-	-	36.0,36.0,36.0,36.0, 36.0,36.0,36.0...	0.0	89.0	7/7

42471	MIN_CURV_RADIUS		EXP, C09	-	
mm	Minimum radius of curvature		DOUBLE	SOFORT	
-					
-	-	3.0,3.0,3.0,3.0,3.0,3 .0,3.0,3.0,3.0...	-	-	7/7

42475	COMPRESS_CONTUR_TOL		-	F2,PGA	
mm	maximum contour deviation with compressor		DOUBLE	SOFORT	
-					
-	-	0.05,0.05,0.05,0.05, 0.05,0.05,0.05...	0.000001	999999.	7/7

42476	COMPRESS_ORI_TOL		-	F2,PGA	
degrees	Maximum deviation of tool orientation with compressor		DOUBLE	SOFORT	
-					
-	-	0.05,0.05,0.05,0.05, 0.05,0.05,0.05...	0.000001	90.	7/7

42477	COMPRESS_ORI_ROT_TOL		-	F2,PGA	
degrees	Maximum deviation of tool rotation with compressor		DOUBLE	SOFORT	
-					
-	-	0.05,0.05,0.05,0.05, 0.05,0.05,0.05...	0.000001	90.	7/7

42480	STOP_CUTCOM_STOPRE	-	W1
-	Alarm response with tool radius compensation and preproc. stop	BOOLEAN	SOFORT
-			
-	-	TRUE,TRUE,TRUE, TRUE,TRUE,TRUE, TRUE...	7/7

42490	CUTCOM_G40_STOPRE	-	W1
-	Retraction behavior of tool radius compensation with prep. stop	BOOLEAN	SOFORT
-			
-	-	FALSE,FALSE,FAL SE,FALSE,FALSE, FALSE...	7/7

42494	CUTCOM_ACT_DEACT_CTRL	-	W1
-	Approach & retraction behavior with 2-1/2D tool radius compens.	DWORD	SOFORT
-			
-	-	2222,2222,2222,22 22,2222,2222,2222. ..	7/7

42496	CUTCOM_CLSD_CONT	-	-
-	Tool radius compensation behavior with closed contour	BOOLEAN	SOFORT
-			
-	-	FALSE,FALSE,FAL SE,FALSE,FALSE, FALSE...	7/7

42500	SD_MAX_PATH_ACCEL	-	B2
m/s ²	maximum path acceleration	DOUBLE	SOFORT
-			
-	-	10000.,10000.,1000 0.,10000.,10000....	1.0e-3 7/7

42502	IS_SD_MAX_PATH_ACCEL	-	B2
-	Evaluate SD SC_SD_MAX_PATH_ACCEL	BOOLEAN	SOFORT
-			
-	-	FALSE,FALSE,FAL SE,FALSE,FALSE, FALSE...	7/7

Setting data

42510	SD_MAX_PATH_JERK		-	B2
m/s ³	maximum path-related jerk as setting data		DOUBLE	SOFORT
-				
-	-	100000.,100000.,100000.,100000....	1.e-9	7/7
42512	IS_SD_MAX_PATH_JERK		-	B2
-	Evaluate SD SD_MAX_PATH_JERK		BOOLEAN	SOFORT
-				
-	-	FALSE,FALSE,FALSE,FALSE,FALSE,FALSE...	-	7/7
42520	CORNER_SLOWDOWN_START		-	-
mm	Start of feed reduction at G62.		DOUBLE	SOFORT
-				
-	-	0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0....	-	7/7
42522	CORNER_SLOWDOWN_END		-	-
mm	End of feed reduction at G62.		DOUBLE	SOFORT
-				
-	-	0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0....	-	7/7
42524	CORNER_SLOWDOWN_OVR		-	-
%	Feed override reduction at G62		DOUBLE	SOFORT
-				
-	-	0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0....	-	7/7
42526	CORNER_SLOWDOWN_CRIT		-	-
degrees	Corner detection at G62		DOUBLE	SOFORT
-				
-	-	0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0....	-	7/7
42528	CUTCOM_DECEL_LIMIT		-	-
-	Feed lowering on circles with tool radius compensation		DOUBLE	SOFORT
-				
-	-	0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0....	0.	7/7

Setting data

42900	MIRROR_TOOL_LENGTH	-	W1
-	Sign change of tool length with mirror image machining	BOOLEAN	SOFORT
-			
-	-	FALSE,FALSE,FALSE,FALSE,FALSE...	7/7

42910	MIRROR_TOOL_WEAR	-	W1
-	Sign change of tool wear with mirror image machining	BOOLEAN	SOFORT
-			
-	-	FALSE,FALSE,FALSE,FALSE,FALSE...	7/7

42920	WEAR_SIGN_CUTPOS	-	W1
-	Sign of tool wear depending on tool point direction	BOOLEAN	SOFORT
-			
-	-	FALSE,FALSE,FALSE,FALSE,FALSE...	7/7

42930	WEAR_SIGN	-	W1
-	Sign of wear	BOOLEAN	SOFORT
-			
-	-	FALSE,FALSE,FALSE,FALSE,FALSE...	7/7

42935	WEAR_TRANSFORM	-	W1,W4
-	Transformations for tool components	DWORD	SOFORT
-			
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/7

42940	TOOL_LENGTH_CONST	-	W1
-	Change of tool length components with change of active plane	DWORD	SOFORT
-			
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/7

42950	TOOL_LENGTH_TYPE	-	W1
-	Assignment of tool length compensation independent of tool type	DWORD	SOFORT
-			
-	-	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/7

42960	TOOL_TEMP_COMP		-	W1
-	Temperature compensation for tool		DOUBLE	SOFORT
-				
-	3	0.0, 0.0, 0.0,0.0, 0.0, 0.0...	-	7/7

42970	TOFF_LIMIT		-	F2
mm	Upper limit of correction value via \$AA_TOFF		DOUBLE	SOFORT
-				
-	3	100000000.0, 100000000.0, 100000000.0...	-	7/7

42974	TOCARR_FINE_CORRECTION		C08	-
-	Fine offset TCARR ON / OFF		BOOLEAN	SOFORT
-				
-	-	FALSE,FALSE,FAL SE,FALSE,FALSE, FALSE...	-	7/7

42980	TOFRAME_MODE		-	K2
-	Frame definition at TOFRAME, TOROT and PAROT		DWORD	SOFORT
-				
-	-	1000,1000,1000,10 00,1000,1000,1000. ..	-	7/7

42984	CUTDIRMOD		C08	-
-	Modification of \$P_AD[2] or \$P_AD[11]		STRING	SOFORT
-				
-	-		-	7/7

42990	MAX_BLOCKS_IN_IPOBUFFER		-	K1
-	maximum number of blocks in IPO buffer		DWORD	SOFORT
-				
-	-	-1,-1,-1,-1,-1,-1,- 1,-1,-1,-1,-1,-1...	-	7/7

42995	CONE_ANGLE		-	-
-	Taper angle		DOUBLE	SOFORT
-				
-	-	0,0,0,0,0,0,0,0,0, 0,0,0,0,0	-90	90 7/7

Setting data

2.6.3 Axis-specific setting data

43100	LEAD_TYPE	-	M3
-	Defines what is used as master value	DWORD	RESET
CTEQ			
-	-	1	0
-	-	2	7/7

43102	LEAD_OFFSET_IN_POS	-	M3
-	Offset of master value if coupled to this axis	DOUBLE	RESET
-			
-	-	0.0	-
-	-	-	7/7

43104	LEAD_SCALE_IN_POS	-	M3
-	Scaling of master value if coupled to this axis	DOUBLE	RESET
-			
-	-	1.0	-
-	-	-	7/7

43106	LEAD_OFFSET_OUT_POS	-	M3
mm, degrees	Offset of the functional value of the curve table	DOUBLE	RESET
-			
-	-	0.0	-
-	-	-	7/7

43108	LEAD_SCALE_OUT_POS	-	M3
-	Scaling of functional value of the curve table	DOUBLE	RESET
-			
-	-	1.0	-
-	-	-	7/7

43120	DEFAULT_SCALE_FACTOR_AXIS	-	FBFA
-	Axial default scaling factor with G51 active	DWORD	SOFORT
-			
-	-	1	-
-	-	-	7/7

43200	SPIND_S	-	S1
rev/min	Speed for spindle start by VDI	DOUBLE	SOFORT
-			
-	-	0.0	-
-	-	-	7/7

43202	SPIND_CONSTCUT_S	-	S1
m/min	Const cut speed for spindle start by VDI	DOUBLE	SOFORT
-			
-	-	0.0	-
-	-	-	7/7

43206	SPIND_SPEED_TYPE	A06	-
-	Spindle speed type for spindle start through VDI	DWORD	SOFORT
-			
-	-	94	93
-	-	972	7/7

43210	SPIND_MIN_VELO_G25	-	S1
rev/min	Programmed spindle speed limitation G25	DOUBLE	SOFORT
-			
-	0.0	-	7/7

43220	SPIND_MAX_VELO_G26	-	S1
rev/min	Programmed spindle speed limitation G26	DOUBLE	SOFORT
-			
-	1000.0	-	7/7

43230	SPIND_MAX_VELO_LIMS	-	S1
rev/min	Spindle speed limitation with G96	DOUBLE	SOFORT
-			
-	100.0	-	7/7

43240	M19_SPOS	-, A12	S1
degrees	Spindle position for spindle positioning with M19.	DOUBLE	SOFORT
-			
-	0.0	-10000000.0	10000000.0

43250	M19_SPOSMODE	-, A12	S1
-	Spindle position approach mode for spindle positioning with M19.	DWORD	SOFORT
-			
-	0	0	5

43300	ASSIGN_FEED_PER_REV_SOURCE	-	V1,P2,S1
-	Revolutional feedrate for positioning axes/spindles	DWORD	SOFORT
CTEQ			
-	0	-3	31

43340	EXTERN_REF_POSITION_G30_1	-, A12	FBFA
-	Reference point position for G30.1	DOUBLE	SOFORT
-			
-	0.0	-	7/7

43350	AA_OFF_LIMIT	-	S5,FBSY
mm, degrees	Upper limit of offset value \$AA_OFF with clearance control	DOUBLE	POWER ON
CTEQ			
-	100000000.0	-	7/7

43400	WORKAREA_PLUS_ENABLE	-	A3
-	Working area limitation active in positive direction	BOOLEAN	SOFORT
CTEQ			
-	FALSE	-	7/7

Setting data

43410	WORKAREA_MINUS_ENABLE			-	A3
-	Working area limitation active in the negative direction			BOOLEAN	SOFORT
CTEQ					
-	-	FALSE	-	-	7/7

43420	WORKAREA_LIMIT_PLUS			-	A3
mm, degrees	Working area limitation plus			DOUBLE	SOFORT
-					
-	-	1.0e+8	-	-	7/7

43430	WORKAREA_LIMIT_MINUS			-	A3
mm, degrees	Working area limitation minus			DOUBLE	SOFORT
-					
-	-	-1.0e+8	-	-	7/7

43500	FIXED_STOP_SWITCH			-	F1
-	Selection of travel to fixed stop			BYTE	SOFORT
-					
-	-	0	0	1	7/7

43510	FIXED_STOP_TORQUE			-	F1
%	Fixed stop clamping torque			DOUBLE	SOFORT
-					
-	-	5.0	0.0	800.0	7/7

43520	FIXED_STOP_WINDOW			-	F1
mm, degrees	Fixed stop monitoring window			DOUBLE	SOFORT
-					
-	-	1.0	-	-	7/7

43600	IPOBRAKE_BLOCK_EXCHANGE			A06, A10	K1
%	Block change criterion 'braking ramp'			DOUBLE	SOFORT
-					
-	-	0.0	0	100.0	7/7

43610	ADISPOSA_VALUE			A06, A10	P2
mm, degrees	Tolerance window 'braking ramp'			DOUBLE	SOFORT
-					
-	-	0.0	-	-	7/7

43700	OSCILL_REVERSE_POS1			-	P5
mm, degrees	Oscillation reversal point 1			DOUBLE	SOFORT
-					
-	-	0.0	-	-	7/7

43710	OSCILL_REVERSE_POS2	-	P5
mm, degrees	Oscillation reversal point 2	DOUBLE	SOFORT
-			
-	0.0	-	7/7

43720	OSCILL_DWELL_TIME1	-	P5
s	Hold time at oscillation reversal point 1	DOUBLE	SOFORT
-			
-	0.0	-	7/7

43730	OSCILL_DWELL_TIME2	-	P5
s	Hold time at oscillation reversal point 2	DOUBLE	SOFORT
-			
-	0.0	-	7/7

43740	OSCILL_VELO	-	P5
mm/min, rev/min	Feedrate of reciprocating axis	DOUBLE	SOFORT
-			
-	0.0	-	7/7

43750	OSCILL_NUM_SPARK_CYCLES	-	P5
-	Number of spark-out strokes	DWORD	SOFORT
-			
-	0	-	7/7

43760	OSCILL_END_POS	-	P5
mm, degrees	End position of the reciprocating axis	DOUBLE	SOFORT
-			
-	0.0	-	7/7

43770	OSCILL_CTRL_MASK	-	P5
-	Oscillation sequence control mask	DWORD	SOFORT
-			
-	0	-	7/7

43780	OSCILL_IS_ACTIVE	-	P5
-	Activate oscillation movement	BOOLEAN	SOFORT
-			
-	FALSE	-	7/7

43790	OSCILL_START_POS	-	-
mm, degrees	Start position of reciprocating axis	DOUBLE	SOFORT
-			
-	0.0	-	7/7

Setting data

43900	TEMP_COMP_ABS_VALUE			-	K3
-	Position-independent temperature compensation value			DOUBLE	SOFORT
-					
-	-	0.0	-	-	7/7

43910	TEMP_COMP_SLOPE			-	K3
-	Lead angle for position-dependent temperature compensation			DOUBLE	SOFORT
-					
-	-	0.0	-	-	7/7

43920	TEMP_COMP_REF_POSITION			-	K3
-	Ref. position of position-dependent temperature compensation			DOUBLE	SOFORT
-					
-	-	0.0	-	-	7/7

3

Machine Data SIMODRIVE

3.1 Drive Machine data

Number	Identifier			Display filter	Reference
Unit	Name			Data type	Active
			Type		Rot/Lin
System		Default value	Minimal value	Maximum value	Protection
					/
1000	CURRCTRL_CYCLE_TIME			D01, D05, EXP	CR: DS1
31,25us	Current controller cycle			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		4	2	4	2/4
1000	CURRCTRL_CYCLE_TIME				CR: DS1
31,25us	Current controller cycle			UNS. WORD	PowerOn
			VSA/HSA		-
810D		5	2	8	2/4
1000	CURRCTRL_CYCLE_TIME			D01, D05, EXP	CR: DS1
31,25 us	Current controller cycle			UNS.WORD	Power On
			HSA SLM VSA		-
P2		-	-	-	2/4
P2 810D		5	2	5	2/4
P2 840D		4	1	4	2/4
1001	SPEEDCTRL_CYCLE_TIME			D01, D05, EXP	CR: DD2
31,25us	Speed controller cycle			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		4	2	16	2/4
1001	SPEEDCTRL_CYCLE_TIME				CR: DD2
31,25us	Speed controller cycle			UNS. WORD	PowerOn
			VSA/HSA		-
810D		10	2	32	2/4
1001	SPEEDCTRL_CYCLE_TIME			D01, D05, EXP	CR: DD2
31,25 us	Speed controller cycle			UNS.WORD	Power On
			HSA SLM VSA		-
P2 810D		10	2	40	2/4
P2 840D		4	1	16	2/4

Drive Machine data

P2		-	-	-	2/4
----	--	---	---	---	-----

1002	MONITOR_CYCLE_TIME				CR: DB1
31,25us	Monitoring cycle			UNS. WORD	PowerOn
			VSA/HSA		-
810D		640	128	3200	2/4

1002	MONITOR_CYCLE_TIME			D05, D02, EXP	CR: DB1
31,25us	Monitoring cycle			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		3200	128	3200	2/4

1002	MONITOR_CYCLE_TIME			D02, D05, EXP	CR: DB1
31,25 us	Monitoring cycle			UNS.WORD	Power On
			HSA SLM VSA		-
P2		3200	128	3200	2/4

1003	STS_CONFIG			EXP	CR: DS1
HEX	Configuration STS			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		330	0	7f0	0/0

1003	STS_CONFIG				CR: DS1
HEX	Configuration STS			UNS. WORD	PowerOn
			VSA/HSA		-
810D		330	0	fff	2/4

1003	STS_CONFIG			EXP	CR: DS1
-	Configuration STS			UNS.WORD	Power On
			HSA SLM VSA		-
P2		0x0330	0x0000	0x07f0	0/0

1004	CTRL_CONFIG			EXP	CR: DD2
HEX	Configuration structure			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		0	0	2115	2/4

1004	CTRL_CONFIG			EXP	CR: DD2
-	Configuration structure			UNS.WORD	Power On
			HSA SLM VSA		-
P2		0x0000	0x0000	0x3115	2/4

1005	ENC_RESOL_MOTOR			D06	CR: DG1, DM1
-	Motor measuring system encoder increments			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		2048	1	65535	2/4

1005	ENC_RESOL_MOTOR			CR: DG1, DM1
-	Motor measuring system encoder increments		UNS. WORD	PowerOn
		VSA/HSA		-
810D	2048	1	8192	2/4

1005	ENC_RESOL_MOTOR		D06	CR: DG1, DM1
-	Motor measuring system encoder increments		UNS.WORD	Power On
		HSA SLM VSA		-
P2	2048	1	65535	2/4

1007	ENC_RESOL_DIRECT			CR: DG1
-	Encoder increments of the direct measuring system		UNS. WORD	PowerOn
		VSA/HSA		-
810D	0	0	65535	2/4

1007	ENC_RESOL_DIRECT		D06	CR: DG1
-	Encoder increments of the direct measuring system		UNS. DWORD	PowerOn
		VSA/HSA		ROT/LIN
840D	0	0	2147483647	2/4

1007	ENC_RESOL_DIRECT		D06	CR: DG1
-	Encoder increments of the direct measuring system		UNS.DWORD	Power On
		HSA SLM VSA		-
P2	0	0	2147483647	2/4

1008	ENC_PHASE_ERROR_CORRECTION		EXP, D06	CR: DG1
Grad	Encoder phase error compensation IM		FLOAT	sofort
		VSA/HSA		ROT/LIN
840D	0.0000	-20.0000	20.0000	2/4

1008	ENC_PHASE_ERROR_CORRECTION		D06, EXP	CR: DG1
degrees	Encoder phase error compensation IM		FLOAT	Immediately
		HSA SLM VSA		-
P2	0.000000	-20.000000	20.000000	2/4

1011	ACTUAL_VALUE_CONFIG			CR: DG1
HEX	Configuration of the actual value sensing IM		UNS. WORD	PowerOn
		VSA/HSA		-
810D	0	0	fff	2/4

1011	ACTUAL_VALUE_CONFIG		D06	CR: DG1
HEX	Configuration of the actual value sensing IM		UNS. WORD	PowerOn
		VSA/HSA		ROT/LIN
840D	0	0	f1ff	2/4

1011	ACTUAL_VALUE_CONFIG		D06	CR: DG1
-	Configuration of the actual value sensing IM		UNS.WORD	Power On
		HSA SLM VSA		-

Drive Machine data

P2		0x0000	0x0000	0xf1ff	2/4
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1012	FUNC_SWITCH				CR: DB1
HEX	Function switch			UNS. WORD	sofort
			VSA/HSA		-
810D		4	0	ffff	2/4

1012	FUNC_SWITCH			D01, D02, D03	CR: DB1
HEX	Function switch			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	01B5	2/4

1012	FUNC_SWITCH			D01, D02, D03	CR: DB1
-	Function switch			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0x0004	0x0000	0x01b5	2/4

1013	ENABLE_STAR_DELTA			D05	CR: DE1
-	Enable star/delta changeover			UNS. WORD	PowerOn
			HSA		ROT
840D		0	0	7	2/4

1013	ENABLE_STAR_DELTA			D05	CR: DE1
-	Enable star/delta changeover			UNS.WORD	Power On
			HSA SLM VSA		-
P2		0	0	7	2/4

1014	UF_MODE_ENABLE			EXP, D04	CR: DE1
-	Activate V/f operation			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		0	0	1	2/4

1014	UF_MODE_ENABLE			D04	CR: DE1
-	Activate V/f operation			UNS.WORD	Power On
			HSA SLM VSA		-
P2		0	0	1	2/4

1015	PEMSD_MODE_ENABLE			-	CR: DE1
-	Activate PE-MSD			UNS. WORD	PowerOn
			VSA		ROT/LIN
840D		0	0	1	2/4

1015	PEMSD_MODE_ENABLE			-	CR: DE1
-	Activate PE-MSD			UNS.WORD	Power On
			VSA SLM		-
P2		0	0	1	2/4

1016	COMMUTATION_ANGLE_OFFSET			-	CR: DL1
Grad	Commutating angle offset			FLOAT	PowerOn
			VSA		ROT/LIN
840D		0.0000	-360.0000	360.0000	2/4

1016	COMMUTATION_ANGLE_OFFSET			-	CR: DL1
degrees	Commutating angle offset			FLOAT	Power On
			VSA SLM		-
P2		0.000000	-360.000000	360.000000	2/4

1017	STARTUP_ASSISTANCE			D04	CR: DL1
-	Setting-up aid			WORD	sofort
			VSA		ROT/LIN
840D		0	-1	1	2/4

1017	STARTUP_ASSISTANCE			D04	CR: DL1
-	Setting-up aid			WORD	Immediately
			VSA SLM		-
P2		0	-1	1	2/4

1019	CURRENT_ROTORPOS_IDENT			-	CR: DM1
%	Current rotor position identification			FLOAT	sofort
			VSA		ROT
840D		50.0000	0.0000	100.0000	2/4

1019	CURRENT_ROTORPOS_IDENT			-	CR:
%	Current rotor position identification			FLOAT	sofort
			VSA		LIN
840D		12.0000	0.0000	100.0000	2/4

1019	CURRENT_ROTORPOS_IDENT			-	CR: DM1
%	Current rotor position identification			FLOAT	Immediately
			VSA SLM		-
P2		50.000000	0.000000	100.000000	2/4

1020	MAX_MOVE_ROTORPOS_IDENT			-	CR:
mm	Maximum move of rotor position identification			FLOAT	sofort
			VSA		LIN
840D		5.0000	0.0000	30.0000	2/4

1020	MAX_TURN_ROTORPOS_IDENT			-	CR: DM1
Grad	Maximum rotation of rotor position identification			FLOAT	sofort
			VSA		ROT
840D		10.0000	0.0000	90.0000	2/4

1020	MAX_TURN_ROTORPOS_IDENT			-	CR: DM1
degrees	Maximum rotation of rotor position identification			FLOAT	Immediately
			VSA SLM		-

Drive Machine data

P2		10.000000	0.000000	90.000000	2/4
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1021	ENC_ABS_TURNS_MOTOR		D06	CR: DG1	
-	Multiturn resolution absolute value encoder motor		UNS. WORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D		4096	0	65535	2/4

1021	ENC_ABS_TURNS_MOTOR		D06	CR: DG1	
-	Multiturn resolution absolute value encoder motor		UNS.WORD	Power On	
		HSA SLM VSA		-	
P2		4096	0	65535	2/4

1022	ENC_ABS_RESOL_MOTOR		D06	CR: DG1	
-	Measuring steps of the motor absolute track		UNS. DWORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D		8192	0	2147483647	2/4

1022	ENC_ABS_RESOL_MOTOR			CR: DG1	
-	Measuring steps of the motor absolute track		UNS. WORD	PowerOn	
		VSA/HSA		-	
810D		8192	512	65535	2/4

1022	ENC_ABS_RESOL_MOTOR		D06	CR: DG1	
-	Measuring steps of the motor absolute track		UNS.DWORD	Power On	
		HSA SLM VSA		-	
P2		8192	0	2147483647	2/4

1023	ENC_ABS_DIAGNOSIS_MOTOR		D06	CR: DG1	
-	Diagnosis measuring circuit motor absolute track		UNS. WORD	sofort	
		VSA/HSA		ROT/LIN	
840D		0	0	49151	2/4

1023	ENC_ABS_DIAGNOSIS_MOTOR			CR: DG1	
-	Diagnosis measuring circuit motor absolute track		UNS. WORD	sofort	
		VSA/HSA		-	
810D		0	0	65535	2/4

1023	ENC_ABS_DIAGNOSIS_MOTOR		D06	CR: DG1	
-	Diagnosis measuring circuit motor absolute track		UNS.WORD	Immediately	
		HSA SLM VSA		-	
P2		0	0	49151	2/4

1024	DIVISION_LIN_SCALE		-	CR:	
nm	Grid spacing, motor measuring system		UNS. DWORD	PowerOn	
		VSA		LIN	
840D		20000	0	2147483647	2/4

1024	DIVISION_LIN_SCALE		-	CR: DG1
nm	Grid spacing motor measuring system		UNS.DWORD	Power On
		VSA SLM		-
P2		20000	0	2147483647 2/4

1025	SERIAL_NO_ENCODER		D06, EXP	CR: DG1
-	Serial number motor measuring system		UNS. DWORD	PowerOn
		VSA/HSA		ROT/LIN
840D		0	0	2147483647 1/1

1025	SERIAL_NO_ENCODER		D06, EXP	CR: DG1
-	Serial number motor measuring system		UNS.DWORD	Power On
		HSA SLM VSA		-
P2		0	0	4294967295 1/1

1027	ENC_CONFIG		D06	CR: DG1
-	Configuration for encoder IM		UNS. WORD	PowerOn
		VSA/HSA		ROT/LIN
840D		0	0	ffff 2/4

1027	ENC_CONFIG		D06	CR: DG1
-	Configuration for encoder IM		UNS.WORD	Power On
		HSA SLM VSA		-
P2		0x0000	0x0000	0xffff 2/4

1028	NO_TRANSMISSION_BITS		D06	CR: DG1
-	IM frame length SSI		UNS. WORD	PowerOn
		VSA/HSA		ROT/LIN
840D		25	0	25 2/4

1028	NO_TRANSMISSION_BITS		D06	CR: DG1
-	IM frame length SSI		UNS.WORD	Power On
		HSA SLM VSA		-
P2		25	0	25 2/4

1029	DELAY_ROTORPOS_IDENT		-	CR: FBU
ms	Meas. delay rotor position identification		FLOAT	sofort
		VSA		ROT/LIN
840D		0.0000	0.0000	100.0000 2/4

1029	DELAY_ROTORPOS_IDENT		-	CR: FBU
ms	Meas. delay rotor position identification		FLOAT	Immediately
		VSA SLM		-
P2		0	0	100.0 2/4

1030	ACTUAL_VALUE_CONFIG_DIRECT			CR: DG1
HEX	Configuration actual-value sensing DM		UNS. WORD	PowerOn
		VSA/HSA		-

Drive Machine data

810D		0	0	ffff	2/4
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1030	ACTUAL_VALUE_CONFIG_DIRECT			D06	CR: DG1
HEX	Configuration actual-value sensing DM			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		0	0	c018	2/4

1030	ACTUAL_VALUE_CONFIG_DIRECT			D06	CR: DG1
-	Configuration actual-value sensing DM			UNS.WORD	Power On
			HSA SLM VSA		-
P2		0x0000	0x0000	0xc018	2/4

1031	ENC_ABS_TURNS_DIRECT			D06	CR: DG1
-	Multiturn resolution of the absolute encoder DM			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		4096	0	65535	2/4

1031	ENC_ABS_TURNS_DIRECT			D06	CR: DG1
-	Multiturn resolution of the absolute encoder DM			UNS.WORD	Power On
			HSA SLM VSA		-
P2		4096	0	65535	2/4

1032	ENC_ABS_RESOL_DIRECT			D06	CR: DG1
-	Measuring steps of the absolute track DM			UNS. DWORD	PowerOn
			VSA/HSA		ROT/LIN
840D		8192	0	2147483647	2/4

1032	ENC_ABS_RESOL_DIRECT				CR: DG1
-	Measuring steps of the absolute track DM			UNS. WORD	PowerOn
			VSA/HSA		-
810D		8192	0	65535	2/4

1032	ENC_ABS_RESOL_DIRECT			D06	CR: DG1
-	Measuring steps of the absolute track DM			UNS.DWORD	Power On
			HSA SLM VSA		-
P2		8192	0	2147483647	2/4

1033	ENC_ABS_DIAGNOSIS_DIRECT			D06	CR: DG1
-	Diagnosis dir. measuring system absolute track			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	64767	2/4

1033	ENC_ABS_DIAGNOSIS_DIRECT				CR: DG1
-	Diagnosis dir. measuring system absolute track			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	65535	2/4

1033	ENC_ABS_DIAGNOSIS_DIRECT		D06	CR: DG1	
-	Diagnosis dir. measuring system absolute track		UNS.WORD	Immediately	
		HSA SLM VSA		-	
P2		0	0	64767	2/4

1034	DIVISION_LIN_SCALE_DM		-	CR:	
nm	Grid spacing, direct measuring system		UNS. DWORD	PowerOn	
		VSA		LIN	
840D		20000	0	2147483647	2/4

1034	DIVISION_LIN_SCALE_DM		-	CR: DG1	
nm	Grid spacing direct measuring system		UNS.DWORD	Power On	
		VSA SLM		-	
P2		20000	0	2147483647	2/4

1037	ENC_CONFIG_DIRECT		D06	CR: DG1	
-	Configuration for encoder DM		UNS. WORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D		0	0	ffff	2/4

1037	ENC_CONFIG_DIRECT		D06	CR: DG1	
-	Configuration for encoder DM		UNS.WORD	Power On	
		HSA SLM VSA		-	
P2		0x0000	0x0000	0xffff	2/4

1038	SERIAL_NO_ENCODER_DM		D06, EXP	CR: DG1	
-	Serial no. for direct meas. System		UNS. DWORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D		0	0	2147483647	1/1

1038	SERIAL_NO_ENCODER_DM		D06, EXP	CR: DG1	
-	Serial no. for direct meas. System		UNS.DWORD	Power On	
		HSA SLM VSA		-	
P2		0	0	4294967295	1/1

1041	NO_TRANSMISSION_BITS_DM		D06	CR: DG1	
-	DM frame length SSI		UNS. WORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D		25	0	25	2/4

1041	NO_TRANSMISSION_BITS_DM		D06	CR: DG1	
-	DM frame length SSI		UNS.WORD	Power On	
		HSA SLM VSA		-	
P2		25	0	25	2/4

1049	EMF_BREAK_ENABLE		-	CR: DM1	
-	Activate EMF brake		UNS.WORD	Power On	
		HSA SLM VSA		-	

Drive Machine data

P2		0	0	2	0/0
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1055	MARKER_DIST			D06	CR: DM1
degrees	Distance of the reference markers			FLOAT	Power On
			SLM VSA		-
P2		20.000000	0.000000	90.000000	2/4

1056	MARKER_DIST_DIFF			D06	CR: DM1
degrees	Difference between distances			FLOAT	Power On
			SLM VSA		-
P2		0.020000	0.000000	45.000000	2/4

1060	ACTIVATE_BRAKE_CONTROL			D02	CR: DM1
-	Activation of brake control			UNS.WORD	Immediately
			HSA SLM VSA		-
P2 840D		0	0	1	2/4

1061	BRAKE_RELEASE_TIME			D02	CR: DM1
ms	Brake release time			FLOAT	Immediately
			HSA SLM VSA		-
P2 840D		600.000000	10.000000	10000.000000	2/4

1062	BREAK_CLOSE_SPEED			D02	CR: DM1
1/min	Speed close holding brake			FLOAT	Immediately
			HSA SLM VSA		-
P2 840D		500.000000	0.000000	100000.000000	2/4

1063	BRAKE_DELAY_TIME			D02	CR: DM1
ms	Brake delay time			FLOAT	Immediately
			HSA SLM VSA		-
P2 840D		400.000000	10.000000	600000.000000	2/4

1064	CONTROLLER_DISABLE_TIME			D02	CR: DM1
ms	Servo disable time			FLOAT	Immediately
			HSA SLM VSA		-
P2 840D		600.000000	10.000000	10000.000000	2/4

1070	RLI_RAMP_TIME			-	CR: DM1
ms	RLI current setpoint ramp time			FLOAT	Immediately
			VSA SLM		-
P2		500	0.0	10000.0	1/1

1071	RLI_WAIT_TIME			-	CR: DM1
ms	RLI waiting time			FLOAT	Immediately
			VSA SLM		-
P2		20	0.0	10000.0	1/1

1072	RLI_AMOUNT			-	CR: DM1
-	RLI number of measurements			UNS.WORD	Immediately
			VSA SLM		-
P2		12	6	60	1/1

1073	POSS_TURN_ROTORPOS_IDENT			-	CR: DM1
degrees	Perm. turn of rotor position ident			FLOAT	Immediately
			SLM VSA		-
P2		1.000000	0.000000	90.000000	2/4

1074	ROTORPOS_OFFSET			-	CR: DM1
degrees	Rotor position adaption			FLOAT	Immediately
			HSA VSA SLM		-
P2		0.000000	0.000000	360.000000	2/4

1075	ALGORITHM_ROTORPOS_IDENT			-	CR: IAD, DM1
-	Rotor position identification procedure			UNS. WORD	sofort
			VSA		ROT/LIN
840D		1	1	3	1/1

1075	ALGORITHM_ROTORPOS_IDENT			-	CR: IAD, DM1
-	Rotor position identification procedure			UNS.WORD	Immediately
			VSA SLM		-
P2		1	1	6	1/1

1076	FACTOR_MASS			D05	CR:
kg	Load mass factor			FLOAT	sofort
			VSA		LIN
840D		0.0000	0.0000	10000.0000	1/1

1076	FACTOR_INERTIA			D05	CR: DM1
kgm ²	Load moment of inertia factor			FLOAT	sofort
			VSA		ROT
840D		0.0000	0.0000	500.0000	1/1

1076	FACTOR_INERTIA			D05	CR: DM1
kgm ²	Load moment of inertia factor			FLOAT	Immediately
			VSA SLM		-
P2		0.0	-500.0	500.0	1/1

1077	RLI_INTEGRATOR_TIME			-	CR:
ms	Integral action time for RLI controller			FLOAT	sofort
			VSA		ROT/LIN
840D		3.7000	0.0000	500.0000	1/1

1077	RLI_INTEGRATOR_TIME			-	CR: DM!
ms	Integral action time for RLI controller			FLOAT	Immediately
			VSA SLM		-

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P2		3.7	0.0	500.0	1/1
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1078	MAX_TIME_ROTORPOS_ID		-	CR:	
ms	Time monitoring of rotor position ID		FLOAT	sofort	
		VSA		ROT/LIN	
840D		800.0000	100.0000	10000.0000	1/1

1078	MAX_TIME_ROTORPOS_ID		-	CR: DM1	
ms	Time monitoring of rotor position ID		FLOAT	Immediately	
		VSA SLM		-	
P2		800.0	100.0	10000.0	1/1

1096	RED_TORQUE_LIMIT_GS_ACTIV		D02, D05	CR: DE1	
-	Red. max. torque at gen. stop active		UNS.WORD	Immediately	
		HSA SLM VSA		-	
P2		0	0	3	2/4

1097	RED_TORQUE_LIMIT_GENSTOP		D02, D05	CR: DE1	
%	Red. max. torque at gen. Stop		WORD	Immediately	
		HSA VSA SLM		-	
P2		80	0	100	2/4

1098	INVERTER_MAX_CURR_DERAT		D05	CR: DM1	
A	PS derating limit current		FLOAT	sofort	
		VSA/HSA		ROT/LIN	
840D		200.0000	0.0000	500.0000	2/4

1098	INVERTER_MAX_CURR_DERAT		D05	CR: DM1	
A	PS derating limit current		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		200.0	0.0	500.0	2/4

1099	INVERTER_DERATING_FACT		D05	CR: DE1, DM1	
%	PS limit current derating factor		FLOAT	sofort	
		VSA/HSA		ROT/LIN	
840D		0.0000	0.0000	100.0000	2/4

1099	INVERTER_DERATING_FACT		D05	CR: DE1, DM1	
%	PS limit current derating factor		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		0.000000	0.000000	100.000000	2/4

1100	PWM_FREQUENCY		D01, D05, EXP	CR: DS1	
Hz	Pulse-width modulation frequency		FLOAT	PowerOn	
		VSA/HSA		ROT/LIN	
840D		4000.0000	2000.0000	8000.0000	2/4

1100	PWM_FREQUENCY			D01, D05, EXP	CR: DS1
Hz	Pulse-width modulation frequency			FLOAT	Power On
			HSA SLM VSA		-
P2		4000.000000	2000.000000	8000.000000	2/4

1101	CTRLOUT_DELAY			D01, D05, EXP	CR: DS1
us	Computation deadtime of the current control loop			WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		62	0	124	2/4

1101	CTRLOUT_DELAY			D01, D05, EXP	CR: DS1
us	Computation deadtime of the current control loop			WORD	Power On
			HSA SLM VSA		-
P2 840D		32	-	-	2/4

P2 810D		110	-	-	2/4
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P2		-	0	124	2/4
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1102	MOTOR_CODE			D04, D05	CR: DM1
-	Motor code number			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		0	0	65535	2/4

1102	MOTOR_CODE			D04	CR: DM1
-	Motor code number			UNS.WORD	Power On
			HSA SLM VSA		-
P2		0	0	65535	2/4

1103	MOTOR_NOMINAL_CURRENT			D05	CR: DM1, DÜ1
A	Motor rated current			FLOAT	PowerOn
			VSA/HSA		ROT/LIN
840D		0.0000	0.0000	500.0000	2/4

1103	MOTOR_NOMINAL_CURRENT			D05	CR: DM1, DÜ1
A	Motor rated current			FLOAT	Power On
			HSA SLM VSA		-
P2		0.000000	0.000000	500.000000	2/4

1104	MOTOR_MAX_CURRENT			D05	CR: DM1, DÜ1
A	Maximum motor current			FLOAT	PowerOn
			VSA		ROT/LIN
840D		0.0400	0.0000	500.0000	2/4

1104	MOTOR_MAX_CURRENT				CR: DM1, DÜ1
A	Maximum motor current			FLOAT	PowerOn
			VSA		-
810D		0.0000	0.0000	500.0000	2/4

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1104	MOTOR_MAX_CURRENT		D05	CR: DM1, DÜ1	
A	Maximum motor current		FLOAT	Power On	
		VSA SLM		-	
P2	0.040000	0.000000	500.000000	2/4	

1105	MOTOR_MAX_CURRENT_REDUCTION		D05, D02	CR: DÜ1	
%	Reducing the maximum motor current		WORD	sofort	
		VSA		ROT/LIN	
840D	100	0	100	2/4	

1105	MOTOR_MAX_CURRENT_REDUCTION		D02, D05	CR: DÜ1	
%	Reducing the maximum motor current		WORD	Immediately	
		VSA SLM		-	
P2	100	0	100	2/4	

1106	INVERTER_CODE		D05, D04	CR: DM1	
HEX	Power section code number		UNS. WORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D	0	0	ffff	2/4	

1106	INVERTER_CODE		D04	CR: DM1	
-	Power section code number		UNS.WORD	Power On	
		HSA SLM VSA		-	
P2	0x0000	0x0000	0xffff	2/4	

1107	INVERTER_MAX_CURRENT		D05	CR: DM1	
A	Transistor limiting current		FLOAT	PowerOn	
		VSA/HSA		ROT/LIN	
840D	200.0000	1.0000	500.0000	2/4	

1107	INVERTER_MAX_CURRENT		D05	CR: DM1	
A	Transistor limiting current		FLOAT	Power On	
		HSA SLM VSA		-	
P2	200.000000	1.000000	500.000000	2/4	

1108	INVERTER_MAX_THERMAL_CURR		D05	CR: DM1	
A	Power module limiting current		FLOAT	PowerOn	
		VSA/HSA		ROT/LIN	
840D	200.0000	1.0000	500.0000	2/4	

1108	INVERTER_MAX_THERMAL_CURR		D05	CR: DM1	
A	Power module limiting current		FLOAT	Power On	
		HSA SLM VSA		-	
P2	200.000000	1.000000	500.000000	2/4	

1109	INVERTER_MAX_S6_CURRENT		D05	CR: DM1	
A	Power module limiting current S6		FLOAT	PowerOn	
		HSA		ROT	

840D		200.0000	1.0000	500.0000	2/4
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1109	INVERTER_MAX_S6_CURRENT			D05	CR: DM1
A	Power module limiting current S6			FLOAT	Power On
			HSA		-
P2		200.000000	1.000000	500.000000	2/4

1111	INVERTER_RATED_CURRENT			D05	CR: DM1
A	Rated power module current			FLOAT	PowerOn
			VSA/HSA		ROT/LIN
840D		200.0000	1.0000	500.0000	2/4

1111	INVERTER_RATED_CURRENT			D05	CR: DM1
A	Rated power module current			FLOAT	Power On
			HSA SLM VSA		-
P2		200.000000	1.000000	500.000000	2/4

1112	NUM_POLE_PAIRS				CR: DM1
-	Motor pole pair number			UNS. WORD	PowerOn
			VSA		-
810D		0	0	4	2/4

1112	NUM_POLE_PAIRS			D05	CR: DM1
-	Motor pole pair number			UNS. WORD	PowerOn
			VSA		ROT/LIN
840D		0	0	4096	2/4

1112	NUM_POLE_PAIRS			D05	CR: DM1
-	Motor pole pair number			UNS.WORD	Power On
			VSA SLM		-
P2		0	0	4096	2/4

1113	FORCE_CURRENT_RATIO			D05	CR:
N/A	Force constant			FLOAT	PowerOn
			VSA		LIN
840D		0.0000	0.0000	2000.0000	2/4

1113	TORQUE_CURRENT_RATIO				CR: DM1
Nm/A	Torque constant			FLOAT	PowerOn
			VSA		-
810D		0.0000	0.0000	5.0000	2/4

1113	TORQUE_CURRENT_RATIO			D05	CR: DM1
Nm/A	Torque constant			FLOAT	PowerOn
			VSA		ROT
840D		0.0000	0.0000	300.0000	2/4

Drive Machine data

1113	TORQUE_CURRENT_RATIO			D05	CR: DM1
Nm/A	Torque constant			FLOAT	Power On
			VSA SLM		-
P2		0.000000	0.000000	300.000000	2/4

1114	EMF_VOLTAGE				CR: DM1
V	Voltage constant			FLOAT	PowerOn
			VSA		-
810D		0.0000	0.0000	300.0000	2/4

1114	EMF_VOLTAGE			D05	CR: DM1
V	Voltage constant			FLOAT	PowerOn
			VSA		ROT
840D		0.0000	0.0000	10000.0000	2/4

1114	EMF_VOLTAGE			D05	CR:
Vs/m	Voltage constant			FLOAT	PowerOn
			VSA		LIN
840D		0.0000	0.0000	10000.0000	2/4

1114	EMF_VOLTAGE			D05	CR: DM1
V	Voltage constant			FLOAT	Power On
			VSA SLM		-
P2		0.000000	0.000000	10000.000000	2/4

1115	ARMATURE_RESISTANCE				CR: DM1
Ohm	Armature resistance			FLOAT	PowerOn
			VSA		-
810D		0.0000	0.0000	20.0000	2/4

1115	ARMATURE_RESISTANCE			D05	CR: DM1
Ohm	Armature resistance			FLOAT	PowerOn
			VSA		ROT/LIN
840D		0.0000	0.0000	1000.0000	2/4

1115	ARMATURE_RESISTANCE			D05	CR: DM1
Ohm	Armature resistance			FLOAT	Power On
			VSA SLM		-
P2		0.000000	0.000000	1000.000000	2/4

1116	ARMATURE_INDUCTANCE				CR: DM1
mH	Armature inductance			FLOAT	PowerOn
			VSA		-
810D		0.0000	0.0000	100.0000	2/4

1116	ARMATURE_INDUCTANCE			D05	CR: DM1
mH	Armature inductance			FLOAT	PowerOn
			VSA		ROT/LIN

840D		0.0000	0.0000	300.0000	2/4
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1116	ARMATURE_INDUCTANCE			D05	CR: DM1
mH	Armature inductance			FLOAT	Power On
			VSA SLM		-
P2		0.000000	0.000000	300.000000	2/4

1117	MOTOR_MASS			D05	CR:
kg	Motor mass			FLOAT	sofort
			VSA		LIN
840D		0.0000	0.0000	500.0000	2/4

1117	MOTOR_INERTIA				CR: DM1
kgm ²	Motor moment of inertia			FLOAT	PowerOn
			VSA/HSA		-
810D		0.0000	0.0000	32.0000	2/4

1117	MOTOR_INERTIA			D05	CR: DM1
kgm ²	Motor moment of inertia			FLOAT	sofort
			VSA/HSA		ROT
840D		0.0000	0.0000	32.0000	2/4

1117	MOTOR_INERTIA			D05	CR: DM1
kgm ²	Motor moment of inertia			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	0.000000	32.000000	2/4

1118	MOTOR_STANDSTILL_CURRENT			D05	CR: DM1
A	Motor standstill current			FLOAT	PowerOn
			VSA		ROT/LIN
840D		0.0000	0.0000	500.0000	2/4

1118	MOTOR_STANDSTILL_CURRENT			D05	CR: DM1
A	Motor standstill current			FLOAT	Power On
			VSA SLM		-
P2		0.000000	0.000000	500.000000	2/4

1119	SERIES_INDUCTANCE			D05	CR: DM1
mH	Inductance of the series reactor			FLOAT	PowerOn
			HSA		ROT
840D		0.0000	0.0000	65.0000	2/4

1119	SERIES_INDUCTANCE			D05	CR: DM1
mH	Inductance of the series reactor			FLOAT	Power On
			HSA		-
P2		0.000000	0.000000	65.000000	2/4

Drive Machine data

1120	CURRCTRL_GAIN		D01, EXP	CR: DS1
V/A	Current controller proportional gain		FLOAT	sofort
		VSA/HSA		ROT/LIN
840D	10.0000	0.0000	10000.0000	2/4

1120	CURRCTRL_GAIN		D01, EXP	CR: DS1
V/A	Current controller proportional gain		FLOAT	Immediately
		HSA SLM VSA		-
P2	10.000000	0.000000	10000.000000	2/4

1121	CURRCTRL_INTEGRATOR_TIME		D01, EXP	CR: DS1
us	Current controller integral action time		FLOAT	sofort
		VSA/HSA		ROT/LIN
840D	2000.0000	0.0000	8000.0000	2/4

1121	CURRCTRL_INTEGRATOR_TIME		D01, EXP	CR: DS1
us	Current controller integral action time		FLOAT	Immediately
		HSA SLM VSA		-
P2	2000.000000	0.000000	8000.000000	2/4

1122	MOTOR_LIMIT_CURRENT		D05	CR: DS1
A	Motor limit current		FLOAT	PowerOn
		VSA		ROT/LIN
840D	0.0000	0.0000	500.0000	2/4

1122	MOTOR_LIMIT_CURRENT		D05	CR: DS1
A	Motor limit current		FLOAT	Power On
		VSA SLM		-
P2	0.0	0.0	500.0	2/4

1124	CURRCTRL_REF_MODEL_DELAY			CR: DS1
-	Balancing the reference model current		FLOAT	sofort
		VSA/HSA		-
810D	0.0000	0.0000	1.0000	2/4

1124	CURRCTRL_REF_MODEL_DELAY		D01, EXP	CR: DS1
-	Balancing the reference model current		FLOAT	sofort
		VSA/HSA		ROT/LIN
840D	0.5000	0.0000	1.0000	2/4

1124	CURRCTRL_REF_MODEL_DELAY		D01, EXP	CR: DS1
-	Balancing the reference model current		FLOAT	Immediately
		HSA SLM VSA		-
P2	0.500000	0.000000	1.000000	2/4

1125	UF_MODE_RAMP_TIME_1		D04, EXP	CR: DE1
s	Ramp-up time 1 in V/f operation		FLOAT	sofort
		VSA/HSA		ROT/LIN

840D		5.0000	0.0100	100.0000	2/4
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1125	UF_MODE_RAMP_TIME_1			D04	CR: DE1
s	Ramp-up time 1 in V/f operation			FLOAT	Immediately
			HSA SLM VSA		-
P2		5.000000	0.010000	100.000000	2/4

1126	UF_MODE_RAMP_TIME_2			D04, EXP	CR: DE1
s	Ramp-up time 2 in V/f operation			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		5.0000	0.0100	100.0000	2/4

1126	UF_MODE_RAMP_TIME_2			D04	CR: DE1
s	Ramp-up time 2 in V/f operation			FLOAT	Immediately
			HSA SLM VSA		-
P2		5.000000	0.010000	100.000000	2/4

1127	UF_VOLTAGE_AT_F0			D04, D05, EXP	CR: DE1
V	Voltage at f=0 in V/f operation			FLOAT	sofort
			HSA		ROT
840D		2.0000	0.0000	20.0000	2/4

1127	UF_VOLTAGE_AT_F0			D04	CR: DE1
V	Voltage at f=0 in V/f operation			FLOAT	Immediately
			HSA		-
P2		2.000000	0.000000	20.000000	2/4

1128	OPT_LOAD_ANGEL			EXP, D05	CR: FBU, POS3
Grad	Optimum load angle			FLOAT	sofort
			VSA		ROT/LIN
840D		90.0000	90.0000	135.0000	2/4

1128	OPT_LOAD_ANGEL			EXP, D05	CR: FBU, POS3
degrees	Optimum load angle			FLOAT	Immediately
			VSA SLM		-
P2		90.000000	90.000000	135.000000	2/4

1129	POWER_FACTOR_COS_PHI			D05	CR: DM1
-	Cos phi power factor			FLOAT	PowerOn
			HSA		ROT
840D		0.8000	0.0000	1.0000	2/4

1129	POWER_FACTOR_COS_PHI			D05	CR: DM1
-	Cos phi power factor			FLOAT	Power On
			HSA		-
P2		0.800000	0.000000	1.000000	2/4

Drive Machine data

1130	MOTOR_NOMINAL_POWER			D05	CR: DM1
kW	Rated motor output			FLOAT	PowerOn
			HSA		ROT
840D		0.0000	0.0000	1500.0000	2/4

1130	MOTOR_NOMINAL_POWER			D05	CR: DM1
kW	Rated motor output			FLOAT	Power On
			HSA		-
P2		0.000000	0.000000	1500.000000	2/4

1132	MOTOR_NOMINAL_VOLTAGE				CR: DM1
V	Rated motor voltage			FLOAT	PowerOn
			HSA		-
810D		0.0000	0.0000	5000.0000	2/4

1132	MOTOR_NOMINAL_VOLTAGE			D05	CR: DM1
V	Rated motor voltage			FLOAT	PowerOn
			HSA		ROT
840D		380.0000	0.0000	5000.0000	2/4

1132	MOTOR_NOMINAL_VOLTAGE			D05	CR: DM1
V	Rated motor voltage			FLOAT	Power On
			HSA		-
P2		380.000000	0.000000	5000.000000	2/4

1134	MOTOR_NOMINAL_FREQUENCY			D05	CR: DM1
Hz	Rated motor frequency			FLOAT	PowerOn
			HSA		ROT
840D		50.0000	0.0000	3000.0000	2/4

1134	MOTOR_NOMINAL_FREQUENCY				CR: DM1
Hz	Rated motor frequency			FLOAT	PowerOn
			HSA		-
810D		0.0000	0.0000	3000.0000	2/4

1134	MOTOR_NOMINAL_FREQUENCY			D05	CR: DM1
Hz	Rated motor frequency			FLOAT	Power On
			HSA		-
P2		50.000000	0.000000	3000.000000	2/4

1135	MOTOR_NOLOAD_VOLTAGE			D05	CR: DM1
V	Motor no-load voltage			FLOAT	sofort
			HSA		ROT
840D		0.0000	0.0000	500.0000	2/4

1135	MOTOR_NOLOAD_VOLTAGE			D05	CR: DM1
V	Motor no-load voltage			FLOAT	Immediately
			HSA		-

P2		0.000000	0.000000	500.000000	2/4
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1136	MOTOR_NOLOAD_CURRENT			D05	CR: DM1
A	Motor no-load current			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	0.0000	500.0000	2/4

1136	MOTOR_NOLOAD_CURRENT			D05	CR: DM1
A	Motor no-load current			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	0.000000	500.000000	2/4

1137	STATOR_COLD_RESISTANCE			D05	CR: DM1
Ohm	Cold stator resistance			FLOAT	sofort
			HSA		ROT
840D		0.0000	0.0000	120.0000	2/4

1137	STATOR_COLD_RESISTANCE			D05	CR: DM1
Ohm	Cold stator resistance			FLOAT	Immediately
			HSA		-
P2		0.000000	0.000000	120.000000	2/4

1138	ROTOR_COLD_RESISTANCE			D05	CR: DM1
Ohm	Cold rotor resistance			FLOAT	sofort
			HSA		ROT
840D		0.0000	0.0000	120.0000	2/4

1138	ROTOR_COLD_RESISTANCE			D05	CR: DM1
Ohm	Cold rotor resistance			FLOAT	Immediately
			HSA		-
P2		0.000000	0.000000	120.000000	2/4

1139	STATOR_LEAKAGE_REACTANCE			D05	CR: DM1
Ohm	Stator leakage reactance			FLOAT	sofort
			HSA		ROT
840D		0.0000	0.0000	100.0000	2/4

1139	STATOR_LEAKAGE_REACTANCE			D05	CR: DM1
Ohm	Stator leakage reactance			FLOAT	Immediately
			HSA		-
P2		0.000000	0.000000	100.000000	2/4

1140	ROTOR_LEAKAGE_REACTANCE			D05	CR: DM1
Ohm	Rotor leakage reactance			FLOAT	sofort
			HSA		ROT
840D		0.0000	0.0000	100.0000	2/4

Drive Machine data

1140	ROTOR_LEAKAGE_REACTANCE			D05	CR: DM1
Ohm	Rotor leakage reactance			FLOAT	Immediately
			HSA		-
P2		0.000000	0.000000	100.000000	2/4

1141	MAGNETIZING_REACTANCE			D05	CR: DM1
Ohm	Magnetizing reactance			FLOAT	sofort
			HSA		ROT
840D		0.0000	0.0000	1000.0000	2/4

1141	MAGNETIZING_REACTANCE			D05	CR: DM1
Ohm	Magnetizing reactance			FLOAT	Immediately
			HSA		-
P2		0.000000	0.000000	1000.000000	2/4

1142	FIELD_WEAKENING_SPEED			D05	CR: DM1, DD2
1/min	Threshold speed for field weakening			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	0.0000	100000.0000	2/4

1142	FIELD_WEAKENING_SPEED				CR: DM1, DD2
1/min	Threshold speed for field weakening			FLOAT	PowerOn
			HSA		-
810D		0.0000	0.0000	50000.0000	2/4

1142	FIELD_WEAKENING_SPEED			D05	CR: DM1, DD2
1/min	Threshold speed for field weakening			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	0.000000	100000.000000	2/4

1143	LH_CURVE_UPPER_SPEED			-	CR: DM1, DD2
1/min	Upper speed for the L_h characteristic			FLOAT	PowerOn
			HSA		ROT
840D		0.0000	0.0000	100000.0000	2/4

1143	LH_CURVE_UPPER_SPEED				CR: DM1, DD2
1/min	Upper speed for the L_h characteristic			FLOAT	PowerOn
			HSA		-
810D		0.0000	0.0000	50000.0000	2/4

1143	LH_CURVE_UPPER_SPEED			-	CR: DM1, DD2
1/min	Upper speed for the L_h characteristic			FLOAT	Power On
			HSA		-
P2		0.000000	0.000000	100000.000000	2/4

1144	LH_CURVE_GAIN			-	CR: DM1, DD2
%	Gain factor of the L_h characteristic			FLOAT	PowerOn
			HSA		ROT

840D		100.0000	100.0000	500.0000	2/4
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1144	LH_CURVE_GAIN		-	CR: DM1, DD2	
%	Gain factor of the L_h characteristic		FLOAT	Power On	
		HSA		-	
P2		100.000000	100.000000	500.000000	2/4

1145	STALL_TORQUE_REDUCTION		D05	CR: DM1, DÜ1	
%	Stall torque reduction factor		FLOAT	sofort	
		VSA/HSA		ROT/LIN	
840D		100.0000	5.0000	1000.0000	2/4

1145	STALL_TORQUE_REDUCTION		D05	CR: DM1, DÜ1	
%	Stall torque reduction factor		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		100.000000	5.000000	1000.000000	2/4

1146	MOTOR_MAX_ALLOWED_SPEED		D05	CR: DM1, DÜ1	
1/min	Maximum motor speed		FLOAT	PowerOn	
		VSA/HSA		ROT	
840D		0.0000	0.0000	100000.0000	2/4

1146	MOTOR_MAX_ALLOWED_SPEED			CR: DM1, DÜ1	
1/min	Maximum motor speed		FLOAT	PowerOn	
		VSA/HSA		-	
810D		0.0000	0.0000	50000.0000	2/4

1146	MOTOR_MAX_ALLOWED_SPEED		D05	CR:	
m/min	Maximum motor speed		FLOAT	PowerOn	
		VSA		LIN	
840D		0.0000	0.0000	100000.0000	2/4

1146	MOTOR_MAX_ALLOWED_SPEED		D05	CR: DM1, DÜ1	
1/min	Maximum motor speed		FLOAT	Power On	
		HSA SLM VSA		-	
P2		0.000000	0.000000	100000.000000	2/4

1147	SPEED_LIMIT		D02, D05	CR:	
m/min	Maximum permissible motor speed		FLOAT	sofort	
		VSA		LIN	
840D		120.0000	0.0000	100000.0000	2/4

1147	SPEED_LIMIT		D02, D05	CR: DÜ1	
1/min	Motor speed limit		FLOAT	sofort	
		VSA/HSA		ROT	
840D		7000.0000	0.0000	100000.0000	2/4

Drive Machine data

1147	SPEED_LIMIT				CR: DÜ1
1/min	Motor speed limit			FLOAT	sofort
			VSA/HSA		-
810D		7000.0000	0.0000	50000.0000	2/4

1147	SPEED_LIMIT			D02, D05	CR: DÜ1
1/min	Motor speed limit			FLOAT	Immediately
			HSA SLM VSA		-
P2		7000.000000	0.000000	100000.000000	2/4

1148	ACTUAL_STALL_POWER_SPEED			D04	CR: DD1
1/min	Threshold speed of pull-out power			FLOAT	sofort
			HSA		ROT
840D		0.0000	-100000.0000	100000.0000	2/4

1148	ACTUAL_STALL_POWER_SPEED			D04	CR: DD1
1/min	Threshold speed of pull-out power			FLOAT	Immediately
			HSA		-
P2		0.000000	-100000.000000	100000.000000	2/4

1149	RELUCT_TORQUE_RATIO			D05	CR: FBU
mH	Reluctance torque constant			FLOAT	sofort
			VSA		ROT/LIN
840D		0.0000	0.0000	300.0000	2/4

1149	RELUCT_TORQUE_RATIO			EXP, D05	CR: FBU
mH	Reluctance torque constant			FLOAT	Immediately
			VSA SLM		-
P2		0.000000	0.000000	300.000000	2/4

1150	FIELDCTRL_GAIN			D01, EXP	CR: DS1
A/(Vs)	Flux controller P-gain			FLOAT	sofort
			HSA		ROT
840D		400.0000	0.0000	100000.0000	2/4

1150	FIELDCTRL_GAIN			D01, EXP	CR: DS1
A/(Vs)	Flux controller P-gain			FLOAT	Immediately
			HSA SLM VSA		-
P2		400.000000	0.000000	100000.000000	2/4

1151	FIELDCTRL_INTEGRATOR_TIME			D01, EXP	CR: DS1
ms	Flux controller integral-action time			FLOAT	sofort
			HSA		ROT
840D		10.0000	0.0000	500.0000	2/4

1151	FIELDCTRL_INTEGRATOR_TIME			D01, EXP	CR: DS1
ms	Flux controller integral-action time			FLOAT	Immediately
			HSA SLM VSA		-

P2		10.000000	0.000000	500.000000	2/4
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1159	FLUX_MODEL_CORRECTION			D01, EXP, D04	CR: DS1
-	Flow model correction			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		1	0	1	2/4

1160	FLUX_AQUISITION_SPEED				CR: DS1
1/min	Threshold speed for flux sensing			FLOAT	sofort
			HSA		-
810D		1500.0000	200.0000	50000.0000	2/4

1160	FLUX_ACQUISITION_SPEED			D01, EXP	CR: DS1
1/min	Threshold speed for flux sensing			FLOAT	sofort
			HSA		ROT
840D		1500.0000	200.0000	100000.0000	2/4

1160	FLUX_ACQUISITION_SPEED			D01, EXP	CR: DS1
1/min	Threshold speed for flux sensing			FLOAT	Immediately
			HSA		-
P2		1500.000000	200.000000	100000.000000	2/4

1161	FIXED_LINK_VOLTAGE			D02	CR: DS1
V	Fixed DC link voltage			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	700	2/4

1161	FIXED_LINK_VOLTAGE			D02	CR: DS1
V	Fixed DC link voltage			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	700	2/4

1162	LINK_VOLTAGE_MIN			D02	CR: DE1
V	Minimum DC link voltage			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	800	2/4

1163	LINK_VOLTAGE_MAX			D02	CR: DE1
V	Maximum DC link voltage			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		800	0	800	2/4

1165	DYN_MANAG_ENABLE			D02	CR: DE1
-	Dyn. energy management active			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	1	2/4

Drive Machine data

1166	MOTDIAG_GROUND_PROTECTION			D02	CR: DE1, DM1
-	Pole pair pitch			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	3	2/4

1167	CURRENT_GROUND_IDENT			-	CR: DE1, DM1
%	Pole pair pitch			FLOAT	Immediately
			HSA SLM VSA		-
P2		5.000000	5.000000	15.000000	2/4

1168	MAX_TURN_MOTORIDENT			-	CR: DE1, DM1
degrees	Pole pair pitch			FLOAT	Immediately
			HSA SLM VSA		-
P2		10.000000	0.000000	30.000000	2/4

1169	DIAG_MOTORIDENT			-	CR: DE1, DM1
-	Pole pair pitch			WORD	Immediately
			HSA SLM VSA		-
P2		0	-6	1	2/4

1170	POLE_PAIR_PITCH			D05	CR:
mm	Pole pair pitch			FLOAT	PowerOn
			VSA		LIN
840D		72.0000	0.0000	1000.0000	2/4

1170	POLE_PAIR_PITCH			D05	CR: DE1, DM1
mm	Pole pair pitch			FLOAT	Power On
			VSA SLM		-
P2		72.000000	0.000000	1000.000000	2/4

1175	INVERTER_THERM_CURR_ASYN			D05	CR: DE1, DM1
A	Power section ASYN limit current			FLOAT	PowerOn
			VSA		ROT/LIN
840D		0.0000	0.0000	500.0000	2/4

1175	INVERTER_THERM_CURR_ASYN			D05	CR: DE1, DM1
A	Power section ASYN limit current			FLOAT	Power On
			VSA SLM		-
P2		200.000000	0.000000	500.000000	2/4

1176	INVERTER_MAX_S6_CURR_ASYN			D05	CR: DE1, DM1
A	Power section S6 ASYN limit current			FLOAT	PowerOn
			VSA		ROT/LIN
840D		0.0000	0.0000	500.0000	2/4

1176	INVERTER_MAX_S6_CURR_ASYN			D05	CR: DE1, DM1
A	Power section S6 ASYN limit current			FLOAT	Power On
			VSA SLM		-

P2		200.000000	0.000000	500.000000	2/4
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1177	INVERTER_RATED_CURR_ASYN			D05	CR: DE1, DM1
A	Power section ASYN rated current			FLOAT	PowerOn
			VSA		ROT/LIN
840D		0.0000	0.0000	500.0000	2/4

1177	INVERTER_RATED_CURR_ASYN			D05	CR: DE1, DM1
A	Power section ASYN rated current			FLOAT	Power On
			VSA SLM		-
P2		200.000000	0.000000	500.000000	2/4

1178	INVERTER_DERATING_SYN			D05	CR: DE1, DM1
%	Power section derating SYN			FLOAT	PowerOn
			VSA		ROT/LIN
840D		0.0000	0.0000	100.0000	2/4

1178	INVERTER_DERATING_SYN			-	CR: DE1, DM1
%	Power section derating SYN			FLOAT	Power On
			VSA SLM		-
P2		0.0	0.0	100.0	2/4

1179	INVERTER_DERATING_ASYN			D05	CR: DE1, DM1
%	Power section derating ASYN			FLOAT	PowerOn
			VSA/HSA		ROT/LIN
840D		0.0000	0.0000	100.0000	2/4

1179	INVERTER_DERATING_ASYN			-	CR: DE1, DM1
%	Power section derating ASYN			FLOAT	Power On
			VSA HSA SLM		-
P2		0.0	0.0	100.0	2/4

1180	CURRCTRL_ADAPT_CURRENT_1				CR: FBU, DS1
%	Lower current limit adaptation			FLOAT	sofort
			VSA		ROT/LIN
840D		0.0000	0.0000	100.0000	2/4

1180	CURRCTRL_ADAPT_CURRENT_1			-	CR: FBU, DS1
%	Lower current limit adaptation			FLOAT	Immediately
			VSA SLM		-
P2		0.000000	0.000000	100.000000	2/4

1181	CURRCTRL_ADAPT_CURRENT_2				CR: FBU, DS1
%	Upper current limit adaptation			FLOAT	sofort
			VSA		ROT/LIN
840D		100.0000	0.0000	100.0000	2/4

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1181	CURRCTRL_ADAPT_CURRENT_2			-	CR: FBU, DS1
%	Upper current limit adaptation			FLOAT	Immediately
			VSA SLM		-
P2		100.000000	0.000000	100.000000	2/4

1182	REDUCE_ARMATURE_INDUCTANCE				CR: FBU, DS1
%	Current controller adaptation factor			FLOAT	sofort
			VSA		ROT/LIN
840D		100.0000	1.0000	100.0000	2/4

1182	REDUCE_ARMATURE_INDUCTANCE			-	CR: FBU, DS1
%	Current controller adaptation factor			FLOAT	Immediately
			VSA SLM		-
P2		100.000000	1.000000	100.000000	2/4

1183	CURRCTRL_ADAPT_ENABLE			-	CR: DS1
-	Current controller adaptation ON			UNS. WORD	PowerOn
			VSA		ROT/LIN
840D		0	0	1	2/4

1183	CURRCTRL_ADAPT_ENABLE			-	CR: DS1
-	Current controller adaptation ON			UNS.WORD	Power On
			VSA SLM		-
P2		1	0	1	2/4

1185	STARTUP_FACT_CURRCTRL			-	CR:
%	Startup factor P-IREG			FLOAT	sofort
			HSA		ROT
840D		100.0000	0.0000	10000.0000	2/4

1185	STARTUP_FACT_CURRCTRL			-	CR: DÜ1
%	Startup factor P-IREG			FLOAT	Immediately
			HSA		-
P2		100.0	0.0	10000.0	2/4

1190	TORQUE_LIMIT_FROM_NC			D02, EXP	CR: DÜ1
Nm	Evaluation of torque limit			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		100.0000	0.0000	10000.0000	2/4

1190	TORQUE_LIMIT_FROM_NC			D02, EXP	CR: DÜ1
Nm	Evaluation of torque limit			FLOAT	Immediately
			HSA SLM VSA		-
P2		100.000000	0.000000	10000.000000	2/4

1191	TORQUE_LIMIT_ADAPT_SERVO			D02, EXP	CR: DÜ1
-	Adapting servo torque limit			FLOAT	sofort
			VSA/HSA		ROT/LIN

840D		1.0000	0.0000	100.0000	2/4
1191	TORQUE_LIMIT_ADAPT_SERVO			D02, EXP	CR: DÜ1
-	Adapting servo torque limit			FLOAT	Immediately
			HSA SLM VSA		-
P2		1.000000	0.000000	100.000000	2/4
1192	FORCE_LIMIT_WEIGHT			D02, EXP	CR:
%	Weight force			FLOAT	sofort
			VSA		LIN
840D		0.0000	-100.0000	100.0000	2/4
1192	TORQUE_LIMIT_WEIGHT			D02, EXP	CR: F1
%	Weight torque			FLOAT	sofort
			VSA/HSA		ROT
840D		0.0000	-100.0000	100.0000	2/4
1192	TORQUE_LIMIT_WEIGHT			D02, EXP	CR: F1
%	Weight torque			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	-100.000000	100.000000	2/4
1193	BALANCE_BY_STOP_C			D06	CR:
-	Counterweight at Stop C			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		0	0	1	2/4
1193	BALANCE_BY_STOP_C			D06	CR: DD2
-	Number of current setpoint filters			UNS.WORD	Power On
			HSA SLM VSA		-
P2		0x0000	0x0000	0x0001	2/4
1200	NUM_CURRENT_FILTERS			D01	CR: DD2
-	Number of current setpoint filters			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		1	0	4	2/4
1200	NUM_CURRENT_FILTERS				CR: DD2
-	Number of current setpoint filters			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	4	2/4
1200	NUM_CURRENT_FILTERS			D01	CR: DD2
-	Number of current setpoint filters			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		1	0	4	2/4
P2 840D		-	-	6	2/4

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1201	CURRENT_FILTER_CONFIG			D01	CR: DD2
HEX	Type of current setpoint filter			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	800f	2/4

1201	CURRENT_FILTER_CONFIG				CR: DD2
HEX	Type of current setpoint filter			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	fff	2/4

1201	CURRENT_FILTER_CONFIG			D01	CR: DD2
-	Type of current setpoint filter			UNS.WORD	Immediately
			HSA SLM VSA		-
P2 840D		-	-	0x803f	2/4

P2		0x0000	0x0000	0x800f	2/4
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1202	CURRENT_FILTER_1_FREQUENCY			D01	CR: DD2
Hz	Natural frequency for current setpoint filter 1			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		2000.0000	0.0000	8000.0000	2/4

1202	CURRENT_FILTER_1_FREQUENCY				CR: DD2
Hz	Natural frequency for current setpoint filter 1			FLOAT	sofort
			VSA/HSA		-
810D		0.0000	0.0000	3999.0000	2/4

1202	CURRENT_FILTER_1_FREQUENCY			D01	CR: DD2
Hz	Natural frequency for current setpoint filter 1			FLOAT	Immediately
			HSA SLM VSA		-
P2		2000.000000	0.000000	8000.000000	2/4

1203	CURRENT_FILTER_1_DAMPING				CR: DD2
-	Damping for current setpoint filter 1			FLOAT	sofort
			VSA/HSA		-
810D		1.0000	0.0500	5.0000	2/4

1203	CURRENT_FILTER_1_DAMPING			D01	CR: DD2
-	Damping for current setpoint filter 1			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.7000	0.0500	5.0000	2/4

1203	CURRENT_FILTER_1_DAMPING			D01	CR: DD2
-	Damping for current setpoint filter 1			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.700000	0.050000	5.000000	2/4

1204	CURRENT_FILTER_2_FREQUENCY				CR: DD2
Hz	Natural frequency for current setpoint filter 2			FLOAT	sofort
			VSA/HSA		-
810D		0.0000	0.0000	1999.0000	2/4

1204	CURRENT_FILTER_2_FREQUENCY			D01	CR: DD2
Hz	Natural frequency for current setpoint filter 2			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	0.0000	8000.0000	2/4

1204	CURRENT_FILTER_2_FREQUENCY			D01	CR: DD2
Hz	Natural frequency for current setpoint filter 2			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	0.000000	8000.000000	2/4

1205	CURRENT_FILTER_2_DAMPING			D01	CR: DD2
-	Damping for current setpoint filter 2			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		1.0000	0.0500	5.0000	2/4

1205	CURRENT_FILTER_2_DAMPING			D01	CR: DD2
-	Damping for current setpoint filter 2			FLOAT	Immediately
			HSA SLM VSA		-
P2		1.000000	0.050000	5.000000	2/4

1206	CURRENT_FILTER_3_FREQUENCY			D01	CR: DD2
Hz	Natural frequency for current setpoint filter 3			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	0.0000	8000.0000	2/4

1206	CURRENT_FILTER_3_FREQUENCY				CR: DD2
Hz	Natural frequency for current setpoint filter 3			FLOAT	sofort
			VSA/HSA		-
810D		0.0000	0.0000	1999.0000	2/4

1206	CURRENT_FILTER_3_FREQUENCY			D01	CR: DD2
Hz	Natural frequency for current setpoint filter 3			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	0.000000	8000.000000	2/4

1207	CURRENT_FILTER_3_DAMPING			D01	CR: DD2
-	Damping for current setpoint filter 3			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		1.0000	0.0500	5.0000	2/4

1207	CURRENT_FILTER_3_DAMPING			D01	CR: DD2
-	Damping for current setpoint filter 3			FLOAT	Immediately
			HSA SLM VSA		-

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P2		1.000000	0.050000	5.000000	2/4
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1208	CURRENT_FILTER_4_FREQUENCY				CR: DD2
Hz	Natural frequency for current setpoint filter 4			FLOAT	sofort
			VSA/HSA		-
810D		0.0000	0.0000	1999.0000	2/4

1208	CURRENT_FILTER_4_FREQUENCY			D01	CR: DD2
Hz	Natural frequency for current setpoint filter 4			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	0.0000	8000.0000	2/4

1208	CURRENT_FILTER_4_FREQUENCY			D01	CR: DD2
Hz	Natural frequency for current setpoint filter 4			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	0.000000	8000.000000	2/4

1209	CURRENT_FILTER_4_DAMPING			D01	CR: DD2
-	Damping for current setpoint filter 4			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		1.0000	0.0500	5.0000	2/4

1209	CURRENT_FILTER_4_DAMPING			D01	CR: DD2
-	Damping for current setpoint filter 4			FLOAT	Immediately
			HSA SLM VSA		-
P2		1.000000	0.050000	5.000000	2/4

1210	CURRENT_FILTER_1_SUPPR_FREQ				CR: DD2
Hz	Blocking frequency for current setpoint filter 1			FLOAT	sofort
			VSA/HSA		-
810D		1600.0000	1.0000	3999.0000	2/4

1210	CURRENT_FILTER_1_SUPPR_FREQ			D01	CR: DD2
Hz	Blocking frequency for current setpoint filter 1			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		3500.0000	1.0000	7999.0000	2/4

1210	CURRENT_FILTER_1_SUPPR_FREQ			D01	CR: DD2
Hz	Blocking frequency for current setpoint filter 1			FLOAT	Immediately
			HSA SLM VSA		-
P2		3500.000000	1.000000	7999.000000	2/4

1211	CURRENT_FILTER_1_BANDWIDTH			D01	CR: DD2
Hz	Bandwidth for current setpoint filter 1			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		500.0000	5.0000	7999.0000	2/4

1211	CURRENT_FILTER_1_BANDWIDTH				CR: DD2
Hz	Bandwidth for current setpoint filter 1			FLOAT	sofort
			VSA/HSA		-
810D		400.0000	5.0000	3999.0000	2/4

1211	CURRENT_FILTER_1_BANDWIDTH			D01	CR: DD2
Hz	Bandwidth for current setpoint filter 1			FLOAT	Immediately
			HSA SLM VSA		-
P2		500.000000	5.000000	7999.000000	2/4

1212	CURRENT_FILTER_1_BW_NUM			D01, EXP	CR: DD2
Hz	Bandwidth numerator for current setpoint filter 1			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	0.0000	7999.0000	2/4

1212	CURRENT_FILTER_1_BW_NUM				CR: DD2
Hz	Bandwidth numerator for current setpoint filter 1			FLOAT	sofort
			VSA/HSA		-
810D		0.0000	0.0000	3999.0000	2/4

1212	CURRENT_FILTER_1_BW_NUM			D01, EXP	CR: DD2
Hz	Bandwidth numerator for current setpoint filter 1			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	0.000000	7999.000000	2/4

1213	CURRENT_FILTER_2_SUPPR_FREQ				CR: DD2
Hz	Blocking frequency for current setpoint filter 2			FLOAT	sofort
			VSA/HSA		-
810D		1200.0000	1.0000	1999.0000	2/4

1213	CURRENT_FILTER_2_SUPPR_FREQ			D01	CR: DD2
Hz	Blocking frequency for current setpoint filter 2			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		3500.0000	1.0000	7999.0000	2/4

1213	CURRENT_FILTER_2_SUPPR_FREQ			D01	CR: DD2
Hz	Blocking frequency for current setpoint filter 2			FLOAT	Immediately
			HSA SLM VSA		-
P2		3500.000000	1.000000	7999.000000	2/4

1214	CURRENT_FILTER_2_BANDWIDTH				CR: DD2
Hz	Bandwidth for current setpoint filter 2			FLOAT	sofort
			VSA/HSA		-
810D		400.0000	5.0000	1999.0000	2/4

1214	CURRENT_FILTER_2_BANDWIDTH			D01	CR: DD2
Hz	Bandwidth for current setpoint filter 2			FLOAT	sofort
			VSA/HSA		ROT/LIN

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840D		500.0000	5.0000	7999.0000	2/4
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1214	CURRENT_FILTER_2_BANDWIDTH			D01	CR: DD2
Hz	Bandwidth for current setpoint filter 2			FLOAT	Immediately
			HSA SLM VSA		-
P2		500.000000	5.000000	7999.000000	2/4

1215	CURRENT_FILTER_2_BW_NUM			D01, EXP	CR: DD2
Hz	Bandwidth numerator for current setpoint filter 2			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	0.0000	7999.0000	2/4

1215	CURRENT_FILTER_2_BW_NUM				CR: DD2
Hz	Bandwidth numerator for current setpoint filter 2			FLOAT	sofort
			VSA/HSA		-
810D		0.0000	0.0000	1999.0000	2/4

1215	CURRENT_FILTER_2_BW_NUM			D01, EXP	CR: DD2
Hz	Bandwidth numerator for current setpoint filter 2			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	0.000000	7999.000000	2/4

1216	CURRENT_FILTER_3_SUPPR_FREQ			D01	CR: DD2
Hz	Blocking frequency for current setpoint filter 3			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		3500.0000	1.0000	7999.0000	2/4

1216	CURRENT_FILTER_3_SUPPR_FREQ				CR: DD2
Hz	Blocking frequency for current setpoint filter 3			FLOAT	sofort
			VSA/HSA		-
810D		1200.0000	1.0000	1999.0000	2/4

1216	CURRENT_FILTER_3_SUPPR_FREQ			D01	CR: DD2
Hz	Blocking frequency for current setpoint filter 3			FLOAT	Immediately
			HSA SLM VSA		-
P2		3500.000000	1.000000	7999.000000	2/4

1217	CURRENT_FILTER_3_BANDWIDTH				CR: DD2
Hz	Bandwidth for current setpoint filter 3			FLOAT	sofort
			VSA/HSA		-
810D		400.0000	5.0000	1999.0000	2/4

1217	CURRENT_FILTER_3_BANDWIDTH			D01	CR: DD2
Hz	Bandwidth for current setpoint filter 3			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		500.0000	5.0000	7999.0000	2/4

1217	CURRENT_FILTER_3_BANDWIDTH			D01	CR: DD2
Hz	Bandwidth for current setpoint filter 3			FLOAT	Immediately
			HSA SLM VSA		-
P2		500.000000	5.000000	7999.000000	2/4

1218	CURRENT_FILTER_3_BW_NUM			D01, EXP	CR: DD2
Hz	Bandwidth numerator for current setpoint filter 3			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	0.0000	7999.0000	2/4

1218	CURRENT_FILTER_3_BW_NUM				CR: DD2
Hz	Bandwidth numerator for current setpoint filter 3			FLOAT	sofort
			VSA/HSA		-
810D		0.0000	0.0000	1999.0000	2/4

1218	CURRENT_FILTER_3_BW_NUM			D01, EXP	CR: DD2
Hz	Bandwidth numerator for current setpoint filter 3			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	0.000000	7999.000000	2/4

1219	CURRENT_FILTER_4_SUPPR_FREQ			D01	CR: DD2
Hz	Blocking frequency for current setpoint filter 4			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		3500.0000	1.0000	7999.0000	2/4

1219	CURRENT_FILTER_4_SUPPR_FREQ				CR: DD2
Hz	Blocking frequency for current setpoint filter 4			FLOAT	sofort
			VSA/HSA		-
810D		1200.0000	1.0000	1999.0000	2/4

1219	CURRENT_FILTER_4_SUPPR_FREQ			D01	CR: DD2
Hz	Blocking frequency for current setpoint filter 4			FLOAT	Immediately
			HSA SLM VSA		-
P2		3500.000000	1.000000	7999.000000	2/4

1220	CURRENT_FILTER_4_BANDWIDTH			D01	CR: DD2
Hz	Bandwidth for current setpoint filter 4			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		500.0000	5.0000	7999.0000	2/4

1220	CURRENT_FILTER_4_BANDWIDTH				CR: DD2
Hz	Bandwidth for current setpoint filter 4			FLOAT	sofort
			VSA/HSA		-
810D		400.0000	5.0000	1999.0000	2/4

1220	CURRENT_FILTER_4_BANDWIDTH			D01	CR: DD2
Hz	Bandwidth for current setpoint filter 4			FLOAT	Immediately
			HSA SLM VSA		-

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P2		500.000000	5.000000	7999.000000	2/4
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1221	CURRENT_FILTER_4_BW_NUM				CR: DD2
Hz	Bandwidth numerator for current setpoint filter 4			FLOAT	sofort
	VSA/HSA				-
810D		0.0000	0.0000	1999.0000	2/4

1221	CURRENT_FILTER_4_BW_NUM			D01, EXP	CR: DD2
Hz	Bandwidth numerator for current setpoint filter 4			FLOAT	sofort
	VSA/HSA				ROT/LIN
840D		0.0000	0.0000	7999.0000	2/4

1221	CURRENT_FILTER_4_BW_NUM			D01, EXP	CR: DD2
Hz	Bandwidth numerator for current setpoint filter 4			FLOAT	Immediately
	HSA SLM VSA				-
P2		0.000000	0.000000	7999.000000	2/4

1222	CURRENT_FILTER_1_BS_FREQ			D01, EXP	CR: DD2
%	Natural BSF frequ. current setp. f. 1			FLOAT	sofort
	VSA/HSA				ROT/LIN
840D		100.0000	1.0000	100.0000	2/4

1222	CURRENT_FILTER_1_BS_FREQ			D01, EXP	CR: DD2
%	Natural BSF frequ. current setp. f. 1			FLOAT	Immediately
	HSA SLM VSA				-
P2		100.000000	1.000000	100.000000	2/4

1223	CURRENT_FILTER_2_BS_FREQ			D01, EXP	CR: DD2
%	Natural BSF frequ. current setp. f. 2			FLOAT	sofort
	VSA/HSA				ROT/LIN
840D		100.0000	1.0000	100.0000	2/4

1223	CURRENT_FILTER_2_BS_FREQ			D01, EXP	CR: DD2
%	Natural BSF frequ. current setp. f. 2			FLOAT	Immediately
	HSA SLM VSA				-
P2		100.000000	1.000000	100.000000	2/4

1224	CURRENT_FILTER_3_BS_FREQ			D01, EXP	CR: DD2
%	Natural BSF frequ. current setp. f. 3			FLOAT	sofort
	VSA/HSA				ROT/LIN
840D		100.0000	1.0000	100.0000	2/4

1224	CURRENT_FILTER_3_BS_FREQ			D01, EXP	CR: DD2
%	Natural BSF frequ. current setp. f. 3			FLOAT	Immediately
	HSA SLM VSA				-
P2		100.000000	1.000000	100.000000	2/4

1225	CURRENT_FILTER_4_BS_FREQ			D01, EXP	CR: DD2
%	Natural BSF frequ. current setp. f. 4			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		100.0000	1.0000	100.0000	2/4

1225	CURRENT_FILTER_4_BS_FREQ			D01, EXP	CR: DD2
%	Natural BSF frequ. current setp. f. 4			FLOAT	Immediately
			HSA SLM VSA		-
P2		100.000000	1.000000	100.000000	2/4

1230	FORCE_LIMIT_1			D02, EXP	CR:
%	1 st force threshold			FLOAT	sofort
			VSA		LIN
840D		100.0000	5.0000	900.0000	2/4

1230	TORQUE_LIMIT_1			D02, EXP	CR: DÜ1
%	1st torque limit			FLOAT	sofort
			VSA/HSA		ROT
840D		100.0000	5.0000	900.0000	2/4

1230	TORQUE_LIMIT_1			D02, EXP	CR: DÜ1
%	1st torque limit			FLOAT	Immediately
			HSA SLM VSA		-
P2		100.000000	5.000000	900.000000	2/4

1231	FORCE_LIMIT_2			D02, EXP	CR:
%	2nd force threshold			FLOAT	sofort
			VSA		LIN
840D		100.0000	5.0000	100.0000	2/4

1231	TORQUE_LIMIT_2			D02, EXP	CR: DÜ1
%	2nd torque limit			FLOAT	sofort
			VSA/HSA		ROT
840D		100.0000	5.0000	100.0000	2/4

1231	TORQUE_LIMIT_2			D02, EXP	CR: DÜ1
%	2nd torque limit			FLOAT	Immediately
			HSA SLM VSA		-
P2		100.000000	5.000000	100.000000	2/4

1232	FORCE_LIMIT_SWITCH_SPEED			D02, EXP	CR:
m/min	Changeover speed from MD 1230 to MD 1231			FLOAT	sofort
			VSA		LIN
840D		120.0000	0.0000	100000.0000	2/4

1232	TORQUE_LIMIT_SWITCH_SPEED			D02, EXP	CR: DÜ1
1/min	Changeover speed from MD 1230 to MD 1231			FLOAT	sofort
			VSA/HSA		ROT

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840D		6000.0000	0.0000	100000.0000	2/4
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1232	TORQUE_LIMIT_SWITCH_SPEED		D02, EXP	CR: DÜ1	
1/min	Changeover speed from MD 1230 to MD 1231		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		6000.000000	0.000000	100000.000000	2/4

1233	LIMIT_GENERATOR		D02, EXP	CR:	
%	Generator force limiting		FLOAT	sofort	
		VSA		LIN	
840D		100.0000	5.0000	100.0000	2/4

1233	TORQUE_LIMIT_GENERATOR		D02, EXP	CR: DÜ1	
%	Regenerative limiting		FLOAT	sofort	
		VSA/HSA		ROT	
840D		100.0000	5.0000	100.0000	2/4

1233	TORQUE_LIMIT_GENERATOR		D02, EXP	CR: DÜ1	
%	Regenerative limiting		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		100.000000	5.000000	100.000000	2/4

1234	FORCE_LIMIT_SWITCH_HYST		D02, EXP	CR:	
m/min	Hysteresis MD 1232		FLOAT	sofort	
		VSA		LIN	
840D		3.0000	0.0000	1000.0000	2/4

1234	TORQUE_LIMIT_SWITCH_HYST		D02, EXP	CR: DÜ1	
1/min	Hysteresis MD 1232		FLOAT	sofort	
		VSA/HSA		ROT	
840D		50.0000	0.0000	1000.0000	2/4

1234	TORQUE_LIMIT_SWITCH_HYST		D02, EXP	CR: DÜ1	
1/min	Hysteresis MD 1232		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		50.000000	0.000000	1000.000000	2/4

1235	POWER_LIMIT_1		D02, EXP	CR: DÜ1	
%	1st power limit		FLOAT	sofort	
		VSA/HSA		ROT/LIN	
840D		100.0000	5.0000	900.0000	2/4

1235	POWER_LIMIT_1		D02, EXP	CR: DÜ1	
%	1st power limit		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		100.000000	5.000000	900.000000	2/4

1236	POWER_LIMIT_2			D02, EXP	CR: DÜ1
%	2nd power limit			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		100.0000	5.0000	100.0000	2/4

1236	POWER_LIMIT_2			D02, EXP	CR: DÜ1
%	2nd power limit			FLOAT	Immediately
			HSA SLM VSA		-
P2		100.000000	5.000000	100.000000	2/4

1237	POWER_LIMIT_GENERATOR				CR: DÜ1
kW	Maximum regenerative power			FLOAT	sofort
			VSA/HSA		-
810D		100.0000	0.3000	500.0000	2/4

1237	POWER_LIMIT_GENERATOR			D02, EXP	CR: DÜ1
kW	Maximum regenerative power			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		100.0000	0.1000	500.0000	2/4

1237	POWER_LIMIT_GENERATOR			D02, EXP	CR: DÜ1
kW	Maximum regenerative power			FLOAT	Immediately
			HSA SLM VSA		-
P2		100.000000	0.100000	500.000000	2/4

1238	CURRENT_LIMIT			D02	CR: DÜ1
%	Motor current limit			FLOAT	sofort
			HSA		ROT
840D		150.0000	0.0000	400.0000	2/4

1238	CURRENT_LIMIT				CR: DÜ1
%	Motor current limit			FLOAT	sofort
			HSA		-
810D		150.0000	0.0000	300.0000	2/4

1238	CURRENT_LIMIT			D02	CR: DÜ1
%	Motor current limit			FLOAT	Immediately
			HSA		-
P2		150.000000	0.000000	400.000000	2/4

1239	FORCE_LIMIT_FOR_SETUP			D02	CR:
%	Force limit in setting-up operation			FLOAT	sofort
			VSA		LIN
840D		1.0000	0.5000	100.0000	2/4

1239	TORQUE_LIMIT_FOR_SETUP			D02	CR: DÜ1
%	Torque limit in setting-up operation			FLOAT	sofort
			VSA/HSA		ROT

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840D		1.0000	0.5000	100.0000	2/4
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1239	TORQUE_LIMIT_FOR_SETUP		D02	CR: DÜ1	
%	Torque limit in setting-up operation		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		1.000000	0.500000	100.000000	2/4

1245	CURRENT_SMOOTH_SPEED		EXP	CR: DD2	
1/min	Threshold speed dep. on M setpoint smoothing		FLOAT	sofort	
		VSA/HSA		ROT	
840D		0.0000	0.0000	100000.0000	2/4

1245	CURRENT_SMOOTH_SPEED		EXP	CR:	
m/min	Threshold speed dependend F-setpoint smoothing		FLOAT	sofort	
		VSA		LIN	
840D		0.0000	0.0000	100000.0000	2/4

1245	CURRENT_SMOOTH_SPEED		EXP	CR: DD2	
1/min	Threshold speed dep. on M setpoint smoothing		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		0.000000	0.000000	100000.000000	2/4

1246	CURRENT_SMOOTH_HYSTERESIS		EXP	CR: DD2	
1/min	Hysteresis speed dep. M setpoint smoothing		FLOAT	sofort	
		VSA/HSA		ROT	
840D		50.0000	0.0000	1000.0000	2/4

1246	CURRENT_SMOOTH_HYSTERESIS		EXP	CR:	
m/min	Hysteresis speed dependend F-setpoint smoothing		FLOAT	sofort	
		VSA		LIN	
840D		3.0000	0.0000	1000.0000	2/4

1246	CURRENT_SMOOTH_HYSTERESIS		EXP	CR: DD2	
1/min	Hysteresis speed dep. M setpoint smoothing		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		50.000000	0.000000	1000.000000	2/4

1247	MOTOR_SWITCH_SPEED		EXP	CR: DE1	
1/min	Speed threshold for motor changeover		FLOAT	sofort	
		HSA		ROT	
840D		100000.0000	0.0000	100000.0000	2/4

1247	MOTOR_SWITCH_SPEED1		EXP	CR: DE1	
1/min	Speed threshold for motor changeover		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		100000.000000	0.0	100000.000000	2/4

1248	MOTOR_SWITCH_SPEED2			EXP	CR: DE1
1/min	Speed threshold 2 motor switchover			FLOAT	Immediately
			HSA SLM VSA		-
P2		100000.000000	0.0	100000.000000	2/4

1250	ACTUAL_CURRENT_FILTER_FREQ				CR: DB1
Hz	Transition frequency for actual current smoothing			FLOAT	sofort
			VSA/HSA		-
810D		100.0000	0.0000	3999.0000	2/4

1250	ACTUAL_CURRENT_FILTER_FREQ			D04	CR: DB1
Hz	Transition frequency for actual current smoothing			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		100.0000	0.0000	8000.0000	2/4

1250	ACTUAL_CURRENT_FILTER_FREQ			D04	CR: DB1
Hz	Transition frequency for actual current smoothing			FLOAT	Immediately
			HSA SLM VSA		-
P2		100.000000	0.000000	8000.000000	2/4

1251	LOAD_SMOOTH_TIME			-	CR: DD1
ms	Time constant for load smoothing			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	0.0000	1000.0000	2/4

1251	LOAD_SMOOTH_TIME			-	CR: DD1
ms	Time constant for load smoothing			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	0.000000	1000.000000	2/4

1252	FORCE_FILTER_FREQUENCY			D04	CR:
Hz	Transition freq. for the force setpoint smoothing			FLOAT	sofort
			VSA		LIN
840D		100.0000	0.0000	8000.0000	2/4

1252	TORQUE_FILTER_FREQUENCY			D04	CR: DB1
Hz	Transition frequency of torque setpoint smoothing			FLOAT	sofort
			VSA/HSA		ROT
840D		100.0000	0.0000	8000.0000	2/4

1252	TORQUE_FILTER_FREQUENCY				CR: DB1
Hz	Transition frequency of torque setpoint smoothing			FLOAT	sofort
			VSA/HSA		-
810D		100.0000	0.0000	3999.0000	2/4

1252	TORQUE_FILTER_FREQUENCY			D04	CR: DB1
Hz	Transition frequency of torque setpoint smoothing			FLOAT	Immediately
			HSA SLM VSA		-

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P2		100.000000	0.000000	8000.000000	2/4
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1254	CURRENT_MONITOR_FILTER_TIME			D02, EXP	CR: DÜ1
ms	Time constant for current monitoring			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.5000	0.0000	2.0000	2/4

1254	CURRENT_MONITOR_FILTER_TIME			D02, EXP	CR: DÜ1
ms	Time constant for current monitoring			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.500000	0.000000	2.000000	2/4

1260	I2T_S6_REDUCTION			D02, EXP	CR: DM1
%	i2t limit., limit current power module S6			FLOAT	Immediately
			HSA SLM VSA		-
P2		100.0	25.0	100.0	2/4

1261	I2T_NOMINAL_REDUCTION			D02, EXP	CR: DM1
%	i2t limit. rated current power module			FLOAT	Immediately
			HSA SLM VSA		-
P2		110.0	25.0	110.0	2/4

1262	DIAGNOSIS_I2T			D04	CR: DM1
s	i2t time in limitation			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.0	0.0	100000.0	2/4

1263	LIMIT_I2T			D04	CR: DM1
%	i2t actual limitation factor			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.0	0.0	100.0	2/4

1264	LOAD_I2T			D04	CR: DM1
%	i2t Current utilization factor			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.0	0.0	100.0	2/4

1265	PERMCURR_FACTOR_I2TMOT			D02, EXP	CR:
%	i2t compensation factor			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		90.0	50.0	100.0	2/4

1265	PERMCURR_FACTOR_I2TMOT			D02, EXP	CR: FBSI
%	Natural frequency for current setpoint filter 5			FLOAT	Immediately
			HSA SLM VSA		-
P2 840D		90.0	50.0	100.0	2/4

1268	TAU_TIME		D02, D05	CR:
s	Winding time constant		UNS. WORD	PowerOn
		VSA/HSA		ROT/LIN
840D	0	0	5000	2/4

1268	TAU_TIME		D02, D05	CR: FBSI
s	Natural frequency for current setpoint filter 5		FLOAT	Power On
		HSA SLM VSA		-
P2 840D	0	0	2000	2/4

1272	CURRENT_FILTER_5_FREQUENCY		D01	CR: FBSI
Hz	Natural frequency for current setpoint filter 5		FLOAT	Immediately
		HSA SLM VSA		-
P2 840D	2000.000000	0.000000	8000.000000	2/4

1273	CURRENT_FILTER_5_DAMPING		D01	CR: FBSI
-	Damping for current setpoint filter 5		FLOAT	Immediately
		HSA SLM VSA		-
P2 840D	0.700000	0.050000	5.000000	2/4

1274	CURRENT_FILTER_5_SUPPR_FREQ		D01	CR: FBSI
Hz	Blocking frequency for current setpoint filter 5		FLOAT	Immediately
		HSA SLM VSA		-
P2 840D	3500.000000	1.000000	7999.000000	2/4

1275	CURRENT_FILTER_5_BANDWIDTH		D01	CR: FBSI
Hz	-3dB bandwidth for current setpoint filter 5		FLOAT	Immediately
		HSA SLM VSA		-
P2 840D	500.000000	5.000000	7999.000000	2/4

1276	CURRENT_FILTER_5_BW_NUM		D01, EXP	CR: FBSI
Hz	Numerator bandwidth for damped bandwidth f. 5		FLOAT	Immediately
		HSA SLM VSA		-
P2 840D	0.000000	0.000000	7999.000000	2/4

1277	CURRENT_FILTER_5_BS_FREQ		D01, EXP	CR: FBSI
%	BSF-natural frequ. current setpoint filter 5		FLOAT	Immediately
		HSA SLM VSA		-
P2 840D	100.000000	1.000000	100.000000	2/4

1278	CURRENT_FILTER_6_FREQUENCY		D01	CR: FBSI
Hz	Natural frequency for current setpoint filter 6		FLOAT	Immediately
		HSA SLM VSA		-
P2 840D	2000.000000	0.000000	8000.000000	2/4

1279	CURRENT_FILTER_6_DAMPING		D01	CR: FBSI
-	Damping for current setpoint filter 6		FLOAT	Immediately
		HSA SLM VSA		-

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P2 840D		0.700000	0.050000	5.000000	2/4
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1280	CURRENT_FILTER_6_SUPPR_FREQ		D01	CR: FBSI	
Hz	Blocking frequency for current setpoint filter 6		FLOAT	Immediately	
		HSA SLM VSA		-	
P2 840D		3500.000000	1.000000	7999.000000	2/4

1281	CURRENT_FILTER_6_BANDWIDTH		D01	CR: FBSI	
Hz	-3dB bandwidth for current setpoint filter 6		FLOAT	Immediately	
		HSA SLM VSA		-	
P2 840D		500.000000	5.000000	7999.000000	2/4

1282	CURRENT_FILTER_6_BW_NUM		D01, EXP	CR: FBSI	
Hz	Numerator bandwidth for damped bandstop filter 6		FLOAT	Immediately	
		HSA SLM VSA		-	
P2 840D		0.000000	0.000000	7999.000000	2/4

1283	CURRENT_FILTER_6_BS_FREQ		D01, EXP	CR: FBSI	
%	BSF natural freq. current setpoint 6		FLOAT	Immediately	
		HSA SLM VSA		-	
P2 840D		100.000000	1.000000	100.000000	2/4

1300	SAFETY_CYCLE_TIME		D07	CR: FBSI	
31,25us	SI monitoring cycle		UNS. WORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D		384	16	800	2/4

1300	SAFETY_CYCLE_TIME		D07	CR: FBSI	
31,25 us	SI monitoring cycle		UNS.WORD	Power On	
		HSA SLM VSA		-	
P2 840D		384	16	800	2/4

1301	SAFE_FUNCTION_ENABLE		D07	CR: FBSI	
HEX	Enable safety functions		UNS. WORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D		0	0	fffb	2/4

1301	SAFE_FUNCTION_ENABLE		D07	CR: FBSI	
-	Enable safety functions		UNS.WORD	Power On	
		HSA SLM VSA		-	
P2 840D		0x0000	0x0000	0xffffb	2/4

1302	SAFE_IS_ROT_AX		D07	CR: FBSI	
-	Axis-specific bits of safety functions		UNS. WORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D		0	0	3	2/4

1302	SAFE_IS_ROT_AX		D07	CR: FBSI
-	Axis-specific bits of safety functions		UNS.WORD	Power On
		HSA SLM VSA		-
P2 840D	0x0000	0x0000	0x0003	2/4

1305	SAFE_MODULO_RANGE		D07	CR: FBSI
mGrad	Actual value range for SN for rotary axes		UNS. DWORD	PowerOn
		VSA/HSA		ROT/LIN
840D	0	0	737280000	2/4

1305	SAFE_MODULO_RANGE		D07	CR: FBSI
mGrad	Actual value range for SN for rotary axes		UNS.DWORD	Power On
		HSA SLM VSA		-
P2 840D	0	0	737280000	2/4

1316	SAFE_ENC_CONFIG		D07	CR: FBSI
-	Motor encoder configuration of safety functions		UNS. WORD	PowerOn
		VSA/HSA		ROT/LIN
840D	0	0	7	2/4

1316	SAFE_ENC_CONFIG		D07	CR: FBSI
-	Motor encoder configuration of safety functions		UNS.WORD	Power On
		HSA SLM VSA		-
P2 840D	0x0000	0x0000	0x0007	2/4

1317	SAFE_ENC_GRID_POINT_DIST		D07	CR: FBSI
um,mGrad	Grid spacing of linear scale		FLOAT	PowerOn
		VSA/HSA		ROT/LIN
840D	10.0000	0.0100	8000.0000	2/4

1317	SAFE_ENC_GRID_POINT_DIST		D07	CR: FBSI
µm, mGrad	Grid spacing of linear scale		FLOAT	Power On
		HSA SLM VSA		-
P2 840D	10.000000	0.010000	8000.000000	2/4

1318	SAFE_ENC_RESOL		D07	CR: FBSI
-	Encoder lines per revolution		UNS. DWORD	PowerOn
		VSA/HSA		ROT/LIN
840D	2048	1	100000	2/4

1318	SAFE_ENC_RESOL		D07	CR: FBSI
-	Encoder lines per revolution		UNS.DWORD	Power On
		HSA SLM VSA		-
P2 840D	2048	1	100000	2/4

1320	SAFE_ENC_GEAR_PITCH		D07	CR: FBSI
mm/U	Spindle pitch		FLOAT	PowerOn
		VSA/HSA		ROT/LIN

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840D		10.0000	0.1000	8388.0000	2/4
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1320	SAFE_ENC_GEAR_PITCH		D07	CR: FBSI	
mm/rev	Spindle pitch		FLOAT	Power On	
		HSA SLM VSA		-	
P2 840D		10.000000	0.100000	8388.000000	2/4

1321	SAFE_ENC_GEAR_DENOM		D07	CR: FBSI	
-	Denominator of gear unit encoder / load		UNS. DWORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D		1	1	8388607	2/4

1321	SAFE_ENC_GEAR_DENOM		D07	CR: FBSI	
-	Denominator of gear unit encoder / load		UNS.DWORD	Power On	
		HSA SLM VSA		-	
P2 840D		1	1	8388607	2/4

1322	SAFE_ENC_GEAR_NUMERA		D07	CR: FBSI	
-	Numerator of gear unit encoder / load		UNS. DWORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D		1	1	8388607	2/4

1322	SAFE_ENC_GEAR_NUMERA		D07	CR: FBSI	
-	Numerator of gear unit encoder / load		UNS.DWORD	Power On	
		HSA SLM VSA		-	
P2 840D		1	1	8388607	2/4

1326	SAFE_ENC_FREQ_LIMIT		D07	CR: DB1	
Hz	Encoder limit frequency		UNS.DWORD	Power On	
		HSA SLM VSA		-	
P2 840D		300000	300000	420000	2/4

1330	SAFE_STANDSTILL_TOL		D07	CR: FBSI	
um,mGrad	Standstill tolerance (SBH)		DWORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D		1000	1	100000	2/4

1330	SAFE_STANDSTILL_TOL		D07	CR: FBSI	
µm, mGrad	Standstill tolerance (SBH)		DWORD	Power On	
		HSA SLM VSA		-	
P2 840D		1000	1	100000	2/4

1331	SAFE_VELO_LIMIT		D07	CR: FBSI	
mm/min,U/min	Limit values for SG		FLOAT	PowerOn	
		VSA/HSA		ROT/LIN	
840D		2000.0000	0.0000	1000000.0000	2/4

1331	SAFE_VELO_LIMIT			D07	CR: FBSI
mm/min, rev/min	Limit values for SG			FLOAT	Power On
			HSA SLM VSA		-
P2 840D		2000.000000	0.000000	1000000.000000	2/4

1332	SAFE_VELO_OVR_FACTOR			D07	CR: FBSI
%	Override factor for SG			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		100	1	100	2/4

1332	SAFE_VELO_OVR_FACTOR			D07	CR: FBSI
%	Override factor for SG			UNS.WORD	Power On
			HSA SLM VSA		-
P2 840D		100	1	100	2/4

1334	SAFE_POS_LIMIT_PLUS			D07	CR: FBSI
um,mGrad	Upper limit value for SE			DWORD	PowerOn
			VSA/HSA		ROT/LIN
840D		100000000	-2147000000	2147000000	2/4

1334	SAFE_POS_LIMIT_PLUS			D07	CR: FBSI
µm, mGrad	Upper limit value for SE			DWORD	Power On
			HSA SLM VSA		-
P2 840D		100000000	-2147000000	2147000000	2/4

1335	SAFE_POS_LIMIT_MINUS			D07	CR: FBSI
um,mGrad	Lower limit value for SE			DWORD	PowerOn
			VSA/HSA		ROT/LIN
840D		-100000000	-2147000000	2147000000	2/4

1335	SAFE_POS_LIMIT_MINUS			D07	CR: FBSI
µm, mGrad	Lower limit value for SE			DWORD	Power On
			HSA SLM VSA		-
P2 840D		-100000000	-2147000000	2147000000	2/4

1336	SAFE_CAM_POS_PLUS			D07	CR: FBSI
um,mGrad	Plus cam position SN			DWORD	PowerOn
			VSA/HSA		ROT/LIN
840D		10000	-2147000000	2147000000	2/4

1336	SAFE_CAM_POS_PLUS			D07	CR: FBSI
µm, mGrad	Plus cam position SN			DWORD	Power On
			HSA SLM VSA		-
P2 840D		10000	-2147000000	2147000000	2/4

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1337	SAFE_CAM_POS_MINUS			D07	CR: FBSI
um,mGrad	Minus cam position SN			DWORD	PowerOn
			VSA/HSA		ROT/LIN
840D		-10000	-2147000000	2147000000	2/4

1337	SAFE_CAM_POS_MINUS			D07	CR: FBSI
µm, mGrad	Minus cam position SN			DWORD	Power On
			HSA SLM VSA		-
P2 840D		-10000	-2147000000	2147000000	2/4

1340	SAFE_CAM_TOL			D07	CR: FBSI
um,mGrad	Tolerance for safe cams			DWORD	PowerOn
			VSA/HSA		ROT/LIN
840D		100	1	10000	2/4

1340	SAFE_CAM_TOL			D07	CR: FBSI
µm, mGrad	Tolerance for safe cams			DWORD	Power On
			HSA SLM VSA		-
P2 840D		100	1	10000	2/4

1342	SAFE_POS_TOL			D07	CR: FBSI
um,mGrad	Actual value tolerance for the cross-check			DWORD	PowerOn
			VSA/HSA		ROT/LIN
840D		100	1	360000	2/4

1342	SAFE_POS_TOL			D07	CR: FBSI
µm, mGrad	Actual value tolerance for the cross-check			DWORD	Power On
			HSA SLM VSA		-
P2 840D		100	1	360000	2/4

1344	SAFE_REFP_POS_TOL			D07	CR: FBSI
um,mGrad	Actual value tolerance safe axis position			DWORD	PowerOn
			VSA/HSA		ROT/LIN
840D		10	0	36000	2/4

1344	SAFE_REFP_POS_TOL			D07	CR: FBSI
µm, mGrad	Actual value tolerance safe axis position			DWORD	Power On
			HSA SLM VSA		-
P2 840D		10	0	36000	2/4

1346	SAFE_VELO_X			D07	CR: FBSI
mm/min,U/min	Speed limit nx			FLOAT	PowerOn
			VSA/HSA		ROT/LIN
840D		20.0000	0.0000	1000.0000	2/4

1346	SAFE_VELO_X		D07	CR: FBSI	
mm/min, rev/min	Speed limit nx		FLOAT	Power On	
		HSA SLM VSA		-	
P2 840D		20.000000	0.000000	1000.000000	2/4

1348	SAFE_STOP_VELO_TOL		D07	CR: FBSI	
mm/min,U/min	Actual speed tolerance for SBR		FLOAT	PowerOn	
		VSA/HSA		ROT/LIN	
840D		300.0000	0.0000	20000.0000	2/4

1348	SAFE_STOP_VELO_TOL		D07	CR: FBSI	
mm/min, rev/min	Actual speed tolerance for SBR		FLOAT	Power On	
		HSA SLM VSA		-	
P2 840D		300.000000	0.000000	20000.000000	2/4

1349	SAFE_SLIP_VELO_TOL		D07	CR: FBSI	
mm/min,U/min	Tolerance 2 encoder drift/slip		FLOAT	PowerOn	
		VSA/HSA		ROT/LIN	
840D		6.0000	0.0000	1000.0000	2/4

1349	SAFE_SLIP_VELO_TOL		D07	CR: FBSI	
mm/min, rev/min	Tolerance 2 encoder drift/slip		FLOAT	Power On	
		HSA SLM VSA		-	
P2 840D		6.000000	0.000000	1000.000000	2/4

1350	SAFE_MODE_SWITCH_TIME		D07	CR: FBSI	
ms	Tolerance time for SGE changeover		FLOAT	PowerOn	
		VSA/HSA		ROT/LIN	
840D		500.0000	0.0000	10000.0000	2/4

1350	SAFE_MODE_SWITCH_TIME		D07	CR: FBSI	
ms	Tolerance time for SGE changeover		FLOAT	Power On	
		HSA SLM VSA		-	
P2 840D		500.000000	0.000000	10000.000000	2/4

1351	SAFE_VELO_SWITCH_DELAY		D07	CR: FBSI	
ms	Delay time for SG changeover		FLOAT	PowerOn	
		VSA/HSA		ROT/LIN	
840D		100.0000	0.0000	10000.0000	2/4

1351	SAFE_VELO_SWITCH_DELAY		D07	CR: FBSI	
ms	Delay time for SG changeover		FLOAT	Power On	
		HSA SLM VSA		-	
P2 840D		100.000000	0.000000	60000.000000	2/4

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1352	SAFE_STOP_SWITCH_TIME_C			D07	CR: FBSI
ms	Transition time from STOP C to SBH			FLOAT	PowerOn
			VSA/HSA		ROT/LIN
840D		100.0000	0.0000	10000.0000	2/4

1352	SAFE_STOP_SWITCH_TIME_C			D07	CR: FBSI
ms	Transition time from STOP C to SBH			FLOAT	Power On
			HSA SLM VSA		-
P2 840D		100.000000	0.000000	10000.000000	2/4

1353	SAFE_STOP_SWITCH_TIME_D			D07	CR: FBSI
ms	Transition time from STOP D to SBH			FLOAT	PowerOn
			VSA/HSA		ROT/LIN
840D		100.0000	0.0000	10000.0000	2/4

1353	SAFE_STOP_SWITCH_TIME_D			D07	CR: FBSI
ms	Transition time from STOP D to SBH			FLOAT	Power On
			HSA SLM VSA		-
P2 840D		100.000000	0.000000	60000.000000	2/4

1354	SAFE_STOP_SWITCH_TIME_E			D07	CR: FBSI
ms	Transition time from STOP E to SBH			FLOAT	PowerOn
			VSA/HSA		ROT/LIN
840D		100.0000	0.0000	10000.0000	2/4

1354	SAFE_STOP_SWITCH_TIME_E			D07	CR: FBSI
ms	Transition time from STOP E to SBH			FLOAT	Power On
			HSA SLM VSA		-
P2 840D		100.000000	0.000000	60000.000000	2/4

1355	SAFE_STOP_SWITCH_TIME_F			D07	CR: FBSI
ms	Transition time from STOP F to Stop B			FLOAT	PowerOn
			VSA/HSA		ROT/LIN
840D		0.0000	0.0000	10000.0000	2/4

1355	SAFE_STOP_SWITCH_TIME_F			D07	CR: FBSI
ms	Transition period from STOP F to STOP B			FLOAT	Power On
			HSA SLM VSA		-
P2 840D		0.000000	0.000000	60000.000000	2/4

1356	SAFE_PULSE_DISABLE_DELAY			D07	CR: FBSI
ms	Delay time for pulse suppression			FLOAT	PowerOn
			VSA/HSA		ROT/LIN
840D		100.0000	0.0000	10000.0000	2/4

1356	SAFE_PULSE_DISABLE_DELAY			D07	CR: FBSI
ms	Delay time for pulse suppression			FLOAT	Power On
			HSA SLM VSA		-

P2 840D		100.000000	0.000000	10000.000000	2/4
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1357	SAFE_PULSE_DIS_CHECK_TIME			D07	CR: FBSI
ms	Time for testing pulse suppression			FLOAT	PowerOn
			VSA/HSA		ROT/LIN
840D		100.0000	0.0000	10000.0000	2/4

1357	SAFE_PULSE_DIS_CHECK_TIME			D07	CR: FBSI
ms	Time for testing pulse suppression			FLOAT	Power On
			HSA SLM VSA		-
P2 840D		100.000000	0.000000	10000.000000	2/4

1358	SAFE_ACC_TEST_TIMEOUT			D07	CR: FBSI
ms	Acceptance test monitoring			FLOAT	PowerOn
			VSA/HSA		ROT/LIN
840D		40000.0000	5000.0000	100000.0000	2/4

1358	SAFE_ACC_TEST_TIMEOUT			D07	CR: FBSI
ms	SI acceptance test timer			FLOAT	Power On
			HSA SLM VSA		-
P2 840D		40000.0	5000.0	100000.0	2/4

1360	SAFE_STANDSTILL_VELO_TOL			D07	CR: FBSI
mm/min,U/min	Creep speed pulse suppression			FLOAT	PowerOn
			VSA/HSA		ROT/LIN
840D		0.0000	0.0000	1000.0000	2/4

1360	SAFE_STANDSTILL_VELO_TOL			D07	CR: FBSI
mm/min, rev/ min	Creep speed pulse suppression			FLOAT	Power On
			HSA SLM VSA		-
P2 840D		0.000000	0.000000	1000.000000	2/4

1361	SAFE_VELO_STOP_MODE			D07	CR: FBSI
-	Stop reaction with SG			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		5	0	14	2/4

1361	SAFE_VELO_STOP_MODE			D07	CR: FBSI
-	Stop reaction with SG			UNS.WORD	Power On
			HSA SLM VSA		-
P2 840D		5	0	14	2/4

1362	SAFE_POS_STOP_MODE			D07	CR: FBSI
-	Stop reaction with SE			UNS. WORD	PowerOn
			VSA/HSA		ROT/LIN
840D		2	2	4	2/4

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1362	SAFE_POS_STOP_MODE		D07	CR: FBSI
-	Stop reaction with SE		UNS.WORD	Power On
		HSA SLM VSA		-
P2 840D		2	2	4
				2/4

1363	SAFE_VELO_STOP_REACTION		D07	CR: FBSI
-	Specific SG stop reaction		UNS. WORD	PowerOn
		VSA/HSA		ROT/LIN
840D		2	0	14
				2/4

1363	SAFE_VELO_STOP_REACTION		D07	CR: FBSI
-	Specific SG stop reaction		UNS.WORD	Power On
		HSA SLM VSA		-
P2 840D		2	0	14
				2/4

1370	SAFE_TEST_MODE		D07	CR: FBSI
-	Acceptance test mode		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D		0	0	ac
				2/4

1370	SAFE_TEST_MODE		D07	CR: FBSI
-	SI acceptance test mode		UNS.WORD	Immediately
		HSA SLM VSA		-
P2 840D		0	0	0x00AC
				2/4

1371	SAFE_TEST_STATE		D07	CR: FBSI
-	Acceptance test state		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D		0	0	ac
				2/4

1371	SAFE_TEST_STATE		D07	CR: FBSI
-	SI acceptance test status		UNS.WORD	Immediately
		HSA SLM VSA		-
P2 840D		0	0	0x00AC
				2/4

1380	SAFE_PULSE_DIS_TIME_FAIL		D07	CR: FBSI
ms	Time remaining until pulse suppression		FLOAT	PowerOn
		VSA/HSA		ROT/LIN
840D		0.0000	0.0000	1000.0000
				2/4

1380	SAFE_PULSE_DIS_TIME_FAIL		D07	CR: FBSI
ms	Time until pulse suppression		FLOAT	Power On
		HSA SLM VSA		-
P2 840D		0.000000	0.000000	800.000000
				2/4

1390	SAFE_FIRMWARE_VERSION		D07	CR: FBSI
-	Firmware		UNS. DWORD	sofort
		VSA/HSA		ROT/LIN

840D		0	0	2147483647	2/4
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1390	SAFE_FIRMWARE_VERSION			D07	CR: FBSI
-	Firmware			UNS.DWORD	Immediately
			HSA SLM VSA		-
P2 840D		0	0	4294967295	2/4

1391	SAFE_DIAG_NC_RESULTLIST1			D07	CR: FBSI
-	Diagnostics: NC result list 1			UNS. DWORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	2147483647	2/4

1391	SAFE_DIAG_NC_RESULTLIST1			D07	CR: FBSI
-	Diagnostics: NC result list 1			UNS.DWORD	Immediately
			HSA SLM VSA		-
P2 840D		0	0	4294967295	2/4

1392	SAFE_DIAG_611D_RESULTLIST1			D07	CR: FBSI
-	Diagnostics: 611D result list 1			UNS. DWORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	2147483647	2/4

1392	SAFE_DIAG_611D_RESULTLIST1			D07	CR: FBSI
-	Diagnostics: 611D result list 1			UNS.DWORD	Immediately
			HSA SLM VSA		-
P2 840D		0	0	4294967295	2/4

1393	SAFE_DIAG_NC_RESULTLIST2			D07	CR: FBSI
-	Diagnostics: NC result list 2			UNS. DWORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	2147483647	2/4

1393	SAFE_DIAG_NC_RESULTLIST2			D07	CR: FBSI
-	Diagnostics: NC result list 2			UNS.DWORD	Immediately
			HSA SLM VSA		-
P2 840D		0	0	4294967295	2/4

1394	SAFE_DIAG_611D_RESULTLIST2			D07	CR: FBSI
-	Diagnostics: 611D result list 2			UNS. DWORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	2147483647	2/4

1394	SAFE_DIAG_611D_RESULTLIST2			D07	CR: FBSI
-	Diagnostics: 611D result list 2			UNS.DWORD	Immediately
			HSA SLM VSA		-
P2 840D		0	0	4294967295	2/4

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1395	SAFE_STOP_F_DIAGNOSIS		D07	CR: FBSI	
-	Diagnostics for STOP F		WORD	sofort	
		VSA/HSA		ROT/LIN	
840D		32767	0	32767	2/4

1395	SAFE_STOP_F_DIAGNOSIS		D07	CR: FBSI	
-	Diagnostics for STOP F		WORD	Immediately	
		HSA SLM VSA		-	
P2 840D		32767	0	32767	2/4

1396	SAFE_ACKN_WRITE		D07	CR: FBSI	
HEX	User agreement		UNS. WORD	sofort	
		VSA/HSA		ROT/LIN	
840D		0	0	fff	2/4

1396	SAFE_ACKN_WRITE		D07	CR: FBSI	
-	User agreement		UNS.WORD	Immediately	
		HSA SLM VSA		-	
P2 840D		0x0000	0x0000	0xffff	2/4

1397	SAFE_ACKN_READ		D07	CR: FBSI	
HEX	611D internal agreement		UNS. WORD	sofort	
		VSA/HSA		ROT/LIN	
840D		0	0	fff	2/4

1397	SAFE_ACKN_READ		D07	CR: FBSI	
-	611D internal agreement		UNS.WORD	Immediately	
		HSA SLM VSA		-	
P2 840D		0x0000	0x0000	0xffff	2/4

1398	SAFE_ACT_CHECKSUM		D07	CR: FBSI	
-	Display of SI-MD check sum		UNS. DWORD	sofort	
		VSA/HSA		ROT/LIN	
840D		0	0	2147483647	2/4

1398	SAFE_ACT_CHECKSUM		D07	CR: FBSI	
-	Display of SI-MD check sum		UNS.DWORD	Immediately	
		HSA SLM VSA		-	
P2 840D		0	0	4294967295	2/4

1399	SAFE_DES_CHECKSUM		D07	CR: FBSI	
-	SI-MD check sum		UNS. DWORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D		0	0	2147483647	2/4

1399	SAFE_DES_CHECKSUM		D07	CR: FBSI	
-	SI-MD check sum		UNS.DWORD	Power On	
		HSA SLM VSA		-	

P2 840D		0	0	4294967295	2/4
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1400	MOTOR_RATED_SPEED			D05	CR:
m/min	Rated motor speed			FLOAT	PowerOn
			VSA		LIN
840D		0.0000	0.0000	100000.0000	2/4

1400	MOTOR_RATED_SPEED			D05	CR: DM1
1/min	Rated motor speed			FLOAT	PowerOn
			VSA/HSA		ROT
840D		0.0000	0.0000	100000.0000	2/4

1400	MOTOR_RATED_SPEED				CR: DM1
1/min	Rated motor speed			FLOAT	PowerOn
			VSA/HSA		-
810D		0.0000	0.0000	25000.0000	2/4

1400	MOTOR_RATED_SPEED			D05	CR: DM1
1/min	Rated motor speed			FLOAT	Power On
			HSA SLM VSA		-
P2		0.000000	0.000000	100000.000000	2/4

1401	MOTOR_MAX_SPEED			D02, D05	CR:
m/min	Maximum motor operating speed			FLOAT	PowerOn
			VSA		LIN
840D		0.0000	0.0000	100000.0000	2/4

1401	MOTOR_MAX_SPEED				CR: DD1
1/min	Maximum usable motor speed			FLOAT	PowerOn
			VSA/HSA		-
810D		0.0000	0.0000	50000.0000	2/4

1401	MOTOR_MAX_SPEED			D02, D05	CR: DD1
1/min	Maximum usable motor speed			FLOAT	PowerOn
			VSA/HSA		ROT
840D		0.0000	0.0000	100000.0000	2/4

1401	MOTOR_MAX_SPEED			D02, D05	CR: DD1
1/min	Maximum usable motor speed			FLOAT	Power On
			HSA SLM VSA		-
P2		0.000000	0.000000	100000.000000	2/4

1403	PULSE_SUPPRESSION_SPEED			D02	CR: DB1
1/min	Shut down speed pulse suppression			FLOAT	sofort
			VSA/HSA		ROT
840D		0.0000	0.0000	7200.0000	2/4

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1403	PULSE_SUPPRESSION_SPEED		D02	CR:
m/min	Switch-off speed for cancelling of pulses		FLOAT	sofort
		VSA		LIN
840D	0.0000	0.0000	7200.0000	2/4

1403	PULSE_SUPPRESSION_SPEED		D02	CR: DB1
1/min	Shut down speed pulse suppression		FLOAT	Immediately
		HSA SLM VSA		-
P2	0.000000	0.000000	7200.000000	2/4

1404	PULSE_SUPPRESSION_DELAY		D02	CR: DB1
ms	Timer impulse suppression		FLOAT	sofort
		VSA/HSA		ROT/LIN
840D	100.0000	0.0000	100000.0000	2/4

1404	PULSE_SUPPRESSION_DELAY		D02	CR: DB1
ms	Timer impulse suppression		FLOAT	Immediately
		HSA SLM VSA		-
P2	100.000000	0.000000	100000.000000	2/4

1405	MOTOR_SPEED_LIMIT		D02, D05	CR: DÜ1
%	Monitoring motor speed		FLOAT	sofort
		VSA/HSA		ROT
840D	110.0000	100.0000	110.0000	2/4

1405	MOTOR_SPEED_LIMIT		D02, D05	CR:
%	Monitoring speed of motor		FLOAT	sofort
		VSA		LIN
840D	110.0000	100.0000	110.0000	2/4

1405	MOTOR_SPEED_LIMIT		D02, D05	CR: DÜ1
%	Monitoring motor speed		FLOAT	Immediately
		HSA SLM VSA		-
P2	110.000000	100.000000	110.000000	2/4

1406	SPEEDCTRL_TYPE		EXP	CR: DD2
-	Speed controller type		UNS. WORD	PowerOn
		VSA/HSA		ROT/LIN
840D	1	1	1	0/0

1406	SPEEDCTRL_TYPE		EXP	CR: DD2
-	Speed controller type		UNS.WORD	Power On
		HSA SLM VSA		-
P2	1	1	1	0/0

1407	SPEEDCTRL_GAIN_1			CR: DD2
Nms/rad	P gain of speed controller		FLOAT	sofort
		VSA/HSA		-

810D		0.3000	0.0000	100000.0000	2/4
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1407	SPEEDCTRL_GAIN_1			D01, D08	CR: DD2
Nms/rad	P gain of speed controller			FLOAT	sofort
			VSA/HSA		ROT
840D		0.3000	0.0000	1000000.0000	2/4

1407	SPEEDCTRL_GAIN_1			D01, D08	CR:
Ns/m	P gain speed control			FLOAT	sofort
			VSA		LIN
840D		2000.0000	0.0000	1000000.0000	2/4

1407	SPEEDCTRL_GAIN_1			D01, D08	CR: DD2
Nms/rad	P gain of speed controller			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.300000	0.000000	1000000.000000	2/4

1408	SPEEDCTRL_GAIN_2			D01, EXP	CR:
Ns/m	P gain upper adaption speed			FLOAT	sofort
			VSA		LIN
840D		2000.0000	0.0000	1000000.0000	2/4

1408	SPEEDCTRL_GAIN_2				CR: DD2
Nms/rad	P gain of upper adaptation speed			FLOAT	sofort
			VSA/HSA		-
810D		0.3000	0.0000	100000.0000	2/4

1408	SPEEDCTRL_GAIN_2			D01, EXP	CR: DD2
Nms/rad	P gain of upper adaptation speed			FLOAT	sofort
			VSA/HSA		ROT
840D		0.3000	0.0000	1000000.0000	2/4

1408	SPEEDCTRL_GAIN_2			D01, EXP	CR: DD2
Nms/rad	P gain of upper adaptation speed			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.300000	0.000000	1000000.000000	2/4

1409	SPEEDCTRL_INTEGRATOR_TIME_1			D01, D08	CR:
ms	Integral action time of speed controller			FLOAT	sofort
			VSA		LIN
840D		10.0000	0.0000	500.0000	2/4

1409	SPEEDCTRL_INTEGRATOR_TIME_1			D01, D08	CR: DD2
ms	Integral action time of speed controller			FLOAT	sofort
			VSA/HSA		ROT
840D		10.0000	0.0000	500.0000	2/4

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1409	SPEEDCTRL_INTEGRATOR_TIME_1		D01, D08	CR: DD2	
ms	Integral action time of speed controller		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		10.000000	0.000000	500.000000	2/4

1410	SPEEDCTRL_INTEGRATOR_TIME_2		D01, EXP	CR: DD2	
ms	Integral action time of upper adaptation speed		FLOAT	sofort	
		VSA/HSA		ROT	
840D		10.0000	0.0000	500.0000	2/4

1410	SPEEDCTRL_INTEGRATOR_TIME_2		D01, EXP	CR:	
ms	Integral action time of upper adaption speed		FLOAT	sofort	
		VSA		LIN	
840D		10.0000	0.0000	500.0000	2/4

1410	SPEEDCTRL_INTEGRATOR_TIME_2		D01, EXP	CR: DD2	
ms	Integral action time of upper adaptation speed		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		10.000000	0.000000	500.000000	2/4

1411	SPEEDCTRL_ADAPT_SPEED_1			CR: DD2	
1/min	Lower adaptation speed		FLOAT	sofort	
		VSA/HSA		-	
810D		0.0000	0.0000	50000.0000	2/4

1411	SPEEDCTRL_ADAPT_SPEED_1		D01, EXP	CR: DD2	
1/min	Lower adaptation speed		FLOAT	sofort	
		VSA/HSA		ROT	
840D		0.0000	0.0000	100000.0000	2/4

1411	SPEEDCTRL_ADAPT_SPEED_1		D01, EXP	CR:	
m/min	Lower adaption speed threshold		FLOAT	sofort	
		VSA		LIN	
840D		0.0000	0.0000	100000.0000	2/4

1411	SPEEDCTRL_ADAPT_SPEED_1		D01, EXP	CR: DD2	
1/min	Lower adaptation speed		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		0.000000	0.000000	100000.000000	2/4

1412	SPEEDCTRL_ADAPT_SPEED_2			CR: DD2	
1/min	Upper adaptation speed		FLOAT	sofort	
		VSA/HSA		-	
810D		0.0000	0.0000	50000.0000	2/4

1412	SPEEDCTRL_ADAPT_SPEED_2		D01, EXP	CR: DD2	
1/min	Upper adaptation speed		FLOAT	sofort	
		VSA/HSA		ROT	

840D		0.0000	0.0000	100000.0000	2/4
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1412	SPEEDCTRL_ADAPT_SPEED_2			D01, EXP	CR:
m/min	Upper adaption speed threshold			FLOAT	sofort
			VSA		LIN
840D		0.0000	0.0000	100000.0000	2/4

1412	SPEEDCTRL_ADAPT_SPEED_2			D01, EXP	CR: DD2
1/min	Upper adaptation speed			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	0.000000	100000.000000	2/4

1413	SPEEDCTRL_ADAPT_ENABLE			D01, EXP	CR: DD2
-	Select adaptation speed controller			UNS. WORD	sofort
			VSA/HSA		ROT
840D		0	0	1	2/4

1413	SPEEDCTRL_ADAPT_ENABLE			D01, EXP	CR:
-	Select adaptation speed controller			UNS. WORD	sofort
			VSA		LIN
840D		0	0	1	2/4

1413	SPEEDCTRL_ADAPT_ENABLE			D01, EXP	CR: DD2
-	Select adaptation speed controller			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	1	2/4

1414	SPEEDCTRL_REF_MODEL_FREQ			D01, EXP	CR: DD2
Hz	Natural frequency for the reference model speed			FLOAT	sofort
			VSA/HSA		ROT
840D		0.0000	0.0000	8000.0000	2/4

1414	SPEEDCTRL_REF_MODEL_FREQ			D01, EXP	CR:
Hz	Natural frequency for the reference model speed			FLOAT	sofort
			VSA		LIN
840D		0.0000	0.0000	8000.0000	2/4

1414	SPEEDCTRL_REF_MODEL_FREQ			D01, EXP	CR: DD2
Hz	Natural frequency for the reference model speed			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	0.000000	8000.000000	2/4

1415	SPEEDCTRL_REF_MODEL_DAMPING			D01, EXP	CR: DD2
-	Damping of reference model speed			FLOAT	sofort
			VSA/HSA		ROT
840D		1.0000	0.5000	5.0000	2/4

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1415	SPEEDCTRL_REF_MODEL_DAMPING		D01, EXP	CR:
-	Damping of reference model speed		FLOAT	sofort
		VSA		LIN
840D	1.0000	0.5000	5.0000	2/4

1415	SPEEDCTRL_REF_MODEL_DAMPING		D01, EXP	CR: DD2
-	Damping of reference model speed		FLOAT	Immediately
		HSA SLM VSA		-
P2	1.000000	0.500000	5.000000	2/4

1416	SPEEDCTRL_REF_MODEL_DELAY		D01, EXP	CR: DD2
-	Balancing the reference model speed		FLOAT	sofort
		VSA/HSA		ROT
840D	0.0000	0.0000	1.0000	2/4

1416	SPEEDCTRL_REF_MODEL_DELAY		D01, EXP	CR:
-	Balancing the reference model speed		FLOAT	sofort
		VSA		LIN
840D	0.0000	0.0000	1.0000	2/4

1416	SPEEDCTRL_REF_MODEL_DELAY		D01, EXP	CR: DD2
-	Balancing the reference model speed		FLOAT	Immediately
		HSA SLM VSA		-
P2	0.000000	0.000000	1.000000	2/4

1417	SPEED_THRESHOLD_X		D03	CR: DB1
1/min	Signal n_x for 'n_act < n_x'		FLOAT	sofort
		VSA/HSA		ROT
840D	6000.0000	0.0000	100000.0000	2/4

1417	SPEED_THRESHOLD_X			CR: DB1
1/min	Signal n_x for 'n_act < n_x'		FLOAT	sofort
		VSA/HSA		-
810D	6000.0000	0.0000	50000.0000	2/4

1417	SPEED_THRESHOLD_X		D03	CR:
m/min	v_x for "v_act < v_x" signal		FLOAT	sofort
		VSA		LIN
840D	120.0000	0.0000	100000.0000	2/4

1417	SPEED_THRESHOLD_X		D03	CR: DB1
1/min	Signal n_x for 'n_act < n_x'		FLOAT	Immediately
		HSA SLM VSA		-
P2	6000.000000	0.000000	100000.000000	2/4

1418	SPEED_THRESHOLD_MIN			CR: DB1
1/min	Signal n_min for 'act_n < n_min'		FLOAT	sofort
		VSA/HSA		-

810D		5.0000	0.0000	25000.0000	2/4
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1418	SPEED_THRESHOLD_MIN		D03	CR: DB1	
1/min	Signal n_min for 'act_n < n_min'		FLOAT	sofort	
		VSA/HSA		ROT	
840D		5.0000	0.0000	100000.0000	2/4

1418	SPEED_THRESHOLD_MIN		D03	CR:	
m/min	v_min for "v_act < v_min" signal		FLOAT	sofort	
		VSA		LIN	
840D		0.3000	0.0000	100000.0000	2/4

1418	SPEED_THRESHOLD_MIN		D03	CR: DB1	
1/min	Signal n_min for 'act_n < n_min'		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		5.000000	0.000000	100000.000000	2/4

1420	MOTOR_MAX_SPEED_SETUP		D02	CR: DÜ1	
1/min	Max. motor speed, setting-up operation		FLOAT	sofort	
		VSA/HSA		ROT	
840D		30.0000	0.0000	100000.0000	2/4

1420	MOTOR_MAX_SPEED_SETUP			CR: DÜ1	
1/min	Max. motor speed, setting-up operation		FLOAT	sofort	
		VSA/HSA		-	
810D		30.0000	0.0000	50000.0000	2/4

1420	MOTOR_MAX_SPEED_SETUP		D02	CR:	
m/min	Maximum speed in setting-up operation		FLOAT	sofort	
		VSA		LIN	
840D		2.0000	0.0000	100000.0000	2/4

1420	MOTOR_MAX_SPEED_SETUP		D02	CR: DÜ1	
1/min	Max. motor speed, setting-up operation		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		30.000000	0.000000	100000.000000	2/4

1421	SPEEDCTRL_INTEGRATOR_FEEDBK		D01	CR: DD1	
ms	Time constant integrator feedback		FLOAT	sofort	
		VSA/HSA		ROT/LIN	
840D		0.0000	0.0000	1000.0000	2/4

1421	SPEEDCTRL_INTEGRATOR_FEEDBK		D01	CR: DD1	
ms	Time constant integrator feedback		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		0.000000	0.000000	1000.000000	2/4

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1424	SPEED_FFW_FILTER_TIME		D01, EXP	CR:
us	Balancing the speed precontrol channel		FLOAT	sofort
		VSA		LIN
840D		0.0000	0.0000	50000.0000 2/4

1424	SPEED_FFW_FILTER_TIME		D01, EXP	CR: DS1
us	Balancing the speed precontrol channel		FLOAT	sofort
		VSA/HSA		ROT
840D		0.0000	0.0000	50000.0000 2/4

1424	SPEED_FFW_FILTER_TIME		D01, EXP	CR: DS1
us	Balancing the speed precontrol channel		FLOAT	Immediately
		HSA SLM VSA		-
P2		0.000000	0.000000	50000.000000 2/4

1425	SPEED_FFW_DELAY		D01, EXP	CR: DS1
-	Balancing computation deadtime I-controller		FLOAT	sofort
		VSA/HSA		ROT/LIN
840D		0.0000	0.0000	1.0000 2/4

1425	SPEED_FFW_DELAY		D01, EXP	CR: DS1
-	Balancing computation deadtime I-controller		FLOAT	Immediately
		HSA SLM VSA		-
P2		0.000000	0.000000	1.000000 2/4

1426	SPEED_DES_EQ_ACT_TOL		D03	CR:
m/min	Tolerance bandwidth for "v_set = v_act" signal		FLOAT	sofort
		VSA		LIN
840D		1.0000	0.0000	10000.0000 2/4

1426	SPEED_DES_EQ_ACT_TOL		D03	CR: DB1
1/min	Tolerance bandwidth for 'n_set = n_act' signal		FLOAT	sofort
		VSA/HSA		ROT
840D		20.0000	0.0000	10000.0000 2/4

1426	SPEED_DES_EQ_ACT_TOL			CR: DB1
1/min	Tolerance bandwidth for 'n_set = n_act' signal		FLOAT	sofort
		VSA/HSA		-
810D		20.0000	0.0000	10000.0000 2/4

1426	SPEED_DES_EQ_ACT_TOL		D03	CR: DB1
1/min	Tolerance bandwidth for 'n_set = n_act' signal		FLOAT	Immediately
		HSA SLM VSA		-
P2		20.000000	0.000000	10000.000000 2/4

1427	SPEED_DES_EQ_ACT_DELAY		D03	CR:
ms	Delay time signal 'n_set = n_act'		FLOAT	sofort
		VSA		LIN

840D		200.0000	0.0000	500.0000	2/4
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1427	SPEED_DES_EQ_ACT_DELAY			D03	CR: DB1
ms	Delay time signal 'n_set = n_act'			FLOAT	sofort
			VSA/HSA		ROT
840D		200.0000	0.0000	500.0000	2/4

1427	SPEED_DES_EQ_ACT_DELAY			D03	CR: DB1
ms	Delay time signal 'n_set = n_act'			FLOAT	Immediately
			HSA SLM VSA		-
P2		200.000000	0.000000	500.000000	2/4

1428	FORCE_THRESHOLD_X			D03	CR:
%	Threshold force Fdx			FLOAT	sofort
			VSA		LIN
840D		90.0000	0.0000	100.0000	2/4

1428	TORQUE_THRESHOLD_X			D03	CR: DB1
%	Threshold force M_dx			FLOAT	sofort
			VSA/HSA		ROT
840D		90.0000	0.0000	100.0000	2/4

1428	TORQUE_THRESHOLD_X			D03	CR: DB1
%	Threshold force M_dx			FLOAT	Immediately
			HSA SLM VSA		-
P2		90.000000	0.000000	100.000000	2/4

1429	TORQUE_THRESHOLD_X_DELAY			D03	CR:
ms	Delay time 'Fd < Fdx' signal			FLOAT	sofort
			VSA		LIN
840D		800.0000	0.0000	1000.0000	2/4

1429	TORQUE_THRESHOLD_X_DELAY			D03	CR: DB1
ms	Delay time signal 'Md < Mdx'			FLOAT	sofort
			VSA/HSA		ROT
840D		800.0000	0.0000	1000.0000	2/4

1429	TORQUE_THRESHOLD_X_DELAY			D03	CR: DB1
ms	Delay time signal 'Md < Mdx'			FLOAT	Immediately
			HSA SLM VSA		-
P2		800.000000	0.000000	1000.000000	2/4

1451	SPEEDCTRL_GAIN_1_AM			D01	CR: DE1
Nms/rad	P gain of speed control loop IM			FLOAT	sofort
			HSA		ROT
840D		0.3000	0.0000	100000.0000	2/4

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1451	SPEEDCTRL_GAIN_1_AM		D01	CR: DE1
Nms/rad	P gain of speed control loop IM		FLOAT	Immediately
		HSA		-
P2	0.300000	0.000000	100000.000000	2/4

1453	SPDCTRL_INTEGR_TIME_1_AM		D01	CR: DE1
ms	Integral action time of speed control loop IM		FLOAT	sofort
		HSA		ROT
840D	140.0000	0.0000	6000.0000	2/4

1453	SPDCTRL_INTEGR_TIME_1_AM		D01	CR: DE1
ms	Integral action time of speed control loop IM		FLOAT	Immediately
		HSA		-
P2	140.000000	0.000000	6000.000000	2/4

1458	DES_CURRENT_OPEN_LOOP_AM		D01	CR: DE1
%	Current setpoint controlled range IM		FLOAT	sofort
		HSA		ROT
840D	90.0000	0.0000	150.0000	2/4

1458	DES_CURRENT_OPEN_LOOP_AM		D01	CR: DE1
%	Current setpoint controlled range IM		FLOAT	Immediately
		HSA		-
P2	90.000000	0.000000	150.000000	2/4

1459	TORQUE_SMOOTH_TIME_AM		D01	CR: DE1
ms	Torque smoothing time constant IM		FLOAT	sofort
		HSA		ROT
840D	4.0000	0.0000	100.0000	2/4

1459	TORQUE_SMOOTH_TIME_AM		D01	CR: DE1
ms	Torque smoothing time constant IM		FLOAT	Immediately
		HSA		-
P2	4.000000	0.000000	100.000000	2/4

1465	SWITCH_SPEED_MSD_AM		D01, D06	CR: DE1
1/min	Changeover speed MSD/IM		FLOAT	sofort
		HSA		ROT
840D	100000.0000	0.0000	100000.0000	2/4

1465	SWITCH_SPEED_MSD_AM		D01, D05, EXP	CR: DE1
1/min	Changeover speed MSD/IM		FLOAT	Immediately
		HSA		-
P2	100000.000000	0.000000	100000.000000	2/4

1466	SWITCH_SPD_OPEN_LOOP_AM		D01	CR: DE1
1/min	Changeover speed closed/open loop IM		FLOAT	sofort
		HSA		ROT

840D		300.0000	150.0000	100000.0000	2/4
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1466	SWITCH_SPD_OPEN_LOOP_AM		D01	CR: DE1	
1/min	Changeover speed closed/open loop IM		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		300.000000	150.000000	100000.000000	2/4

1500	NUM_SPEED_FILTERS			CR: DD2	
-	Number of speed setpoint filters		UNS. WORD	sofort	
		VSA/HSA		-	
810D		0	0	1	2/4

1500	NUM_SPEED_FILTERS		D01	CR:	
-	Number of speed setpoint filters		UNS. WORD	sofort	
		VSA		LIN	
840D		0	0	2	2/4

1500	NUM_SPEED_FILTERS		D01	CR: DD2	
-	Number of speed setpoint filters		UNS. WORD	sofort	
		VSA/HSA		ROT	
840D		0	0	2	2/4

1500	NUM_SPEED_FILTERS		D01	CR: DD2	
-	Number of speed setpoint filters		UNS.WORD	Immediately	
		HSA SLM VSA		-	
P2		0	0	2	2/4

1501	SPEED_FILTER_TYPE		D01	CR:	
-	Speed setpoint filter type		UNS. WORD	sofort	
		VSA		LIN	
840D		0	0	8303	2/4

1501	SPEED_FILTER_TYPE		D01	CR: DD2	
-	Speed setpoint filter type		UNS. WORD	sofort	
		VSA/HSA		ROT	
840D		0	0	8303	2/4

1501	SPEED_FILTER_TYPE		D01	CR: DD2	
-	Speed setpoint filter type		UNS.WORD	Immediately	
		HSA SLM VSA		-	
P2		0x0000	0x0000	0x8303	2/4

1502	SPEED_FILTER_1_TIME		D01	CR:	
ms	Time constant for speed setpoint filter 1		FLOAT	sofort	
		VSA		LIN	
840D		0.0000	0.0000	500.0000	2/4

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1502	SPEED_FILTER_1_TIME		D01	CR: DD2
ms	Time constant for speed setpoint filter 1		FLOAT	sofort
		VSA/HSA		ROT
840D		0.0000	0.0000	500.0000 2/4

1502	SPEED_FILTER_1_TIME			CR: DD2
ms	Time constant for speed setpoint filter 1		FLOAT	sofort
		VSA/HSA		-
810D		0.0000	0.0000	150.0000 2/4

1502	SPEED_FILTER_1_TIME		D01	CR: DD2
ms	Time constant for speed setpoint filter 1		FLOAT	Immediately
		HSA SLM VSA		-
P2		0.000000	0.000000	500.000000 2/4

1503	SPEED_FILTER_2_TIME		D01	CR: DD2
ms	Time constant for speed setpoint filter 2		FLOAT	sofort
		VSA/HSA		ROT
840D		0.0000	0.0000	500.0000 2/4

1503	SPEED_FILTER_2_TIME		D01	CR:
ms	Time constant for speed setpoint filter 2		FLOAT	sofort
		VSA		LIN
840D		0.0000	0.0000	500.0000 2/4

1503	SPEED_FILTER_2_TIME		D01	CR: DD2
ms	Time constant for speed setpoint filter 2		FLOAT	Immediately
		HSA SLM VSA		-
P2		0.000000	0.000000	500.000000 2/4

1506	SPEED_FILTER_1_FREQUENCY		D01, EXP	CR:
Hz	Natural frequency for speed setpoint filter 1		FLOAT	sofort
		VSA		LIN
840D		2000.0000	10.0000	8000.0000 2/4

1506	SPEED_FILTER_1_FREQUENCY		D01, EXP	CR: DD2
Hz	Natural frequency for speed setpoint filter 1		FLOAT	sofort
		VSA/HSA		ROT
840D		2000.0000	10.0000	8000.0000 2/4

1506	SPEED_FILTER_1_FREQUENCY		D01, EXP	CR: DD2
Hz	Natural frequency for speed setpoint filter 1		FLOAT	Immediately
		HSA SLM VSA		-
P2		2000.000000	10.000000	8000.000000 2/4

1507	SPEED_FILTER_1_DAMPING		D01, EXP	CR:
-	Damping for speed setpoint filter 1		FLOAT	sofort
		VSA		LIN

840D		0.7000	0.2000	5.0000	2/4
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1507	SPEED_FILTER_1_DAMPING			D01, EXP	CR: DD2
-	Damping for speed setpoint filter 1			FLOAT	sofort
			VSA/HSA		ROT
840D		0.7000	0.2000	5.0000	2/4

1507	SPEED_FILTER_1_DAMPING			D01, EXP	CR: DD2
-	Damping for speed setpoint filter 1			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.700000	0.200000	5.000000	2/4

1508	SPEED_FILTER_2_FREQUENCY			D01, EXP	CR:
Hz	Natural frequency for speed setpoint filter 2			FLOAT	sofort
			VSA		LIN
840D		2000.0000	10.0000	8000.0000	2/4

1508	SPEED_FILTER_2_FREQUENCY			D01, EXP	CR: DD2
Hz	Natural frequency for speed setpoint filter 2			FLOAT	sofort
			VSA/HSA		ROT
840D		2000.0000	10.0000	8000.0000	2/4

1508	SPEED_FILTER_2_FREQUENCY			D01, EXP	CR: DD2
Hz	Natural frequency for speed setpoint filter 2			FLOAT	Immediately
			HSA SLM VSA		-
P2		2000.000000	10.000000	8000.000000	2/4

1509	SPEED_FILTER_2_DAMPING			D01, EXP	CR:
-	Damping for speed setpoint filter 2			FLOAT	sofort
			VSA		LIN
840D		0.7000	0.2000	5.0000	2/4

1509	SPEED_FILTER_2_DAMPING			D01, EXP	CR: DD2
-	Damping for speed setpoint filter 2			FLOAT	sofort
			VSA/HSA		ROT
840D		0.7000	0.2000	5.0000	2/4

1509	SPEED_FILTER_2_DAMPING			D01, EXP	CR: DD2
-	Damping for speed setpoint filter 2			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.700000	0.200000	5.000000	2/4

1514	SPEED_FILTER_1_SUPPR_FREQ			D01, EXP	CR:
Hz	Blocking frequency for speed setpoint filter 1			FLOAT	sofort
			VSA		LIN
840D		3500.0000	1.0000	7999.0000	2/4

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1514	SPEED_FILTER_1_SUPPR_FREQ		D01, EXP	CR: DD2
Hz	Blocking frequency for speed setpoint filter 1		FLOAT	sofort
		VSA/HSA		ROT
840D		3500.0000	1.0000	7999.0000 2/4

1514	SPEED_FILTER_1_SUPPR_FREQ		D01, EXP	CR: DD2
Hz	Blocking frequency for speed setpoint filter 1		FLOAT	Immediately
		HSA SLM VSA		-
P2		3500.000000	1.000000	7999.000000 2/4

1515	SPEED_FILTER_1_BANDWIDTH		D01, EXP	CR:
Hz	Bandwidth for speed setpoint filter 1		FLOAT	sofort
		VSA		LIN
840D		500.0000	5.0000	7999.0000 2/4

1515	SPEED_FILTER_1_BANDWIDTH		D01, EXP	CR: DD2
Hz	Bandwidth for speed setpoint filter 1		FLOAT	sofort
		VSA/HSA		ROT
840D		500.0000	5.0000	7999.0000 2/4

1515	SPEED_FILTER_1_BANDWIDTH		D01, EXP	CR: DD2
Hz	Bandwidth for speed setpoint filter 1		FLOAT	Immediately
		HSA SLM VSA		-
P2		500.000000	5.000000	7999.000000 2/4

1516	SPEED_FILTER_1_BW_NUMERATOR		D01, EXP	CR: DD2
Hz	Bandwidth numerator for speed setpoint filter 1		FLOAT	sofort
		VSA/HSA		ROT
840D		0.0000	0.0000	7999.0000 2/4

1516	SPEED_FILTER_1_BW_NUMERATOR		D01, EXP	CR:
Hz	Bandwidth numerator for speed setpoint filter 1		FLOAT	sofort
		VSA		LIN
840D		0.0000	0.0000	7999.0000 2/4

1516	SPEED_FILTER_1_BW_NUMERATOR		D01, EXP	CR: DD2
Hz	Bandwidth numerator for speed setpoint filter 1		FLOAT	Immediately
		HSA SLM VSA		-
P2		0.000000	0.000000	7999.000000 2/4

1517	SPEED_FILTER_2_SUPPR_FREQ		D01, EXP	CR: DD2
Hz	Blocking frequency for speed setpoint filter 2		FLOAT	sofort
		VSA/HSA		ROT
840D		3500.0000	1.0000	7999.0000 2/4

1517	SPEED_FILTER_2_SUPPR_FREQ		D01, EXP	CR:
Hz	Blocking frequency for speed setpoint filter 2		FLOAT	sofort
		VSA		LIN

840D		3500.0000	1.0000	7999.0000	2/4
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1517	SPEED_FILTER_2_SUPPR_FREQ		D01, EXP	CR: DD2	
Hz	Blocking frequency for speed setpoint filter 2		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		3500.000000	1.000000	7999.000000	2/4

1518	SPEED_FILTER_2_BANDWIDTH		D01, EXP	CR:	
Hz	Bandwidth for speed setpoint filter 2		FLOAT	sofort	
		VSA		LIN	
840D		500.0000	5.0000	7999.0000	2/4

1518	SPEED_FILTER_2_BANDWIDTH		D01, EXP	CR: DD2	
Hz	Bandwidth for speed setpoint filter 2		FLOAT	sofort	
		VSA/HSA		ROT	
840D		500.0000	5.0000	7999.0000	2/4

1518	SPEED_FILTER_2_BANDWIDTH		D01, EXP	CR: DD2	
Hz	Bandwidth for speed setpoint filter 2		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		500.000000	5.000000	7999.000000	2/4

1519	SPEED_FILTER_2_BW_NUMERATOR		D01, EXP	CR: DD2	
Hz	Bandwidth numerator for speed setpoint filter 2		FLOAT	sofort	
		VSA/HSA		ROT	
840D		0.0000	0.0000	7999.0000	2/4

1519	SPEED_FILTER_2_BW_NUMERATOR		D01, EXP	CR:	
Hz	Bandwidth numerator for speed setpoint filter 2		FLOAT	sofort	
		VSA		LIN	
840D		0.0000	0.0000	7999.0000	2/4

1519	SPEED_FILTER_2_BW_NUMERATOR		D01, EXP	CR: DD2	
Hz	Bandwidth numerator for speed setpoint filter 2		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		0.000000	0.000000	7999.000000	2/4

1520	SPEED_FILTER_1_BS_FREQ		D01, EXP	CR:	
%	BSF natural frequency for speed setpoint filter 1		FLOAT	sofort	
		VSA		LIN	
840D		100.0000	1.0000	141.0000	2/4

1520	SPEED_FILTER_1_BS_FREQ		D01, EXP	CR: DD2	
%	BSF natural frequency for speed setpoint filter 1		FLOAT	sofort	
		VSA/HSA		ROT	
840D		100.0000	1.0000	141.0000	2/4

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1520	SPEED_FILTER_1_BS_FREQ		D01, EXP	CR: DD2	
%	BSF natural frequency for speed setpoint filter 1		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		100.000000	1.000000	141.000000	2/4

1521	SPEED_FILTER_2_BS_FREQ		D01, EXP	CR: DD2	
%	BSF natural frequency for speed setpoint filter 2		FLOAT	sofort	
		VSA/HSA		ROT	
840D		100.0000	1.0000	141.0000	2/4

1521	SPEED_FILTER_2_BS_FREQ		D01, EXP	CR:	
%	BSF natural frequency for speed setpoint filter 2		FLOAT	sofort	
		VSA		LIN	
840D		100.0000	1.0000	141.0000	2/4

1521	SPEED_FILTER_2_BS_FREQ		D01, EXP	CR: DD2	
%	BSF natural frequency for speed setpoint filter 2		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		100.000000	1.000000	141.000000	2/4

1522	ACT_SPEED_FILTER_TIME		D01	CR: DD2	
-	Time const. actual speed value filter		UNS. WORD	PowerOn	
		VSA/HSA		ROT/LIN	
840D		0	0	0	2/4

1522	ACT_SPEED_FILTER_TIME		D01	CR: DD2	
ms	Time const. actual speed value filter		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		0.000000	0.000000	500.000000	2/4

1523	ACT_SPEED_FILTER_TIME_RLI		D01	CR: DÜ1	
ms	Reference value accel. sensor f. 1V		FLOAT	Immediately	
		SLM VSA		-	
P2		0.000000	0.000000	500.000000	2/4

1550	ACC_SENS_REF		D01	CR: DÜ1	
-	Reference value accel. sensor f. 1V		FLOAT	Immediately	
		HSA SLM VSA		-	
P2		1000.000000	- 1000000.000000	1000000.000000	2/4

1560	ACC_MODE		D01	CR: DÜ1	
-	Acceleration evaluation mode		UNS.WORD	Immediately	
		HSA SLM VSA		-	
P2		0x0000	0x0000	0x7FFF	2/4

1561	ACC_SENS_RESOL		D01	CR: DÜ1
-	Accel. sensor resolution bits		UNS.WORD	Power On
		HSA SLM VSA		-
P2	0	0	12	2/4

1562	FACTOR_MM_DM		D01	CR: DÜ1
-	Ratio motor : DM		FLOAT	Immediately
		HSA SLM VSA		-
P2	1.000000	- 1000000.000000	1000000.000000	2/4

1563	ACC_HIGH_PASS_TIME		D01	CR: DÜ1
ms	Time const. accel. high pass		FLOAT	Immediately
		HSA SLM VSA		-
P2	1000.0	0.000000	5000.000000	2/4

1564	LOAD_SPEEDCTL_DIFF_TIME		D01	CR: DÜ1
ms	Lead time for load speed controller		FLOAT	Immediately
		HSA SLM VSA		-
P2	0.000000	-1000.000000	1000.000000	2/4

1565	LOAD_SPEEDCTL_GAIN		D01	CR: DÜ1
-	P gain of load speed controller		FLOAT	Immediately
		HSA SLM VSA		-
P2	0.000000	-256.000000	256.000000	2/4

1566	LOAD_SPEEDCTL_LIMIT		D01	CR: DÜ1
1/min	Limitation of load speed controller		FLOAT	Immediately
		HSA SLM VSA		-
P2	500.000000	0.000000	100000.000000	2/4

1567	LOAD_SPEEDCTL_DIFF_TIME2		D01	CR: DÜ1
ms	Differentiation time of load speed controller 2		FLOAT	Immediately
		HSA SLM VSA		-
P2	0.000000	-1000.000000	1000.000000	2/4

1569	ACC_FIL_DOWNSCAN		D01	CR: DÜ1
-	Sub-sampling accel. filter		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	1	1	64	2/4

1570	ACC_FILTER_TYPE		D01	CR: DÜ1
-	Type of acceleration filter		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	0x0000	0x0000	0x1B1F	2/4

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1571	ACC_FILTER_TIME1			D01	CR: DÜ1
ms	Time constant acceleration f.1			FLOAT	Immediately
			HSA SLM VSA		-
P2		1.000000	0.000000	500.000000	2/4

1572	ACC_DENOM_FILTER_FREQU1			D01, EXP	CR: DÜ1
Hz	Natural denominator freq. accel. filter 1			FLOAT	Immediately
			HSA SLM VSA		-
P2		2000.000000	2.000000	8000.000000	2/4

1573	ACC_DENOM_FILTER_DAMP1			D01, EXP	CR: DÜ1
-	Denominator attenuation, accel. filter 1"			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.500000	0.000000	10.000000	2/4

1574	ACC_NOM_FILTER_FREQU1			D01, EXP	CR: DÜ1
Hz	Natural numerator frequ. accel. filter 1			FLOAT	Immediately
			HSA SLM VSA		-
P2		2000.000000	2.000000	8000.000000	2/4

1575	ACC_NOM_FILTER_DAMP1			D01, EXP	CR: DÜ1
-	Numerator attenuation accel. filter 1			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.500000	0.000000	10.000000	2/4

1576	ACC_FILTER_TIME2			D01	CR: DÜ1
ms	Time constant accel. f.2			FLOAT	Immediately
			HSA SLM VSA		-
P2		1.000000	0.000000	500.000000	2/4

1577	ACC_DENOM_FILTER_FREQU2			D01, EXP	CR: DÜ1
Hz	Natural denominator freq., accel. filter 2			FLOAT	Immediately
			HSA SLM VSA		-
P2		2000.000000	2.000000	8000.000000	2/4

1578	ACC_DENOM_FILTER_DAMP2			D01, EXP	CR: DÜ1
-	Denominator attenuation, accel. filter 2			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.500000	0.000000	10.000000	2/4

1579	ACC_NOM_FILTER_FREQU2			D01, EXP	CR: DÜ1
Hz	Natural numerator frequ., accel. filter 2			FLOAT	Immediately
			HSA SLM VSA		-
P2		2000.000000	2.000000	8000.000000	2/4

1580	ACC_NOM_FILTER_DAMP2			D01, EXP	CR: DÜ1
-	Numerator attenuation, accel. filter 2			FLOAT	Immediately
			HSA SLM VSA		-

P2		0.500000	0.000000	10.000000	2/4
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1581	ACC_DENOM_FILTER_FREQU3			D01, EXP	CR: DÜ1
Hz	Natural denominator frequ., accel. filter 3			FLOAT	Immediately
			HSA SLM VSA		-
P2		2000.000000	2.000000	8000.000000	2/4

1582	ACC_DENOM_FILTER_DAMP3			D01, EXP	CR: DÜ1
-	Denominator attenuation, accel. filter 3			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.500000	0.000000	10.000000	2/4

1583	ACC_NOM_FILTER_FREQU3			D01, EXP	CR: DÜ1
Hz	Natural numerator frequ., accel. filter 3			FLOAT	Immediately
			HSA SLM VSA		-
P2		2000.000000	2.000000	8000.000000	2/4

1584	ACC_NOM_FILTER_DAMP3			D01, EXP	CR: DÜ1
-	Numerator attenuation, accel. filter 3			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.500000	0.000000	10.000000	2/4

1585	ACC_FILTER_TIME4			D01	CR: DS1
ms	Time constant of acc. filter 4			FLOAT	Immediately
			HSA SLM VSA		-
P2		1.000000	0.000000	500.000000	2/4

1586	ACC_DENOM_FILTER_FREQU4			D01, EXP	CR: DS1
Hz	Denominator natural frequency acc. filter 4			FLOAT	Immediately
			HSA SLM VSA		-
P2		2000.000000	2.000000	8000.000000	2/4

1587	ACC_DENOM_FILTER_DAMP4			D01, EXP	CR: DS1
-	Denominator damping acc. filter 4			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.500000	0.000000	10.000000	2/4

1588	ACC_NOM_FILTER_FREQU4			D01, EXP	CR: DS1
Hz	Numerator natural frequency acc. filter 4			FLOAT	Immediately
			HSA SLM VSA		-
P2		2000.000000	2.000000	8000.000000	2/4

1589	ACC_NOM_FILTER_DAMP4			D01, EXP	CR: DS1
-	Numerator damping acc. filter 4			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.500000	0.000000	10.000000	2/4

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1590	ACC_FILTER_TIME5			D01	CR: DS1
ms	Time constant of acc. filter 5			FLOAT	Immediately
			HSA SLM VSA		-
P2		1.000000	0.000000	500.000000	2/4

1591	ACC_DENOM_FILTER_FREQU5			D01, EXP	CR: DS1
Hz	Denominator natural frequency acc. filter 5			FLOAT	Immediately
			HSA SLM VSA		-
P2		2000.000000	2.000000	8000.000000	2/4

1592	ACC_DENOM_FILTER_DAMP5			D01, EXP	CR: DS1
-	Denominator damping acc. filter 5			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.500000	0.000000	10.000000	2/4

1593	ACC_NOM_FILTER_FREQU5			D01, EXP	CR: DS1
Hz	Numerator natural frequency acc. filter 5			FLOAT	Immediately
			HSA SLM VSA		-
P2		2000.000000	2.000000	8000.000000	2/4

1594	ACC_NOM_FILTER_DAMP5			D01, EXP	CR: DS1
-	Numerator damping acc. filter 5			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.500000	0.000000	10.000000	2/4

1600	ALARM_MASK_POWER_ON				CR: DB1
HEX	Suppressible alarms (Power-On)			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	fff	2/4

1600	ALARM_MASK_POWER_ON			D02, EXP	CR: DB1
HEX	Suppressible alarms (Power-On)			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	83be	2/4

1600	ALARM_MASK_POWER_ON			D02, EXP	CR: DB1
-	Suppressible alarms (Power-On)			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0x0000	0x0000	0x83be	2/4

1601	ALARM_MASK_RESET			D02, EXP	CR: DB1
HEX	Suppressible alarms (reset)			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	fff	2/4

1601	ALARM_MASK_RESET			D02, EXP	CR: DB1
-	Suppressible alarms (reset)			UNS.WORD	Immediately
			HSA SLM VSA		-

P2		0x0000	0x0000	0xFFFF	2/4
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1602	MOTOR_TEMP_WARN_LIMIT			D02, D05	CR: DÜ1
°C	Motor temperature alarm threshold			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		120	0	200	2/4

1602	MOTOR_TEMP_WARN_LIMIT			D02, D05	CR: DÜ1
degrees C	Motor temperature alarm threshold			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		120	0	200	2/4

1603	MOTOR_TEMP_ALARM_TIME			D02, D05	CR: DÜ1
s	Time for motor temperature alarm			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		240	0	600	2/4

1603	MOTOR_TEMP_ALARM_TIME			D02, D05	CR: DÜ1
s	Time for motor temperature alarm			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		240	0	600	2/4

1604	LINK_VOLTAGE_WARN_LIMIT			D02, EXP	CR: DÜ1
V	DC-link undervoltage alarm threshold			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		200	0	680	2/4

1604	LINK_VOLTAGE_WARN_LIMIT				CR: DÜ1
V	DC-link undervoltage alarm threshold			UNS. WORD	sofort
			VSA/HSA		-
810D		200	0	600	2/4

1604	LINK_VOLTAGE_WARN_LIMIT			D02, EXP	CR: DÜ1
V	DC-link undervoltage alarm threshold			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		200	0	680	2/4

1605	SPEEDCTRL_LIMIT_TIME			D02	CR: DÜ1
ms	Time n-controller at limit stop			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		200.0000	20.0000	10000.0000	2/4

1605	SPEEDCTRL_LIMIT_TIME			D02	CR: DÜ1
ms	Time n-controller at limit stop			FLOAT	Immediately
			HSA SLM VSA		-
P2		200.000000	20.000000	10000.000000	2/4

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1606	SPEEDCTRL_LIMIT_THRESHOLD		D02	CR: DÜ1
1/min	Threshold n-controller at limit stop		FLOAT	sofort
		VSA/HSA		ROT
840D	90000.0000	0.0000	100000.0000	2/4

1606	SPEEDCTRL_LIMIT_THRESHOLD			CR: DÜ1
1/min	Threshold n-controller at limit stop		FLOAT	sofort
		VSA/HSA		-
810D	8000.0000	0.0000	50000.0000	2/4

1606	SPEEDCTRL_LIMIT_THRESHOLD		D02	CR:
m/min	Threshold speed controller limit		FLOAT	sofort
		VSA		LIN
840D	500.0000	0.0000	100000.0000	2/4

1606	SPEEDCTRL_LIMIT_THRESHOLD		D02	CR: DÜ1
1/min	Threshold n-controller at limit stop		FLOAT	Immediately
		HSA SLM VSA		-
P2	8000.000000	0.000000	100000.000000	2/4

1607	MOTOR_TEMP_SHUTDOWN_LIMIT		D02, D05	CR: DÜ1
°C	Motor temperature shutdown limit		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D	155	0	200	2/4

1607	MOTOR_TEMP_SHUTDOWN_LIMIT		D02, D05	CR: DÜ1
degrees C	Motor temperature shutdown limit		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	155	0	200	2/4

1608	MOTOR_FIXED_TEMPERATURE		D02, D05	CR: DÜ1
°C	Fixed temperature		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	200	2/4

1608	MOTOR_FIXED_TEMPERATURE		D02, D05	CR: DÜ1
degrees C	Fixed temperature		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	0	0	200	2/4

1610	DIAGNOSIS_ACTIVATION_FLAGS		D04, EXP	CR: DD1
-	Diagnostic functions		UNS. WORD	PowerOn
		VSA/HSA		ROT/LIN
840D	0	0	3	2/4

1610	DIAGNOSIS_ACTIVATION_FLAGS		D04	CR: DD1
-	Diagnostic functions		UNS.WORD	Power On
		HSA SLM VSA		-

P2		0x0000	0x0000	0x0003	2/4
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1611	DNDT_THRESHOLD			D04, EXP	CR: DD1
%	Response threshold dn/dt			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		800	0	1600	2/4

1611	DNDT_THRESHOLD			D04	CR: DD1
%	Response threshold dn/dt			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		800	0	1600	2/4

1612	ALARM_REACTION_POWER_ON				CR: DB1
HEX	Configuring shutdown response to PO alarms			UNS. WORD	sofort
			VSA/HSA		-
810D		db2	0	fff	2/4

1612	ALARM_REACTION_POWER_ON			D02	CR: DB1
HEX	Configuring shutdown response to PO alarms			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		fbc	0	fff	2/4

1612	ALARM_REACTION_POWER_ON			D02	CR: DB1
-	Configuring shutdown response to PO alarms			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0x0fbc	0x0000	0xffff	2/4

1613	ALARM_REACTION_RESET			D02	CR: DB1
HEX	Configuring shutdown response to RESET alarms			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		100	0	fff	2/4

1613	ALARM_REACTION_RESET			D02	CR: DB1
-	Configuring shutdown response to RESET alarms			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0x0100	0x0000	0xffff	2/4

1615	SMOOTH_RUN_TOL			EXP	CR: DD1
1/min	Smooth running monitoring tolerance			FLOAT	sofort
			VSA/HSA		ROT
840D		2.0000	0.0000	100.0000	0/0

1615	SMOOTH_RUN_TOL				CR: DD1
1/min	Smooth running monitoring tolerance			FLOAT	sofort
			VSA/HSA		-
810D		2.0000	0.0000	100.0000	2/4

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1615	SMOOTH_RUN_TOL		EXP	CR:
m/min	Tolerance bandwidth for the smooth running monit.		FLOAT	sofort
		VSA		LIN
840D	0.2000	0.0000	100.0000	0/0

1615	SMOOTH_RUN_TOL		EXP	CR: DD1
1/min	Smooth running monitoring tolerance		FLOAT	Immediately
		HSA SLM VSA		-
P2	2.000000	0.000000	100.000000	0/0

1620	PROG_SIGNAL_FLAGS		D03	CR: DD1
HEX	Variable message function bits		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	7	2/4

1620	PROG_SIGNAL_FLAGS		D03	CR: DD1
-	Variable message function bits		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	0x0000	0x0000	0x000f	2/4

1621	PROG_SIGNAL_NR		D03	CR: DD1
-	Signal number, variable message function		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	100	2/4

1621	PROG_SIGNAL_NR		D03	CR: DD1
-	Signal number, variable message function		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	0	0	100	2/4

1622	PROG_SIGNAL_ADDRESS		D03	CR: DD1
-	Address, variable message function		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	65535	2/4

1622	PROG_SIGNAL_ADDRESS		D03	CR: DD1
-	Address, variable message function		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	0	0	65535	2/4

1623	PROG_SIGNAL_THRESHOLD		D03	CR: DD1
-	Threshold, variable message function		UNS. DWORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	16777215	2/4

1623	PROG_SIGNAL_THRESHOLD		D03	CR: DD1
-	Threshold, variable message function		UNS.DWORD	Immediately
		HSA SLM VSA		-

P2		0	0	16777215	2/4
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1624	PROG_SIGNAL_HYSTERESIS			D03	CR: DD1
-	Hysteresis, variable message function			UNS. DWORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	16777215	2/4

1624	PROG_SIGNAL_HYSTERESIS			D03	CR: DD1
-	Hysteresis, variable message function			UNS.DWORD	Immediately
			HSA SLM VSA		-
P2		0	0	16777215	2/4

1625	PROG_SIGNAL_ON_DELAY			D03	CR: DD1
ms	Pickup delay time, variable message function			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	10000	2/4

1625	PROG_SIGNAL_ON_DELAY			D03	CR: DD1
ms	Pickup delay time, variable message function			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	10000	2/4

1626	PROG_SIGNAL_OFF_DELAY			D03	CR: DD1
ms	Dropout delay, variable message function			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	10000	2/4

1626	PROG_SIGNAL_OFF_DELAY			D03	CR: DD1
ms	Dropout delay, variable message function			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	10000	2/4

1630	LINK_VOLTAGE_MON_THRESHOLD			EXP	CR: DÜ1
V	Response threshold, only DC link monitoring			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		550	0	680	2/4

1630	LINK_VOLTAGE_MON_THRESHOLD			EXP	CR: DÜ1
V	Response threshold, only DC link monitoring			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		550	0	680	2/4

1631	LINK_VOLTAGE_GEN_ON			EXP	CR: DE1
V	Response voltage of generator axis			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		450	280	650	2/4

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1631	LINK_VOLTAGE_GEN_ON			EXP	CR: DE1
V	Response voltage of generator axis			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		450	280	650	2/4

1632	LINK_VOLTAGE_GEN_HYST			EXP	CR: DE1
V	Voltage range for generator control			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		30	0	300	2/4

1632	LINK_VOLTAGE_GEN_HYST			EXP	CR: DE1
V	Voltage range for generator control			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		30	0	300	2/4

1633	LINK_VOLTAGE_GEN_OFF			EXP	CR: DE1
V	Shutdown threshold of generator operation			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		510	0	660	2/4

1633	LINK_VOLTAGE_GEN_OFF			EXP	CR: DE1
V	Shutdown threshold of generator operation			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		510	0	660	2/4

1634	LINK_VOLTAGE_RETRACT			EXP	CR: DE1
V	Response threshold emergency retraction			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		400	0	660	2/4

1634	LINK_VOLTAGE_RETRACT			EXP	CR: DE1
V	Response threshold emergency retraction			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		400	0	660	2/4

1635	GEN_AXIS_MIN_SPEED			EXP	CR:
m/min	Minimum speed generator axis			FLOAT	sofort
			VSA		LIN
840D		0.0000	0.0000	100000.0000	2/4

1635	GEN_AXIS_MIN_SPEED			EXP	CR: DE1
1/min	Minimum speed of the generator axis			FLOAT	sofort
			VSA/HSA		ROT
840D		0.0000	0.0000	100000.0000	2/4

1635	GEN_AXIS_MIN_SPEED			EXP	CR: DE1
1/min	Minimum speed of the generator axis			FLOAT	Immediately
			HSA SLM VSA		-

P2		0.000000	0.000000	100000.000000	2/4
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1636	RETRACT_AND_GENERATOR_MODE		EXP	CR: DE1	
-	Operating mode emergency retraction/gen. operation		UNS. WORD	sofort	
		VSA/HSA		ROT/LIN	
840D		0	0	7	2/4

1636	RETRACT_AND_GENERATOR_MODE		EXP	CR: DE1	
-	Operating mode emergency retraction/gen. operation		UNS.WORD	Immediately	
		HSA SLM VSA		-	
P2 840D		-	-	7	2/4

P2		0	0	0	2/4
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1637	GEN_STOP_DELAY		EXP	CR: DE1	
ms	Delay time for regenerative braking		UNS. WORD	sofort	
		VSA/HSA		ROT/LIN	
840D		0	0	10000	2/4

1637	GEN_STOP_DELAY		EXP	CR: DE1	
ms	Delay time for regenerative braking		UNS.WORD	Immediately	
		HSA SLM VSA		-	
P2		0	0	10000	2/4

1638	RETRACT_TIME		EXP	CR: DE1	
ms	Emergency retraction time		UNS. WORD	sofort	
		VSA/HSA		ROT/LIN	
840D		0	0	10000	2/4

1638	RETRACT_TIME		EXP	CR: DE1	
ms	Emergency retraction time		UNS.WORD	Immediately	
		HSA SLM VSA		-	
P2		0	0	10000	2/4

1639	RETRACT_SPEED		EXP	CR: DE1	
-	Emergency retraction speed		DWORD	sofort	
		VSA/HSA		ROT	
840D		0	-4194304	4194304	2/4

1639	RETRACT_SPEED		EXP	CR:	
-	Emergency retraction speed		DWORD	sofort	
		VSA		LIN	
840D		0	-4194304	4194304	2/4

1639	RETRACT_SPEED		EXP	CR: DE1	
-	Emergency retraction speed		DWORD	Immediately	
		HSA SLM VSA		-	
P2		0	-4194304	4194304	2/4

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1650	DIAGNOSIS_CONTROL_FLAGS		D04, EXP	CR: DD1, DE1
HEX	Diagnostic control		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	fff	2/4

1650	DIAGNOSIS_CONTROL_FLAGS		D04	CR: DD1, DE1
-	Diagnostic control		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	0x0000	0x0000	0xffff	2/4

1651	MINMAX_SIGNAL_NR		D04, EXP	CR: DD1
-	Signal number min./max. memory		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	100	2/4

1651	MINMAX_SIGNAL_NR		D04	CR: DD1
-	Signal number min./max. memory		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	0	0	100	2/4

1652	MINMAX_ADDRESS		D04, EXP	CR: DD1
-	Memory cell, min./max. memory		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	65535	2/4

1652	MINMAX_ADDRESS		D04	CR: DD1
-	Memory cell, min./max. memory		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	0	0	65535	2/4

1653	MINMAX_MIN_VALUE		D04, EXP	CR: DD1
-	Minimum value, min./max. memory		UNS. DWORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	16777215	2/4

1653	MINMAX_MIN_VALUE		D04	CR: DD1
-	Minimum value, min./max. memory		UNS.DWORD	Immediately
		HSA SLM VSA		-
P2	0	0	16777215	2/4

1654	MINMAX_MAX_VALUE		D04, EXP	CR: DD1
-	Maximum value, min./max. memory		UNS. DWORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	16777215	2/4

1654	MINMAX_MAX_VALUE		D04	CR: DD1
-	Maximum value, min./max. memory		UNS.DWORD	Immediately
		HSA SLM VSA		-

P2		0	0	16777215	2/4
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1655	MONITOR_SEGMENT			D04, EXP	CR: DD1
-	Segment of memory cell for monitor			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	1	2/4

1655	MONITOR_SEGMENT			D04	CR: DD1
-	Segment of memory cell for monitor			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	1	2/4

1656	MONITOR_ADDRESS			D04, EXP	CR: DD1
-	Address of memory cell for monitor			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	65535	2/4

1656	MONITOR_ADDRESS			D04	CR: DD1
-	Address of memory cell for monitor			UNS.DWORD	Immediately
			HSA SLM VSA		-
P2		0	0	0x00FFFFFF	2/4

1657	MONITOR_DISPLAY			D04, EXP	CR: DD1
-	Display monitor value			UNS. DWORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	16777215	2/4

1657	MONITOR_DISPLAY			D04	CR: DD1
-	Display monitor value			UNS.DWORD	Immediately
			HSA SLM VSA		-
P2		0	0	0x00FFFFFF	2/4

1658	MONITOR_INPUT_VALUE			D04, EXP	CR: DD1
-	Entry of monitor value			UNS. DWORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	16777215	2/4

1658	MONITOR_INPUT_VALUE			D04	CR: DD1
-	Entry of monitor value			UNS.DWORD	Immediately
			HSA SLM VSA		-
P2		0	0	16777215	2/4

1659	MONITOR_INPUT_STROBE			D04, EXP	CR: DD1
-	Transference of monitor value			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	1	2/4

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1659	MONITOR_INPUT_STROBE		D04	CR: DD1
-	Transference of monitor value		UNS.WORD	Immediately
		HSA SLM VSA		-
P2		0	0	1
				2/4

1660	UF_MODE_FREQUENCY		EXP	CR: DE1
Hz	Motor frequency V/f mode		FLOAT	sofort
		VSA/HSA		ROT/LIN
840D		0.0000	-10000.0000	10000.0000
				0/0

1660	UF_MODE_FREQUENCY		EXP	CR: DE1
Hz	Motor frequency V/f mode		FLOAT	Immediately
		HSA SLM VSA		-
P2		0.000000	-10000.000000	10000.000000
				0/0

1661	UF_MODE_RATIO		EXP	CR: DE1
Vs	V/f ratio in V/f mode		FLOAT	sofort
		VSA/HSA		ROT/LIN
840D		2.4000	0.0000	100.0000
				0/0

1661	UF_MODE_RATIO		EXP	CR: DE1
Vs	V/f ratio in V/f mode		FLOAT	Immediately
		HSA SLM VSA		-
P2		2.400000	0.000000	100.000000
				0/0

1662	UF_MODE_DELTA_FREQUENCY		EXP	CR: DE1
Hz/s	Changing the motor frequency of V/f operation		FLOAT	sofort
		VSA/HSA		ROT/LIN
840D		5.0000	0.0000	10000.0000
				0/0

1662	UF_MODE_DELTA_FREQUENCY		EXP	CR: DE1
Hz/s	Changing the motor frequency of V/f operation		FLOAT	Immediately
		HSA SLM VSA		-
P2		5.000000	0.000000	10000.000000
				0/0

1665	IPO_SPEEDCTRL_DELAY_FACTOR		EXP	CR: IAD
-	Run-time factor IPO/SC cycles f. RFG		FLOAT	sofort
		VSA/HSA		ROT/LIN
840D		2.0000	0.0000	20.0000
				0/0

1665	IPO_SPEEDCTRL_DELAY_FACTOR		EXP	CR: IAD
-	Run-time factor IPO/SC cycles f. RFG		FLOAT	Immediately
		HSA SLM VSA		-
P2		2.000000	0.000000	20.000000
				0/0

1700	TERMINAL_STATE		D04	CR: DD1
HEX	Status of binary inputs		UNS. WORD	sofort
		VSA/HSA		ROT/LIN

840D		0	0	ffff	2/4
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1700	TERMINAL_STATE				CR: DD1
HEX	Status of binary inputs			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	7fff	2/4

1700	TERMINAL_STATE			D04	CR: DD1
-	Status of binary inputs			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0x0000	0x0000	0xffff	2/4

1701	LINK_VOLTAGE				CR: DD1
V	DC link voltage			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	32767	2/4

1701	LINK_VOLTAGE			D04	CR: DD1
V	DC link voltage			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	65535	2/4

1701	LINK_VOLTAGE			D04	CR: DD1
V	DC link voltage			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	65535	2/4

1702	MOTOR_TEMPERATURE			D04	CR: DD1
°C	Motor temperature			WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	32767	2/4

1702	MOTOR_TEMPERATURE			D04	CR: DD1
degrees C	Motor temperature			WORD	Immediately
			HSA SLM VSA		-
P2		0	0	32767	2/4

1703	LEAD_TIME_MOTOR_ENC				CR: DD1
us	Leadtime for motor measuring system converter			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	32767	2/4

1703	LEAD_TIME_MOTOR_ENC			EXP	CR: DD1
us	Leadtime for motor measuring system converter			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	65535	2/4

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1703	LEAD_TIME_MOTOR_ENC			EXP	CR: DD1
us	Leadtime for motor measuring system converter			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	65535	2/4

1704	LEAD_TIME_DIRECT_ENC			EXP	CR: DD1
us	Leadtime for direct measuring system converter			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	65535	2/4

1704	LEAD_TIME_DIRECT_ENC				CR: DD1
us	Leadtime for direct measuring system converter			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	32767	2/4

1704	LEAD_TIME_DIRECT_ENC			EXP	CR: DD1
us	Leadtime for direct measuring system converter			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	65535	2/4

1705	DESIRED_VOLTAGE			D04	CR: DD1
V	Voltage setpoint (rms)			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	-100000.0000	100000.0000	2/4

1705	DESIRED_VOLTAGE			D04	CR: DD1
V	Voltage setpoint (rms)			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	-100000.000000	100000.000000	2/4

1706	DESIRED_SPEED			D04	CR: DD1
1/min	Speed setpoint			FLOAT	sofort
			VSA/HSA		ROT
840D		0.0000	-100000.0000	100000.0000	2/4

1706	DESIRED_SPEED				CR: DD1
1/min	Speed setpoint			FLOAT	sofort
			VSA/HSA		-
810D		0.0000	0.0000	32767.0000	2/4

1706	DESIRED_SPEED			D04	CR:
m/min	Speed setpoint			FLOAT	sofort
			VSA		LIN
840D		0.0000	-100000.0000	100000.0000	2/4

1706	DESIRED_SPEED			D04	CR: DD1
1/min	Speed setpoint			FLOAT	Immediately
			HSA SLM VSA		-

P2		0.000000	-100000.000000	100000.000000	2/4
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1707	ACTUAL_SPEED				CR: DD1
1/min	Actual speed value			FLOAT	sofort
	VSA/HSA				-
810D		0.0000	0.0000	32767.0000	2/4

1707	ACTUAL_SPEED			D04	CR: DD1
1/min	Actual speed value			FLOAT	sofort
	VSA/HSA				ROT
840D		0.0000	-100000.0000	100000.0000	2/4

1707	ACTUAL_SPEED			D04	CR:
m/min	Speed actual value			FLOAT	sofort
	VSA				LIN
840D		0.0000	-100000.0000	100000.0000	2/4

1707	ACTUAL_SPEED			D04	CR: DD1
1/min	Actual speed value			FLOAT	Immediately
	HSA SLM VSA				-
P2		0.000000	-100000.000000	100000.000000	2/4

1708	ACTUAL_CURRENT				CR: DD1
%	Smoothed actual current value			FLOAT	sofort
	VSA/HSA				-
810D		0.0000	0.0000	32767.0000	2/4

1708	ACTUAL_CURRENT			D04	CR: DD1
%	Smoothed actual current value			FLOAT	sofort
	VSA/HSA				ROT/LIN
840D		0.0000	-100000.0000	100000.0000	2/4

1708	ACTUAL_CURRENT			D04	CR: DD1
%	Smoothed actual current value			FLOAT	Immediately
	HSA SLM VSA				-
P2		0.000000	-100000.000000	100000.000000	2/4

1709	VOLTAGE_LSB			EXP	CR: DD1
-	Significance of voltage representation			FLOAT	sofort
	VSA/HSA				ROT/LIN
840D		0.0000	-100000.0000	100000.0000	2/4

1709	VOLTAGE_LSB				CR: DD1
-	Significance of voltage representation			FLOAT	sofort
	VSA/HSA				-
810D		0.0000	0.0000	32767.0000	2/4

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1709	VOLTAGE_LSB			EXP	CR: DD1
-	Significance of voltage representation			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	-100000.000000	100000.000000	2/4

1710	CURRENT_LSB				CR: DD1
uA	Significance of current representation			FLOAT	sofort
			VSA/HSA		-
810D		0.0000	0.0000	32767.0000	2/4

1710	CURRENT_LSB			EXP	CR: DD1
uA	Significance of current representation			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	-100000.0000	100000.0000	2/4

1710	CURRENT_LSB			EXP	CR: DD1
µA	Significance of current representation			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	-100000.000000	100000.000000	2/4

1711	SPEED_LSB			EXP	CR:
m/min	Significance of the speed representation			FLOAT	sofort
			VSA		LIN
840D		0.0000	-100000.0000	100000.0000	2/4

1711	SPEED_LSB			EXP	CR: DD1
1/min	Significance of the speed representation			FLOAT	sofort
			VSA/HSA		ROT
840D		0.0000	-100000.0000	100000.0000	2/4

1711	SPEED_LSB				CR: DD1
1/min	Significance of the speed representation			FLOAT	sofort
			VSA/HSA		-
810D		0.0000	0.0000	32767.0000	2/4

1711	SPEED_LSB			EXP	CR: DD1
1/min	Significance of the speed representation			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	-100000.000000	100000.000000	2/4

1712	ROTOR_FLUX_LSB			EXP	CR: DD1
uVs	Significance of the rotor flux representation			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	-100000.0000	100000.0000	2/4

1712	ROTOR_FLUX_LSB				CR: DD1
uVs	Significance of the rotor flux representation			FLOAT	sofort
			VSA/HSA		-

810D		0.0000	0.0000	32767.0000	2/4
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1712	ROTOR_FLUX_LSB			EXP	CR: DD1
µVs	Significance of the rotor flux representation			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	-100000.000000	100000.000000	2/4

1713	FORCE_LSB			EXP	CR:
µN	Significance of the force representation			FLOAT	sofort
			VSA		LIN
840D		0.0000	-1000000.0000	1000000.0000	2/4

1713	TORQUE_LSB			EXP	CR: DD1
uNm	Significance of the torque representation			FLOAT	sofort
			VSA/HSA		ROT
840D		0.0000	-100000.0000	100000.0000	2/4

1713	TORQUE_LSB				CR: DD1
uNm	Significance of the torque representation			FLOAT	sofort
			VSA/HSA		-
810D		0.0000	0.0000	32767.0000	2/4

1713	TORQUE_LSB			EXP	CR: DD1
µNm	Significance of the torque representation			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	-100000.000000	100000.000000	2/4

1714	ROTOR_POS_LSB			EXP	CR: DD1
Grad	Significance of rotor position representation			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	-100000.0000	100000.0000	2/4

1714	ROTOR_POS_LSB				CR: DD1
∅	Significance of rotor position representation			FLOAT	sofort
			VSA/HSA		-
810D		0.0000	0.0000	32767.0000	2/4

1714	ROTOR_POS_LSB			EXP	CR: DD1
degrees	Significance of rotor position representation			FLOAT	Immediately
			HSA SLM VSA		-
P2		0.000000	-100000.000000	100000.000000	2/4

1719	ABS_ACTUAL_CURRENT			D04	CR: DD1
A	Absolute current setpoint value (rms)			FLOAT	sofort
			VSA/HSA		ROT/LIN
840D		0.0000	-100000.0000	100000.0000	2/4

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1719	ABS_ACTUAL_CURRENT		D04	CR: DD1
A	Absolute current setpoint value (rms)		FLOAT	Immediately
		HSA SLM VSA		-
P2	0.000000	-100000.000000	100000.000000	2/4

1720	CRC_DIAGNOSIS			CR: DD1
-	CRC diagnostic parameter		UNS. WORD	sofort
		VSA/HSA		-
810D	0	0	32767	2/4

1720	CRC_DIAGNOSIS		D04, EXP	CR: DD1
-	CRC diagnostic parameter		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	65535	2/4

1720	CRC_DIAGNOSIS		D04	CR: DD1
-	CRC diagnostic parameter		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	0	0	65535	2/4

1721	ACCEL_DIAGNOSIS			CR: DD1
-	Diagnostics, actual speed value		UNS. WORD	sofort
		VSA/HSA		-
810D	0	0	32767	2/4

1721	ACCEL_DIAGNOSIS		D04, EXP	CR: DD1
-	Diagnostics, actual speed value		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	65535	2/4

1721	ACCEL_DIAGNOSIS		D04	CR: DD1
-	Diagnostics, actual speed value		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	0	0	65535	2/4

1722	LOAD		D04	CR: DD1
%	Utilization		FLOAT	sofort
		VSA/HSA		ROT/LIN
840D	0.0000	-100000.0000	100000.0000	2/4

1722	LOAD			CR: DD1
%	Utilization		FLOAT	sofort
		VSA/HSA		-
810D	0.0000	0.0000	32767.0000	2/4

1722	LOAD		D04	CR: DD1
%	Utilization		FLOAT	Immediately
		HSA SLM VSA		-

P2		0.000000	-100000.000000	100000.000000	2/4
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1723	ACTUAL_RAMP_TIME			EXP	CR: DD1
ms	Diagnostics, ramp-up time			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	65535	2/4

1723	ACTUAL_RAMP_TIME				CR: DD1
ms	Diagnostics, ramp-up time			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	32767	2/4

1723	ACTUAL_RAMP_TIME			EXP	CR: DD1
ms	Diagnostics, ramp-up time			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	65535	2/4

1724	SMOOTH_RUN_DIAGNOSIS			EXP	CR: DD1
-	Diagnostics, smooth running monitoring			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	65535	2/4

1724	SMOOTH_RUN_DIAGNOSIS				CR: DD1
-	Diagnostics, smooth running monitoring			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	32767	2/4

1724	SMOOTH_RUN_DIAGNOSIS			EXP	CR: DD1
-	Diagnostics, smooth running monitoring			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	65535	2/4

1725	MAX_FORCE_FROM_NC			EXP	CR:
N	Rating force setpoint interface			FLOAT	sofort
			VSA		LIN
840D		0.0000	-1000000.0000	1000000.0000	2/4

1725	MAX_TORQUE_FROM_NC			EXP	CR: DD1
Nm	Standardising the torque setpoint average			FLOAT	sofort
			VSA/HSA		ROT
840D		0.0000	-100000.0000	100000.0000	2/4

1725	MAX_TORQUE_FROM_NC				CR: DD1
Nm	Standardising the torque setpoint average			FLOAT	sofort
			VSA/HSA		-
810D		0.0000	0.0000	32767.0000	2/4

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1725	MAX_TORQUE_FROM_NC		EXP	CR: DD1
Nm	Standardising the torque setpoint average		FLOAT	Immediately
		HSA SLM VSA		-
P2	0.000000	-100000.000000	100000.000000	2/4

1728	DESIRED_TORQUE		D04	CR: F1
%	Torque setpoint		FLOAT	sofort
		VSA/HSA		ROT/LIN
840D	0.0000	-100000.0000	100000.0000	2/4

1728	DESIRED_TORQUE		D04	CR: F1
%	Torque setpoint		FLOAT	Immediately
		HSA SLM VSA		-
P2	0.000000	-100000.000000	100000.000000	2/4

1729	ACTUAL_ELECTRIC_ROTORPOS		D04	CR: FBU, POS3
Grad	Current rotor position (electr.)		FLOAT	sofort
		VSA/HSA		ROT/LIN
840D	0.0000	-100000.0000	100000.0000	2/4

1729	ACTUAL_ELECTRIC_ROTORPOS		D04	CR: FBU, POS3
degrees	Current rotor position (electr.)		FLOAT	Immediately
		HSA SLM VSA		-
P2	0.000000	-100000.000000	100000.000000	2/4

1730	OPERATING_MODE		D04	CR: DD1
-	Operating mode display		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D	1	1	65535	2/4

1730	OPERATING_MODE			CR: DD1
-	Operating mode display		UNS. WORD	sofort
		VSA/HSA		-
810D	0	0	32767	2/4

1730	OPERATING_MODE		D04	CR: DD1
-	Operating mode display		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	1	1	65535	2/4

1731	CL1_PO_IMAGE		D04, EXP	CR: DB1
-	Image ZK1_PO register		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	65535	2/4

1731	CL1_PO_IMAGE			CR: DB1
-	Image ZK1_PO register		UNS. WORD	sofort
		VSA/HSA		-

810D		0	0	32767	2/4
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1731	CL1_PO_IMAGE			D04	CR: DB1
-	Image ZK1_PO register			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	65535	2/4

1732	CL1_RES_IMAGE			D04, EXP	CR: DB1
-	Image ZK1_RES register			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	65535	2/4

1732	CL1_RES_IMAGE				CR: DB1
-	Image ZK1_RES register			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	32767	2/4

1732	CL1_RES_IMAGE			D04	CR: DB1
-	Image ZK1_RES register			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	65535	2/4

1733	LPFC_DIAGNOSIS			EXP	CR: DD1
-	NPFK diagnosis counter			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	65535	2/4

1733	LPFC_DIAGNOSIS				CR: DD1
-	NPFK diagnosis counter			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	32767	2/4

1733	LPFC_DIAGNOSIS			EXP	CR: DD1
-	NPFK diagnosis counter			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	65535	2/4

1734	DIAG_ROTORPOS_IDENT			-	CR: DM1
-	Rotor position identification diagnosis			WORD	sofort
			VSA		ROT/LIN
840D		0	-7	3	2/4

1734	DIAG_ROTORPOS_IDENT			-	CR: DM1
-	Rotor position identification diagnosis			WORD	Immediately
			SLM VSA		-
P2		0	-1018	6	2/4

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1735	PROCESSOR_LOAD		-	CR: DD1
%	Processor load		UNS. WORD	sofort
		VSA/HSA		ROT/LIN
840D	0	0	65535	2/4

1735	PROCESSOR_LOAD		-	CR: DD1
%	Processor load		UNS.WORD	Immediately
		HSA SLM VSA		-
P2	0	0	65535	2/4

1736	TEST_ROTORPOS_IDENT		D04	CR: DM1
-	Rotor position identification		UNS. WORD	sofort
		VSA		ROT/LIN
840D	0	0	1	2/4

1736	TEST_ROTORPOS_IDENT		D04	CR: DM1
-	Rotor position identification		UNS.WORD	Immediately
		VSA SLM		-
P2	0	0	3	2/4

1737	DIFF_ROTORPOS_IDENT		-	CR: DM1
Grad	Rotor position identification difference		FLOAT	sofort
		VSA		ROT/LIN
840D	0.0000	-100000.0000	100000.0000	2/4

1737	DIFF_ROTORPOS_IDENT		-	CR: DM1
degrees	Rotor position identification difference		FLOAT	Immediately
		VSA SLM		-
P2	0.000000	-100000.000000	100000.000000	2/4

1790	ENC_TYPE_MOTOR		D04, D06	CR: DG1
-	Measuring circuit type, indirect measuring system		WORD	sofort
		VSA/HSA		ROT/LIN
840D	0	-1	32767	2/4

1790	ENC_TYPE_MOTOR			CR: DG1
-	Measuring circuit type, indirect measuring system		WORD	sofort
		VSA/HSA		-
810D	0	0	32767	2/4

1790	ENC_TYPE_MOTOR		D04	CR: DG1
-	Measuring circuit type, indirect measuring system		WORD	Immediately
		HSA SLM VSA		-
P2	0	-1	32767	2/4

1791	ENC_TYPE_DIRECT			CR: DG1
-	Measuring circuit type, direct measuring system		WORD	sofort
		VSA/HSA		-

810D		0	0	32767	2/4
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1791	ENC_TYPE_DIRECT			D04, D06	CR: DG1
-	Measuring circuit type, direct measuring system			WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	-1	32767	2/4

1791	ENC_TYPE_DIRECT			D04	CR: DG1
-	Measuring circuit type, direct measuring system			WORD	Immediately
			HSA SLM VSA		-
P2		0	-1	32767	2/4

1796	HW_VERSION			EXP	CR: FBA
-	Hardware version			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	65535	2/4

1796	HW_VERSION			D04	CR: FBA
-	HW_VERSION			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	65535	2/4

1797	PBL_VERSION				CR: DD1
-	Data version			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	32767	2/4

1797	PBL_VERSION			EXP	CR: DD1
-	Data version			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	65535	2/4

1797	PBL_VERSION			EXP	CR: DD1
-	Data version			UNS.WORD	Immediately
			HSA SLM VSA		-
P2		0	0	65535	2/4

1798	FIRMWARE_DATE			D04, EXP	CR: DD1
-	Firmware date			UNS. WORD	sofort
			VSA/HSA		ROT/LIN
840D		0	0	65535	2/4

1798	FIRMWARE_DATE				CR: DD1
-	Firmware date			UNS. WORD	sofort
			VSA/HSA		-
810D		0	0	32767	2/4

Drive Machine data

1798	FIRMWARE_DATE		D04	CR: DD1
-	Firmware date		UNS.WORD	Immediately
		HSA SLM VSA		-
P2		0	0	65535 2/4

1799	FIRMWARE_VERSION			CR: DD1
-	Firmware release		UNS. DWORD	sofort
		VSA/HSA		-
810D		0	0	32767 2/4

1799	FIRMWARE_VERSION		D04	CR: DD1
-	Firmware release		UNS. DWORD	sofort
		VSA/HSA		ROT/LIN
840D		0	0	2147483647 2/4

1799	FIRMWARE_VERSION		D04	CR: DD1
-	Firmware release		UNS.DWORD	Immediately
		HSA SLM VSA		-
P2		0	0	4294967295 2/4

2005	ENC_RESOL_MOTOR_M2		D06	CR:
-	Motor measuring system encoder increments		UNS. WORD	PowerOn
		HSA		ROT
840D		2048	1	65535 2/4

2098	INVERTER_MAX_CURR_DERAT_M2		D05	CR: DE1, DM1
A	PS derating limit current		FLOAT	sofort
		HSA		ROT
840D		200.0000	0.0000	500.0000 2/4

2099	INVERTER_DERATING_FACT_M2		D05	CR: DE1, DM1
%	PS limit current derating		FLOAT	sofort
		HSA		ROT
840D		0.0000	0.0000	100.0000 2/4

2100	PWM_FREQUENCY_M2		D01, D05, EXP	CR:
Hz	Pulse-width modulation frequency		FLOAT	PowerOn
		HSA		ROT
840D		3200.0000	2000.0000	8000.0000 2/4

2102	MOTOR_CODE_M2		D04, D05	CR:
-	Motor code number		UNS. WORD	PowerOn
		HSA		ROT
840D		0	0	65535 2/4

2103	MOTOR_NOMINAL_CURRENT_M2		D05	CR:
A	Motor rated current		FLOAT	PowerOn
		HSA		ROT

840D		0.0000	0.0000	500.0000	2/4
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2117	MOTOR_INERTIA_M2			D05	CR:
kgm2	Motor moment of inertia			FLOAT	sofort
			HSA		ROT
840D		0.0010	0.0000	32.0000	2/4

2119	SERIES_INDUCTANCE_M2			D05	CR:
mH	Inductance of the series reactor			FLOAT	PowerOn
			HSA		ROT
840D		0.0000	0.0000	65.0000	2/4

2120	CURRCTRL_GAIN_M2			D01, EXP	CR:
V/A	Current controller P gain			FLOAT	sofort
			HSA		ROT
840D		10.0000	0.0000	10000.0000	2/4

2121	CURRCTRL_INTEGRATOR_TIME_M2			D01, EXP	CR:
us	Current controller integral action time			FLOAT	sofort
			HSA		ROT
840D		2000.0000	0.0000	8000.0000	2/4

2125	UF_MODE_RAMP_TIME_1_M2			D04, EXP	CR:
s	Ramp-up time 1 in V/f operation			FLOAT	sofort
			HSA		ROT
840D		5.0000	0.0100	100.0000	2/4

2126	UF_MODE_RAMP_TIME_2_M2			D04, EXP	CR:
s	Ramp-up time 2 in V/f operation			FLOAT	sofort
			HSA		ROT
840D		5.0000	0.0100	100.0000	2/4

2127	UF_VOLTAGE_AT_F0_M2			D04, D05, EXP	CR:
V	Voltage at f=0 in V/f operation			FLOAT	sofort
			HSA		ROT
840D		2.0000	0.0000	20.0000	2/4

2129	POWER_FACTOR_COS_PHI_M2			D05	CR:
-	Cos phi power factor			FLOAT	PowerOn
			HSA		ROT
840D		0.8000	0.0000	1.0000	2/4

2130	MOTOR_NOMINAL_POWER_M2			D05	CR:
kW	Rated motor output			FLOAT	PowerOn
			HSA		ROT
840D		0.0000	0.0000	1500.0000	2/4

Drive Machine data

2132	MOTOR_NOMINAL_VOLTAGE_M2		D05	CR:
V	Rated motor voltage		FLOAT	PowerOn
		HSA		ROT
840D	380.0000	0.0000	5000.0000	2/4

2134	MOTOR_NOMINAL_FREQUENCY_M2		D05	CR:
Hz	Rated motor frequency		FLOAT	PowerOn
		HSA		ROT
840D	50.0000	0.0000	3000.0000	2/4

2135	MOTOR_NOLOAD_VOLTAGE_M2		D05	CR:
V	Motor no-load voltage		FLOAT	sofort
		HSA		ROT
840D	0.0000	0.0000	500.0000	2/4

2136	MOTOR_NOLOAD_CURRENT_M2		D05	CR:
A	Motor no-load current		FLOAT	sofort
		HSA		ROT
840D	0.0000	0.0000	500.0000	2/4

2137	STATOR_COLD_RESISTANCE_M2		D05	CR:
Ohm	Cold stator resistance		FLOAT	sofort
		HSA		ROT
840D	0.0000	0.0000	120.0000	2/4

2138	ROTOR_COLD_RESISTANCE_M2		D05	CR:
Ohm	Cold rotor resistance		FLOAT	sofort
		HSA		ROT
840D	0.0000	0.0000	120.0000	2/4

2139	STATOR_LEAKAGE_REACTANCE_M2		D05	CR:
Ohm	Stator leakage reactance		FLOAT	sofort
		HSA		ROT
840D	0.0000	0.0000	100.0000	2/4

2140	ROTOR_LEAKAGE_REACTANCE_M2		D05	CR:
Ohm	Rotor leakage reactance		FLOAT	sofort
		HSA		ROT
840D	0.0000	0.0000	100.0000	2/4

2141	MAGNETIZING_REACTANCE_M2		D05	CR:
Ohm	Magnetizing reactance		FLOAT	sofort
		HSA		ROT
840D	0.0000	0.0000	1000.0000	2/4

2142	FIELD_WEAKENING_SPEED_M2		D05	CR:
1/min	Threshold speed for field weakening		FLOAT	sofort
		HSA		ROT

840D		0.0000	0.0000	100000.0000	2/4
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2143	LH_CURVE_UPPER_SPEED_M2			-	CR:
1/min	Upper speed for the L_h characteristic			FLOAT	PowerOn
			HSA		ROT
840D		0.0000	0.0000	100000.0000	2/4

2144	LH_CURVE_GAIN_M2			-	CR:
%	Gain factor of the L_h characteristic			FLOAT	PowerOn
			HSA		ROT
840D		100.0000	100.0000	500.0000	2/4

2145	STALL_TORQUE_REDUCTION_M2			D05	CR:
%	Stall torque reduction factor			FLOAT	sofort
			HSA		ROT
840D		100.0000	5.0000	1000.0000	2/4

2146	MOTOR_MAX_ALLOWED_SPEED_M2			D05	CR:
1/min	Maximum motor speed			FLOAT	PowerOn
			HSA		ROT
840D		1500.0000	0.0000	100000.0000	2/4

2147	SPEED_LIMIT_M2			D02, D05	CR:
1/min	Motor speed limit			FLOAT	sofort
			HSA		ROT
840D		8000.0000	0.0000	100000.0000	2/4

2148	ACTUAL_STALL_POWER_SPEED_M2			D04	CR:
1/min	Threshold speed of pull-out power			FLOAT	sofort
			HSA		ROT
840D		0.0000	-100000.0000	100000.0000	2/4

2150	FIELDCTRL_GAIN_M2			D01, EXP	CR:
A/(Vs)	Flux controller P-gain			FLOAT	sofort
			HSA		ROT
840D		400.0000	0.0000	100000.0000	2/4

2151	FIELDCTRL_INTEGRATOR_TIME_M2			D01, EXP	CR:
ms	Flux controller integral-action time			FLOAT	sofort
			HSA		ROT
840D		10.0000	0.0000	500.0000	2/4

2160	FLUX_ACQUISITION_SPEED_M2			D01, EXP	CR:
1/min	Threshold speed for flux sensing			FLOAT	sofort
			HSA		ROT
840D		1500.0000	200.0000	100000.0000	2/4

Drive Machine data

2185	STARTUP_FACT_CURRCTRL_M2			-	CR:
%	Startup factor P-IREG (M2)			FLOAT	sofort
			HSA		ROT
840D		100.0000	0.0000	10000.0000	2/4

2190	TORQUE_LIMIT_FROM_NC_M2			D02, EXP	CR:
Nm	Evaluation of torque limit			FLOAT	sofort
			HSA		ROT
840D		100.0000	0.0000	10000.0000	2/4

2192	TORQUE_LIMIT_WEIGHT_M2			D02, EXP	CR:
%	Weight torque			FLOAT	sofort
			HSA		ROT
840D		0.0000	-100.0000	100.0000	2/4

2230	TORQUE_LIMIT_1_M2			D02, EXP	CR:
%	1st torque limit			FLOAT	sofort
			HSA		ROT
840D		100.0000	5.0000	900.0000	2/4

2231	TORQUE_LIMIT_2_M2			D02, EXP	CR:
%	2nd torque limit			FLOAT	sofort
			HSA		ROT
840D		100.0000	5.0000	100.0000	2/4

2232	TORQUE_LIMIT_SWITCH_SPEED_M2			D02, EXP	CR:
1/min	Changeover speed from MD 1230 to MD 1231			FLOAT	sofort
			HSA		ROT
840D		6000.0000	0.0000	100000.0000	2/4

2233	TORQUE_LIMIT_GENERATOR_M2			D02, EXP	CR:
%	Regenerative limiting			FLOAT	sofort
			HSA		ROT
840D		100.0000	5.0000	100.0000	2/4

2234	TORQUE_LIMIT_SWITCH_HYST_M2			D02, EXP	CR:
1/min	Hysteresis MD 1232			FLOAT	sofort
			HSA		ROT
840D		50.0000	0.0000	1000.0000	2/4

2235	POWER_LIMIT_1_M2			D02, EXP	CR:
%	1st power limit			FLOAT	sofort
			HSA		ROT
840D		100.0000	5.0000	900.0000	2/4

2236	POWER_LIMIT_2_M2			D02, EXP	CR:
%	2nd power limit			FLOAT	sofort
			HSA		ROT

840D		100.0000	5.0000	100.0000	2/4
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2238	CURRENT_LIMIT_M2			D02	CR:
%	Motor current limit			FLOAT	sofort
			HSA		ROT
840D		150.0000	0.0000	400.0000	2/4

2239	TORQUE_LIMIT_FOR_SETUP_M2			D02	CR:
%	Torque limit in setting-up operation			FLOAT	sofort
			HSA		ROT
840D		1.0000	0.5000	100.0000	2/4

2245	CURRENT_SMOOTH_SPEED_M2			EXP	CR:
1/min	Threshold speed dep. on M setpoint smoothing			FLOAT	sofort
			HSA		ROT
840D		0.0000	0.0000	100000.0000	2/4

2246	CURRENT_SMOOTH_HYSTERESIS_M2			EXP	CR:
1/min	Hysteresis speed dep. M setpoint smoothing			FLOAT	sofort
			HSA		ROT
840D		50.0000	0.0000	1000.0000	2/4

2400	MOTOR_RATED_SPEED_M2			D05	CR:
1/min	Rated motor speed			FLOAT	PowerOn
			HSA		ROT
840D		1450.0000	0.0000	100000.0000	2/4

2401	MOTOR_MAX_SPEED_M2			D02, D05	CR:
1/min	Maximum usable motor speed			FLOAT	PowerOn
			HSA		ROT
840D		0.0000	0.0000	100000.0000	2/4

2403	PULSE_SUPPRESSION_SPEED_M2			D02	CR:
1/min	Shut down speed pulse suppression			FLOAT	sofort
			HSA		ROT
840D		2.0000	0.0000	7200.0000	2/4

2405	MOTOR_SPEED_LIMIT_M2			D02, D05	CR:
%	Monitoring motor speed			FLOAT	sofort
			HSA		ROT
840D		110.0000	100.0000	110.0000	2/4

2407	SPEEDCTRL_GAIN_1_M2			D01, D08	CR:
Nms/rad	P gain of speed controller			FLOAT	sofort
			HSA		ROT
840D		0.3000	0.0000	1000000.0000	2/4

Drive Machine data

2408	SPEEDCTRL_GAIN_2_M2		D01, EXP	CR:
Nms/rad	P gain of upper adaptation speed		FLOAT	sofort
		HSA		ROT
840D	0.3000	0.0000	1000000.0000	2/4

2409	SPEEDCTRL_INTEGRATOR_TIME_1_M2		D01, D08	CR:
ms	Integral action time of speed controller		FLOAT	sofort
		HSA		ROT
840D	10.0000	0.0000	500.0000	2/4

2410	SPEEDCTRL_INTEGRATOR_TIME_2_M2		D01, EXP	CR:
ms	Integral action time of upper adaptation speed		FLOAT	sofort
		HSA		ROT
840D	10.0000	0.0000	500.0000	2/4

2411	SPEEDCTRL_ADAPT_SPEED_1_M2		D01, EXP	CR:
1/min	Lower adaptation speed		FLOAT	sofort
		HSA		ROT
840D	0.0000	0.0000	100000.0000	2/4

2412	SPEEDCTRL_ADAPT_SPEED_2_M2		D01, EXP	CR:
1/min	Upper adaptation speed		FLOAT	sofort
		HSA		ROT
840D	0.0000	0.0000	100000.0000	2/4

2413	SPEEDCTRL_ADAPT_ENABLE_M2		D01, EXP	CR:
-	Select adaptation speed controller		UNS. WORD	sofort
		HSA		ROT
840D	0	0	1	2/4

2417	SPEED_THRESHOLD_X_M2		D03	CR:
1/min	Signal n_x for 'n_act < n_x'		FLOAT	sofort
		HSA		ROT
840D	6000.0000	0.0000	100000.0000	2/4

2418	SPEED_THRESHOLD_MIN_M2		D03	CR:
1/min	Signal n_min for 'n_act < n_min'		FLOAT	sofort
		HSA		ROT
840D	5.0000	0.0000	100000.0000	2/4

2426	SPEED_DES_EQ_ACT_TOL_M2		D03	CR:
1/min	Tolerance bandwidth for 'n_act = n_set' signal		FLOAT	sofort
		HSA		ROT
840D	20.0000	0.0000	10000.0000	2/4

2451	SPEEDCTRL_GAIN_1_AM_M2		D01	CR:
Nms/rad	P gain of speed control loop IM		FLOAT	sofort
		HSA		ROT

840D		0.3000	0.0000	100000.0000	2/4
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2453	SPDCTRL_INTEGR_TIME_1_AM_M2			D01	CR:
ms	Integral action time of speed control loop IM			FLOAT	sofort
			HSA		ROT
840D		140.0000	0.0000	6000.0000	2/4

2458	DES_CURRENT_OPEN_LOOP_AM_M2			D01	CR:
%	Current setpoint controlled range IM			FLOAT	sofort
			HSA		ROT
840D		90.0000	0.0000	150.0000	2/4

2459	TORQUE_SMOOTH_TIME_AM_M2			D01	CR:
ms	Torque smoothing time constant IM			FLOAT	sofort
			HSA		ROT
840D		4.0000	0.0000	100.0000	2/4

2465	SWITCH_SPEED_MSD_AM_M2			D01, D06	CR:
1/min	Changeover speed MSD/IM			FLOAT	sofort
			HSA		ROT
840D		100000.0000	0.0000	100000.0000	2/4

2466	SWITCH_SPD_OPEN_LOOP_AM_M2			D01	CR:
1/min	Changeover speed closed/open loop IM			FLOAT	sofort
			HSA		ROT
840D		300.0000	150.0000	100000.0000	2/4

2602	MOTOR_TEMP_WARN_LIMIT_M2			D02, D05	CR:
°C	Motor temperature alarm threshold			UNS. WORD	sofort
			HSA		ROT
840D		120	0	200	2/4

2607	MOTOR_TEMP_SHUTDOWN_LIMIT_M2			D02, D05	CR:
°C	Motor temperature shutdown limit			UNS. WORD	sofort
			HSA		ROT
840D		155	0	200	2/4

2608	MOTOR_FIXED_TEMPERATURE_M2			D02, D05	CR:
°C	Fixed temperature			UNS. WORD	sofort
			HSA		ROT
840D		0	0	200	2/4

2711	SPEED_LSB_M2			EXP	CR:
1/min	Significance of the speed representation			FLOAT	sofort
			HSA		ROT
840D		0.0000	-100000.0000	100000.0000	2/4

Drive Machine data

2712	ROTOR_FLUX_LSB_M2			EXP	CR:
uVs	Significance of the rotor flux representation			FLOAT	sofort
			HSA		ROT
840D		0.0000	-100000.0000	100000.0000	2/4

2713	TORQUE_LSB_M2			EXP	CR:
uNm	Significance of the torque representation			FLOAT	sofort
			HSA		ROT
840D		0.0000	-100000.0000	100000.0000	2/4

2714	ROTOR_POS_LSB_M2			EXP	CR:
Grad	Significance of rotor position representation			FLOAT	sofort
			HSA		ROT
840D		0.0000	-100000.0000	100000.0000	2/4

2725	MAX_TORQUE_FROM_NC_M2			EXP	CR:
Nm	Standardising the torque setpoint average			FLOAT	sofort
			HSA		ROT
840D		0.0000	-100000.0000	100000.0000	2/4

3.2 Machine data of the hydraulic module

MD-Nummer	Bezeichner			Anzeige-Filter	Verweis
Einheit	Name			Datentyp	Wirksamkeit
			Art		Rot/Lin
System	Standardwert	Minimalwert	Maximalwert	Schutz	

5001	SPEEDCTRL_CYCLE_TIME			D01, EXP	QV: FBHLA
31,25 us	Velocity controller clockrate			UNS. WORD	PowerOn
	4	2	16	3/3	

5002	MONITOR_CYCLE_TIME			EXP	QV: FBHLA
31,25 us	Monitoring cycle			UNS. WORD	PowerOn
	3200	128	3200	3/3	

5003	STS_CONFIG			EXP	QV: FBHLA
HEX	STS configuration			UNS. WORD	PowerOn
	330	0	7F0	3/3	

5004	CTRL_CONFIG			D01	QV: FBHLA
HEX	Configuration structure			UNS. WORD	PowerOn
	1000	0	1000	3/3	

5005	ENC_RESOL_MOTOR			EXP	QV: FBHLA
-	Increments of rotary measuring system			UNS. WORD	PowerOn
	2048	128	65535	3/3	

5008	ENC_PHASE_ERROR_CORRECTION			EXP, D06	QV: FBHLA
degrees	Encoder phase error compensation			FLOAT	immediately
	0.0	-20.0	20.0	3/3	

5011	ACTUAL_VALUE_CONFIG			D06	QV: FBHLA
HEX	Configuration of actual value acquisition			UNS. WORD	PowerOn
	0	0	65535	3/3	

5012	FUNC_SWITCH			D01, D02, D03	QV: FBHLA
HEX	Function switch			UNS. WORD	immediately
	4	0	65535	3/3	

Machine data of the hydraulic module

5021	ENC_ABS_TURN_MOTOR	D06	QV: FBHLA
-	Multiturn resol. motor absolute encoder	UNS. WORD	PowerOn
	0	0	FFFF 3/3

5022	ENC_ABS_RESOL_MOTOR	D06	QV: FBHLA
-	Measuring steps of motor absolute track	UNS. DWORD	PowerOn
	8192	0	7FFFFFF 3/3

5023	ENC_ABS_DIAGNOSIS_MOTOR	D06	QV: FBHLA
HEX	Diagnosis of measuring circuit motor absolute track	UNS. WORD	immediately
	0	0	BFFF 3/3

5024	DIVISION_LIN_SCALE	D06	QV: FBHLA
nm	Linear scale graduations	UNS. DWORD	PowerOn
	20000	1000	5000000 3/3

5025	SERIAL_NO_ENCODER	D06, EXP	QV: FBHLA
-	Serial no. of motor measuring system	UNS. DWORD	PowerOn
	0	0	ffffff 3/3

5027	ENC_CONFIG	D06	QV: FBHLA
HEX	Configuration of encoder IM	UNS. WORD	PowerOn
	0	0	fff 3/3

5028	NO_TRANSMISSION_BITS	D06	QV: FBHLA
-	IM message frame length SSI	UNS. WORD	PowerOn
	25	0	25 3/3

5040	PISTON_ZERO	EXP, D04	QV: FBHLA
mm	Piston zero in relation to machine zero	FLOAT	immediately
	0.0	-1000000.0	1000000.0 3/3

5041	MACHINE_ZERO_HIGH	EXP	QV: FBHLA
-	Machine zero in relation to actual position zero	DWORD	immediately
	0	-2147483647	7FFFFFFF 3/3

5042	MACHINE_ZERO_LOW	EXP	QV: FBHLA
-	Machine zero in relation to actual position zero	UNS. DWORD	immediately

		0	0	FFFFFFF	3/3
5046	NO_MAX_TESTS			D06	QV: FBHLA
-	Maximum number of SSI tests			UNS. DWORD	immediately
		33	0	10000	3/3
5047	VARIANZ_BORDER			D06	QV: FBHLA
-	Variance limit			UNS. DWORD	immediately
		40	0	10000	3/3
5100	FLUID_ELASTIC_MODULUS			D01	QV: FBHLA
bar	Modulus of elasticity for hydraulic oil			FLOAT	immediately
		11000	1000	21000	3/3
5101	WORKING_PRESSURE			D01	QV: FBHLA
bar	System pressure			FLOAT	PowerOn
		0.0	0.0	700.0	3/3
5102	PILOT_OPERATION_PRESSURE			D01	QV: FBHLA
bar	Pilot pressure			FLOAT	immediately
		0.0	0.0	350.0	3/3
5106	VALVE_CODE			D05, D04	QV: FBHLA
-	Valve code number			UNS. WORD	immediately
		0	0	2000	3/3
5107	VALVE_NOMINAL_FLOW			D05	QV: FBHLA
l/min	Valve rated flow			FLOAT	immediately
		0.0	0.0	1000	3/3
5108	VALVE_NOMINAL_PRESSURE			D05	QV: FBHLA
bar	Valve rated pressure drop			FLOAT	immediately
		35.0	1.0	200.0	3/3
5109	VALVE_NOMINAL_VOLTAGE			D05	QV: FBHLA
V	Valve rated voltage			FLOAT	immediately
		10.0	0.5	15.0	3/3

Machine data of the hydraulic module

5110	VALVE_DUAL_GAIN_FLOW			D05	QV: FBHLA
%	Valve flow knee point			FLOAT	immediately
		10.0	0.2	95.0	3/3

5111	VALVE_DUAL_GAIN_VOLTAGE			D05	QV: FBHLA
%	Valve voltage knee point			FLOAT	immediately
		10.0	0.2	95.0	3/3

5112	VALVE_FLOW_FACTOR_A_B			D05	QV: FBHLA
-	Valve flow ratio A/B			FLOAT	immediately
		1.0	0.5	2.0	3/3

5113	VALVE_CONFIGURATION			D05	QV: FBHLA
HEX	Valve configuration			UNS. WORD	immediately
		0	0	13	3/3

5114	VALVE_NATURAL_FREQUENCY			D01, D05	QV: FBHLA
Hz	Valve natural frequency			FLOAT	immediately
		150.0	1.0	1000.0	3/3

5115	VALVE_DAMPING			D01, D05	QV: FBHLA
-	Valve damping			FLOAT	immediately
		0.8	0.4	1.0	3/3

5131	CYLINDER_PISTON_DIAMETER			D05	QV: FBHLA
mm	Cylinder piston diameter			FLOAT	PowerOn
		0.0	0.0	2500.0	3/3

5132	PISTON_ROD_A_DIAMETER			D05	QV: FBHLA
mm	Cylinder piston rod diameter A			FLOAT	PowerOn
		0.0	0.0	2400.0	3/3

5133	PISTON_ROD_B_DIAMETER			D05	QV: FBHLA
mm	Cylinder piston rod diameter B			FLOAT	PowerOn
		0.0	0.0	2400.0	3/3

5134	PISTON_STROKE			D05	QV: FBHLA
mm	Piston stroke			FLOAT	immediately

		0.0	0.0	3000.0	3/3
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5135	CYLINDER_DEAD_VOLUME_A			D05	QV: FBHLA
ccm	Cylinder dead volume at the drive end			FLOAT	immediately
		0.0	0.0	200000.0	3/3

5136	CYLINDER_DEAD_VOLUME_B			D05	QV: FBHLA
ccm	Cylinder dead volume at the non-drive end			FLOAT	immediately
		0.0	0.0	200000.0	3/3

5140	VALVE_CYLINDER_CONNECTION			D05	QV: FBHLA
HEX	Connection configuration of valve cylinder			UNS. WORD	immediately
		0	0	1	3/3

5141	PIPE_LENGTH_A			D05	QV: FBHLA
mm	Pipe length at the drive end			FLOAT	immediately
		0.0	0.0	10000.0	3/3

5142	PIPE_LENGTH_B			D05	QV: FBHLA
mm	Pipe length at the non-drive end			FLOAT	immediately
		0.0	0.0	10000.0	3/3

5143	PIPE_INNER_DIAMETER_A_B			D05	QV: FBHLA
mm	Pipe inside diameters A and B			FLOAT	immediately
		5.0	0.0	100.0	3/3

5150	DRIVE_MASS			D05	QV: FBHLA
kg	Mass moved by drive			FLOAT	immediately
		0.0	0.0	50000.0	3/3

5151	CYLINDER_A_ORIENTATION			D05	QV: FBHLA
degrees	Mounting position at the drive end of the cylinder			FLOAT	immediately
		0.0	-90.0	90.0	3/3

5152	CYLINDER_FASTENING			D05	QV: FBHLA
-	Fastening the cylinder			UNS. WORD	immediately
		0	0	1	3/3

Machine data of the hydraulic module

5160	PISTON_POS_MIN_NAT_FREQ	D05	QV: FBHLA
mm	Piston position min. natural frequency	FLOAT	immediately
	0.0	0.0	3000.0
			3/3

5161	DRIVE_DAMPING	D01, D05	QV: FBHLA
-	Damping the drive	FLOAT	immediately
	0.1	0.01	1.0
			3/3

5162	DRIVE_NATURAL_FREQUENCY_A	D01, D05	QV: FBHLA
Hz	Natural frequency of drive A	FLOAT	immediately
	1.0	1.0	2000.0
			3/3

5163	DRIVE_NATURAL_FREQUENCY	D01, D05	QV: FBHLA
Hz	Natural frequency of the drive	FLOAT	immediately
	1.0	1.0	2000.0
			3/3

5164	DRIVE_NATURAL_FREQUENCY_B	D01, D05	QV: FBHLA
Hz	Natural frequency of drive B	FLOAT	immediately
	1.0	1.0	2000.0
			3/3

5180	CLOSED_LOOP_SYSTEM_DAMPING	D01	QV: FBHLA
-	Desired damping closed-loop system	FLOAT	immediately
	0.7	0.2	1.0
			3/3

5200	NUM_OUTPUT_VCTRL_FILTERS	D01	QV: FBHLA
-	Number of manipulated variable filters	UNS. WORD	immediately
	0	0	2
			3/3

5201	OUTPUT_VCTRL_FILTER_CONFIG	D01	QV: FBHLA
HEX	Type of manipulated variable filter	UNS. WORD	immediately
	0	0	3
			3/3

5202	OUTPUT_VCTRL_FIL_1_FREQ	D01	QV: FBHLA
Hz	PT2 natural frequency of manipulated variable filter 1	FLOAT	immediately
	1000.0	10.0	8000.0
			3/3

5203	OUTPUT_VCTRL_FIL_1_DAMP	D01	QV: FBHLA
-	PT2 damping of manipulated variable filter 1	FLOAT	immediately

		1.0	0.05	1.0	3/3
5204	OUTPUT_VCTRL_FIL_2_FREQ			D01	QV: FBHLA
Hz	PT2 natural frequency of manipulated variable filter 2			FLOAT	immediately
		1000.0	10.0	8000.0	3/3
5205	OUTPUT_VCTRL_FIL_2_DAMP			D01	QV: FBHLA
-	PT2 damping of manipulated variable filter 2			FLOAT	immediately
		1.0	0.05	1.0	3/3
5210	OUTPUT_VCTRL_FIL_1_SUP_FREQ			D01	QV: FBHLA
Hz	Blocking frequency for manipulated variable filter 1			FLOAT	immediately
		3500.0	1.0	7999.0	3/3
5211	OUTPUT_VCTRL_FIL_1_BW			D01	QV: FBHLA
Hz	Bandwidth of manipulated variable filter 1			FLOAT	immediately
		500.0	5.0	7999.0	3/3
5212	OUTPUT_VCTRL_FIL_1_BW_NUM			D01	QV: FBHLA
Hz	Numerator bandwidth of manipulated variable filter 1			FLOAT	immediately
		0.0	0.0	7999.0	3/3
5213	OUTPUT_VCTRL_FIL_2_SUP_FREQ			D01	QV: FBHLA
Hz	Blocking frequency of manipulated variable filter 2			FLOAT	immediately
		3500.0	1.0	7999.0	3/3
5214	OUTPUT_VCTRL_FIL_2_BW			D01	QV: FBHLA
Hz	Bandwidth of manipulated variable filter 2			FLOAT	immediately
		500.0	5.0	7999.0	3/3
5215	OUTPUT_VCTRL_FIL_2_BW_NUM			D01	QV: FBHLA
Hz	Numerator bandwidth of manipulated variable filter 2			FLOAT	immediately
		0.0	0.0	7999.0	3/3
5230	FORCE_LIMIT_THRESHOLD			D02	QV: FBHLA
N	Power limitation threshold for weight			FLOAT	immediately
		10000.0	0.0	100000000.0	3/3

Machine data of the hydraulic module

5231	FORCE_LIMIT_WEIGHT	D02	QV: FBHLA
N	Power limitation weight	FLOAT	immediately
	0.0	-100000000.0	100000000.0
			3/3

5232	STICTION_SPEED_THRESHOLD	D02	QV: FBHLA
mm/min	Velocity threshold static friction	FLOAT	immediately
	10.0	0.0	500.0
			3/3

5233	STICTION_COMP_THRESHOLD	D01	QV: FBHLA
%	Interrupting lead static friction	FLOAT	immediately
	40.0	3.0	100.0
			3/3

5234	STICTION_FORCE_POS	D02	QV: FBHLA
N	Friction force velocity >0	FLOAT	immediately
	100.0	-100000000.0	100000000.0
			3/3

5235	STICTION_FORCE_NEG	D02	QV: FBHLA
N	Friction force velocity <0	FLOAT	immediately
	-100.0	-100000000.0	100000000.0
			3/3

5240	FORCECONTROLLED_SYSTEM_GAIN	D01	QV: FBHLA
N/V	Controlled system gain power controller	FLOAT	immediately
	0.0	0.0	1000000000.0
			3/3

5241	FORCECTRL_CONFIG	D02	QV: FBHLA
HEX	Configuration of force controller	UNS. WORD	immediately
	0	0	6
			3/3

5242	FORCECTRL_GAIN	D01	QV: FBHLA
-	P gain of force controller	FLOAT	immediately
	0.0	0.0	10000.0
			3/3

5243	FORCECTRL_GAIN_RED	D01	QV: FBHLA
%	Attenuation of power controller P component	FLOAT	immediately
	40.0	0.1	100.0
			3/3

5244	FORCECTRL_INTEGRATOR_TIME	D01	QV: FBHLA
ms	Power controller reset time	FLOAT	immediately

		40.0	0.0	2000.0	3/3
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5245	FORCECTRL_PT1_TIME			D01	QV: FBHLA
ms	Power controller smoothing time constant			FLOAT	immediately
		0.5	0.25	100.0	3/3

5246	FORCECTRL_DIFF_TIME			D01	QV: FBHLA
ms	Power controller lead time			FLOAT	immediately
		0.0	-10000.0	10000.0	3/3

5247	FORCE_FFW_WEIGHT			D01	QV: FBHLA
%	Power controller precontrol factor			FLOAT	immediately
		100.0	0.0	120.0	3/3

5260	NUM_FFW_FCTRL_FILTERS			D01	QV: FBHLA
-	Number of pilot filters in force controller			UNS. WORD	immediately
		0	0	1	3/3

5261	FFW_FCTRL_FILTER_TYPE			D01	QV: FBHLA
HEX	Type of pilot filter in the force controller			UNS. WORD	immediately
		0	0	1	3/3

5264	FFW_FCTRL_FIL_1_FREQ			D01	QV: FBHLA
Hz	PT2 natural freq. pilot filter 1			FLOAT	immediately
		2000.0	10.0	8000.0	3/3

5265	FFW_FCTRL_FIL_1_DAMP			D01	QV: FBHLA
-	PT2 damping pilot filter 1			FLOAT	immediately
		0.7	0.2	1.0	3/3

5268	FFW_FCTRL_FIL_1_SUP_FREQ			D01	QV: FBHLA
Hz	Blocking frequency pilot filter 1			FLOAT	immediately
		3500.0	10.0	7999.0	3/3

5269	FFW_FCTRL_FIL_1_BW			D01	QV: FBHLA
Hz	Bandwidth pilot filter 1			FLOAT	immediately
		500.0	5.0	7999.0	3/3

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5270	FFW_FCTRL_FIL_1_BW_NUM			D01	QV: FBHLA
Hz	Counter bandwidth pilot filter 1			FLOAT	immediately
		0.0	0.0	7999.0	3/3

5280	NUM_OUTPUT_FILTERS			D01	QV: FBHLA
-	Number of manipulated value filters			UNS. WORD	immediately
		0	0	1	3/3

5281	OUTPUT_FILTER_TYPE			D01	QV: FBHLA
HEX	Type of manipulated value filter			UNS. WORD	immediately
		0	0	1	3/3

5284	OUTPUT_FIL_1_FREQ			D01	QV: FBHLA
Hz	Natural frequency of manipulated value filter 1			FLOAT	immediately
		1000.0	10.0	8000.0	3/3

5285	OUTPUT_FIL_1_DAMP			D01	QV: FBHLA
-	Damping manipulated value filter 1			FLOAT	immediately
		1.0	0.05	1.0	3/3

5288	OUTPUT_FIL_1_SUP_FREQ			D01	QV: FBHLA
Hz	Blocking frequency manipulated value filter 1			FLOAT	immediately
		3500.0	1.0	7999.0	3/3

5289	OUTPUT_FIL_1_BW			D01	QV: FBHLA
Hz	Bandwidth manipulated value filter 1			FLOAT	immediately
		500.0	5.0	7999.0	3/3

5290	OUTPUT_FIL_1_BW_NUM			D01	QV: FBHLA
Hz	Numerator bandwidth manipulated value filter 1			FLOAT	immediately
		0.0	0.0	7999.0	3/3

5401	DRIVE_MAX_SPEED			D02, D05	QV: FBHLA
mm/min	Maximum useful velocity			FLOAT	PowerOn
		0.0	0.0	120000.0	3/3

5402	SPEED_CRTL_DISABLE_STOPTIME			D02	QV: FBHLA
ms	Deceleration time with servo disable			FLOAT	immediately

		0.0	0.0	120000.0	3/3
5404	POWER_DISABLE_DELAY			D02	QV: FBHLA
ms	Power disable timer			FLOAT	immediately
		100	0	100000	3/3
5406	SPEEDCTRL_GAIN_A			D01, D08	QV: FBHLA
%	P gain of velocity controller A			FLOAT	immediately
		0.0	-100.0	1000.0	3/3
5407	SPEEDCTRL_GAIN			D01, D08	QV: FBHLA
%	P gain of velocity controller			FLOAT	immediately
		0.0	-100.0	1000.0	3/3
5408	SPEEDCTRL_GAIN_B			D01, D08	QV: FBHLA
%	P gain of velocity controller B			FLOAT	immediately
		0.0	-100.0	1000.0	3/3
5409	SPEEDCTRL_INTEGRATOR_TIME			D01, D08	QV: FBHLA
ms	Velocity controller reset time			FLOAT	immediately
		50.0	0.0	2000.0	3/3
5413	SPEEDCTRL_ADAPT_ENABLE			D01	QV: FBHLA
-	Selection of velocity controller adaptation			UNS. WORD	immediately
		0	0	1	3/3
5414	SPEEDCTRL_REF_MODEL_FREQ			D01, EXP	QV: FBHLA
Hz	Natural frequency of the reference model			FLOAT	immediately
		150.0	0.0	1000.0	3/3
5415	SPEEDCTRL_REF_MODEL_DAMPING			D01, EXP	QV: FBHLA
-	Damping of the reference model			FLOAT	immediately
		0.9	0.4	1.0	3/3
5420	DRIVE_MAX_SPEED_SETUP			D02	QV: FBHLA
mm/min	Maximum setup mode velocity			FLOAT	immediately
		10.0	0.0	120000.0	3/3

Machine data of the hydraulic module

5421	SPEEDCTRL_INTEGRATOR_FEEDBK	D01	QV: FBHLA
ms	Time constant for integrator feedback	FLOAT	immediately
	0.0	0.0	1000.0 3/3

5422	FEEDBK_SPEED_THRESHOLD	D01	QV: FBHLA
mm/min	Speed treshold integrator feed back	FLOAT	immediately
	10.0	0.0	120000.0 3/3

5430	SPEEDCTRL_PT1_TIME	D01	QV: FBHLA
ms	Smoothing time constant for velocity controller	FLOAT	immediately
	0.25	0.25	100.0 3/3

5431	SPEEDCTRL_DIFF_TIME_A	D01	QV: FBHLA
ms	Lead time for velocity controller A	FLOAT	immediately
	0.0	-100.0	100.0 3/3

5432	SPEEDCTRL_DIFF_TIME	D01	QV: FBHLA
ms	Lead time for velocity controller	FLOAT	immediately
	0.0	-100.0	100.0 3/3

5433	SPEEDCTRL_DIFF_TIME_B	D01	QV: FBHLA
ms	Lead time for velocity controller B	FLOAT	immediately
	0.0	-100.0	100.0 3/3

5435	CONTROLLED_SYSTEM_GAIN	D01	QV: FBHLA
mm/Vmin	Controlled system gain	FLOAT	immediately
	0.0	0.0	20000.0 3/3

5440	POS_DRIVE_SPEED_LIMIT	D02	QV: FBHLA
mm/min	Positive velocity setpoint limit	FLOAT	immediately
	0.0	0.0	120000.0 3/3

5441	NEG_DRIVE_SPEED_LIMIT	D02	QV: FBHLA
mm/min	Negative velocity setpoint limit	FLOAT	immediately
	0.0	0.0	120000.0 3/3

5460	FRICTION_COMP_GRADIENT	D01	QV: FBHLA
%	Increase in friction compensation	FLOAT	immediately

		0.0	0.0	400.0	3/3
5461	FRICITION_COMP_OUTPUT_RANGE			D01	QV: FBHLA
%	Range of action of friction compensation			FLOAT	immediately
		0.1	0.1	10.0	3/3
5462	AREA_FACTOR_POS_OUTPUT			D01	QV: FBHLA
%	Positive area adaptation factor			FLOAT	immediately
		100.0	10.0	200.0	3/3
5463	AREA_FACTOR_NEG_OUTPUT			D01	QV: FBHLA
%	Negative area adaptation factor			FLOAT	immediately
		100.0	10.0	200.0	3/3
5464	POS_DUAL_GAIN_COMP_FLOW			D01	QV: FBHLA
%	Knee-point compensation of flow			FLOAT	immediately
		10.0	0.2	95.0	3/3
5465	POS_DUAL_GAIN_COMP_VOLTAGE			D01	QV: FBHLA
%	Knee-point compensation of voltage			FLOAT	immediately
		10.0	0.2	95.0	3/3
5466	DUAL_GAIN_COMP_SMOOTH_RANGE			D01	QV: FBHLA
%	Knee-point compensation of rounding area			FLOAT	immediately
		2.5	0.0	20.0	3/3
5467	NEG_DUAL_GAIN_COMP_FLOW			D01	QV: FBHLA
%	Knee-point compensation neg. flow			FLOAT	immediately
		10.0	0.2	95.0	3/3
5468	NEG_DUAL_GAIN_COMP_VOLTAGE			D01	QV: FBHLA
%	Knee-point compensation neg. voltage			FLOAT	immediately
		10.0	0.2	95.0	3/3
5470	OFFSET_COMPENSATION			D01	QV: FBHLA
-	Offset compensation			WORD	immediately
		0	-4000	4000	3/3

Machine data of the hydraulic module

5474	OUTPUT_VOLTAGE_POS_LIMIT	D02	QV: FBHLA
V	Actuating voltage limitation	FLOAT	immediately
	10.0	0.0	10.0
			3/3

5475	OUTPUT_VOLTAGE_NEG_LIMIT	D02	QV: FBHLA
V	Actuating voltage limitation	FLOAT	immediately
	10.0	0.0	10.0
			3/3

5476	OUTPUT_VOLTAGE_INVERSION	D01	QV: FBHLA
HEX	Manipulated variable inversion	UNS. WORD	immediately
	0	0	1
			3/3

5480	POS_DUAL_GAIN_COMP_Z_FLOW	D01	QV: FBHLA
%	Knee-point compensation pos. flow zero range	FLOAT	immediately
	0.01	0.01	95.0
			3/3

5481	POS_DUAL_GAIN_COMP_Z_VOLT	D01	QV: FBHLA
%	Knee-point compensation pos. voltage zero range	FLOAT	immediately
	0.0	0.0	95.0
			3/3

5482	DUAL_GAIN_COMP_SMOOTH_Z_R	D01	QV: FBHLA
%	Knee-point compensation rounding zero range	FLOAT	immediately
	0.0	0.0	10.0
			3/3

5483	NEG_DUAL_GAIN_COMP_Z_FLOW	D01	QV: FBHLA
%	Knee-point compensation neg. flow zero range	FLOAT	immediately
	0.01	0.01	95.0
			3/3

5484	NEG_DUAL_GAIN_COMP_Z_VOLT	D01	QV: FBHLA
%	Knee-point compensation neg. voltage zero range	FLOAT	immediately
	0.0	0.0	95.0
			3/3

5485	POS_DUAL_GAIN_COMP_S_FLOW	D01	QV: FBHLA
%	Knee-point compensation pos. flow saturation	FLOAT	immediately
	100.0	0.2	100.0
			3/3

5486	POS_DUAL_GAIN_COMP_S_VOLT	D01	QV: FBHLA
%	Knee-point compensation pos. voltage saturation	FLOAT	immediately

		100.0	0.2	100.0	3/3
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5487	NEG_DUAL_GAIN_COMP_S_FLOW	D01	QV: FBHLA		
%	Knee-point compensation neg. flow saturation	FLOAT	immediately		
		100.0	0.2	100.0	3/3

5488	NEG_DUAL_GAIN_COMP_S_VOLT	D01	QV: FBHLA		
%	Knee-point compensation neg. voltage saturation	FLOAT	immediately		
		100.0	0.2	100.0	3/3

5500	NUM_SPEED_FILTERS	D01	QV: FBHLA		
-	Number of velocity filters	UNS. WORD	immediately		
		0	0	1	3/3

5501	SPEED_FILTER_TYPE	D01	QV: FBHLA		
HEX	Type of velocity filter	UNS. WORD	immediately		
		0	0	257	3/3

5502	SPEED_FILTER_1_TIME	D01	QV: FBHLA		
ms	PT1 time constant of velocity filter 1	FLOAT	immediately		
		0.0	0.0	500.0	3/3

5506	SPEED_FILTER_1_FREQUENCY	D01	QV: FBHLA		
Hz	PT 2 natural frequency of velocity filter 1	FLOAT	immediately		
		2000.0	10.0	8000.0	3/3

5507	SPEED_FILTER_1_DAMPING	D01	QV: FBHLA		
-	PT2 damping of velocity filter 1	FLOAT	immediately		
		0.7	0.2	1.0	3/3

5514	SPEED_FILTER_1_SUPPR_FREQ	D01	QV: FBHLA		
Hz	BSF blocking frequency of velocity filter 1	FLOAT	immediately		
		3500.0	10.0	7999.0	3/3

5515	SPEED_FILTER_1_BANDWIDTH	D01	QV: FBHLA		
Hz	BSF bandwidth of velocity filter 1	FLOAT	immediately		
		500.0	5.0	7999.0	3/3

Machine data of the hydraulic module

5516	SPEED_FILTER_1_BW_NUMERATOR	D01	QV: FBHLA
Hz	Numerator bandwidth of velocity filter 1	FLOAT	immediately
	0.0	0.0	7999.0 3/3

5520	SPEED_FILTER_1_BS_FREQ	D01	QV: FBHLA
%	BSF natural frequency of velocity filter 1	FLOAT	immediately
	100.0	1.0	141.0 3/3

5522	ACT_SPEED_FILTER_TIME	D01	QV: FBHLA
HEX	Time constant velocity actual value filter	UNS. WORD	PowerOn
	0	0	0 3/3

5530	CYLINDER_SAFETY_CONFIG	D05, D02	QV: FBHLA
HEX	Safety circuit	UNS. WORD	immediately
	4	0	3F 3/3

5531	OUTPUT_ENABLE_DELAY	D02	QV: FBHLA
ms	Manipulated variable blocking time	UNS. WORD	immediately
	300	0	500 3/3

5532	POWER_ENABLE_DELAY	D02	QV: FBHLA
ms	Power enable blocking time	UNS. WORD	immediately
	100	0	300 3/3

5550	PRESSURE_SENS_A_REF	D06	QV: FBHLA
bar	Reference value of pressure sensor A at 10 V	FLOAT	immediately
	200.0	50.0	6000.0 3/3

5551	PRESSURE_SENS_A_OFFS	D06	QV: FBHLA
-	Offset compensation for pressure sensor A	WORD	immediately
	0	-32760	32760 3/3

5552	PRESSURE_SENS_B_REF	D06	QV: FBHLA
bar	Reference value of pressure sensor B at 10V	FLOAT	immediately
	200.0	50.0	6000.0 3/3

5553	PRESSURE_SENS_B_OFFS	D06	QV: FBHLA
-	Offset compensation for pressure sensor B	WORD	immediately

		0	-32767	32767	3/3
5600	ALARM_MASK_POWER_ON			D02, EXP	QV: FBHLA
HEX	Concealable alarms (Power On)			UNS. WORD	immediately
		0	0	FFFF	3/3
5601	ALARM_MASK_RESET			D02, EXP	QV: FBHLA
HEX	Concealable alarms (Reset)			UNS. WORD	immediately
		0	0	FFFF	3/3
5605	SPEEDCTRL_LIMIT_TIME			D02	QV: FBHLA
ms	Time limit of velocity controller			FLOAT	immediately
		200.0	20.0	1000.0	3/3
5606	SPEEDCTRL_LIMIT_THRESHOLD			D02	QV: FBHLA
mm/min	Threshold limit of velocity controller			FLOAT	immediately
		120000.0	0.0	120000.0	3/3
5609	ENC_SPEED_LIMIT			D06, d02	QV: FBHLA
mm/min	Maximum measuring velocity of linear scale			FLOAT	immediately
		240000.0	1.0	240000.0	3/3
5610	DIAGNOSIS_ACTIVATION_FLAGS			EXP	QV: FBHLA
HEX	Diagnostic functions			UNS. WORD	PowerOn
		0	0	3	3/3
5612	ALARM_REACTION_POWER_ON			D02	QV: FBHLA
HEX	Configurable shutdown reaction with PO alarms			UNS. WORD	immediately
		0	0	FFFF	3/3
5613	ALARM_REACTION_RESET			D02	QV: FBHLA
HEX	Configurable shutdown reaction with RESET alarms			UNS. WORD	immediately
		0	0	FFFF	3/3
5614	VALVE_ERROR_TIME			D02	QV: FBHLA
ms	Valve spool monitoring timer			UNS. WORD	immediately
		50	1	1000	3/3

Machine data of the hydraulic module

5620	PROG_SIGNAL_FLAGS	D03	QV: FBHLA
HEX	Bits of variable signaling functions	UNS. WORD	immediately
	0	0	7
			3/3

5621	PROG_SIGNAL_NR	D03	QV: FBHLA
-	Signal number of variable signaling function	UNS. WORD	immediately
	0	0	100
			3/3

5622	PROG_SIGNAL_ADDRESS	D03	QV: FBHLA
HEX	Address of variable signaling functions	UNS. DWORD	immediately
	0	0	FFFFFF
			3/3

5623	PROG_SIGNAL_THRESHOLD	D03	QV: FBHLA
HEX	Threshold of variable signaling functions	UNS. DWORD	immediately
	0	0	FFFFFF
			3/3

5624	PROG_SIGNAL_HYSTERESIS	D03	QV: FBHLA
HEX	Hysteresis of variable signaling functions	UNS. DWORD	immediately
	0	0	FFFFFF
			3/3

5625	PROG_SIGNAL_ON_DELAY	D03	QV: FBHLA
-	Pickup delay of variable signaling function	UNS. WORD	immediately
	0	0	10000
			3/3

5626	PROG_SIGNAL_OFF_DELAY	D03	QV: FBHLA
-	Dropout delay of variable signaling function	UNS. WORD	immediately
	0	0	10000
			3/3

5648	VALVE_ID_PARAMS1	D04, EXP	QV: FBHLA
-	Valve-Idi-Parameter2	UNS. WORD	immediately
	0	0	7999
			3/3

5649	VALVE_ID_PARAMS2	D04, EXP	QV: FBHLA
-	Valve-Idi-Parameter2	UNS. WORD	immediately
	0	0	7999
			3/3

5650	DIAGNOSIS_CONTROL_FLAGS	D04, EXP	QV: FBHLA
HEX	Diagnostic control	UNS. WORD	immediately

		0	0	FFFF	3/3
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5651	MINMAX_SIGNAL_NR			D04, EXP	QV: FBHLA
-	Signal number of min./max. storage			UNS. WORD	immediately
		0	0	FFFF	3/3

5652	MINMAX_ADDRESS			D04, EXP	QV: FBHLA
HEX	Storage location of min./max. storage			UNS. DWORD	immediately
		0	0	FFFFFF	3/3

5653	MINMAX_MIN_VALUE			D04, EXP	QV: FBHLA
HEX	Minimum value of min./max. storage			UNS. DWORD	immediately
		0	0	FFFFFF	3/3

5654	MINMAX_MAX_VALUE			D04, EXP	QV: FBHLA
HEX	Maximum value of min./max. storage			UNS. DWORD	immediately
		0	0	FFFFFF	3/3

5655	MONITOR_SEGMENT			D04, EXP	QV: FBHLA
HEX	Monitor storage location segment			UNS. WORD	immediately
		0	0	FFFF	3/3

5656	MONITOR_ADDRESS			D04, EXP	QV: FBHLA
HEX	Monitor storage location address			UNS. DWORD	immediately
		0	0	FFFFFF	3/3

5657	MONITOR_DISPLAY			D04, EXP	QV: FBHLA
HEX	Monitor value display			UNS. DWORD	immediately
		0	0	FFFFFF	3/3

5658	MONITOR_INPUT_VALUE			D04, EXP	QV: FBHLA
HEX	Monitor value input			UNS. DWORD	immediately
		0	0	FFFFFF	3/3

5659	MONITOR_INPUT_STROBE			D04, EXP	QV: FBHLA
HEX	Monitor value accept			UNS. WORD	immediately
		0	0	FFFF	3/3

Machine data of the hydraulic module

5700	TERMINAL_STATE			D04	QV: FBHLA
HEX	Status of binary inputs			UNS. WORD	immediately
		0	0	FFFF	3/3

5704	ACTUAL_PRESSURE_A			D04	QV: FBHLA
bar	Actual pressure value A			FLOAT	immediately
		0.0	-10000.0	10000.0	3/3

5705	ACTUAL_PRESSURE_B			D04	QV: FBHLA
bar	Actual pressure value B			FLOAT	immediately
		0.0	-10000.0	10000.0	3/3

5706	DESIRED_SPEED			D04	QV: FBHLA
mm/min	Velocity setpoint			FLOAT	immediately
		0.0	-240000.0	240000.0	3/3

5707	ACTUAL_SPEED			D04	QV: FBHLA
mm/min	Actual velocity value			FLOAT	immediately
		0.0	-240000.0	240000.0	3/3

5708	ACTUAL_CYL_FORCE			D04	QV: FBHLA
N	Actual cylinder force value			FLOAT	immediately
		0.0	-1000000000.0	1000000000.0	3/3

5709	VOLTAGE_LSB			EXP	QV: FBHLA
V	Significance of voltage display			FLOAT	immediately
		0.0	-100000.0	100000.0	3/3

5710	PRESSURE_LSB			EXP	QV: FBHLA
bar	Significance of pressure display			FLOAT	immediately
		0.0	-240000.0	240000.0	3/3

5711	SPEED_LSB			EXP	QV: FBHLA
mm/min	Significance of velocity display			FLOAT	immediately
		0.0	-240000.0	240000.0	3/3

5713	FORCE_LSB			EXP	QV: FBHLA
uN	Significance of power display			FLOAT	immediately

		0.0	-10000000.0	10000000.0	3/3
5714	POSITION_LSB			EXP	QV: FBHLA
nm	Significance of position display			FLOAT	immediately
		0.0	-1000000.0	1000000.0	3/3
5715	DESIRED_VALVE_SPOOL_POS			D04	QV: FBHLA
V	Valve spool position setpoint voltage			FLOAT	immediately
		0.0	-10.0	10.0	3/3
5716	ACTUAL_VALVE_SPOOL_POS			D04	QV: FBHLA
V	Voltage for actual valve spool position value			FLOAT	immediately
		0.0	-10.0	10.0	3/3
5717	DESIRED_CYL_FORCE			D04	QV: FBHLA
N	Desired cylinder power			FLOAT	immediately
		0.0	-1000000000.0	1000000000.0	3/3
5720	CRC_DIAGNOSIS			D04, EXP	QV: FBHLA
-	CRC diagnostic parameters			UNS. WORD	immediately
		0	0	FFFF	3/3
5725	MAX_FORCE_FROM_NC			D04, EXP	QV: FBHLA
N	Standardization of the power setpoint interface			FLOAT	immediately
		0.0	0.0	1000000000.0	3/3
5730	OPERATING_MODE			D04	QV: FBHLA
HEX	Display of the operating mode			UNS. WORD	immediately
		1	1	FFFF	3/3
5731	CL1_PO_IMAGE			D04, EXP	QV: FBHLA
HEX	Map of the ZK1_PO register			UNS. WORD	immediately
		0	0	FFFF	3/3
5732	CL1_RES_IMAGE			D04, EXP	QV: FBHLA
HEX	Map of the ZK1_RES register			UNS. WORD	immediately
		0	0	FFFF	3/3

Machine data of the hydraulic module

5735	PROCESSOR_UTILIZATION			D04, EXP	QV: FBHLA
%	Processor load			UNS. WORD	immediately
		0	0	FFFF	3/3

5740	ACTUAL_POSITION			EXP, D04	QV: FBHLA
mm	Actual position value in relation to machine zero			FLOAT	immediately
		0.0	-10000000.0	10000000.0	3/3

5741	ACTUAL_PISTON_POSITION			EXP, D04	QV: FBHLA
mm	Piston position in relation to piston zero			FLOAT	immediately
		0.0	-10000000.0	10000000.0	3/3

5790	ENC_TYPE			D04, D06	QV: FBHLA
-	Measuring circuit type of measuring system			WORD	immediately
		0	-1	32767	3/3

5797	PBL_VERSION			D04	QV: FBHLA
-	Data version			UNS. WORD	immediately
		0	0	FFFF	3/3

5798	FIRMWARE_DATE			D04	QV: FBHLA
-	Firmware date			UNS. WORD	immediately
		0	0	FFFF	3/3

5799	FIRMWARE_VERSION			D04	QV: FBHLA
-	Firmware version			UNS. DWORD	immediately
		0	0	FFFFFF	3/3

Parameter SINAMICS

4.1 Parameter r0002 - r0964

r0002	Control Unit operating display			
CU_CX32, CU_I	Can be changed: -			Access level: 1
	Data type: Integer16	Dynamic index: -		Function diagram: -
	P-Group: -	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
r0002	Infeed operating display			
A_INF	Can be changed: -			Access level: 1
	Data type: Integer16	Dynamic index: -		Function diagram: -
	P-Group: -	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
r0002	Drive operating display			
SERVO	Can be changed: -			Access level: 1
	Data type: Integer16	Dynamic index: -		Function diagram: -
	P-Group: -	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
p0003	BOP access level			
CU_CX32, CU_I	Can be changed: C1, U, T			Access level: 1
	Data type: Integer16	Dynamic index: -		Function diagram: -
	P-Group: -	Units group: -		Unit selection: -
	Min	Max		Factory setting
	1	4		1
p0004	BOP parameter menu			
CU_CX32, CU_I	Can be changed: C2(1), T			Access level: 1
	Data type: Integer16	Dynamic index: -		Function diagram: -
	P-Group: -	Units group: -		Unit selection: -
	Min	Max		Factory setting
	0	99		1

p0007	Backlighting display delay time			
CU_CX32, CU_I	Can be changed: U, T		Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	0	2	0	
p0009	Device commissioning parameter filter			
CU_CX32, CU_I	Can be changed: C1, T		Access level: 1	
	Data type: Integer16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	0	30	1	
p0010	Infeed commissioning parameter filter			
A_INF	Can be changed: C2(1), T		Access level: 1	
	Data type: Integer16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	0	30	1	
p0010	Drive, commissioning parameter filter			
SERVO	Can be changed: C2(1), T		Access level: 1	
	Data type: Integer16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	0	95	1	
p0015	Macro drive unit			
CU_CX32, CU_I	Can be changed: C1		Access level: 1	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	0	999999	0	
p0015	Macro drive object			
A_INF, SERVO	Can be changed: C2(1)		Access level: 1	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: Commands	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	0	999999	0	
r0018	Control Unit firmware version			
CU_CX32, CU_I	Can be changed: -		Access level: 1	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	

r0020	Speed setpoint, smoothed		
SERVO	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Floating Point		Function diagram: 5020, 6799
	P-Group: Displays, signals	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r0020	Velocity setpoint, smoothed		
SERVO (Lin)	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Floating Point		Function diagram: 5020, 6799
	P-Group: Displays, signals	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
r0021	Actual speed, smoothed		
SERVO	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Floating Point		Function diagram: 1580, 1680, 4710, 6799
	P-Group: Displays, signals	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r0021	Actual velocity, smoothed		
SERVO (Lin)	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Floating Point		Function diagram: 1580, 1680, 4710, 6799
	P-Group: Displays, signals	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
r0024	Infeed line frequency smoothed		
A_INF	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 8850, 8950
	P-Group: Displays, signals	Units group: FREQUENCY	Unit selection: -
	Min - [Hz]	Max - [Hz]	Factory setting - [Hz]
r0024	Drive output frequency smoothed		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 1690, 5300, 5730, 6799
	P-Group: Displays, signals	Units group: FREQUENCY	Unit selection: -
	Min - [Hz]	Max - [Hz]	Factory setting - [Hz]

r0025	Infeed input voltage, smoothed		
A_INF	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 8850, 8950
	P-Group: Displays, signals	Units group: VOLTAGE_AC_EFF	Unit selection: -
	Min - [Veff]	Max - [Veff]	Factory setting - [Veff]
r0025	Drive, output voltage smoothed		
SERVO	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 1690, 5730, 6799
	P-Group: Displays, signals	Units group: VOLTAGE_AC_EFF	Unit selection: -
	Min - [Veff]	Max - [Veff]	Factory setting - [Veff]
r0026	DC link voltage, smoothed		
A_INF, SERVO	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 5730, 6799, 8750, 8850, 8950
	P-Group: Displays, signals	Units group: VOLTAGE_DC	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]
r0027	Absolute actual current, smoothed		
A_INF, SERVO	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 5730, 6799, 8850, 8950
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0028	Modulation depth, smoothed		
A_INF, SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5730, 6799, 8950
	P-Group: Displays, signals	Units group: PERCENT	Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
r0029	Infeed, smoothed reactive current actual value		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 8850, 8950
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]

r0029	Drive, smoothed field-generating current actual value		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5730, 6799
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0030	Active current actual value, smoothed		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 8850, 8950
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0030	Current actual value, torque-generating, smoothed		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5730, 6799
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0031	Actual torque smoothed		
SERVO	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 5730, 6799
	P-Group: Displays, signals	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r0031	Force actual value, smoothed		
SERVO (Lin)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 5730, 6799
	P-Group: Displays, signals	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]
r0032	Power factor, smoothed		
A_INF, SERVO	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 5730, 6799, 8850, 8950
	P-Group: Displays, signals	Units group: POWER_P3	Unit selection: -
	Min - [kW]	Max - [kW]	Factory setting - [kW]

r0033	Torque utilization, smoothed		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: PERCENT	Function diagram: 8012
	P-Group: Displays, signals		Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
r0035	CO: Motor temperature		
SERVO	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: TEMPERATURE	Function diagram: 8016
	P-Group: Displays, signals		Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r0036	Power module overload I2t		
A_INF, SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: PERCENT	Function diagram: 8014
	P-Group: Displays, signals		Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
r0037[0...19]	CO: Power module temperatures		
A_INF, SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: TEMPERATURE	Function diagram: 8014
	P-Group: Displays, signals		Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r0038	Power factor, smoothed		
A_INF	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 6799, 8850, 8950
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
p0045	Smoothing time constant, display values		
SERVO	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Floating Point		Function diagram: 5610, 5730, 6010, 6714, 8012
	P-Group: -	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 200.00 [ms]	Factory setting 1.00 [ms]

r0046	CO/BO: Infeed missing enable signals			
A_INF	Can be changed: -		Access level: 1	
	Data type: Unsigned32	Dynamic index: -	Function diagram: 8934	
	P-Group: Displays, signals	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r0046	CO/BO: Missing drive enable signals			
SERVO	Can be changed: -		Access level: 1	
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2634	
	P-Group: Displays, signals	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r0049[0...3]	Motor/encoder data set effective			
SERVO	Can be changed: -		Access level: 2	
	Data type: Unsigned8	Dynamic index: -	Function diagram: 8565	
	P-Group: Displays, signals	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r0050	CO/BO: Command Data Set CDS effective			
A_INF, SERVO	Can be changed: -		Access level: 2	
	Data type: Unsigned8	Dynamic index: -	Function diagram: 8560	
	P-Group: Displays, signals	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r0051	CO/BO: Drive Data Set DDS effective			
SERVO	Can be changed: -		Access level: 2	
	Data type: Unsigned8	Dynamic index: -	Function diagram: -	
	P-Group: Displays, signals	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r0056	CO/BO: Closed-loop control status word 1			
SERVO	Can be changed: -		Access level: 3	
	Data type: Unsigned16	Dynamic index: -	Function diagram: 5492	
	P-Group: Displays, signals	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r0060	CO: Speed setpoint before the setpoint filter			
SERVO	Can be changed: -		Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 2701, 2704, 5020, 6030, 6799	
	P-Group: Displays, signals	Units group: SPEED_ROT	Unit selection: -	
	Min	Max	Factory setting	
	- [1/min]	- [1/min]	- [1/min]	

r0060	CO: Velocity setpoint before the setpoint filter		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 2701, 2704, 5020, 6030, 6799
	P-Group: Displays, signals	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
r0061	CO: Speed actual value motor encoder		
SERVO	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 1580, 4710, 6010
	P-Group: Displays, signals	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r0061	CO: Velocity actual value, motor encoder		
SERVO (Lin)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 1580, 4710, 6010
	P-Group: Displays, signals	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
r0062	CO: Speed setpoint after the filter		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1590, 1750, 5020, 5030, 5210, 6030
	P-Group: Displays, signals	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r0062	CO: Velocity setpoint after the filter		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1590, 1750, 5020, 5030, 5210, 6030
	P-Group: Displays, signals	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
r0063	CO: Actual speed, smoothed		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1580, 1590, 4710, 8010
	P-Group: Displays, signals	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]

r0063	CO: Actual speed, smoothed		
SERVO (Lin)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 1580, 1590, 4710, 8010
	P-Group: Displays, signals	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
r0064	CO: Speed controller system deviation		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 5040, 6040
	P-Group: Displays, signals	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r0064	CO: Velocity controller system deviation		
SERVO (Lin)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 5040, 6040
	P-Group: Displays, signals	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
r0065	Slip frequency		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 6310, 6730
	P-Group: Displays, signals	Units group: FREQUENCY	Unit selection: -
	Min - [Hz]	Max - [Hz]	Factory setting - [Hz]
r0066	CO: Infeed line frequency		
A_INF	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 8850, 8864, 8950, 8964
	P-Group: Displays, signals	Units group: FREQUENCY	Unit selection: -
	Min - [Hz]	Max - [Hz]	Factory setting - [Hz]
r0066	CO: Drive output frequency		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 1690, 5300, 5730, 6310, 6730, 6731, 6799
	P-Group: Displays, signals	Units group: FREQUENCY	Unit selection: -
	Min - [Hz]	Max - [Hz]	Factory setting - [Hz]

r0067[0...1]	Permissible absolute infeed current magnitude OK		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0067	Maximum drive output current		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5722, 6300, 6640, 6724
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0068	CO: Absolute current actual value		
A_INF, SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5730, 8014, 8850, 8950
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0069[0...6]	Phase current, actual value		
A_INF, SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1630, 5730, 6714, 6730, 6731, 8850, 8950
	P-Group: Displays, signals	Units group: CURRENT_AC_PP	Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r0070	CO: Actual DC link voltage		
A_INF, SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1774, 5730, 6723, 6724, 6730, 6731, 6799, 8750, 8850, 8864, 8940, 8950, 8964
	P-Group: Displays, signals	Units group: VOLTAGE_DC	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]
r0072	CO: Infeed, input voltage		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 8850, 8950
	P-Group: Displays, signals	Units group: VOLTAGE_AC_EFF	Unit selection: -
	Min - [Veff]	Max - [Veff]	Factory setting - [Veff]

r0072	CO: Drive, output voltage		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1630, 5730, 6730, 6731, 6799
	P-Group: Displays, signals	Units group: VOLTAGE_AC_EFF	Unit selection: -
	Min - [Veff]	Max - [Veff]	Factory setting - [Veff]
r0074	CO: Modulat_depth		
A_INF, SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5730, 6730, 6731, 6799, 8940, 8950
	P-Group: Displays, signals	Units group: PERCENT	Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
r0075	Reactive current setoint		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 8946
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0075	Current setpoint, field-generating		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1630, 5714, 5722, 6714
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0076	Reactive current actual value		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1774, 1775, 8850, 8946, 8950
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0076	Current actual value, field-generating		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1630, 1710, 5714, 5730, 6714, 6799
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]

r0077	CO: Active current setpoint		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1774, 8940, 8946
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0077	CO: Current setpoint, torque-generating		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1630, 1774, 5714, 6710, 6714, 6719
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0078	CO: Active current actual value		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1774, 1775, 8850, 8946, 8950
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0078[0...1]	CO: Current actual value, torque-generating		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1630, 5714, 5730
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0079[0...1]	CO: Torque setpoint total		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5610, 8012
	P-Group: Displays, signals	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r0079[0...1]	CO: Total force setpoint		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5610, 8012
	P-Group: Displays, signals	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]

r0080	CO: Torque actual value		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: TORQUE	Function diagram: 5730
	P-Group: Displays, signals		Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r0080	CO: Torque actual value		
SERVO (Lin)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: FORCE	Function diagram: 5730
	P-Group: Displays, signals		Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]
r0081	CO: Torque utilization		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: PERCENT	Function diagram: 8012
	P-Group: Displays, signals		Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
r0081	CO: Force utilization		
SERVO (Lin)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: PERCENT	Function diagram: 8012
	P-Group: Displays, signals		Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
r0082	CO: Active power actual value		
A_INF	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: POWER_P3	Function diagram: 8850, 8950
	P-Group: Displays, signals		Unit selection: -
	Min - [kW]	Max - [kW]	Factory setting - [kW]
r0082[0...2]	CO: Active power actual value		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: POWER_P3	Function diagram: 5730
	P-Group: Displays, signals		Unit selection: -
	Min - [kW]	Max - [kW]	Factory setting - [kW]
r0083	CO: Flux setpoint		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: FLUX_RELATIVE	Function diagram: 5722
	P-Group: Displays, signals		Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]

r0084	CO: Actual flux		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5722, 6730, 6731
	P-Group: Displays, signals	Units group: FLUX_RELATIVE	Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
r0088	DC-link voltage setpoint		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 8940, 8964
	P-Group: Displays, signals	Units group: VOLTAGE_DC	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]
r0089[0...2]	Actual phase voltage		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 6719
	P-Group: Displays, signals	Units group: VOLTAGE_AC_PP	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]
r0093	CO: Pole position angle electrically normalized		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: ANGLE	Unit selection: -
	Min - [°]	Max - [°]	Factory setting - [°]
r0094	CO: Transformation angle		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 8850, 8950
	P-Group: Displays, signals	Units group: ANGLE	Unit selection: -
	Min - [°]	Max - [°]	Factory setting - [°]
r0094	CO: Transformation angle		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1580, 4710, 6010, 6714, 6730
	P-Group: Displays, signals	Units group: ANGLE	Unit selection: -
	Min - [°]	Max - [°]	Factory setting - [°]

p0097	Select drive object type			
CU_CX32, CU_I	Can be changed: C1(1)		Dynamic index: -	Access level: 1
	Data type: Integer16		Units group: -	Function diagram: -
	P-Group: Topology			Unit selection: -
	Min 0	Max 12		Factory setting 0
r0098[0...5]	Actual device topology			
CU_CX32, CU_I	Can be changed: -		Dynamic index: -	Access level: 1
	Data type: Unsigned32		Units group: -	Function diagram: -
	P-Group: Topology			Unit selection: -
	Min -	Max -		Factory setting -
p0099[0...5]	Device target topology			
CU_CX32, CU_I	Can be changed: C1(1)		Dynamic index: -	Access level: 1
	Data type: Unsigned32		Units group: -	Function diagram: -
	P-Group: Topology			Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex		Factory setting 0000 hex
p0100	IEC/NEMA mot stds			
SERVO	Can be changed: C2(1)		Dynamic index: -	Access level: 1
	Data type: Integer16		Units group: -	Function diagram: -
	P-Group: Converter			Unit selection: -
	Min 0	Max 1		Factory setting 0
p0101[0...15]	Drive object numbers			
CU_CX32, CU_I	Can be changed: C1(1)		Dynamic index: -	Access level: 2
	Data type: Unsigned16		Units group: -	Function diagram: -
	P-Group: Topology			Unit selection: -
	Min 0	Max 62		Factory setting 0
r0102	Number of drive objects			
CU_CX32, CU_I	Can be changed: -		Dynamic index: -	Access level: 2
	Data type: Unsigned16		Units group: -	Function diagram: -
	P-Group: Topology			Unit selection: -
	Min -	Max -		Factory setting -
p0103[0...15]	Application-specific view			
CU_CX32, CU_I	Can be changed: C1(2)		Dynamic index: -	Access level: 2
	Data type: Unsigned16		Units group: -	Function diagram: -
	P-Group: -			Unit selection: -
	Min 0	Max 999		Factory setting 0

r0103	Application-specific view			
A_INF, SERVO	Can be changed: -		Dynamic index: -	Access level: 2
	Data type: Unsigned16		Units group: -	Function diagram: -
	P-Group: Closed-loop control			Unit selection: -
	Min	Max		Factory setting
	-	-		-
p0105	Activate/de-activate drive object			
CU_CX32, CU_I	Can be changed: U, T		Dynamic index: -	Access level: 2
	Data type: Integer16		Units group: -	Function diagram: -
	P-Group: Closed-loop control			Unit selection: -
	Min	Max		Factory setting
	0	1		1
p0105	Activate/de-activate drive object			
A_INF, SERVO	Can be changed: T		Dynamic index: -	Access level: 2
	Data type: Integer16		Units group: -	Function diagram: -
	P-Group: Closed-loop control			Unit selection: -
	Min	Max		Factory setting
	0	1		1
r0106	Drive object active/inactive			
All objects	Can be changed: -		Dynamic index: -	Access level: 2
	Data type: Integer16		Units group: -	Function diagram: -
	P-Group: Closed-loop control			Unit selection: -
	Min	Max		Factory setting
	-	-		-
p0107[0...15]	Drive object type			
CU_CX32, CU_I	Can be changed: C1(2)		Dynamic index: -	Access level: 2
	Data type: Integer16		Units group: -	Function diagram: -
	P-Group: -			Unit selection: -
	Min	Max		Factory setting
	0	254		0
r0107	Drive object type			
A_INF	Can be changed: -		Dynamic index: -	Access level: 2
	Data type: Integer16		Units group: -	Function diagram: -
	P-Group: Closed-loop control			Unit selection: -
	Min	Max		Factory setting
	-	-		-
r0107	Drive object type			
SERVO	Can be changed: -		Dynamic index: -	Access level: 2
	Data type: Integer16		Units group: -	Function diagram: -
	P-Group: Closed-loop control			Unit selection: -
	Min	Max		Factory setting
	-	-		-

p0108[0...15]	Drive object, function module		
CU_CX32, CU_I	Can be changed: C1(2)	Dynamic index: -	Access level: 2
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: -		Unit selection: -
	Min 0000 bin	Max 1111 1111 1111 1111 1111 1111 1111 1111 bin	Factory setting 0000 bin
r0108	Drive object, function module		
A_INF	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Closed-loop control		Unit selection: -
	Min -	Max -	Factory setting -
r0108	Drive object, function module		
SERVO	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Closed-loop control		Unit selection: -
	Min -	Max -	Factory setting -
p0110[0...2]	DRIVE-CLiQ basis sampling times		
CU_CX32, CU_I	Can be changed: C1(1)	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: TIME_M6	Function diagram: -
	P-Group: Closed-loop control		Unit selection: -
	Min 31.25 [µs]	Max 10000.00 [µs]	Factory setting [0] 125.00 [µs] [1] 250.00 [µs] [2] 250.00 [µs]
p0111	DRIVE-CLiQ basis sampling time selection		
A_INF, SERVO	Can be changed: C1(3)	Dynamic index: -	Access level: 4
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Closed-loop control		Unit selection: -
	Min 0	Max 2	Factory setting 0
p0112	Sampling times pre-setting p0115		
A_INF, SERVO	Can be changed: C1(3)	Dynamic index: -	Access level: 4
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Closed-loop control		Unit selection: -
	Min 0	Max 5	Factory setting 3

p0115[0...6]	Sampling times for internal control loops		
A_INF, SERVO	Can be changed: C1(3)	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: TIME_M6	Function diagram: -
	P-Group: Closed-loop control		Unit selection: -
	Min 0.00 [µs]	Max 16000.00 [µs]	Factory setting [0] 125.00 [µs] [1] 125.00 [µs] [2] 125.00 [µs] [3] 4000.00 [µs] [4] 0.00 [µs] [5] 0.00 [µs] [6] 4000.00 [µs]
p0117	Current controller computation deadtime mode		
CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Closed-loop control		Unit selection: -
	Min 0	Max 6	Factory setting 6
p0118	Current controller computation deadtime		
A_INF, SERVO	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: TIME_M6	Function diagram: -
	P-Group: Closed-loop control		Unit selection: -
	Min 0.00 [µs]	Max 2000.00 [µs]	Factory setting 0.00 [µs]
p0120	Power Module Data Sets (PDS) number		
A_INF, SERVO	Can be changed: C1(3)	Dynamic index: -	Access level: 2
	Data type: Unsigned8	Units group: -	Function diagram: -
	P-Group: Data sets		Unit selection: -
	Min 1	Max 8	Factory setting 1
p0121[0...n]	Power module component number		
A_INF, SERVO	Can be changed: C1(4)	Dynamic index: PDS	Access level: 4
	Data type: Unsigned8	Units group: -	Function diagram: -
	P-Group: Data sets		Unit selection: -
	Min 0	Max 199	Factory setting 0
p0124[0...15]	Detection of main components using LED		
CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Unsigned8	Units group: -	Function diagram: -
	P-Group: Converter		Unit selection: -
	Min 0	Max 1	Factory setting 0

p0124[0...n]	Power module detection via LED			
A_INF, SERVO	Can be changed: U, T		Dynamic index: PDS	Access level: 2
	Data type: Unsigned8		Units group: -	Function diagram: -
	P-Group: Converter			Unit selection: -
	Min	Max		Factory setting
	0	1		0
p0125[0...n]	Activate/de-activate power module components			
A_INF, SERVO	Can be changed: C1(4), T		Dynamic index: PDS	Access level: 2
	Data type: Integer16		Units group: -	Function diagram: -
	P-Group: Data sets			Unit selection: -
	Min	Max		Factory setting
	0	1		1
r0126[0...n]	Power module components active/inactive			
A_INF, SERVO	Can be changed: -		Dynamic index: PDS	Access level: 2
	Data type: Integer16		Units group: -	Function diagram: -
	P-Group: Data sets			Unit selection: -
	Min	Max		Factory setting
	-	-		-
r0127[0...n]	Power module version EPROM data			
A_INF, SERVO	Can be changed: -		Dynamic index: PDS	Access level: 3
	Data type: Unsigned32		Units group: -	Function diagram: -
	P-Group: Converter			Unit selection: -
	Min	Max		Factory setting
	-	-		-
r0128[0...n]	Power module firmware version			
A_INF, SERVO	Can be changed: -		Dynamic index: PDS	Access level: 3
	Data type: Unsigned32		Units group: -	Function diagram: -
	P-Group: Converter			Unit selection: -
	Min	Max		Factory setting
	-	-		-
p0130	Motor Data Sets (MDS) number			
SERVO	Can be changed: C1(3)		Dynamic index: -	Access level: 2
	Data type: Unsigned8		Units group: -	Function diagram: 8575
	P-Group: Data sets			Unit selection: -
	Min	Max		Factory setting
	1	16		1
p0131[0...n]	Motor component number			
SERVO	Can be changed: C1(4)		Dynamic index: MDS	Access level: 4
	Data type: Unsigned8		Units group: -	Function diagram: -
	P-Group: Data sets			Unit selection: -
	Min	Max		Factory setting
	0	199		0

p0139[0...2]	Copy Motor Data Set MDS		
SERVO	Can be changed: C2(15)		Access level: 2
	Data type: Unsigned8	Dynamic index: -	Function diagram: 8575
	P-Group: Data sets	Units group: -	Unit selection: -
	Min 0	Max 31	Factory setting [0] 0 [1] 0 [2] 0
p0140	Encoder Data Sets (EDS) number		
SERVO	Can be changed: C1(3)		Access level: 4
	Data type: Unsigned8	Dynamic index: -	Function diagram: -
	P-Group: Data sets	Units group: -	Unit selection: -
	Min 1	Max 3	Factory setting 1
p0141[0...n]	Encoder interface (Sensor Module) component number		
SERVO	Can be changed: C1(4)		Access level: 4
	Data type: Unsigned8	Dynamic index: EDS	Function diagram: 4704, 8570
	P-Group: Data sets	Units group: -	Unit selection: -
	Min 0	Max 199	Factory setting 0
p0142[0...n]	Encoder component number		
SERVO	Can be changed: C1(4)		Access level: 4
	Data type: Unsigned8	Dynamic index: EDS	Function diagram: 4704
	P-Group: Data sets	Units group: -	Unit selection: -
	Min 0	Max 199	Factory setting 0
p0144[0...n]	Voltage sensing module detection via LED		
A_INF	Can be changed: U, T		Access level: 4
	Data type: Unsigned8	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 0
p0144[0...n]	Sensor Module detection via LED		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Unsigned8	Dynamic index: EDS	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 0

p0145[0...n]	Activate/de-activate encoder interface		
A_INF	Can be changed: C1(4), T		Access level: 2
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Data sets	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 1
p0145[0...n]	Activate/de-activate encoder interface		
SERVO	Can be changed: C1(4), U, T		Access level: 2
	Data type: Integer16	Dynamic index: EDS	Function diagram: -
	P-Group: Data sets	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 1
r0146[0...n]	Encoder interface active/inactive		
A_INF	Can be changed: -		Access level: 2
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Data sets	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r0146[0...n]	Encoder interface active/inactive		
SERVO	Can be changed: -		Access level: 2
	Data type: Integer16	Dynamic index: EDS	Function diagram: -
	P-Group: Data sets	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r0147[0...n]	Voltage sensing module, EPROM data version		
A_INF	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r0147[0...n]	Sensor Module EPROM data version		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: EDS	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r0148[0...n]	Voltage sensing module, firmware version		
A_INF	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

r0148[0...n]	Sensor Module firmware version		
SERVO	Can be changed: -	Dynamic index: EDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Encoder		Unit selection: -
	Min	Max	Factory setting
	-	-	-
p0170	Command Data Set (CDS) number		
A_INF, SERVO	Can be changed: C1(3)	Dynamic index: -	Access level: 2
	Data type: Unsigned8	Units group: -	Function diagram: -
	P-Group: Commands		Unit selection: -
	Min	Max	Factory setting
	1	1	1
p0180	Drive Data Set (DDS) number		
SERVO	Can be changed: C1(3)	Dynamic index: -	Access level: 2
	Data type: Unsigned8	Units group: -	Function diagram: 8565
	P-Group: Data sets		Unit selection: -
	Min	Max	Factory setting
	1	32	1
p0186[0...n]	Motor Data Sets (MDS) number		
SERVO	Can be changed: C1(4)	Dynamic index: DDS	Access level: 3
	Data type: Unsigned8	Units group: -	Function diagram: 8575
	P-Group: Data sets		Unit selection: -
	Min	Max	Factory setting
	0	15	0
p0187[0...n]	Encoder 1 encoder data set number		
SERVO	Can be changed: C1(4)	Dynamic index: DDS	Access level: 3
	Data type: Unsigned8		Function diagram: 1580, 8570
	P-Group: Data sets	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	99	99
p0188[0...n]	Encoder 2 encoder data set number		
SERVO	Can be changed: C1(4)	Dynamic index: DDS	Access level: 3
	Data type: Unsigned8		Function diagram: 1580, 8570
	P-Group: Data sets	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	99	99

p0189[0...n]	Encoder 3 encoder data set number		
SERVO	Can be changed: C1(4)		Access level: 3
	Data type: Unsigned8	Dynamic index: DDS	Function diagram: 1580, 8570
	P-Group: Data sets	Units group: -	Unit selection: -
	Min 0	Max 99	Factory setting 99
r0192	Power module properties		
A_INF, SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Converter	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r0194[0...n]	VSM properties		
A_INF	Can be changed: -		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r0197	Loader 1 version		
CU_CX32, CU_I	Can be changed: -		Access level: 1
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r0198	Loader 2 version		
CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
p0199[0...24]	Drive object name		
All objects	Can be changed: C2(5)		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Applications	Units group: -	Unit selection: -
	Min 0	Max 65535	Factory setting 0
r0200[0...n]	Power module, actual code number		
A_INF, SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: PDS	Function diagram: -
	P-Group: Converter	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

p0201[0...n]	Power module code number		
A_INF, SERVO	Can be changed: C2(2)	Dynamic index: PDS	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: -
	P-Group: Converter		Unit selection: -
	Min 0	Max 65535	Factory setting 0
r0203[0...n]	Actual power module type		
A_INF, SERVO	Can be changed: -	Dynamic index: PDS	Access level: 3
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Converter		Unit selection: -
	Min -	Max -	Factory setting -
r0204[0...n]	Power module properties		
A_INF, SERVO	Can be changed: -	Dynamic index: PDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Converter		Unit selection: -
	Min -	Max -	Factory setting -
r0206[0...4]	Rated power module power		
A_INF, SERVO	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: POWER_P3	Function diagram: -
	P-Group: Converter		Unit selection: -
	Min - [kW]	Max - [kW]	Factory setting - [kW]
r0207[0...4]	Rated power module current		
A_INF, SERVO	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: CURRENT_AC_EFF	Function diagram: 8014
	P-Group: Converter		Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0208	Rated power module line supply voltage		
A_INF, SERVO	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: VOLTAGE_AC_EFF	Function diagram: -
	P-Group: Converter		Unit selection: -
	Min - [Veff]	Max - [Veff]	Factory setting - [Veff]
r0209[0...4]	Power module, maximum current		
A_INF, SERVO	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: CURRENT_AC_EFF	Function diagram: 8750, 8850, 8950
	P-Group: Converter		Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]

p0210	Drive unit line supply voltage		
A_INF	Can be changed: C2(1) Data type: Floating Point P-Group: Converter	Dynamic index: - Units group: VOLTAGE_AC_EFF	Access level: 1 Function diagram: 8960 Unit selection: - Factory setting 400 [Veff]
	Min 100 [Veff]	Max 1000 [Veff]	
p0210	Drive unit line supply voltage		
SERVO	Can be changed: C2(2), T Data type: Unsigned16 P-Group: Converter	Dynamic index: - Units group: VOLTAGE_DC	Access level: 3 Function diagram: - Unit selection: - Factory setting 600 [V]
	Min 1 [V]	Max 63000 [V]	
p0211	Rated line freq		
A_INF	Can be changed: C2(1) Data type: Floating Point P-Group: Converter	Dynamic index: - Units group: FREQUENCY	Access level: 1 Function diagram: - Unit selection: - Factory setting 50 [Hz]
	Min 10 [Hz]	Max 100 [Hz]	
p0220	Infeed line filter type		
A_INF	Can be changed: C2(1) Data type: Integer16 P-Group: Converter	Dynamic index: - Units group: -	Access level: 3 Function diagram: - Unit selection: - Factory setting 0
	Min 0	Max 33	
p0221	Infeed filter capacitance		
A_INF	Can be changed: C2(1) Data type: Floating Point P-Group: Converter	Dynamic index: - Units group: CAPACITY_M6	Access level: 3 Function diagram: 8950 Unit selection: - Factory setting 0.00 [µF]
	Min 0.00 [µF]	Max 100000.00 [µF]	
p0222	Infeed filter resistance		
A_INF	Can be changed: C2(1) Data type: Floating Point P-Group: Converter	Dynamic index: - Units group: RESISTANCE	Access level: 3 Function diagram: 8950 Unit selection: - Factory setting 0.00000 [Ohm]
	Min 0.00000 [Ohm]	Max 100.00000 [Ohm]	
p0223	Infeed inductance between filter and power module		
A_INF	Can be changed: C2(1) Data type: Floating Point P-Group: Converter	Dynamic index: - Units group: INDUCTANCE_M3	Access level: 3 Function diagram: 8850, 8950 Unit selection: - Factory setting 2.100 [mH]
	Min 0.001 [mH]	Max 1000.000 [mH]	

p0224	Infeed resistance between filter and power module		
A_INF	Can be changed: C2(1)	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 8850, 8950
	P-Group: Converter	Units group: RESISTANCE	Unit selection: -
	Min 0.00000 [Ohm]	Max 100.00000 [Ohm]	Factory setting 0.00100 [Ohm]
p0225	Infeed inductance between line supply and filter		
A_INF	Can be changed: C2(1)	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 8850, 8950
	P-Group: Converter	Units group: INDUCTANCE_M3	Unit selection: -
	Min 0.001 [mH]	Max 1000.000 [mH]	Factory setting 0.001 [mH]
p0226	Infeed resistance between line supply and filter		
A_INF	Can be changed: C2(1)	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 8850, 8950
	P-Group: Converter	Units group: RESISTANCE	Unit selection: -
	Min 0.00 [Ohm]	Max 100.00 [Ohm]	Factory setting 0.00 [Ohm]
p0227	Infeed DC-link capacitance, total		
A_INF	Can be changed: C2(1)	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 8850, 8950
	P-Group: Converter	Units group: CAPACITY_M3	Unit selection: -
	Min 0.001 [mF]	Max 1000.000 [mF]	Factory setting 0.700 [mF]
p0251[0...n]	Operating hours counter, power module fan		
A_INF, SERVO	Can be changed: T	Dynamic index: PDS	Access level: 3
	Data type: Unsigned32		Function diagram: -
	P-Group: Modulation	Units group: TIME_H	Unit selection: -
	Min 0 [h]	Max 4294967295 [h]	Factory setting 0 [h]
p0252	Maximum operating time, power module fan		
A_INF, SERVO	Can be changed: T	Dynamic index: -	Access level: 4
	Data type: Unsigned32		Function diagram: -
	P-Group: Modulation	Units group: TIME_H	Unit selection: -
	Min 0 [h]	Max 50000 [h]	Factory setting 40000 [h]

p0260	Cooling system, starting time 1			
A_INF (RKA), SERVO (RKA)	Can be changed: U, T		Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -	
	P-Group: Converter	Units group: TIME	Unit selection: -	
	Min 0.0 [s]	Max 60.0 [s]	Factory setting 5.0 [s]	
p0261	Cooling system, starting time 2			
A_INF (RKA), SERVO (RKA)	Can be changed: U, T		Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -	
	P-Group: Converter	Units group: TIME	Unit selection: -	
	Min 0.0 [s]	Max 1200.0 [s]	Factory setting 180.0 [s]	
p0262	Cooling system, fault conductivity delay time			
A_INF (RKA), SERVO (RKA)	Can be changed: U, T		Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -	
	P-Group: Converter	Units group: TIME	Unit selection: -	
	Min 0.0 [s]	Max 30.0 [s]	Factory setting 0.0 [s]	
p0263	Cooling system fault water flow, delay time			
A_INF (RKA), SERVO (RKA)	Can be changed: U, T		Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -	
	P-Group: Converter	Units group: TIME	Unit selection: -	
	Min 0.0 [s]	Max 20.0 [s]	Factory setting 3.0 [s]	
p0264	Cooling system, run-on time			
A_INF (RKA), SERVO (RKA)	Can be changed: U, T		Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -	
	P-Group: Converter	Units group: TIME	Unit selection: -	
	Min 0.0 [s]	Max 180.0 [s]	Factory setting 30.0 [s]	
r0265	BO: Cooling system, control word			
A_INF (RKA), SERVO (RKA)	Can be changed: -		Access level: 3	
	Data type: Unsigned8	Dynamic index: -	Function diagram: -	
	P-Group: Commands	Units group: -	Unit selection: -	
	Min -	Max -	Factory setting -	

p0266[0...7]	BI: Cooling system, signal source feedback signals		
A_INF (RKA), SERVO (RKA)	Can be changed: U, T Data type: Unsigned32 P-Group: Communications	Dynamic index: - Units group: -	Access level: 3 Function diagram: - Unit selection: -
	Min -	Max -	Factory setting [0] 0 [1] 0 [2] 1 [3] 1 [4] 1 [5] 1 [6] 1 [7] 1
r0267	BO: Cooling system status word display		
A_INF (RKA), SERVO (RKA)	Can be changed: - Data type: Unsigned16 P-Group: Commands	Dynamic index: - Units group: -	Access level: 3 Function diagram: - Unit selection: -
	Min -	Max -	Factory setting -
p0280	DC link voltage maximum steady-state		
A_INF	Can be changed: C2(1), T Data type: Floating Point P-Group: Converter	Dynamic index: - Units group: VOLTAGE_DC	Access level: 3 Function diagram: 8940, 8964 Unit selection: -
	Min 270 [V]	Max 1500 [V]	Factory setting 660 [V]
p0281	Line supply overvoltage, warning threshold		
A_INF	Can be changed: T Data type: Floating Point P-Group: Converter	Dynamic index: - Units group: PERCENT	Access level: 3 Function diagram: 8960 Unit selection: -
	Min 100 [%]	Max 200 [%]	Factory setting 110 [%]
p0282	Line supply undervoltage, alarm threshold		
A_INF	Can be changed: T Data type: Floating Point P-Group: Converter	Dynamic index: - Units group: PERCENT	Access level: 3 Function diagram: 8960 Unit selection: -
	Min 10 [%]	Max 100 [%]	Factory setting 85 [%]
p0283	Line supply undervoltage, shutdown (trip) threshold		
A_INF	Can be changed: C2(1), T Data type: Floating Point P-Group: Converter	Dynamic index: - Units group: PERCENT	Access level: 3 Function diagram: 8960 Unit selection: -
	Min 10 [%]	Max 100 [%]	Factory setting 75 [%]

p0284	Line supply frequency exceeded, alarm threshold		
A_INF	Can be changed: T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 8964
	P-Group: Converter	Units group: PERCENT	Unit selection: -
	Min 100.0 [%]	Max 300.0 [%]	Factory setting 110.0 [%]
p0285	Line supply frequency fallen below, alarm threshold		
A_INF	Can be changed: T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 8964
	P-Group: Converter	Units group: PERCENT	Unit selection: -
	Min 0.0 [%]	Max 100.0 [%]	Factory setting 90.0 [%]
p0287[0...1]	Ground fault monitoring thresholds		
A_INF, SERVO	Can be changed: T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: PERCENT	Unit selection: -
	Min 0.0 [%]	Max 100.0 [%]	Factory setting [0] 6.0 [%] [1] 16.0 [%]
r0289	Maximum power module output current		
SERVO	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
p0290	Power module overload response		
SERVO	Can be changed: T	Access level: 3	
	Data type: Integer16	Dynamic index: -	Function diagram: 8014
	P-Group: Converter	Units group: -	Unit selection: -
	Min 0	Max 3	Factory setting 0
p0294	Power module alarm with I2t overload		
A_INF, SERVO	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 8014
	P-Group: Converter	Units group: PERCENT	Unit selection: -
	Min 10.0 [%]	Max 100.0 [%]	Factory setting 95.0 [%]
p0295	Fan run-on time		
A_INF, SERVO	Can be changed: U, T	Access level: 1	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Converter	Units group: TIME	Unit selection: -
	Min 0 [s]	Max 600 [s]	Factory setting 0 [s]

r0296	DC link voltage undervoltage threshold		
A_INF	Can be changed: - Data type: Unsigned16 P-Group: Converter	Dynamic index: - Units group: VOLTAGE_DC	Access level: 2 Function diagram: - Unit selection: - Factory setting - [V]
	Min - [V]	Max - [V]	
r0297	DC link voltage overvoltage threshold		
A_INF	Can be changed: - Data type: Unsigned16 P-Group: Converter	Dynamic index: - Units group: VOLTAGE_DC	Access level: 2 Function diagram: - Unit selection: - Factory setting - [V]
	Min - [V]	Max - [V]	
p0300[0...n]	Mot type selection		
SERVO	Can be changed: C2(1, 3) Data type: Integer16 P-Group: Motor	Dynamic index: MDS Units group: -	Access level: 2 Function diagram: 6310 Unit selection: - Factory setting 0
	Min 0	Max 10000	
p0301[0...n]	Motor code number selection		
SERVO	Can be changed: C2(1, 3), U Data type: Unsigned16 P-Group: Motor	Dynamic index: MDS Units group: -	Access level: 2 Function diagram: - Unit selection: - Factory setting 0
	Min 0	Max 65535	
r0302[0...n]	Motor code number of motor with DRIVE-CLiQ		
SERVO	Can be changed: - Data type: Unsigned16 P-Group: Motor	Dynamic index: MDS Units group: -	Access level: 2 Function diagram: - Unit selection: - Factory setting -
	Min -	Max -	
p0304[0...n]	Rated motor voltage		
SERVO	Can be changed: C2(1, 3) Data type: Floating Point P-Group: Motor	Dynamic index: MDS Units group: VOLTAGE_AC_EFF	Access level: 1 Function diagram: 6300, 6724 Unit selection: - Factory setting 0 [Veff]
	Min 0 [Veff]	Max 20000 [Veff]	
p0305[0...n]	Rated motor current		
SERVO	Can be changed: C2(1, 3) Data type: Floating Point P-Group: Motor	Dynamic index: MDS Units group: CURRENT_AC_EFF	Access level: 1 Function diagram: 6300 Unit selection: - Factory setting 0.00 [Aeff]
	Min 0.00 [Aeff]	Max 10000.00 [Aeff]	

p0306[0...n]	Number of motors connected in parallel		
SERVO	Can be changed: C2(1, 3)	Dynamic index: MDS	Access level: 1
	Data type: Unsigned8	Units group: -	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 1	Max 100	Factory setting 1
p0307[0...n]	Rated motor power		
SERVO	Can be changed: C2(1, 3)	Dynamic index: MDS	Access level: 1
	Data type: Floating Point	Units group: POWER_P3	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00 [kW]	Max 100000.00 [kW]	Factory setting 0.00 [kW]
p0308[0...n]	Rated motor power factor		
SERVO	Can be changed: C2(1, 3)	Dynamic index: MDS	Access level: 1
	Data type: Floating Point	Units group: -	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.000	Max 1.000	Factory setting 0.000
p0310[0...n]	Rated motor frequency		
SERVO	Can be changed: C2(1, 3)	Dynamic index: MDS	Access level: 1
	Data type: Floating Point	Units group: FREQUENCY	Function diagram: 6300
	P-Group: Motor		Unit selection: -
	Min 0.00 [Hz]	Max 3000.00 [Hz]	Factory setting 0.00 [Hz]
p0311[0...n]	Rated motor speed		
SERVO	Can be changed: C2(1, 3)	Dynamic index: MDS	Access level: 1
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.0 [1/min]	Max 210000.0 [1/min]	Factory setting 0.0 [1/min]
p0311[0...n]	Rated motor velocity		
SERVO (Lin)	Can be changed: C2(1, 3)	Dynamic index: MDS	Access level: 1
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.0 [m/min]	Max 6000.0 [m/min]	Factory setting 0.0 [m/min]
p0312[0...n]	Rated motor torque		
SERVO	Can be changed: C2(3)	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: TORQUE	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 0.00 [Nm]

p0312[0...n]	Rated motor force		
SERVO (Lin)	Can be changed: C2(3)	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: FORCE	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00 [N]	Max 1000000.00 [N]	Factory setting 0.00 [N]
r0313[0...n]	Motor pole pair number, actual (or calculated)		
SERVO	Can be changed: -	Dynamic index: MDS	Access level: 3
	Data type: Unsigned8	Units group: -	Function diagram: 5300
	P-Group: Motor		Unit selection: -
	Min -	Max -	Factory setting -
p0314[0...n]	Motor pole pair number		
SERVO	Can be changed: C2(1, 3)	Dynamic index: MDS	Access level: 2
	Data type: Unsigned8	Units group: -	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0	Max 127	Factory setting 0
p0315[0...n]	Motor pole pair width		
SERVO	Can be changed: C2(1, 3)	Dynamic index: MDS	Access level: 1
	Data type: Floating Point	Units group: LENGTH_M3	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 1.00 [mm]	Max 1000.00 [mm]	Factory setting 30.00 [mm]
p0316[0...n]	Motor torque constant		
SERVO	Can be changed: C2(1, 3), U, T	Dynamic index: MDS	Access level: 2
	Data type: Floating Point	Units group: TORQUE_PER_CURR	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00 [Nm/A]	Max 100.00 [Nm/A]	Factory setting 0.00 [Nm/A]
p0316[0...n]	Motor force constant		
SERVO (Lin)	Can be changed: C2(1, 3), U, T	Dynamic index: MDS	Access level: 2
	Data type: Floating Point	Units group: FORCE_PER_CURR	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00 [N/Aeff]	Max 1000.00 [N/Aeff]	Factory setting 0.00 [N/Aeff]
p0317[0...n]	Motor voltage constant		
SERVO	Can be changed: C2(3)	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: VOLTAGE_AC_EFF	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.0 [Veff]	Max 10000.0 [Veff]	Factory setting 0.0 [Veff]

p0317[0...n]	Motor voltage constant		
SERVO (Lin)	Can be changed: C2(3)	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: FLUX_PER_METER	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.0 [Veff s/m]	Max 1000.0 [Veff s/m]	Factory setting 0.0 [Veff s/m]
p0318[0...n]	Motor stall current		
SERVO	Can be changed: C2(3)	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_EFF	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00 [Aeff]	Max 10000.00 [Aeff]	Factory setting 0.00 [Aeff]
p0319[0...n]	Motor stall torque		
SERVO	Can be changed: C2(3)	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: TORQUE	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.0 [Nm]	Max 100000.0 [Nm]	Factory setting 0.0 [Nm]
p0319[0...n]	Motor stall force		
SERVO (Lin)	Can be changed: C2(3)	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: FORCE	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.0 [N]	Max 100000.0 [N]	Factory setting 0.0 [N]
p0320[0...n]	Motor rated magnetization current/short-circuit current		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_EFF	Function diagram: 5722
	P-Group: Motor		Unit selection: -
	Min 0.000 [Aeff]	Max 5000.000 [Aeff]	Factory setting 0.000 [Aeff]
p0322[0...n]	Maximum motor speed		
SERVO	Can be changed: C2(1, 3)	Dynamic index: MDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.0 [1/min]	Max 210000.0 [1/min]	Factory setting 0.0 [1/min]
p0322[0...n]	Motor velocity, maximum		
SERVO (Lin)	Can be changed: C2(1, 3)	Dynamic index: MDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.0 [m/min]	Max 1000.0 [m/min]	Factory setting 0.0 [m/min]

p0323[0...n]	Maximum motor current		
SERVO	Can be changed: C2(1, 3)	Dynamic index: MDS	Access level: 2
	Data type: Floating Point	Units group: CURRENT_AC_EFF	Function diagram: 5722
	P-Group: Motor		Unit selection: -
	Min 0.00 [Aeff]	Max 20000.00 [Aeff]	Factory setting 0.00 [Aeff]
p0325[0...n]	Pole position identification current, 1st phase		
SERVO	Can be changed: U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_EFF	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.000 [Aeff]	Max 10000.000 [Aeff]	Factory setting 0.000 [Aeff]
p0326[0...n]	Stall torque correction factor		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: PERCENT	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 5 [%]	Max 300 [%]	Factory setting 60 [%]
p0327[0...n]	PE spindle, optimum load angle		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: ANGLE	Function diagram: 5722
	P-Group: Motor		Unit selection: -
	Min 0.0 [°]	Max 135.0 [°]	Factory setting 90.0 [°]
p0328[0...n]	PE spindle, reluctance torque constant		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: INDUCTANCE_M3	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00 [mH]	Max 1000.00 [mH]	Factory setting 0.00 [mH]
p0329[0...n]	Pole position identification current		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_EFF	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00 [Aeff]	Max 10000.00 [Aeff]	Factory setting 0.00 [Aeff]
r0330[0...n]	Rated motor slip		
SERVO	Can be changed: -	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: FREQUENCY	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min - [Hz]	Max - [Hz]	Factory setting - [Hz]

r0331[0...n]	Motor magnetizing current/short-circuit current (actual)		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: 5722, 6722, 6724
	P-Group: Motor	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r0332[0...n]	Rated motor power factor		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: -
	P-Group: Motor	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r0333[0...n]	Rated motor torque		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: -
	P-Group: Motor	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r0333[0...n]	Rated motor force		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: -
	P-Group: Motor	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]
r0334[0...n]	Motor-torque constant, actual		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: -
	P-Group: Motor	Units group: TORQUE_PER_CURR	Unit selection: -
	Min - [Nm/A]	Max - [Nm/A]	Factory setting - [Nm/A]
r0334[0...n]	Motor force constant, actual		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: -
	P-Group: Motor	Units group: FORCE_PER_CURR	Unit selection: -
	Min - [N/Aeff]	Max - [N/Aeff]	Factory setting - [N/Aeff]

p0335[0...n]	Motor cooling type			
SERVO	Can be changed: C2(1, 3), T		Dynamic index: MDS	Access level: 1
	Data type: Integer16		Units group: -	Function diagram: -
	P-Group: Motor			Unit selection: -
	Min 0	Max 6		Factory setting 0
r0336[0...n]	Rated motor frequency (actual)			
SERVO	Can be changed: -		Dynamic index: MDS	Access level: 3
	Data type: Floating Point		Units group: FREQUENCY	Function diagram: -
	P-Group: Motor			Unit selection: -
	Min - [Hz]	Max - [Hz]		Factory setting - [Hz]
r0337[0...n]	Rated motor EMF			
SERVO	Can be changed: -		Dynamic index: MDS	Access level: 3
	Data type: Floating Point		Units group: VOLTAGE_AC_EFF	Function diagram: -
	P-Group: Motor			Unit selection: -
	Min - [Veff]	Max - [Veff]		Factory setting - [Veff]
r0337[0...n]	Rated motor EMF			
SERVO (Lin)	Can be changed: -		Dynamic index: MDS	Access level: 3
	Data type: Floating Point		Units group: FLUX_PER_METER	Function diagram: -
	P-Group: Motor			Unit selection: -
	Min - [Veff s/m]	Max - [Veff s/m]		Factory setting - [Veff s/m]
p0338[0...n]	Motor limit current			
SERVO	Can be changed: C2(1, 3)		Dynamic index: MDS	Access level: 2
	Data type: Floating Point		Units group: CURRENT_AC_EFF	Function diagram: -
	P-Group: Motor			Unit selection: -
	Min 0.00 [Aeff]	Max 10000.00 [Aeff]		Factory setting 0.00 [Aeff]
r0339[0...n]	Rated motor voltage			
SERVO	Can be changed: -		Dynamic index: MDS	Access level: 3
	Data type: Floating Point		Units group: VOLTAGE_AC_EFF	Function diagram: -
	P-Group: Motor			Unit selection: -
	Min - [Veff]	Max - [Veff]		Factory setting - [Veff]
p0340	Automatic calculation, control parameters			
A_INF	Can be changed: T		Dynamic index: -	Access level: 3
	Data type: Integer16		Units group: -	Function diagram: -
	P-Group: Closed-loop control			Unit selection: -
	Min 0	Max 2		Factory setting 0

p0340[0...n]	Automatic calculation of motor/control parameters		
SERVO	Can be changed: C2(3), T	Dynamic index: DDS	Access level: 2
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0	Max 5	Factory setting 0
p0341[0...n]	Motor moment of inertia		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: INERTIA	Function diagram: 5210
	P-Group: Motor		Unit selection: -
	Min 0.00000 [kgm ²]	Max 100000.00000 [kgm ²]	Factory setting 0.00000 [kgm ²]
p0341[0...n]	Motor weight		
SERVO (Lin)	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: MASS	Function diagram: 5210
	P-Group: Motor		Unit selection: -
	Min 0.00000 [kg]	Max 10000.00000 [kg]	Factory setting 0.00000 [kg]
p0342[0...n]	Ratio between the total and motor moment of inertia		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: -	Function diagram: 5210
	P-Group: Motor		Unit selection: -
	Min 1.000	Max 10000.000	Factory setting 1.000
p0344[0...n]	Motor weight		
SERVO	Can be changed: C2(3), T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: MASS	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.0 [kg]	Max 50000.0 [kg]	Factory setting 0.0 [kg]
p0348[0...n]	Speed at the start of field weakening V_{dc} = 600 V		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 5722
	P-Group: Motor		Unit selection: -
	Min 0.0 [1/min]	Max 210000.0 [1/min]	Factory setting 0.0 [1/min]
p0348[0...n]	Velocity at the start of field weakening V_{dc} = 600 V		
SERVO (Lin)	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 5722
	P-Group: Motor		Unit selection: -
	Min 0.0 [m/min]	Max 1000.0 [m/min]	Factory setting 0.0 [m/min]

p0350[0...n]	Motor stator resistance, cold		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 2
	Data type: Floating Point	Units group: RESISTANCE	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00000 [Ohm]	Max 2000.00000 [Ohm]	Factory setting 0.00000 [Ohm]
p0352[0...n]	Cable resistance		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: RESISTANCE	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00000 [Ohm]	Max 120.00000 [Ohm]	Factory setting 0.00000 [Ohm]
p0353[0...n]	Motor series inductance		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 2
	Data type: Floating Point	Units group: INDUCTANCE_M3	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.000 [mH]	Max 1000000.000 [mH]	Factory setting 0.000 [mH]
p0354[0...n]	Motor rotor resistance, cold		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: RESISTANCE	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00000 [Ohm]	Max 300.00000 [Ohm]	Factory setting 0.00000 [Ohm]
p0356[0...n]	Motor stator leakage inductance		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: INDUCTANCE_M3	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00000 [mH]	Max 1000.00000 [mH]	Factory setting 0.00000 [mH]
p0358[0...n]	Motor rotor leakage inductance		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: INDUCTANCE_M3	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00000 [mH]	Max 1000.00000 [mH]	Factory setting 0.00000 [mH]
p0360[0...n]	Motor magnetizing inductance		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: INDUCTANCE_M3	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min 0.00000 [mH]	Max 10000.00000 [mH]	Factory setting 0.00000 [mH]

r0370[0...n]	Motor stator resistance, cold		
SERVO	Can be changed: - Data type: Floating Point P-Group: Motor Min - [Ohm]	Dynamic index: MDS Units group: RESISTANCE Max - [Ohm]	Access level: 4 Function diagram: - Unit selection: - Factory setting - [Ohm]
r0373[0...n]	Motor rated stator resistance		
SERVO	Can be changed: - Data type: Floating Point P-Group: Motor Min - [Ohm]	Dynamic index: MDS Units group: RESISTANCE Max - [Ohm]	Access level: 4 Function diagram: - Unit selection: - Factory setting - [Ohm]
r0374[0...n]	Motor rotor resistance, cold		
SERVO	Can be changed: - Data type: Floating Point P-Group: Motor Min - [Ohm]	Dynamic index: MDS Units group: RESISTANCE Max - [Ohm]	Access level: 4 Function diagram: - Unit selection: - Factory setting - [Ohm]
r0376[0...n]	Rated motor rotor resistance		
SERVO	Can be changed: - Data type: Floating Point P-Group: Motor Min - [Ohm]	Dynamic index: MDS Units group: RESISTANCE Max - [Ohm]	Access level: 4 Function diagram: - Unit selection: - Factory setting - [Ohm]
r0377[0...n]	Motor leakage inductance, total		
SERVO	Can be changed: - Data type: Floating Point P-Group: Motor Min - [mH]	Dynamic index: MDS Units group: INDUCTANCE_M3 Max - [mH]	Access level: 4 Function diagram: 6640 Unit selection: - Factory setting - [mH]
r0382[0...n]	Motor main inductance, transformed		
SERVO	Can be changed: - Data type: Floating Point P-Group: Motor Min - [mH]	Dynamic index: MDS Units group: INDUCTANCE_M3 Max - [mH]	Access level: 4 Function diagram: - Unit selection: - Factory setting - [mH]
r0384[0...n]	Motor rotor time constant		
SERVO	Can be changed: - Data type: Floating Point P-Group: Motor Min - [ms]	Dynamic index: MDS Units group: TIME_M3 Max - [ms]	Access level: 4 Function diagram: 6722 Unit selection: - Factory setting - [ms]

r0386[0...n]	Motor stator leakage time constant		
SERVO	Can be changed: -	Dynamic index: MDS	Access level: 4
	Data type: Floating Point	Units group: TIME_M3	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min - [ms]	Max - [ms]	Factory setting - [ms]
p0391[0...n]	Current controller adaptation, lower starting point		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_EFF	Function diagram: 5714
	P-Group: Motor		Unit selection: -
	Min 0.00 [Aeff]	Max 6000.00 [Aeff]	Factory setting 0.00 [Aeff]
p0392[0...n]	Current controller adaptation, upper starting point		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_EFF	Function diagram: 5714
	P-Group: Motor		Unit selection: -
	Min 0.00 [Aeff]	Max 6000.00 [Aeff]	Factory setting 0.00 [Aeff]
p0393[0...n]	Current controller adaptation, P gain, scaling upper		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: PERCENT	Function diagram: 5714
	P-Group: Motor		Unit selection: -
	Min 0.00 [%]	Max 1000.00 [%]	Factory setting 100.00 [%]

r0395[0...n]	Stator resistance, actual		
SERVO	Can be changed: -	Dynamic index: MDS	Access level: 3
	Data type: Floating Point		Function diagram: 6300, 6730, 6731
	P-Group: Motor	Units group: RESISTANCE	Unit selection: -
	Min - [Ohm]	Max - [Ohm]	Factory setting - [Ohm]
r0396[0...n]	Rotor resistance, actual		
SERVO	Can be changed: -	Dynamic index: MDS	Access level: 3
	Data type: Floating Point		Function diagram: 6730
	P-Group: Motor	Units group: RESISTANCE	Unit selection: -
	Min - [Ohm]	Max - [Ohm]	Factory setting - [Ohm]
p0400[0...n]	Enc type selection		
SERVO	Can be changed: C2(1, 4)	Dynamic index: EDS	Access level: 2
	Data type: Integer16		Function diagram: 1580, 4704, 6004
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0	Max 10000	Factory setting 0
p0404[0...n]	Encoder configuration effective		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Unsigned32		Function diagram: 4704
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0000 bin	Max 0000 0000 1111 1111 1111 1111 1111 1111 bin	Factory setting 0000 bin
p0405[0...n]	Square-wave encoder track A/B		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Unsigned32		Function diagram: 4704, 6004
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0000 bin	Max 1111 bin	Factory setting 0000 bin
p0407[0...n]	Linear encoder grid division		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Unsigned32		Function diagram: 4704, 6004
	P-Group: Encoder	Units group: LENGTH_M9	Unit selection: -
	Min 0 [nm]	Max 250000000 [nm]	Factory setting 16000 [nm]

p0408[0...n]	Rotary encoder pulse No.		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Unsigned32		Function diagram: 4704, 6004
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0	Max 16777215	Factory setting 2048
p0410[0...n]	Encoder inversion actual value		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Unsigned16		Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0000 bin	Max 0011 bin	Factory setting 0000 bin
p0418[0...n]	Fine resolution Gx_XIST1 (in bits)		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Unsigned8		Function diagram: 4704
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 2	Max 18	Factory setting 11
p0419[0...n]	Fine resolution absolute value Gx_XIST2 (in bits)		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Unsigned8		Function diagram: 4704
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 2	Max 18	Factory setting 9
p0421[0...n]	Absolute encoder rotary multi-turn resolution		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Unsigned16		Function diagram: 4704, 6004
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0	Max 65535	Factory setting 4096
p0422[0...n]	Absolute value encoder linear measuring step resolution		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Unsigned32		Function diagram: 4704, 6004
	P-Group: Encoder	Units group: LENGTH_M9	Unit selection: -
	Min 0 [nm]	Max 4294967295 [nm]	Factory setting 8192 [nm]

p0423[0...n]	Absolute value encoder rotary single-turn resolution		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Unsigned32		Function diagram: 4704, 6004
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0	Max 1073741823	Factory setting 8192
p0424[0...n]	Encoder, linear zero mark distance		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Unsigned16	Units group: LENGTH_M3	Function diagram: -
	P-Group: Encoder		Unit selection: -
	Min 0 [mm]	Max 65535 [mm]	Factory setting 20 [mm]
p0425[0...n]	Encoder, rotary zero mark distance		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Unsigned32		Function diagram: 4704, 6004, 8570
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0	Max 16777215	Factory setting 2048
p0430[0...n]	Sensor Module configuration		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Encoder		Unit selection: -
	Min 0000 bin	Max 1110 0000 0000 1011 0000 0000 0000 0000 bin	Factory setting 1110 0000 0000 1000 0000 0000 0000 0000 bin
p0431[0...n]	Angular commutation offset		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Floating Point	Units group: ANGLE	Function diagram: -
	P-Group: Encoder		Unit selection: -
	Min -180.00 [°]	Max 180.00 [°]	Factory setting 0.00 [°]

p0440[0...n]	Copy encoder serial number		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 3
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Encoder		Unit selection: -
	Min 0000 hex	Max 0001 hex	Factory setting 0000 hex
p0441[0...n]	Encoder commissioning serial number part 1		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 4
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Encoder		Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p0442[0...n]	Encoder commissioning serial number part 2		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 4
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Encoder		Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p0443[0...n]	Encoder commissioning serial number part 3		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 4
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Encoder		Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p0444[0...n]	Encoder commissioning serial number part 4		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 4
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Encoder		Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p0445[0...n]	Encoder commissioning serial number part 5		
SERVO	Can be changed: C2(4)	Dynamic index: EDS	Access level: 4
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Encoder		Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
r0451[0...2]	Commutation angle factor		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: 4710
	P-Group: Encoder		Unit selection: -
	Min -	Max -	Factory setting -

r0455[0...2]	Encoder configuration recognized		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0456[0...2]	Encoder configuration supported		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0458[0...2]	Sensor Module properties		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 4704
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0460[0...2]	Encoder serial number part 1		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0461[0...2]	Encoder serial number part 2		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0462[0...2]	Encoder serial number part 3		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0463[0...2]	Encoder serial number part 4		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r0464[0...2]	Encoder serial number part 5		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0479[0...2]	CO: Diagnostics encoder position actual value Gn_XIST1		
SERVO	Can be changed: -		Access level: 4
	Data type: Integer32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p0480[0...2]	CI: Signal source for encoder control word Gn_STW		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 1580, 4720
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
r0481[0...2]	CO: Encoder status word Gn_ZSW		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 4704, 4730, 6004
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0482[0...2]	CO: Encoder actual position value Gn_XACT1		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 1580, 2450, 3090, 4704, 4740
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0483[0...2]	CO: Encoder actual position value Gn_XACT2		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 1580, 2450, 4704, 6004
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r0484[0...2]	CO: Redundant coarse encoder position + CRC Gn_XIST1		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0487[0...2]	Diagnostic encoder control word Gn_STW		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 1580, 4704, 4720, 4740
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p0488[0...2]	Measuring probe 1 input terminal		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: 4740
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	6	0
p0489[0...2]	Measuring probe 2 input terminal		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: 4740
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	6	0
p0490	Invert measuring probe or equivalent zero mark		
CU_I	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 4740
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0000 bin	1111 1111 1111 1111 bin	0000 bin
p0490	Invert measuring probe or equivalent zero mark		
CU_CX32	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0000 bin	1111 1111 1111 1111 bin	0000 bin
p0491	Motor encoder fault response: ENCODER		
SERVO	Can be changed: T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	3	0

p0492	Square-wave encoder, maximum speed difference per sampling cycle		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: SPEED_ROT	Unit selection: -
	Min 0.0 [1/min]	Max 210000.0 [1/min]	Factory setting 0.0 [1/min]
p0492	Square-wave encoder, max. velocity difference per sampling cycle		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.0 [m/min]	Max 1000.0 [m/min]	Factory setting 0.0 [m/min]
p0495[0...2]	Equivalent zero mark, input terminal		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: 4735
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0	Max 6	Factory setting 0
p0496[0...2]	Encoder diagnostic signal selection		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0	Max 42	Factory setting 0
r0497[0...2]	Encoder diagnostic signal double word		
SERVO	Can be changed: -		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r0498[0...2]	Encoder diagnostic signal word low		
SERVO	Can be changed: -		Access level: 4
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r0499[0...2]	Encoder diagnostic signal word high		
SERVO	Can be changed: -		Access level: 4
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

p0500	Technology application		
SERVO	Can be changed: C2(1, 5), T		Access level: 2
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Applications	Units group: -	Unit selection: -
	Min 100	Max 102	Factory setting 100
p0528	Units system for controller gains		
SERVO	Can be changed: C2(5)		Access level: 4
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Applications	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 0
p0578[0...n]	Calculate parameters that are dependent on the technology/units		
SERVO	Can be changed: C2(5), T		Access level: 2
	Data type: Integer16	Dynamic index: DDS	Function diagram: -
	P-Group: Applications	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 0
p0580	Measuring probe, input terminal		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0	Max 6	Factory setting 0
p0581	Meas probe, edge		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 0
p0582	Measuring probe, pulses per revolution		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 1	Max 8	Factory setting 1
p0583	Measuring probe, maximum measuring time		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: TIME	Unit selection: -
	Min 0 [s]	Max 10 [s]	Factory setting 10 [s]

r0586	CO: Measuring probe, speed actual value		
SERVO	Can be changed: - Data type: Floating Point P-Group: Displays, signals Min - [1/min]	Dynamic index: - Units group: SPEED_ROT Max - [1/min]	Access level: 3 Function diagram: - Unit selection: - Factory setting - [1/min]
r0586	CO: Measuring probe, velocity actual value		
SERVO (Lin)	Can be changed: - Data type: Floating Point P-Group: Displays, signals Min - [m/min]	Dynamic index: - Units group: SPEED_LIN_METRIC_P3 Max - [m/min]	Access level: 3 Function diagram: - Unit selection: - Factory setting - [m/min]
r0587	CO: Measuring probe, measuring time measured		
SERVO	Can be changed: - Data type: Unsigned32 P-Group: Displays, signals Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: - Unit selection: - Factory setting -
r0588	CO: Measuring probe, pulse counter		
SERVO	Can be changed: - Data type: Unsigned32 P-Group: Displays, signals Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: - Unit selection: - Factory setting -
r0589	Measuring probe, delay time		
SERVO	Can be changed: - Data type: Unsigned32 P-Group: Displays, signals Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: - Unit selection: - Factory setting -
p0600[0...n]	Motor temperature sensor for monitoring		
SERVO	Can be changed: C2(3), U, T Data type: Integer16 P-Group: Motor Min 0	Dynamic index: MDS Units group: - Max 11	Access level: 2 Function diagram: 8016 Unit selection: - Factory setting 1
p0601[0...n]	Motor temperature sensor type		
SERVO	Can be changed: C2(3), U, T Data type: Integer16 P-Group: Motor Min 0	Dynamic index: MDS Units group: - Max 3	Access level: 2 Function diagram: 8016 Unit selection: - Factory setting 2

p0603	CI: Motor temperature		
SERVO	Can be changed: C2(3), T	Dynamic index: -	Access level: 2
	Data type: Unsigned32	Units group: -	Function diagram: 8016
	P-Group: Motor		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0604[0...n]	Motor overtemperature alarm threshold		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 2
	Data type: Floating Point	Units group: TEMPERATURE	Function diagram: 8016
	P-Group: Motor		Unit selection: -
	Min	Max	Factory setting
	0.0 [°C]	200.0 [°C]	120.0 [°C]
p0605[0...n]	Motor overtemperature fault threshold		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 2
	Data type: Floating Point	Units group: TEMPERATURE	Function diagram: 8016
	P-Group: Motor		Unit selection: -
	Min	Max	Factory setting
	0.0 [°C]	200.0 [°C]	155.0 [°C]
p0606[0...n]	Motor overtemperature timer		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 2
	Data type: Floating Point	Units group: TIME	Function diagram: 8016
	P-Group: Motor		Unit selection: -
	Min	Max	Factory setting
	0.000 [s]	600.000 [s]	240.000 [s]
p0607[0...n]	Temperature sensor fault timer		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 2
	Data type: Floating Point	Units group: TIME	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min	Max	Factory setting
	0.000 [s]	600.000 [s]	0.100 [s]
p0620[0...n]	Thermal adaptation, stator and rotor resistance		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 2
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Motor		Unit selection: -
	Min	Max	Factory setting
	0	2	2
p0625[0...n]	Motor ambient temperature		
SERVO	Can be changed: C2(3), U, T	Dynamic index: MDS	Access level: 3
	Data type: Floating Point	Units group: TEMPERATURE	Function diagram: 8016
	P-Group: Motor		Unit selection: -
	Min	Max	Factory setting
	-40 [°C]	80 [°C]	20 [°C]

p0626[0...n]	Motor overtemperature, stator core		
SERVO	Can be changed: C2(3), U, T		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: 8016
	P-Group: Motor	Units group: TEMPERATURE_K	Unit selection: -
	Min 20 [K]	Max 200 [K]	Factory setting 50 [K]
p0627[0...n]	Motor overtemperature, stator winding		
SERVO	Can be changed: C2(3), U, T		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: 8016
	P-Group: Motor	Units group: TEMPERATURE_K	Unit selection: -
	Min 20 [K]	Max 200 [K]	Factory setting 80 [K]
p0628[0...n]	Rotor winding overtemperature		
SERVO	Can be changed: C2(3), U, T		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: 8016
	P-Group: Motor	Units group: TEMPERATURE_K	Unit selection: -
	Min 20 [K]	Max 200 [K]	Factory setting 100 [K]
r0630[0...n]	Motor temperature model ambient temperature		
SERVO	Can be changed: -		Access level: 4
	Data type: Floating Point	Dynamic index: MDS	Function diagram: 8016
	P-Group: Motor	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r0631[0...n]	Motor temperature model, stator core temperature		
SERVO	Can be changed: -		Access level: 4
	Data type: Floating Point	Dynamic index: MDS	Function diagram: 8016
	P-Group: Motor	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r0632[0...n]	Motor temperature model, stator winding temperature		
SERVO	Can be changed: -		Access level: 4
	Data type: Floating Point	Dynamic index: MDS	Function diagram: 8016
	P-Group: Motor	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r0633[0...n]	Motor temperature model, rotor temperature		
SERVO	Can be changed: -		Access level: 4
	Data type: Floating Point	Dynamic index: MDS	Function diagram: 8016
	P-Group: Motor	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]

p0640[0...n]	Current limit			
SERVO	Can be changed: C2(1, 3), U, T		Access level: 2	
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5722, 6640	
	P-Group: Motor	Units group: CURRENT_AC_EFF	Unit selection: -	
	Min 0.00 [Aeff]	Max 10000.00 [Aeff]	Factory setting 0.00 [Aeff]	
p0643[0...n]	Overvoltage protection for synchronous motors			
SERVO	Can be changed: T		Access level: 3	
	Data type: Integer16	Dynamic index: MDS	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min 0	Max 1	Factory setting 0	
p0650[0...n]	Actual motor operating hours			
SERVO	Can be changed: T		Access level: 3	
	Data type: Unsigned32	Dynamic index: MDS	Function diagram: -	
	P-Group: Motor	Units group: TIME_H	Unit selection: -	
	Min 0 [h]	Max 4294967295 [h]	Factory setting 0 [h]	
p0651[0...n]	Motor operating hours maintenance interval			
SERVO	Can be changed: T		Access level: 3	
	Data type: Unsigned32	Dynamic index: MDS	Function diagram: -	
	P-Group: Motor	Units group: TIME_H	Unit selection: -	
	Min 0 [h]	Max 99999 [h]	Factory setting 0 [h]	
p0680[0...1]	Central measuring probe, input terminal			
CU_CX32, CU_I	Can be changed: U, T		Access level: 3	
	Data type: Integer16	Dynamic index: -	Function diagram: -	
	P-Group: Encoder	Units group: -	Unit selection: -	
	Min 0	Max 6	Factory setting 0	
p0681	BI: Central measuring probe, synchronizing signal, signal source			
CU_CX32, CU_I	Can be changed: T		Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: Commands	Units group: -	Unit selection: -	
	Min -	Max -	Factory setting 0	
p0682	CI: Central measuring probe, control word signal source			
CU_CX32, CU_I	Can be changed: T		Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: Displays, signals	Units group: -	Unit selection: -	
	Min -	Max -	Factory setting 0	

p0684	Central measuring probe evaluation technique		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Min 0	Max 0	Factory setting 0
r0685	Central measuring probe, control word display		
CU_CX32, CU_I	Can be changed: -	Access level: 3	
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r0686[0...1]	CO: Central measuring probe, measuring time rising edge		
CU_CX32, CU_I	Can be changed: -	Access level: 3	
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r0687[0...1]	CO: Central measuring probe, measuring time falling edge		
CU_CX32, CU_I	Can be changed: -	Access level: 3	
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r0688	CO: Central measuring probe, status word display		
CU_CX32, CU_I	Can be changed: -	Access level: 3	
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
p0700[0...n]	Macro binector input (BI)		
A_INF, SERVO	Can be changed: C2(1), T	Access level: 1	
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min 0	Max 999999	Factory setting 0

r0721	CU digital inputs, terminal actual value		
CU_I	Can be changed: - Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: - Units group: - Max -	Access level: 2 Function diagram: 1510, 2100, 2120, 2130, 2131, 2132, 2133 Unit selection: - Factory setting -
r0721	CX digital inputs, terminal actual value		
CU_CX32	Can be changed: - Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: - Units group: - Max -	Access level: 2 Function diagram: - Unit selection: - Factory setting -
r0722	CO/BO: CU digital inputs, status		
CU_I	Can be changed: - Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: - Units group: - Max -	Access level: 1 Function diagram: 1510, 2100, 2120, 2130, 2131, 2132, 2133 Unit selection: - Factory setting -
r0722	CO/BO: CX digital inputs, status		
CU_CX32	Can be changed: - Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: - Units group: - Max -	Access level: 1 Function diagram: - Unit selection: - Factory setting -
r0723	BO: CU digital inputs, status inverted		
CU_I	Can be changed: - Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: - Units group: - Max -	Access level: 1 Function diagram: 1510, 2100, 2120, 2130, 2131 2132, 2133 Unit selection: - Factory setting -
r0723	BO: CX digital inputs, status inverted		
CU_CX32	Can be changed: - Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: - Units group: - Max -	Access level: 1 Function diagram: - Unit selection: - Factory setting -

p0728	CU, set input or output		
CU_I	Can be changed: T		Access level: 1
	Data type: Unsigned32	Dynamic index: -	Function diagram: 1510, 2130, 2131, 2132, 2133
	P-Group: Commands	Units group: -	Unit selection: -
	Min 0000 bin	Max 1111 1111 1111 1111 bin	Factory setting 0000 bin
p0728	CX set input or output		
CU_CX32	Can be changed: T		Access level: 1
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min 0000 bin	Max 0000 1111 0000 0000 bin	Factory setting 0000 bin
p0738	BI: CU, signal source for terminal DI/DO 8		
CU_I	Can be changed: U, T		Access level: 1
	Data type: Unsigned32	Dynamic index: -	Function diagram: 1510, 2130
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p0738	BI: CX signal source for terminal DI/DO 8		
CU_CX32	Can be changed: U, T		Access level: 1
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p0739	BI: CU, signal source for terminal DI/DO 9		
CU_I	Can be changed: U, T		Access level: 1
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2130
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0

p0739	BI: CX signal source for terminal DI/DO 9		
CU_CX32	Can be changed: U, T	Dynamic index: -	Access level: 1
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Commands		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0740	BI: CU, signal source for terminal DI/DO 10		
CU_I	Can be changed: U, T	Dynamic index: -	Access level: 1
	Data type: Unsigned32	Units group: -	Function diagram: 2131
	P-Group: Commands		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0740	BI: CX signal source for terminal DI/DO 10		
CU_CX32	Can be changed: U, T	Dynamic index: -	Access level: 1
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Commands		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0741	BI: CU, signal source for terminal DI/DO 11		
CU_I	Can be changed: U, T	Dynamic index: -	Access level: 1
	Data type: Unsigned32	Units group: -	Function diagram: 1510, 2131
	P-Group: Commands		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0741	BI: CX signal source for terminal DI/DO 11		
CU_CX32	Can be changed: U, T	Dynamic index: -	Access level: 1
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Commands		Unit selection: -
	Min	Max	Factory setting
	-	-	0

p0742	BI: CU, signal source for terminal DI/DO 12		
CU_I	Can be changed: U, T		Access level: 1
	Data type: Unsigned32	Dynamic index: -	Function diagram: 1510, 2132
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0743	BI: CU, signal source for terminal DI/DO 13		
CU_I	Can be changed: U, T		Access level: 1
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2132
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0744	BI: CU, signal source for terminal DI/DO 14		
CU_I	Can be changed: U, T		Access level: 1
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2133
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0745	BI: CU, signal source for terminal DI/DO 15		
CU_I	Can be changed: U, T		Access level: 1
	Data type: Unsigned32	Dynamic index: -	Function diagram: 1510, 2133
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
r0747	CU, digital outputs status		
CU_I	Can be changed: -		Access level: 1
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2130, 2131, 2132, 2133
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0747	CX digital outputs, status		
CU_CX32	Can be changed: -		Access level: 1
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

p0748	CU, invert digital outputs		
CU_I	Can be changed: U, T Data type: Unsigned32 P-Group: Commands Min 0000 bin	Dynamic index: - Units group: - Max 1111 1111 1111 1111 bin	Access level: 1 Function diagram: 2130, 2131, 2132, 2133 Unit selection: - Factory setting 0000 bin
p0748	CX invert digital outputs		
CU_CX32	Can be changed: U, T Data type: Unsigned32 P-Group: Commands Min 0000 bin	Dynamic index: - Units group: - Max 0000 1111 0000 0000 bin	Access level: 1 Function diagram: - Unit selection: - Factory setting 0000 bin
p0771[0...2]	CI: Test sockets signal source		
CU_CX32, CU_I	Can be changed: U, T Data type: Unsigned32 P-Group: Terminals Min -	Dynamic index: - Units group: - Max -	Access level: 2 Function diagram: 8134 Unit selection: - Factory setting 0
r0772[0...2]	Test sockets output signal		
CU_CX32, CU_I	Can be changed: - Data type: Floating Point P-Group: Terminals Min - [%]	Dynamic index: - Units group: PERCENT Max - [%]	Access level: 2 Function diagram: 8134 Unit selection: - Factory setting - [%]
r0774[0...2]	Test sockets output voltage		
CU_CX32, CU_I	Can be changed: - Data type: Floating Point P-Group: Terminals Min - [V]	Dynamic index: - Units group: VOLTAGE_DC Max - [V]	Access level: 2 Function diagram: 8134 Unit selection: - Factory setting - [V]
p0776[0...2]	Test socket mode		
CU_CX32, CU_I	Can be changed: U, T Data type: Integer16 P-Group: Terminals Min 96	Dynamic index: - Units group: - Max 99	Access level: 4 Function diagram: 8134 Unit selection: - Factory setting 99
p0777[0...2]	Test socket characteristic value x1		
CU_CX32, CU_I	Can be changed: U, T Data type: Floating Point P-Group: Terminals Min -100000.00 [%]	Dynamic index: - Units group: PERCENT Max 100000.00 [%]	Access level: 2 Function diagram: 8134 Unit selection: - Factory setting 0.00 [%]

p0778[0...2]	Test socket characteristic value y1		
CU_CX32, CU_I	Can be changed: U, T	Access level: 2	
	Data type: Floating Point	Dynamic index: -	Function diagram: 8134
	P-Group: Terminals	Units group: VOLTAGE_DC	Unit selection: -
	Min 0.00 [V]	Max 4.98 [V]	Factory setting 2.49 [V]
p0779[0...2]	Test socket characteristic value x2		
CU_CX32, CU_I	Can be changed: U, T	Access level: 2	
	Data type: Floating Point	Dynamic index: -	Function diagram: 8134
	P-Group: Terminals	Units group: PERCENT	Unit selection: -
	Min -100000.00 [%]	Max 100000.00 [%]	Factory setting 100.00 [%]
p0780[0...2]	Test socket characteristic value y2		
CU_CX32, CU_I	Can be changed: U, T	Access level: 2	
	Data type: Floating Point	Dynamic index: -	Function diagram: 8134
	P-Group: Terminals	Units group: VOLTAGE_DC	Unit selection: -
	Min 0.00 [V]	Max 4.98 [V]	Factory setting 4.98 [V]
p0783[0...2]	Test sockets offset		
CU_CX32, CU_I	Can be changed: U, T	Access level: 2	
	Data type: Floating Point	Dynamic index: -	Function diagram: 8134
	P-Group: Terminals	Units group: VOLTAGE_DC	Unit selection: -
	Min -4.98 [V]	Max 4.98 [V]	Factory setting 0.00 [V]
p0784[0...2]	Test socket limit on/off		
CU_CX32, CU_I	Can be changed: U, T	Access level: 2	
	Data type: Integer16	Dynamic index: -	Function diagram: 8134
	P-Group: Terminals	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 0
r0786[0...2]	Test socket normalization per volt		
CU_CX32, CU_I	Can be changed: -	Access level: 2	
	Data type: Floating Point	Dynamic index: -	Function diagram: 8134
	P-Group: Terminals	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
p0788[0...2]	Test sockets physical address		
CU_CX32, CU_I	Can be changed: U, T	Access level: 4	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Terminals	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex

p0789[0...2]	Test sockets physical address gain		
CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: -	Function diagram: -
	P-Group: Terminals		Unit selection: -
	Min -340.28235E36	Max 340.28235E36	Factory setting 1.00000
r0790[0...2]	Test sockets physical address signal value		
CU_CX32, CU_I	Can be changed: -	Dynamic index: -	Access level: 4
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Terminals		Unit selection: -
	Min -	Max -	Factory setting -
p0795	CU digital inputs simulation mode		
CU_I	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Unsigned32	Units group: -	Function diagram: 1510, 2100, 2120, 2130, 2131, 2132, 2133
	P-Group: Commands		Unit selection: -
	Min 0000 bin	Max 1111 1111 1111 1111 bin	Factory setting 0000 bin
p0795	CX digital inputs, simulation mode		
CU_CX32	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Commands		Unit selection: -
	Min 0000 bin	Max 0000 1111 0000 0000 bin	Factory setting 0000 bin
p0796	CU digital inputs simulation mode setpoint		
CU_I	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Unsigned32	Units group: -	Function diagram: 1510, 2100, 2120, 2130, 2131, 2132, 2133
	P-Group: Commands		Unit selection: -
	Min 0000 bin	Max 1111 1111 1111 1111 bin	Factory setting 0000 bin
p0796	CX digital inputs, simulation mode, setpoint		
CU_CX32	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Commands		Unit selection: -
	Min 0000 bin	Max 1111 1111 1111 1111 bin	Factory setting 0000 bin

p0799	CU inputs/outputs, sampling time		
CU_I	Can be changed: C1(3) Data type: Floating Point P-Group: Commands Min 0.00 [µs]	Dynamic index: - Units group: TIME_M6 Max 5000.00 [µs]	Access level: 3 Function diagram: 2100, 2120, 2130, 2131, 2132, 2133 Unit selection: - Factory setting 4000.00 [µs]
p0799	CX inputs/outputs, sampling time		
CU_CX32	Can be changed: C1(3) Data type: Floating Point P-Group: Commands Min 0.00 [µs]	Dynamic index: - Units group: TIME_M6 Max 5000.00 [µs]	Access level: 3 Function diagram: - Unit selection: - Factory setting 4000.00 [µs]
p0806	BI: Inhibit master control		
A_INF, SERVO	Can be changed: T Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: - Unit selection: - Factory setting 0
r0807	BO: Master control active		
A_INF, SERVO	Can be changed: - Data type: Unsigned8 P-Group: Displays, signals Min -	Dynamic index: - Units group: - Max -	Access level: 2 Function diagram: - Unit selection: - Factory setting -
p0809[0...2]	Copy Command Data Set CDS		
A_INF, SERVO	Can be changed: T Data type: Unsigned8 P-Group: Commands Min 0	Dynamic index: - Units group: - Max 15	Access level: 2 Function diagram: 8560 Unit selection: - Factory setting 0
p0810	BI: Command Data Set selection CDS bit 0		
A_INF	Can be changed: T Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: 8560 Unit selection: - Factory setting 0
p0811	BI: Command data set selection CDS bit 1		
A_INF	Can be changed: T Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: 8560 Unit selection: - Factory setting 0

p0812	BI: Command data set selection CDS bit 2		
A_INF	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 8560
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0813	BI: Command data set selection CDS bit 3		
A_INF	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 8560
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0819[0...2]	Copy Drive Data Set DDS		
SERVO	Can be changed: C2(15)		Access level: 2
	Data type: Unsigned8	Dynamic index: -	Function diagram: 8565
	P-Group: Data sets	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	31	[0] 0 [1] 0 [2] 0
p0820[0...n]	BI: Drive data set selection DDS bit 0		
SERVO	Can be changed: C2(15), T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 8565
	P-Group: Data sets	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0821[0...n]	BI: Drive data set selection DDS bit 1		
SERVO	Can be changed: C2(15), T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 8565
	P-Group: Data sets	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0822[0...n]	BI: Drive data set selection DDS bit 2		
SERVO	Can be changed: C2(15), T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 8565
	P-Group: Data sets	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0

p0823[0...n]	BI: Drive data set selection DDS bit 3		
SERVO	Can be changed: C2(15), T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 8565
	P-Group: Data sets	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0824[0...n]	BI: Drive data set selection DDS bit 4		
SERVO	Can be changed: C2(15), T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 8565
	P-Group: Data sets	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0826[0...n]	Motor changeover, motor number		
SERVO	Can be changed: C2(1, 3), U		Access level: 2
	Data type: Unsigned16	Dynamic index: MDS	Function diagram: 8575
	P-Group: Motor	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	15	0
p0827[0...n]	Motor changeover status word bit number		
SERVO	Can be changed: C2(3), U		Access level: 2
	Data type: Unsigned16	Dynamic index: MDS	Function diagram: 8575
	P-Group: Motor	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	15	0
p0828[0...n]	BI: Motor changeover, feedback signal		
SERVO	Can be changed: C2(15), T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 8575
	P-Group: Data sets	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
r0830	CO/BO: Motor changeover, status word		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: 8575
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p0831[0...15]	BI: Motor changeover, contactor feedback		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 8575
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0

r0832	CO/BO: Mot. changeover, contactor feedback sig. status word		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: 8575
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p0833	Motor changeover, configuration		
SERVO	Can be changed: C2(3), U		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: 8575
	P-Group: Motor	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	3	0
r0835	CO/BO: Motor data set changeover status word		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: 8575
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0836	CO/BO: Command Data Set CDS selected		
A_INF, SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned8	Dynamic index: -	Function diagram: 1530, 8560
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0837	CO/BO: Drive Data Set DDS selected		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned8	Dynamic index: -	Function diagram: 8565
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r0838[0...3]	Motor/encoder data set selected		
SERVO	Can be changed: - Data type: Unsigned8 P-Group: Displays, signals Min -	Dynamic index: - Units group: - Max -	Access level: 2 Function diagram: 8565 Unit selection: - Factory setting -
p0840[0...n]	BI: ON/OFF1		
A_INF, SERVO	Can be changed: T Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: CDS Units group: - Max -	Access level: 3 Function diagram: 2501, 8720, 8920 Unit selection: - Factory setting 0
p0844[0...n]	BI: 1. OFF2		
A_INF, SERVO	Can be changed: T Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: CDS Units group: - Max -	Access level: 3 Function diagram: 2501, 8720, 8920 Unit selection: - Factory setting 1
p0845[0...n]	BI: 2. OFF2		
A_INF, SERVO	Can be changed: T Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: CDS Units group: - Max -	Access level: 3 Function diagram: 2501, 8720, 8920 Unit selection: - Factory setting 1
p0848[0...n]	BI: 1. OFF3		
SERVO	Can be changed: T Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: CDS Units group: - Max -	Access level: 3 Function diagram: 2501 Unit selection: - Factory setting 1
p0849[0...n]	BI: 2. OFF3		
SERVO	Can be changed: T Data type: Unsigned32 P-Group: Commands Min -	Dynamic index: CDS Units group: - Max -	Access level: 3 Function diagram: 2501 Unit selection: - Factory setting 1

p0852[0...n]	BI: Enable operation		
A_INF, SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 2442, 2443, 2501, 8920
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	1
p0854[0...n]	BI: Master ctrl by PLC		
A_INF, SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 2501, 2442, 2443, 8720, 8920
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	1
p0855[0...n]	BI: Unconditionally release holding brake		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 2501, 2701, 2707
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p0856[0...n]	BI: Enable speed controller		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 2501, 2701
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	1
p0857	Power module monitoring time		
A_INF, SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 2610, 8932, 8964
	P-Group: Commands	Units group: TIME_M3	Unit selection: -
	Min	Max	Factory setting
	100.0 [ms]	60000.0 [ms]	6000.0 [ms]
p0858[0...n]	BI: Unconditionally close holding brake		
SERVO	Can be changed: T		Access level: 2
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 2501, 2701, 2707
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0

p0860	BI: Line contactor, feedback signal		
A_INF, SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 8734, 8934
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 863.1
p0861	Line contactor monitoring time		
A_INF, SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 8734, 8934
	P-Group: Commands	Units group: TIME_M3	Unit selection: -
	Min 0 [ms]	Max 5000 [ms]	Factory setting 100 [ms]
p0862	Power module ON delay		
A_INF, SERVO	Can be changed: T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 2610, 8932
	P-Group: Commands	Units group: TIME_M3	Unit selection: -
	Min 0 [ms]	Max 65000 [ms]	Factory setting 0 [ms]
r0863	CO/BO: Drive coupling status word/control word		
A_INF, SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: 1773, 1774
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
p0864	BI: Infeed operation		
SERVO	Can be changed: T		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: 1773, 1774, 2610
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
r0896	BO: Parking axis, status word		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned8	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

p0897	BI: Parking axis selection		
SERVO	Can be changed: T		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
r0898	CO/BO: Control word drive object 1		
CU_CX32, CU_I	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0898	CO/BO: Control word sequence control infeed		
A_INF	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: 1530, 8920
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0898	CO/BO: Control word sequence control		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: 1530, 2501
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0899	CO/BO: Status word drive object 1		
CU_CX32, CU_I	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0899	CO/BO: Status word sequence control infeed		
A_INF	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: 1530, 8926
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r0899	CO/BO: Status word sequence control			
SERVO	Can be changed: -		Dynamic index: -	Access level: 2
	Data type: Unsigned16			Function diagram: 1530, 2503
	P-Group: Displays, signals		Units group: -	Unit selection: -
	Min		Max	Factory setting
	-		-	-
p0918	PROFIBUS address			
CU_CX32, CU_I	Can be changed: T		Dynamic index: -	Access level: 2
	Data type: Unsigned16			Function diagram: 1520, 2410
	P-Group: Communications		Units group: -	Unit selection: -
	Min		Max	Factory setting
	1		126	126
p0922	PROFIBUS PZD telegram selection			
CU_CX32, CU_I	Can be changed: C2(1), T		Dynamic index: -	Access level: 1
	Data type: Unsigned16			Function diagram: -
	P-Group: Communications		Units group: -	Unit selection: -
	Min		Max	Factory setting
	390		999	999
p0922	PROFIBUS PZD telegram selection			
A_INF	Can be changed: C2(1), T		Dynamic index: -	Access level: 1
	Data type: Unsigned16			Function diagram: 1520, 2420, 2460, 2470
	P-Group: Communications		Units group: -	Unit selection: -
	Min		Max	Factory setting
	370		999	999
p0922	PROFIBUS PZD telegram selection			
SERVO	Can be changed: C2(1), T		Dynamic index: -	Access level: 1
	Data type: Unsigned16			Function diagram: 1520, 2420, 2460, 2470
	P-Group: Communications		Units group: -	Unit selection: -
	Min		Max	Factory setting
	2		999	999
p0925	PROFIBUS clock synchronous sign-of-life tolerance			
CU_CX32, CU_I, SERVO	Can be changed: U, T		Dynamic index: -	Access level: 3
	Data type: Unsigned16			Function diagram: 2410
	P-Group: Communications		Units group: -	Unit selection: -
	Min		Max	Factory setting
	0		65535	1

r0930	PROFIBUS operating mode			
SERVO	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Unsigned16		Units group: -	Function diagram: -
	P-Group: Setpoints			Unit selection: -
	Min	Max		Factory setting
	-	-		-
r0944	Counter for fault buffer changes			
All objects	Can be changed: -		Dynamic index: -	Access level: 2
	Data type: Unsigned16		Units group: -	Function diagram: 8060
	P-Group: Messages			Unit selection: -
	Min	Max		Factory setting
	-	-		-
r0945[0...63]	Fault code			
All objects	Can be changed: -		Dynamic index: -	Access level: 2
	Data type: Unsigned16		Units group: -	Function diagram: 1750, 8060
	P-Group: Messages			Unit selection: -
	Min	Max		Factory setting
	-	-		-
r0946[0...65534]	Fault code list			
All objects	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Unsigned16		Units group: -	Function diagram: 8060
	P-Group: Messages			Unit selection: -
	Min	Max		Factory setting
	-	-		-
r0947[0...63]	Fault number			
All objects	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Unsigned16		Units group: -	Function diagram: 1750, 8060
	P-Group: Messages			Unit selection: -
	Min	Max		Factory setting
	-	-		-
r0948[0...63]	Fault time received in milliseconds			
All objects	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Unsigned32		Units group: TIME_M3	Function diagram: 1750, 8060
	P-Group: Messages			Unit selection: -
	Min	Max		Factory setting
	- [ms]	- [ms]		- [ms]

r0949[0...63]	Fault value		
All objects	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Integer32		Function diagram: 1750, 8060
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r0951[0...65534]	Fault number list		
All objects	Can be changed: -	Dynamic index: -	Access level: 4
	Data type: Unsigned16		Function diagram: 8060
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p0952	Fault cases, counter		
All objects	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned16		Function diagram: 1710, 8060
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	65535	0
r0964[0...6]	Device identification		
CU_CX32, CU_I	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Unsigned16		Function diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

4.2 Parameter p0969 - p1461

p0969	System runtime relative			
CU_CX32, CU_I	Can be changed: T		Dynamic index: -	Access level: 3
	Data type: Unsigned32			Function diagram: 1750, 8060
	P-Group: Displays, signals		Units group: TIME_M3	Unit selection: -
	Min 0 [ms]		Max 4294967295 [ms]	Factory setting 0 [ms]
p0970	Reset infeed parameter			
A_INF	Can be changed: C2(30)		Dynamic index: -	Access level: 2
	Data type: Unsigned16			Function diagram: -
	P-Group: Factory settings		Units group: -	Unit selection: -
	Min 0		Max 100	Factory setting 0
p0970	Reset drive parameters			
SERVO	Can be changed: C2(30)		Dynamic index: -	Access level: 2
	Data type: Unsigned16			Function diagram: -
	P-Group: Factory settings		Units group: -	Unit selection: -
	Min 0		Max 100	Factory setting 0
p0971	Save drive object parameters			
All objects	Can be changed: U, T		Dynamic index: -	Access level: 1
	Data type: Unsigned16			Function diagram: -
	P-Group: Factory settings		Units group: -	Unit selection: -
	Min 0		Max 1	Factory setting 0
r0975[0...10]	Drive object identification			
All objects	Can be changed: -		Dynamic index: -	Access level: 2
	Data type: Unsigned16			Function diagram: -
	P-Group: Communications		Units group: -	Unit selection: -
	Min -		Max -	Factory setting -
p0976	Reset and load all parameters			
CU_CX32, CU_I	Can be changed: C1(30)		Dynamic index: -	Access level: 2
	Data type: Unsigned16			Function diagram: -
	P-Group: Factory settings		Units group: -	Unit selection: -
	Min 0		Max 1013	Factory setting 0

p0977	Save all parameters			
CU_CX32, CU_I	Can be changed: U, T		Dynamic index: -	Access level: 1
	Data type: Unsigned16		Units group: -	Function diagram: -
	P-Group: Factory settings			Unit selection: -
	Min	Max		Factory setting
	0	1013		0
p0978[0...16]	List of drive objects			
CU_CX32, CU_I	Can be changed: C1(1)		Dynamic index: -	Access level: 2
	Data type: Unsigned8		Units group: -	Function diagram: -
	P-Group: Topology			Unit selection: -
	Min	Max		Factory setting
	0	255		[0] 1
				[1] 0
				[2] 0
				[3] 0
				[4] 0
				[5] 0
				[6] 0
				[7] 0
				[8] 0
				[9] 0
				[10] 0
				[11] 0
				[12] 0
				[13] 0
				[14] 0
				[15] 0
				[16] 0
r0979[0...30]	Encoder format PROFIdrive			
SERVO	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Unsigned32		Units group: -	Function diagram: 4704
	P-Group: Encoder			Unit selection: -
	Min	Max		Factory setting
	-	-		-
r0980[0...99]	List of existing parameters 1			
All objects	Can be changed: -		Dynamic index: -	Access level: 4
	Data type: Unsigned16		Units group: -	Function diagram: -
	P-Group: -			Unit selection: -
	Min	Max		Factory setting
	-	-		-
r0981[0...99]	List of existing parameters 2			
All objects	Can be changed: -		Dynamic index: -	Access level: 4
	Data type: Unsigned16		Units group: -	Function diagram: -
	P-Group: -			Unit selection: -
	Min	Max		Factory setting
	-	-		-

r0989[0...99] List of existing parameters 10

All objects	Can be changed: -		Access level: 4
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

r0990[0...99] List of modified parameters 1

All objects	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

r0991[0...99] List of modified parameters 2

All objects	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

r0999[0...99] List of modified parameters 10

All objects	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

p1000[0...n] Macro Connector Inputs (CI) for speed setpoints

SERVO	Can be changed: C2(1), T		Access level: 1
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min 0	Max 999999	Factory setting 0

p1000[0...n] Macro Connector Inputs (CI) for velocity setpoints

SERVO (Lin)	Can be changed: C2(1), T		Access level: 1
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min 0	Max 999999	Factory setting 0

p1001[0...n] CO: Fixed speed setpoint 1

SERVO (Extended setp.)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 3010
	P-Group: Setpoints	Units group: SPEED_ROT	Unit selection: -
	Min -210000.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]

p1001[0...n] SERVO (Lin, Extended setp.)	CO: Fixed velocity setpoint 1 Can be changed: U, T Data type: Floating Point P-Group: Setpoints Min -1000.000 [m/min]	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3 Max 1000.000 [m/min]	Access level: 2 Function diagram: 3010 Unit selection: - Factory setting 0.000 [m/min]
p1002[0...n] SERVO (Extended setp.)	CO: Fixed speed setpoint 2 Can be changed: U, T Data type: Floating Point P-Group: Setpoints Min -210000.000 [1/min]	Dynamic index: DDS Units group: SPEED_ROT Max 210000.000 [1/min]	Access level: 2 Function diagram: 3010 Unit selection: - Factory setting 0.000 [1/min]
p1002[0...n] SERVO (Lin, Extended setp.)	CO: Fixed velocity setpoint 2 Can be changed: U, T Data type: Floating Point P-Group: Setpoints Min -1000.000 [m/min]	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3 Max 1000.000 [m/min]	Access level: 2 Function diagram: 3010 Unit selection: - Factory setting 0.000 [m/min]
p1003[0...n] SERVO (Extended setp.)	CO: Fixed speed setpoint 3 Can be changed: U, T Data type: Floating Point P-Group: Setpoints Min -210000.000 [1/min]	Dynamic index: DDS Units group: SPEED_ROT Max 210000.000 [1/min]	Access level: 2 Function diagram: 3010 Unit selection: - Factory setting 0.000 [1/min]
p1003[0...n] SERVO (Lin, Extended setp.)	CO: Fixed velocity setpoint 3 Can be changed: U, T Data type: Floating Point P-Group: Setpoints Min -1000.000 [m/min]	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3 Max 1000.000 [m/min]	Access level: 2 Function diagram: 3010 Unit selection: - Factory setting 0.000 [m/min]
p1004[0...n] SERVO (Extended setp.)	CO: Fixed speed setpoint 4 Can be changed: U, T Data type: Floating Point P-Group: Setpoints Min -210000.000 [1/min]	Dynamic index: DDS Units group: SPEED_ROT Max 210000.000 [1/min]	Access level: 2 Function diagram: 3010 Unit selection: - Factory setting 0.000 [1/min]

p1004[0...n] SERVO (Lin, Extended setp.)	CO: Fixed velocity setpoint 4 Can be changed: U, T Data type: Floating Point P-Group: Setpoints Min -1000.000 [m/min]	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3 Max 1000.000 [m/min]	Access level: 2 Function diagram: 3010 Unit selection: - Factory setting 0.000 [m/min]
p1005[0...n] SERVO (Extended setp.)	CO: Fixed speed setpoint 5 Can be changed: U, T Data type: Floating Point P-Group: Setpoints Min -210000.000 [1/min]	Dynamic index: DDS Units group: SPEED_ROT Max 210000.000 [1/min]	Access level: 2 Function diagram: 3010 Unit selection: - Factory setting 0.000 [1/min]
p1005[0...n] SERVO (Lin, Extended setp.)	CO: Fixed velocity setpoint 5 Can be changed: U, T Data type: Floating Point P-Group: Setpoints Min -1000.000 [m/min]	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3 Max 1000.000 [m/min]	Access level: 2 Function diagram: 3010 Unit selection: - Factory setting 0.000 [m/min]
p1006[0...n] SERVO (Extended setp.)	CO: Fixed speed setpoint 6 Can be changed: U, T Data type: Floating Point P-Group: Setpoints Min -210000.000 [1/min]	Dynamic index: DDS Units group: SPEED_ROT Max 210000.000 [1/min]	Access level: 2 Function diagram: 3010 Unit selection: - Factory setting 0.000 [1/min]
p1006[0...n] SERVO (Lin, Extended setp.)	CO: Fixed velocity setpoint 6 Can be changed: U, T Data type: Floating Point P-Group: Setpoints Min -1000.000 [m/min]	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3 Max 1000.000 [m/min]	Access level: 2 Function diagram: 3010 Unit selection: - Factory setting 0.000 [m/min]
p1007[0...n] SERVO (Extended setp.)	CO: Fixed speed setpoint 7 Can be changed: U, T Data type: Floating Point P-Group: Setpoints Min -210000.000 [1/min]	Dynamic index: DDS Units group: SPEED_ROT Max 210000.000 [1/min]	Access level: 2 Function diagram: 3010 Unit selection: - Factory setting 0.000 [1/min]

p1007[0...n]	CO: Fixed velocity setpoint 7		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -1000.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1008[0...n]	CO: Fixed speed setpoint 8		
SERVO (Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -210000.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]
p1008[0...n]	CO: Fixed velocity setpoint 8		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -1000.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1009[0...n]	CO: Fixed speed setpoint 9		
SERVO (Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -210000.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]
p1009[0...n]	CO: Fixed velocity setpoint 9		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -1000.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1010[0...n]	CO: Fixed speed setpoint 10		
SERVO (Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -210000.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]

p1010[0...n]	CO: Fixed velocity setpoint 10		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -1000.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1011[0...n]	CO: Fixed speed setpoint 11		
SERVO (Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -210000.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]
p1011[0...n]	CO: Fixed velocity setpoint 11		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -1000.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1012[0...n]	CO: Fixed speed setpoint 12		
SERVO (Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -210000.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]
p1012[0...n]	CO: Fixed velocity setpoint 12		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -1000.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1013[0...n]	CO: Fixed speed setpoint 13		
SERVO (Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -210000.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]

p1013[0...n]	CO: Fixed velocity setpoint 13		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -1000.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1014[0...n]	CO: Fixed speed setpoint 14		
SERVO (Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -210000.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]
p1014[0...n]	CO: Fixed velocity setpoint 14		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -1000.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1015[0...n]	CO: Fixed speed setpoint 15		
SERVO (Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -210000.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]
p1015[0...n]	CO: Fixed velocity setpoint 15		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 2 Function diagram: 3010 Unit selection: -
	Min -1000.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]

p1020[0...n]	BI: Fixed speed setpoint selection Bit 0		
SERVO (Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2505
	P-Group: Setpoints		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1020[0...n]	BI: Fixed velocity setpoint selection Bit 0		
SERVO (Lin, Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2505
	P-Group: Setpoints		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1021[0...n]	BI: Fixed speed setpoint selection Bit 1		
SERVO (Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2505
	P-Group: Setpoints		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1021[0...n]	BI: Fixed velocity setpoint selection Bit 1		
SERVO (Lin, Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2505
	P-Group: Setpoints		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1022[0...n]	BI: Fixed speed setpoint selection Bit 2		
SERVO (Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2505
	P-Group: Setpoints		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1022[0...n]	BI: Fixed velocity setpoint selection Bit 2		
SERVO (Lin, Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2505
	P-Group: Setpoints		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1023[0...n]	BI: Fixed speed setpoint selection Bit 3		
SERVO (Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2505
	P-Group: Setpoints		Unit selection: -
	Min	Max	Factory setting
	-	-	0

p1023[0...n]	BI: Fixed velocity setpoint selection Bit 3		
SERVO (Lin, Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2505
	P-Group: Setpoints		Unit selection: -
	Min -	Max -	Factory setting 0
r1024	CO: Fixed speed setpoint effective		
SERVO (Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 1550, 3010
	P-Group: Setpoints		Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1024	CO: Fixed velocity setpoint effective		
SERVO (Lin, Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 1550, 3010
	P-Group: Setpoints		Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p1030[0...n]	Motorized potentiometer, configuration		
SERVO (Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: 3020
	P-Group: Closed-loop control		Unit selection: -
	Min 0000 bin	Max 1111 bin	Factory setting 0110 bin
p1035[0...n]	BI: Motorized potentiometer, setpoint, raise		
SERVO (Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2442, 2505
	P-Group: Setpoints		Unit selection: -
	Min -	Max -	Factory setting 0
p1036[0...n]	BI: Motorized potentiometer, lower setpoint		
SERVO (Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2442, 2505
	P-Group: Setpoints		Unit selection: -
	Min -	Max -	Factory setting 0

p1037[0...n]	Motorized potentiometer, maximum speed		
SERVO (Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 3020
	P-Group: Setpoints		Unit selection: -
	Min -210000.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]
p1037[0...n]	Motorized potentiometer, maximum velocity		
SERVO (Lin, Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 3020
	P-Group: Setpoints		Unit selection: -
	Min -1000.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1038[0...n]	Motorized potentiometer, minimum speed		
SERVO (Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 3020
	P-Group: Setpoints		Unit selection: -
	Min -210000.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]
p1038[0...n]	Motorized potentiometer, minimum velocity		
SERVO (Lin, Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 3020
	P-Group: Setpoints		Unit selection: -
	Min -1000.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1039[0...n]	BI: Motorized potentiometer, inversion		
SERVO (Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 3020
	P-Group: Setpoints		Unit selection: -
	Min -	Max -	Factory setting 0
p1040[0...n]	Motorized potentiometer, starting value		
SERVO (Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 3020
	P-Group: Setpoints		Unit selection: -
	Min -210000.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]

p1040[0...n]	Motorized potentiometer, starting value		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 2 Function diagram: 3020 Unit selection: -
	Min -1000.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1041[0...n]	BI: Motorized potentiometer, manual/automatic		
SERVO (Extended setp.)	Can be changed: T Data type: Unsigned32 P-Group: Setpoints	Dynamic index: CDS Units group: -	Access level: 3 Function diagram: 3020 Unit selection: -
	Min -	Max -	Factory setting 0
p1042[0...n]	CI: Motorized potentiometer, automatic setpoint		
SERVO (Extended setp.)	Can be changed: T Data type: Unsigned32 P-Group: Setpoints	Dynamic index: CDS Units group: -	Access level: 3 Function diagram: 3020 Unit selection: -
	Min -	Max -	Factory setting 0
p1043[0...n]	BI: Motorized potentiometer, accept setpoint		
SERVO (Extended setp.)	Can be changed: T Data type: Unsigned32 P-Group: Setpoints	Dynamic index: CDS Units group: -	Access level: 3 Function diagram: 3020 Unit selection: -
	Min -	Max -	Factory setting 0
p1044[0...n]	CI: Motorized potentiometer, setting value		
SERVO (Extended setp.)	Can be changed: T Data type: Unsigned32 P-Group: Setpoints	Dynamic index: CDS Units group: -	Access level: 3 Function diagram: 3020 Unit selection: -
	Min -	Max -	Factory setting 0

r1045	CO: Mot. potentiometer, speed setp. in front of ramp-fct. gen.		
SERVO (Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 3020
	P-Group: Setpoints		Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1045	CO: Mot. potentiom.,velocity setp. in front of ramp-fct. gen.		
SERVO (Lin, Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 3020
	P-Group: Setpoints		Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p1047[0...n]	Motorized potentiometer, ramp-up time		
SERVO (Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: TIME	Function diagram: 3020
	P-Group: Setpoints		Unit selection: -
	Min 0.000 [s]	Max 1000.000 [s]	Factory setting 10.000 [s]
p1048[0...n]	Motorized potentiometer, ramp-down time		
SERVO (Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: TIME	Function diagram: 3020
	P-Group: Setpoints		Unit selection: -
	Min 0.000 [s]	Max 1000.000 [s]	Factory setting 10.000 [s]
r1050	CO: Motor. potentiometer, setpoint after the ramp-function generator		
SERVO (Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 1550, 3020
	P-Group: Setpoints		Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1050	CO: Motor. potentiometer, setpoint after the ramp-function generator		
SERVO (Lin, Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 1550, 3020
	P-Group: Setpoints		Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]

p1055[0...n]	BI: Jog bit 0		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 2501, 3030
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1056[0...n]	BI: Jog bit 1		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 2501, 3030
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1058[0...n]	Jog 1 speed setpoint		
SERVO (Extended setp.)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 3030
	P-Group: Setpoints	Units group: SPEED_ROT	Unit selection: -
	Min	Max	Factory setting
	-210000.000 [1/min]	210000.000 [1/min]	0.000 [1/min]
p1058[0...n]	Jog 1 velocity setpoint		
SERVO (Lin, Extended setp.)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 3030
	P-Group: Setpoints	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min	Max	Factory setting
	-1000.000 [m/min]	1000.000 [m/min]	0.000 [m/min]
p1059[0...n]	Jog 2 speed setpoint		
SERVO (Extended setp.)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 3030
	P-Group: Setpoints	Units group: SPEED_ROT	Unit selection: -
	Min	Max	Factory setting
	-210000.000 [1/min]	210000.000 [1/min]	0.000 [1/min]
p1059[0...n]	Jog 2 velocity setpoint		
SERVO (Lin, Extended setp.)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 3030
	P-Group: Setpoints	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min	Max	Factory setting
	-1000.000 [m/min]	1000.000 [m/min]	0.000 [m/min]

p1063[0...n]	Speed limit, setpoint channel		
SERVO (Extended setp.)	Can be changed: C2(1), U, T	Dynamic index: DDS	Access level: 1
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 3040
	P-Group: Setpoints		Unit selection: -
	Min 0.000 [1/min]	Max 210000.000 [1/min]	Factory setting 210000.000 [1/min]
p1063[0...n]	Velocity limit, setpoint channel		
SERVO (Lin, Extended setp.)	Can be changed: C2(1), U, T	Dynamic index: DDS	Access level: 1
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 3040
	P-Group: Setpoints		Unit selection: -
	Min 0.000 [m/min]	Max 1000.000 [m/min]	Factory setting 1000.000 [m/min]
p1070[0...n]	CI: Main setpoint		
SERVO (Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32		Function diagram: 1550, 3030
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 1024[0]
p1071[0...n]	CI: Main setpoint scaling		
SERVO (Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 3030
	P-Group: Setpoints		Unit selection: -
	Min -	Max -	Factory setting 1
r1073	CO: Main setpoint effective		
SERVO (Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 3030
	P-Group: Setpoints		Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1073	CO: Main setpoint effective		
SERVO (Lin, Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 3030
	P-Group: Setpoints		Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]

p1075[0...n]	CI: Suppl setpoint		
SERVO (Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32		Function diagram: 1550, 3030
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1076[0...n]	CI: Supplementary setpoint scaling		
SERVO (Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32		Function diagram: 3030
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	1
r1077	CO: Supplementary setpoint effective		
SERVO (Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 3030
	P-Group: Setpoints	Units group: SPEED_ROT	Unit selection: -
	Min	Max	Factory setting
	- [1/min]	- [1/min]	- [1/min]
r1077	CO: Supplementary setpoint effective		
SERVO (Lin, Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 3030
	P-Group: Setpoints	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min	Max	Factory setting
	- [m/min]	- [m/min]	- [m/min]
r1078	CO: Total setpoint effective		
SERVO (Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 3030
	P-Group: Setpoints	Units group: SPEED_ROT	Unit selection: -
	Min	Max	Factory setting
	- [1/min]	- [1/min]	- [1/min]

r1078	CO: Total setpoint effective		
SERVO (Lin, Extended setp.)	Can be changed: - Data type: Floating Point P-Group: Setpoints	Dynamic index: - Units group: SPEED_LIN_METRIC_P3	Access level: 3 Function diagram: 3030 Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p1080[0...n]	Minimum speed		
SERVO (Extended setp.)	Can be changed: C2(1), T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 1 Function diagram: 3050 Unit selection: -
	Min 0.000 [1/min]	Max 19500.000 [1/min]	Factory setting 0.000 [1/min]
p1080[0...n]	Minimum velocity		
SERVO (Lin, Extended setp.)	Can be changed: C2(1), T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 1 Function diagram: 3050 Unit selection: -
	Min 0.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1082[0...n]	Maximum speed		
SERVO	Can be changed: C2(1), T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 1 Function diagram: 3050, 3060, 3070, 5300 Unit selection: -
	Min 0.000 [1/min]	Max 210000.000 [1/min]	Factory setting 1500.000 [1/min]
p1082[0...n]	Maximum velocity		
SERVO (Lin)	Can be changed: C2(1), T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 1 Function diagram: 3050, 3060, 3070, 5300 Unit selection: -
	Min 0.000 [m/min]	Max 1000.000 [m/min]	Factory setting 1000.000 [m/min]
p1083[0...n]	CO: Speed limit in positive direction of rotation		
SERVO	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 2 Function diagram: 3050 Unit selection: -
	Min 0.000 [1/min]	Max 210000.000 [1/min]	Factory setting 210000.000 [1/min]

p1083[0...n]	CO: Velocity limit, positive direction		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 3050
	P-Group: Setpoints		Unit selection: -
	Min 0.000 [m/min]	Max 1000.000 [m/min]	Factory setting 1000.000 [m/min]
r1084	Speed limit positive effective		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 3050, 5030, 5210, 6640, 8010
	P-Group: Setpoints		Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1084	Velocity limit positive effective		
SERVO (Lin)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 3050, 5030, 5210, 6640, 8010
	P-Group: Setpoints		Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p1085[0...n]	CI: Speed limit in positive direction of rotation		
SERVO (Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 3050
	P-Group: Setpoints		Unit selection: -
	Min -	Max -	Factory setting 1083[0]
p1085[0...n]	CI: Velocity limit, positive direction		
SERVO (Lin, Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 3050
	P-Group: Setpoints		Unit selection: -
	Min -	Max -	Factory setting 1083[0]
p1086[0...n]	CO: Speed limit negative direction of rotation		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 3050
	P-Group: Setpoints		Unit selection: -
	Min -210000.000 [1/min]	Max 0.000 [1/min]	Factory setting -210000.000 [1/min]

p1086[0...n]	CO: Velocity limit, negative direction		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 3050
	P-Group: Setpoints		Unit selection: -
	Min -1000.000 [m/min]	Max 0.000 [m/min]	Factory setting -1000.000 [m/min]
r1087	Speed limit negative effective		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 3050, 5030, 5210, 6640, 8010
	P-Group: Setpoints		Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1087	Velocity limit negative effective		
SERVO (Lin)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 3050, 5030, 5210, 6640, 8010
	P-Group: Setpoints		Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p1088[0...n]	CI: Speed limit negative direction of rotation		
SERVO (Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 3050
	P-Group: Setpoints		Unit selection: -
	Min -	Max -	Factory setting 1086[0]
p1088[0...n]	CI: Velocity limit, negative direction		
SERVO (Lin, Extended setp.)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 3050
	P-Group: Setpoints		Unit selection: -
	Min -	Max -	Factory setting 1086[0]
p1091[0...n]	Skip speed 1		
SERVO (Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 3050
	P-Group: Setpoints		Unit selection: -
	Min 0.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]

p1091[0...n]	Skip velocity 1		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 3 Function diagram: 3050 Unit selection: -
	Min 0.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1092[0...n]	Skip speed 2		
SERVO (Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 3 Function diagram: 3050 Unit selection: -
	Min 0.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]
p1092[0...n]	Skip velocity 2		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 3 Function diagram: 3050 Unit selection: -
	Min 0.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1093[0...n]	Skip speed 3		
SERVO (Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 3 Function diagram: 3050 Unit selection: -
	Min 0.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]
p1093[0...n]	Skip velocity 3		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 3 Function diagram: 3050 Unit selection: -
	Min 0.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1094[0...n]	Skip speed 4		
SERVO (Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 3 Function diagram: 3050 Unit selection: -
	Min 0.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]

p1094[0...n]	Skip velocity 4		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 3 Function diagram: 3050 Unit selection: -
	Min 0.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1101[0...n]	Skip speed bandwidth		
SERVO (Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_ROT	Access level: 3 Function diagram: 3050 Unit selection: -
	Min 0.000 [1/min]	Max 210000.000 [1/min]	Factory setting 0.000 [1/min]
p1101[0...n]	Skip velocity bandwidth		
SERVO (Lin, Extended setp.)	Can be changed: U, T Data type: Floating Point P-Group: Setpoints	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 3 Function diagram: 3050 Unit selection: -
	Min 0.000 [m/min]	Max 1000.000 [m/min]	Factory setting 0.000 [m/min]
p1110[0...n]	BI: Inhibit negative direction		
SERVO (Extended setp.)	Can be changed: T Data type: Unsigned32 P-Group: Setpoints	Dynamic index: CDS Units group: -	Access level: 3 Function diagram: 2505 Unit selection: -
	Min -	Max -	Factory setting 0
p1111[0...n]	BI: Inhibit positive direction		
SERVO (Extended setp.)	Can be changed: T Data type: Unsigned32 P-Group: Setpoints	Dynamic index: CDS Units group: -	Access level: 3 Function diagram: 2505 Unit selection: -
	Min -	Max -	Factory setting 0
r1112	CO: Speed setpoint after minimum limiting		
SERVO (Extended setp.)	Can be changed: - Data type: Floating Point P-Group: Setpoints	Dynamic index: - Units group: SPEED_ROT	Access level: 3 Function diagram: 3050 Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]

r1112	CO: Velocity setpoint after minimum limiting		
SERVO (Lin, Extended setp.)	Can be changed: - Data type: Floating Point P-Group: Setpoints	Dynamic index: - Units group: SPEED_LIN_METRIC_P3	Access level: 3 Function diagram: 3050 Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p1113[0...n]	BI: Direction reversal		
SERVO (Extended setp.)	Can be changed: T Data type: Unsigned32 P-Group: Setpoints	Dynamic index: CDS Units group: -	Access level: 3 Function diagram: 2442, 2505 Unit selection: -
	Min -	Max -	Factory setting 0
r1114	CO: Setpoint after the direction of rotation limit		
SERVO (Extended setp.)	Can be changed: - Data type: Floating Point P-Group: Setpoints	Dynamic index: - Units group: SPEED_ROT	Access level: 3 Function diagram: 1550, 3040, 3050 Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1114	CO: Setpoint after the direction limiting		
SERVO (Lin, Extended setp.)	Can be changed: - Data type: Floating Point P-Group: Setpoints	Dynamic index: - Units group: SPEED_LIN_METRIC_P3	Access level: 3 Function diagram: 1550, 3040, 3050 Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p1115	Ramp-function generator selection		
SERVO (Extended setp.)	Can be changed: T Data type: Integer16 P-Group: Setpoints	Dynamic index: - Units group: -	Access level: 3 Function diagram: 1550, 3080 Unit selection: -
	Min 0	Max 1	Factory setting 0
r1119	CO: Ramp-function generator setpoint at the input		
SERVO (Extended setp.)	Can be changed: - Data type: Floating Point P-Group: Setpoints	Dynamic index: - Units group: SPEED_ROT	Access level: 3 Function diagram: 1550, 1750, 3050, 3060, 3070, 8010 Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]

r1119	CO: Ramp-function generator setpoint at the input		
SERVO (Lin, Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 1550, 1750, 3050, 3060, 3070, 8010
	P-Group: Setpoints	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p1120[0...n]	Ramp-function generator ramp-up time		
SERVO (Extended setp.)	Can be changed: C2(1), U, T	Dynamic index: DDS	Access level: 1
	Data type: Floating Point		Function diagram: 3060, 3070
	P-Group: Setpoints	Units group: TIME	Unit selection: -
	Min 0.000 [s]	Max 999999.000 [s]	Factory setting 10.000 [s]
p1121[0...n]	Ramp-function generator ramp-down time		
SERVO	Can be changed: C2(1), U, T	Dynamic index: DDS	Access level: 1
	Data type: Floating Point		Function diagram: 3060, 3070
	P-Group: Setpoints	Units group: TIME	Unit selection: -
	Min 0.000 [s]	Max 999999.000 [s]	Factory setting 10.000 [s]
p1122[0...n]	BI: Bypass ramp-function generator		
SERVO (Extended setp.)	Can be changed: U, T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32		Function diagram: 2505
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1130[0...n]	Ramp-function generator initial rounding-off time		
SERVO (Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point		Function diagram: 3070
	P-Group: Setpoints	Units group: TIME	Unit selection: -
	Min 0.000 [s]	Max 30.000 [s]	Factory setting 0.000 [s]
p1131[0...n]	Ramp-function generator final rounding-off time		
SERVO (Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point		Function diagram: 3070
	P-Group: Setpoints	Units group: TIME	Unit selection: -
	Min 0.000 [s]	Max 30.000 [s]	Factory setting 0.000 [s]

p1134[0...n]	Ramp-function generator rounding-off type		
SERVO (Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Integer16	Units group: -	Function diagram: 3070
	P-Group: Setpoints		Unit selection: -
	Min 0	Max 1	Factory setting 0
p1135[0...n]	OFF3 ramp-down time		
SERVO	Can be changed: C2(1), U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: TIME	Function diagram: 3060, 3070
	P-Group: Setpoints		Unit selection: -
	Min 0.000 [s]	Max 600.000 [s]	Factory setting 0.000 [s]
p1136[0...n]	OFF3 initial rounding-off time		
SERVO (Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: TIME	Function diagram: 3070, 3080
	P-Group: Setpoints		Unit selection: -
	Min 0.000 [s]	Max 30.000 [s]	Factory setting 0.000 [s]
p1137[0...n]	OFF3 final rounding-off time		
SERVO (Extended setp.)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: TIME	Function diagram: 3070
	P-Group: Setpoints		Unit selection: -
	Min 0.000 [s]	Max 30.000 [s]	Factory setting 0.000 [s]
p1140[0...n]	BI: Enables the ramp-function generator		
SERVO	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2442, 2443, 2501
	P-Group: Setpoints		Unit selection: -
	Min -	Max -	Factory setting 1
p1141[0...n]	BI: Start ramp-function generator		
SERVO	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2442, 2443, 2501
	P-Group: Setpoints		Unit selection: -
	Min -	Max -	Factory setting 1

p1142[0...n]	BI: Enable speed setpoint		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 2442, 2443, 2501
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 1
p1143[0...n]	BI: Ramp-function generator, accept setting value		
SERVO (Extended setp.)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 3070
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1144[0...n]	CI: Ramp-function generator setting value		
SERVO (Extended setp.)	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 3070
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1145[0...n]	Ramp-function generator tracking intensity.		
SERVO (Extended setp.)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 3080
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min 0.0	Max 50.0	Factory setting 1.3
p1148[0...n]	Ramp-function gen., tolerance for ramp-up and ramp-down active		
SERVO (Extended setp.)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 3060, 3070
	P-Group: Setpoints	Units group: SPEED_ROT	Unit selection: -
	Min 0.00 [1/min]	Max 1000.00 [1/min]	Factory setting 19.80 [1/min]
p1148[0...n]	Ramp-function gen., tolerance for ramp-up and ramp-down active		
SERVO (Lin, Extended setp.)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 3060, 3070
	P-Group: Setpoints	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.00 [m/min]	Max 10.00 [m/min]	Factory setting 0.20 [m/min]

r1150	CO: Ramp-function generator speed setpoint at the output		
SERVO (Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 1550, 3060, 3070, 3080
	P-Group: Setpoints	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1150	CO: Ramp-function generator velocity setpoint at the output		
SERVO (Lin, Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 1550, 3060, 3070, 3080
	P-Group: Setpoints	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p1152	BI: Setpoint 2 enable		
SERVO (Extended brk)	Can be changed: T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2711
	P-Group: Commands		Unit selection: -
	Min -	Max -	Factory setting 899.15
p1155[0...n]	CI: Speed controller speed setpoint 1		
SERVO	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32		Function diagram: 1550, 3080
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1155[0...n]	CI: Velocity controller, velocity setpoint 1		
SERVO (Lin)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32		Function diagram: 1550, 3080
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1160[0...n]	CI: Speed controller speed setpoint 2		
SERVO	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32		Function diagram: 1550, 3080
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0

p1160[0...n]	CI: Velocity controller, velocity setpoint 2		
SERVO (Lin)	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32		Function diagram: 1550, 3080
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
r1169	CO: Speed controller, speed setpoints 1 and 2		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 3080
	P-Group: Setpoints		Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1169	CO: Velocity controller, velocity setpoints 1 and 2		
SERVO (Lin)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 3080
	P-Group: Setpoints		Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
r1170	CO: Speed controller, setpoint sum		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 1550, 1590, 3080, 5020
	P-Group: Setpoints		Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1170	CO: Velocity controller, setpoint sum		
SERVO (Lin)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 1550, 1590, 3080, 5020
	P-Group: Setpoints		Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p1189[0...n]	Speed setpoint configuration		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Unsigned16	Units group: -	Function diagram: 3080
	P-Group: Closed-loop control		Unit selection: -
	Min 0000 bin	Max 0011 bin	Factory setting 0011 bin

p1189[0...n]	Velocity setpoint configuration		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Unsigned16	Units group: -	Function diagram: 3080
	P-Group: Closed-loop control		Unit selection: -
	Min 0000 bin	Max 0011 bin	Factory setting 0011 bin
p1190	CI: DSC position deviation XERR		
SERVO	Can be changed: T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 1550, 3090
	P-Group: Setpoints		Unit selection: -
	Min -	Max -	Factory setting 0
p1191	CI: DSC position controller gain KPC		
SERVO	Can be changed: T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 1550, 3090
	P-Group: Setpoints		Unit selection: -
	Min -	Max -	Factory setting 0
p1192[0...n]	DSC enc selection		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Integer16	Units group: -	Function diagram: 3090
	P-Group: Setpoints		Unit selection: -
	Min 1	Max 3	Factory setting 1
p1193[0...n]	DSC encoder adaptation factor		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: -	Function diagram: 3090
	P-Group: Setpoints		Unit selection: -
	Min 0.000	Max 1000000.000	Factory setting 1.000

r1197	Fixed speed setpoint, actual number		
SERVO (Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 3010
	P-Group: Setpoints		Unit selection: -
	Min	Max	Factory setting
	-	-	-
r1197	Fixed velocity setpoint, actual number		
SERVO (Lin, Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 3010
	P-Group: Setpoints		Unit selection: -
	Min	Max	Factory setting
	-	-	-
r1198	CO/BO: Control word setpoint channel		
SERVO (Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: 1530, 2505
	P-Group: Setpoints		Unit selection: -
	Min	Max	Factory setting
	-	-	-
r1199	CO/BO: Ramp-function generator status word		
SERVO (Extended setp.)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: 1550, 3080, 8010
	P-Group: Setpoints		Unit selection: -
	Min	Max	Factory setting
	-	-	-
p1215	Motor holding brake configuration		
SERVO	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Integer16	Units group: -	Function diagram: 2701, 2707, 2711
	P-Group: Functions		Unit selection: -
	Min	Max	Factory setting
	0	3	0
p1216	Motor holding brake, opening time		
SERVO	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: TIME_M3	Function diagram: 2701, 2711
	P-Group: Functions		Unit selection: -
	Min	Max	Factory setting
	0 [ms]	10000 [ms]	100 [ms]

p1217	Motor holding brake closing time		
SERVO	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Floating Point		Function diagram: 2701, 2711
	P-Group: Functions	Units group: TIME_M3	Unit selection: -
	Min 0 [ms]	Max 10000 [ms]	Factory setting 100 [ms]
p1218[0...1]	BI: Open motor holding brake		
SERVO (Extended brk)	Can be changed: T	Dynamic index: -	Access level: 2
	Data type: Unsigned32		Function diagram: 2707
	P-Group: Functions	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 1
p1219[0...3]	BI: Immediately close motor holding brake		
SERVO (Extended brk)	Can be changed: T	Dynamic index: -	Access level: 2
	Data type: Unsigned32		Function diagram: 2707
	P-Group: Functions	Units group: -	Unit selection: -
	Min -	Max -	Factory setting [0] 0 [1] 0 [2] 0 [3] 1229.9
p1220	CI: Open motor holding brake, signal source, threshold		
SERVO (Extended brk)	Can be changed: T	Dynamic index: -	Access level: 2
	Data type: Unsigned32		Function diagram: 2707
	P-Group: Functions	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 1
p1221	Open motor holding brake, threshold		
SERVO (Extended brk)	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Floating Point		Function diagram: 2707
	P-Group: Functions	Units group: PERCENT	Unit selection: -
	Min 0.00 [%]	Max 200.00 [%]	Factory setting 0.00 [%]
p1222	BI: Motor holding brake, feedback signal, brake closed		
SERVO (Extended brk)	Can be changed: T	Dynamic index: -	Access level: 2
	Data type: Unsigned32		Function diagram: 2711
	P-Group: Functions	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0

p1223	BI: Motor holding brake, feedback signal, brake open		
SERVO (Extended brk)	Can be changed: T	Dynamic index: -	Access level: 2
	Data type: Unsigned32	Units group: -	Function diagram: 2711
	P-Group: Functions		Unit selection: -
	Min	Max	Factory setting
	-	-	1
p1224[0...3]	BI: Close motor holding brake at standstill		
SERVO (Extended brk)	Can be changed: T	Dynamic index: -	Access level: 2
	Data type: Unsigned32	Units group: -	Function diagram: 2704
	P-Group: Functions		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1225	CI: Standstill detection, threshold value		
SERVO (Extended brk)	Can be changed: T	Dynamic index: -	Access level: 2
	Data type: Unsigned32	Units group: -	Function diagram: 2704
	P-Group: Functions		Unit selection: -
	Min	Max	Factory setting
	-	-	63[0]
p1226	Threshold for zero speed detection		
SERVO	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 2701, 2704
	P-Group: Functions		Unit selection: -
	Min	Max	Factory setting
	0.0 [1/min]	210000.0 [1/min]	20.0 [1/min]
p1226	Standstill detection, velocity threshold		
SERVO (Lin)	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 2701, 2704
	P-Group: Functions		Unit selection: -
	Min	Max	Factory setting
	0.0 [m/min]	1000.0 [m/min]	0.2 [m/min]
p1227	Zero speed detection monitoring time		
SERVO	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: TIME	Function diagram: 2701, 2704
	P-Group: Functions		Unit selection: -
	Min	Max	Factory setting
	0.000 [s]	300.000 [s]	4.000 [s]

p1228	Pulse cancellation delay time		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 2701, 2704
	P-Group: Functions	Units group: TIME	Unit selection: -
	Min 0.000 [s]	Max 10.000 [s]	Factory setting 0.000 [s]
r1229	CO/BO: Motor holding brake status word		
SERVO (Extended brk)	Can be changed: -		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Functions	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
p1240	Vdc controller or Vdc monitoring configuration		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: 6220
	P-Group: Functions	Units group: -	Unit selection: -
	Min 0	Max 6	Factory setting 0
p1244	DC link voltage threshold, upper		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Functions	Units group: VOLTAGE_DC	Unit selection: -
	Min 400 [V]	Max 800 [V]	Factory setting 750 [V]
p1248	DC link voltage threshold, lower		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Functions	Units group: VOLTAGE_DC	Unit selection: -
	Min 100 [V]	Max 700 [V]	Factory setting 450 [V]
p1250	Vdc controller proportional gain		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 6220
	P-Group: Functions	Units group: GAIN_VOLTAGE_CTRL	Unit selection: p0528
	Min 0.00 [A/V]	Max 10.00 [A/V]	Factory setting 1.00 [A/V]

p1275	Motor holding brake control word		
SERVO (Extended brk)	Can be changed: U, T Data type: Unsigned32 P-Group: Functions Min 0000 bin	Dynamic index: - Units group: - Max 0010 1111 bin	Access level: 2 Function diagram: - Unit selection: - Factory setting 0000 bin
p1276	Motor holding brake, standstill detection, bypass		
SERVO (Extended brk)	Can be changed: U, T Data type: Floating Point P-Group: Functions Min 0.000 [s]	Dynamic index: - Units group: TIME Max 300.000 [s]	Access level: 2 Function diagram: 2704 Unit selection: - Factory setting 300.000 [s]
p1277	Motor holding brake, braking threshold delay exceeded		
SERVO (Extended brk)	Can be changed: U, T Data type: Floating Point P-Group: Functions Min 0.000 [s]	Dynamic index: - Units group: TIME Max 300.000 [s]	Access level: 2 Function diagram: 2707 Unit selection: - Factory setting 0.000 [s]
p1279[0...3]	BI: Motor holding brake, OR/AND logic operation		
SERVO (Extended brk)	Can be changed: T Data type: Unsigned32 P-Group: Functions Min -	Dynamic index: - Units group: - Max -	Access level: 2 Function diagram: 2707 Unit selection: - Factory setting 0
p1300[0...n]	Open-loop/closed-loop control operating mode		
SERVO	Can be changed: C2(1), T Data type: Integer16 P-Group: V/f open-loop control Min 20	Dynamic index: DDS Units group: - Max 23	Access level: 2 Function diagram: 1590, 1690, 5060, 6300 Unit selection: - Factory setting 21
p1317[0...n]	V/f control diagnostics activation		
SERVO	Can be changed: T Data type: Integer16 P-Group: - Min 0	Dynamic index: DDS Units group: - Max 1	Access level: 3 Function diagram: 5718 Unit selection: - Factory setting 0
p1318[0...n]	V/f control ramp-up/ramp-down time		
SERVO	Can be changed: U, T Data type: Floating Point P-Group: V/f open-loop control Min 0.000 [s]	Dynamic index: DDS Units group: TIME Max 999999.000 [s]	Access level: 3 Function diagram: 5300 Unit selection: - Factory setting 10.000 [s]

p1319[0...n]	V/f control voltage at zero frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5300
	P-Group: V/f open-loop control	Units group: VOLTAGE_AC_EFF	Unit selection: -
	Min 0.0 [Veff]	Max 25.0 [Veff]	Factory setting 0.0 [Veff]
p1326[0...n]	V/f control programmable characteristic frequency 4		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5300, 6300
	P-Group: V/f open-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.00 [Hz]	Max 10000.00 [Hz]	Factory setting 0.00 [Hz]
p1327[0...n]	V/f control programmable characteristic voltage 4		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5300, 6300
	P-Group: V/f open-loop control	Units group: VOLTAGE_AC_EFF	Unit selection: -
	Min 0.0 [Veff]	Max 10000.0 [Veff]	Factory setting 0.0 [Veff]
p1400[0...n]	Speed control configuration		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Unsigned16	Dynamic index: DDS	Function diagram: 1590, 5490
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0000 bin	Max 1111 1111 1111 1111 bin	Factory setting 0000 0011 1010 0000 bin
p1400[0...n]	Velocity control, configuration		
SERVO (Lin)	Can be changed: U, T		Access level: 2
	Data type: Unsigned16	Dynamic index: DDS	Function diagram: 1590, 5490
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0000 bin	Max 1111 1111 1111 1111 bin	Factory setting 0000 0011 1010 0000 bin
p1402[0...n]	Closed-loop current control and motor model configuration		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned16	Dynamic index: DDS	Function diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0000 bin	Max 0010 bin	Factory setting 0000 bin

p1404[0...n]	Sensorless operation changeover speed		
SERVO	Can be changed: T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 1590, 5060
	P-Group: Closed-loop control	Units group: SPEED_ROT	Unit selection: -
	Min 0.0 [1/min]	Max 210000.0 [1/min]	Factory setting 210000.0 [1/min]
p1404[0...n]	Sensorless operation changeover velocity		
SERVO (Lin)	Can be changed: T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 1590, 5060
	P-Group: Closed-loop control	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.0 [m/min]	Max 1000.0 [m/min]	Factory setting 1000.0 [m/min]
r1406	CO/BO: Control word speed controller		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 1530, 2520
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r1406	CO/BO: Control word, velocity controller		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 1530, 2520
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r1407	CO/BO: Status word speed controller		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 1530, 2522
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r1407	CO/BO: Status word, velocity controller		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 1530, 2522
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

r1408	CO/BO: Closed-loop control status word 3		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16		Function diagram: 5040, 5493
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
p1414[0...n]	Speed setpoint filter activation		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Unsigned16		Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0000 bin	Max 0011 bin	Factory setting 0000 bin
p1414[0...n]	Velocity setpoint filter activation		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Unsigned16		Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0000 bin	Max 0011 bin	Factory setting 0000 bin
p1415[0...n]	Speed setpoint filter 1 type		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Integer16		Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0	Max 2	Factory setting 0
p1415[0...n]	Velocity setpoint filter 1 type		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Integer16		Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0	Max 2	Factory setting 0
p1416[0...n]	Speed setpoint filter 1 time constant		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point		Function diagram: 5020, 6030
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 5000.00 [ms]	Factory setting 0.00 [ms]

p1416[0...n]	Velocity setpoint filter 1 time constant		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020, 6030
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 5000.00 [ms]	Factory setting 0.00 [ms]
p1417[0...n]	Speed setpoint filter 1 denominator natural frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 2000.0 [Hz]
p1417[0...n]	Velocity setpoint filter 1 denominator natural frequency		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 2000.0 [Hz]
p1418[0...n]	Speed setpoint filter 1 denominator damping		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.050	Max 10.000	Factory setting 0.700
p1418[0...n]	Velocity setpoint filter 1 denominator damping		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.050	Max 10.000	Factory setting 0.700
p1419[0...n]	Speed setpoint filter 1 numerator natural frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 2000.0 [Hz]
p1419[0...n]	Velocity setpoint filter 1 numerator natural frequency		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 2000.0 [Hz]

p1420[0...n]	Speed setpoint filter 1 numerator damping		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.000	Max 10.000	Factory setting 0.700
p1420[0...n]	Velocity setpoint filter 1 numerator damping		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.000	Max 10.000	Factory setting 0.700
p1421[0...n]	Speed setpoint filter 2 type		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0	Max 2	Factory setting 0
p1421[0...n]	Velocity setpoint filter 2 type		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0	Max 2	Factory setting 0
p1422[0...n]	Speed setpoint filter 2 time constant		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 5000.00 [ms]	Factory setting 0.00 [ms]
p1422[0...n]	Velocity setpoint filter 2 time constant		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 5000.00 [ms]	Factory setting 0.00 [ms]
p1423[0...n]	Speed setpoint filter 2 denominator natural frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 2000.0 [Hz]

p1423[0...n]	Velocity setpoint filter 2 denominator natural frequency		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 2000.0 [Hz]
p1424[0...n]	Speed setpoint filter 2 denominator damping		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.050	Max 10.000	Factory setting 0.700
p1424[0...n]	Velocity setpoint filter 2 denominator damping		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.050	Max 10.000	Factory setting 0.700
p1425[0...n]	Speed setpoint filter 2 numerator natural frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 2000.0 [Hz]
p1425[0...n]	Velocity setpoint filter 2 numerator natural frequency		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 2000.0 [Hz]
p1426[0...n]	Speed setpoint filter 2 numerator damping		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.000	Max 10.000	Factory setting 0.700
p1426[0...n]	Velocity setpoint filter 2 numerator damping		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.000	Max 10.000	Factory setting 0.700

p1428[0...n]	Speed pre-control balancing deadline		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5030, 6031
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.0	Max 2.0	Factory setting 0.0
p1428[0...n]	Velocity pre-control balancing deadline		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5030, 6031
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.0	Max 2.0	Factory setting 0.0
p1429[0...n]	Speed pre-control balancing time constant		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5030, 6031
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 10000.00 [ms]	Factory setting 0.00 [ms]
p1429[0...n]	Velocity pre-control balancing time constant		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5030, 6031
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 10000.00 [ms]	Factory setting 0.00 [ms]
p1430[0...n]	CI: Speed pre-control		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 1550, 1590, 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1430[0...n]	CI: Velocity pre-control		
SERVO (Lin)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 1550, 1590, 5020
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0

r1432	CO: Speed pre-control after balancing		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5030
	P-Group: Closed-loop control	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1432	CO: Velocity pre-control after balancing		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5030
	P-Group: Closed-loop control	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p1433[0...n]	Speed controller reference model natural frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5030, 6031
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.0 [Hz]	Max 8000.0 [Hz]	Factory setting 0.0 [Hz]
p1433[0...n]	Velocity controller reference model natural frequency		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5030, 6031
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.0 [Hz]	Max 8000.0 [Hz]	Factory setting 0.0 [Hz]
p1434[0...n]	Speed controller reference model damping		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5030, 6031
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.000	Max 5.000	Factory setting 1.000
p1434[0...n]	Velocity controller reference model damping		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5030, 6031
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.000	Max 5.000	Factory setting 1.000

p1435[0...n]	Speed controller reference model deadline		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5030, 6031
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.00	Max 2.00	Factory setting 0.00
p1435[0...n]	Velocity controller reference model deadline		
SERVO (Lin)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5030, 6031
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.00	Max 2.00	Factory setting 0.00
r1436	CO: Speed controller reference model speed setpoint output		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5030, 6031
	P-Group: Closed-loop control	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1436	CO: Velocity controller, reference model velocity_setpoint output		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5030, 6031
	P-Group: Closed-loop control	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
r1438	CO: Speed controller, speed setpoint		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1550, 1590, 3080, 5030, 5040, 5060, 5210, 5300, 6040
	P-Group: Closed-loop control	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1438	CO: Velocity controller, velocity setpoint		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1550, 1590, 3080, 5030, 5040, 5060, 5210, 5300, 6040
	P-Group: Closed-loop control	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]

r1439	Speed setpoint, I component		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 5030, 5040, 6031
	P-Group: Closed-loop control	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1439	Velocity setpoint, I component		
SERVO (Lin)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 5030, 5040, 6031
	P-Group: Closed-loop control	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p1441[0...n]	Actual speed smoothing time		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point		Function diagram: 4710, 6010
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 50.00 [ms]	Factory setting 0.00 [ms]
p1441[0...n]	Actual velocity, smoothing time		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point		Function diagram: 4710, 6010
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 50.00 [ms]	Factory setting 0.00 [ms]
r1444	Speed controller, speed setpoint steady-state (static)		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 5030
	P-Group: Closed-loop control	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1444	Velocity controller, velocity setpoint, total		
SERVO (Lin)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point		Function diagram: 5030
	P-Group: Closed-loop control	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]

r1454	CO: Speed controller system deviation I component		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5040
	P-Group: Closed-loop control	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r1454	CO: Velocity controller system deviation I component		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5040
	P-Group: Closed-loop control	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p1455[0...n]	CI: Speed controller P gain adaptation signal		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1455[0...n]	CI: Velocity controller, P gain adaptation signal		
SERVO (Lin)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1456[0...n]	Speed controller P gain adaptation lower starting point		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.00 [%]	Max 400.00 [%]	Factory setting 0.00 [%]
p1456[0...n]	Velocity controller P gain adaptation, lower starting point		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.00 [%]	Max 400.00 [%]	Factory setting 0.00 [%]

p1457[0...n]	Speed controller P gain adaptation upper starting point		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.00 [%]	Max 400.00 [%]	Factory setting 0.00 [%]
p1457[0...n]	Velocity controller P gain adaptation upper starting point		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.00 [%]	Max 400.00 [%]	Factory setting 0.00 [%]
p1458[0...n]	Adaptation factor, lower		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.0 [%]	Max 200000.0 [%]	Factory setting 100.0 [%]
p1459[0...n]	Adaptation factor, upper		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.0 [%]	Max 200000.0 [%]	Factory setting 100.0 [%]
p1460[0...n]	Speed controller P gain adaptation speed, lower		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5040, 6040
	P-Group: Closed-loop control	Units group: GAIN_SPEED_CTRL	Unit selection: p0528
	Min 0.000 [Nms/rad]	Max 999999.000 [Nms/rad]	Factory setting 0.300 [Nms/rad]
p1460[0...n]	Velocity controller, P gain adaptation velocity, lower		
SERVO (Lin)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5040, 6040
	P-Group: Closed-loop control	Units group: GAIN_SPEED_CTRL_LIN	Unit selection: p0528
	Min 0.000 [Ns/m]	Max 999999.000 [Ns/m]	Factory setting 10.000 [Ns/m]

p1461[0...n]	Speed controller P gain adaptation speed, upper		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.000 [%]	Max 200000.000 [%]	Factory setting 100.000 [%]

p1461[0...n]	Velocity controller, P gain adaptation velocity, upper		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.000 [%]	Max 200000.000 [%]	Factory setting 100.000 [%]

4.3 Parameter p1462 - p3415

p1462[0...n]	Speed controller integral action time adaptation speed, lower		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5040, 5050, 6040, 6050
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 100000.00 [ms]	Factory setting 20.00 [ms]
p1462[0...n]	Velocity contr., integral act. time adaptation velocity, lower		
SERVO (Lin)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5040, 5050, 6040, 6050
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 100000.00 [ms]	Factory setting 20.00 [ms]
p1463[0...n]	Speed controller integral action time adaptation speed, upper		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.0 [%]	Max 200000.0 [%]	Factory setting 100.0 [%]
p1463[0...n]	Velocity contr., integral act. time adaptation velocity, upper		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.0 [%]	Max 200000.0 [%]	Factory setting 100.0 [%]
p1464[0...n]	Speed controller adaptation speed, lower		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: SPEED_ROT	Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 0.00 [1/min]
p1464[0...n]	Velocity controller adaptation velocity, lower		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.00 [m/min]	Max 1000.00 [m/min]	Factory setting 0.00 [m/min]

p1465[0...n]	Speed controller adaptation speed, upper		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: SPEED_ROT	Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 210000.00 [1/min]
p1465[0...n]	Velocity controller adaptation velocity, upper		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.00 [m/min]	Max 1000.00 [m/min]	Factory setting 1000.00 [m/min]
p1466[0...n]	CI: Speed controller P-gain scaling		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 1
p1466[0...n]	CI: Velocity controller P gain scaling		
SERVO (Lin)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5050, 6050
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 1
r1468	Speed controller P-gain effective		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 3080, 5040, 5210
	P-Group: Closed-loop control	Units group: GAIN_SPEED_CTRL	Unit selection: p0528
	Min - [Nms/rad]	Max - [Nms/rad]	Factory setting - [Nms/rad]
r1468	Velocity controller, P gain effective		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 3080, 5040, 5210
	P-Group: Closed-loop control	Units group: GAIN_SPEED_CTRL_LIN	Unit selection: p0528
	Min - [Ns/m]	Max - [Ns/m]	Factory setting - [Ns/m]

r1469	Speed controller integral action time effective		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5040, 6040
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min - [ms]	Max - [ms]	Factory setting - [ms]
r1469	Velocity controller integral action time effective		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5040, 6040
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min - [ms]	Max - [ms]	Factory setting - [ms]
p1470[0...n]	Speed controller sensorless operation P-gain		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5210, 6040,, 6050
	P-Group: Closed-loop control	Units group: GAIN_SPEED_CTRL	Unit selection: p0528
	Min 0.000 [Nms/rad]	Max 999999.000 [Nms/rad]	Factory setting 0.300 [Nms/rad]
p1470[0...n]	Velocity controller sensorless operation P-gain		
SERVO (Lin)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5210, 6040,, 6050
	P-Group: Closed-loop control	Units group: GAIN_SPEED_CTRL_LIN	Unit selection: p0528
	Min 0.000 [Ns/m]	Max 999999.000 [Ns/m]	Factory setting 10.000 [Ns/m]
p1472[0...n]	Speed controller sensorless operation integral action time		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5210, 6040, 6050
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.0 [ms]	Max 100000.0 [ms]	Factory setting 20.0 [ms]
p1472[0...n]	Velocity controller sensorless operation integral action time		
SERVO (Lin)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5210, 6040, 6050
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.0 [ms]	Max 100000.0 [ms]	Factory setting 20.0 [ms]

p1476[0...n]	BI: Speed controller hold integrator		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5040
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1476[0...n]	BI: Velocity controller, hold integrator		
SERVO (Lin)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5040
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1477[0...n]	BI: Speed controller set integrator value		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5040, 5210
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1477[0...n]	BI: Set velocity controller integrator value		
SERVO (Lin)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5040, 5210
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1478[0...n]	CI: Speed controller integrator setting value		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5040, 5210
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p1478[0...n]	CI: Velocity controller, integrator value		
SERVO (Lin)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5040, 5210
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0

r1480	CO: Speed controller PI torque output		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1590, 5040, 5060, 5210
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r1480	CO: Velocity controller PI force output		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1590, 5040, 5060, 5210
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]
r1481	CO: Speed controller P torque output		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5040, 5210
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r1481	CO: Velocity controller P force output		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5040, 5210
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]
r1482	CO: Speed controller I torque output		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5040, 5210, 6040
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r1482	CO: Velocity controller I force output		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5040, 5210, 6040
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]

p1494[0...n]	Speed controller integrator feedback time constant		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5040, 5210
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 1000.00 [ms]	Factory setting 0.00 [ms]
p1494[0...n]	Velocity controller integrator feedback time constant		
SERVO (Lin)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5040, 5210
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 1000.00 [ms]	Factory setting 0.00 [ms]
p1498[0...n]	Load moment of inertia		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: -
	P-Group: Closed-loop control	Units group: INERTIA	Unit selection: -
	Min 0.00000 [kgm ²]	Max 100000.00000 [kgm ²]	Factory setting 0.00000 [kgm ²]
p1498[0...n]	Load mass		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: -
	P-Group: Closed-loop control	Units group: MASS	Unit selection: -
	Min 0.00000 [kg]	Max 10000.00000 [kg]	Factory setting 0.00000 [kg]
p1500[0...n]	Macro Connector Inputs (CI) for torque setpoints		
SERVO	Can be changed: C2(1), T		Access level: 1
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min 0	Max 999999	Factory setting 0
p1500[0...n]	Macro Connector Inputs (CI) for force setpoints		
SERVO (Lin)	Can be changed: C2(1), T		Access level: 1
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min 0	Max 999999	Factory setting 0

p1501[0...n]	BI: Change over between closed-loop speed/torque control		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 2520, 5060, 6060
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1501[0...n]	BI: Changeover velocity/force control		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 2520, 5060, 6060
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
r1509	CO: Torque setpoint before torque limiting		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1590, 5060, 5610
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r1509	CO: Force setpoint before force limiting		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1590, 5060, 5610
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]
p1511[0...n]	CI: Supplementary torque 1		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5060, 6060
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1511[0...n]	CI: Supplementary force 1		
SERVO (Lin)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5060, 6060
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0

p1512[0...n]	CI: Supplementary torque 1 scaling		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5060, 6060
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1512[0...n]	CI: Supplementary force 1 scaling		
SERVO (Lin)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5060, 6060
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1513[0...n]	CI: Supplementary torque 2		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5060, 6060
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1513[0...n]	CI: Supplementary force 2		
SERVO (Lin)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5060, 6060
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
r1515	Supplementary torque total		
SERVO	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 5040, 5060
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r1515	Supplementary force, total		
SERVO (Lin)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 5040, 5060
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]

p1517[0...n]	Accelerating torque smoothing time constant		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5210
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 100.00 [ms]	Factory setting 4.00 [ms]
p1517[0...n]	Acceleration force smoothing time constant		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5210
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 100.00 [ms]	Factory setting 4.00 [ms]
p1520[0...n]	CO: Torque limit, upper/motoring		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5620, 5630, 6630
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min -1000000.00 [Nm]	Max 10000000.00 [Nm]	Factory setting 0.00 [Nm]
p1520[0...n]	CO: Force limit upper/motoring		
SERVO (Lin)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5620, 5630, 6630
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min -1000000.00 [N]	Max 10000000.00 [N]	Factory setting 0.00 [N]
p1521[0...n]	CO: Torque limit, lower/regenerative		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5620, 5630, 6630
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min -1000000.00 [Nm]	Max 10000000.00 [Nm]	Factory setting 0.00 [Nm]
p1521[0...n]	CO: Force limit, lower/regenerative		
SERVO (Lin)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5620, 5630, 6630
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min -1000000.00 [N]	Max 10000000.00 [N]	Factory setting 0.00 [N]

p1522[0...n]	CI: Torque limit, upper/motoring		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 1610, 5620, 5630, 6630
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 1520[0]
p1523[0...n]	CI: Torque limit, lower/regenerative		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 1610, 5620, 5630, 6630
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 1521[0]
r1526	Torque limit, upper/motoring without offset		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5620, 5630, 6630, 6640
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r1526	Force limit, upper/motoring without offset		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5620, 5630, 6630, 6640
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]
r1527	Torque limit, lower/regenerative without offset		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5620, 5630, 6630, 6640
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r1527	Force limit, lower/regenerative without offset		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5620, 5630, 6630, 6640
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]

p1528[0...n]	CI: Torque limit, upper/motoring, scaling		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 1610, 5620, 5630
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 1
p1529[0...n]	CI: Torque limit, lower/regenerating scaling		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 1610, 5620, 5630
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 1
p1530[0...n]	Power limit, motoring		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5640, 6640
	P-Group: Closed-loop control	Units group: POWER_P3	Unit selection: -
	Min 0.00 [kW]	Max 100000.00 [kW]	Factory setting 0.00 [kW]
p1531[0...n]	Power limit, regenerating		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5640, 6640
	P-Group: Closed-loop control	Units group: POWER_P3	Unit selection: -
	Min -100000.00 [kW]	Max -0.01 [kW]	Factory setting -0.01 [kW]
p1532[0...n]	CO: Torque limit, offset		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5620, 5630, 8012
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min -100000.00 [Nm]	Max 100000.00 [Nm]	Factory setting 0.00 [Nm]
p1532[0...n]	CO: Force offset, force limit		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5620, 5630, 8012
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min -100000.00 [N]	Max 100000.00 [N]	Factory setting 0.00 [N]

r1533	Current limit, torque-generating, total		
SERVO	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 5640, 5722, 6640
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r1534	CO: Torque limit, upper total		
SERVO	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 1610, 5620, 5630, 5640
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r1534	CO: Force limit, upper, total		
SERVO (Lin)	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 1610, 5620, 5630, 5640
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]
r1535	CO: Torque limit, lower total		
SERVO	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 1610, 5620, 5630, 5640
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r1535	CO: Force limit, lower, total		
SERVO (Lin)	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 1610, 5620, 5630, 5640
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]
r1538	CO: Upper effective torque limit		
SERVO	Can be changed: -	Access level: 2	
	Data type: Floating Point	Dynamic index: -	Function diagram: 1590, 1610, 1750, 5610, 5650, 5714, 6040, 6060, 6640, 8012
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]

r1538	CO: Upper force limit effective		
SERVO (Lin)	Can be changed: -	Access level: 2	
	Data type: Floating Point	Dynamic index: -	Function diagram: 1590, 1610, 1750, 5610, 5650, 5714, 6040, 6060, 6640, 8012
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]
r1539	CO: Lower effective torque limit		
SERVO	Can be changed: -	Access level: 2	
	Data type: Floating Point	Dynamic index: -	Function diagram: 1590, 1610, 1750, 5610, 5650, 5714, 6040, 6060, 6640, 8012
	P-Group: Closed-loop control	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r1539	CO: Lower force limit effective		
SERVO (Lin)	Can be changed: -	Access level: 2	
	Data type: Floating Point	Dynamic index: -	Function diagram: 1590, 1610, 1750, 5610, 5650, 5714, 6040, 6060, 6640, 8012
	P-Group: Closed-loop control	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]
p1542[0...n]	CI: Travel to a fixed endstop, torque reduction		
SERVO	Can be changed: T	Access level: 3	
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 5610
	P-Group: Setpoints	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
r1543	CO: Travel to fixed endstop, torque scaling		
SERVO	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 5610
	P-Group: Setpoints	Units group: PERCENT	Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
p1544	Travel to fixed endstop evaluation, torque reduction		
SERVO	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 5610
	P-Group: Setpoints	Units group: PERCENT	Unit selection: -
	Min 0 [%]	Max 65535 [%]	Factory setting 100 [%]

p1545[0...n]	BI: Activates travel to a fixed endstop		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 2444, 2520
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p1546	Speed threshold, motoring/regenerating		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Functions	Units group: SPEED_ROT	Unit selection: -
	Min 0.0 [1/min]	Max 210000.0 [1/min]	Factory setting 20.0 [1/min]
p1546	Velocity threshold motoring/regenerating		
SERVO (Lin)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Functions	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.0 [m/min]	Max 1000.0 [m/min]	Factory setting 0.2 [m/min]
p1550[0...n]	BI: Accept the actual torque as torque offset		
SERVO	Can be changed: T		Access level: 2
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 9718.23
p1569[0...n]	CI: Friction characteristic, input control		
SERVO	Can be changed: T		Access level: 2
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 7010
	P-Group: Functions	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 3841[0]
p1590[0...n]	Flux controller P gain		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5722
	P-Group: Closed-loop control	Units group: GAIN_FLUX_CTRL	Unit selection: p0528
	Min 0.0 [A/Vs]	Max 999999.0 [A/Vs]	Factory setting 10.0 [A/Vs]

p1592[0...n]	Flux controller integral.action time		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5722
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0 [ms]	Max 10000 [ms]	Factory setting 30 [ms]
p1612[0...n]	Current setpoint, open-loop control, sensorless		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: -
	P-Group: Closed-loop control	Units group: CURRENT_AC_EFF	Unit selection: -
	Min 0.00 [Aeff]	Max 500.00 [Aeff]	Factory setting 0.00 [Aeff]
r1650	Current setpoint torque-generating before filter		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5710
	P-Group: Closed-loop control	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r1650	Current setpoint force-generating before filter		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 5710
	P-Group: Closed-loop control	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r1651	CO: Torque setpoint, function generator		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]
r1651	CO: Force setpoint, function generator		
SERVO (Lin)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]
p1656[0...n]	Activates current setpoint filter		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Unsigned16	Dynamic index: DDS	Function diagram: 5710
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0000 hex	Max 000F hex	Factory setting 0001 hex

p1657[0...n]	Current setpoint filter 1 type		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: DDS	Function diagram: 5710, 6710
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0001 hex	Max 0002 hex	Factory setting 0001 hex
p1658[0...n]	Current setpoint filter 1 denominator natural frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710, 6710
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 1999.0 [Hz]
p1659[0...n]	Current setpoint filter 1 denominator damping		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710, 6710
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.001	Max 10.000	Factory setting 0.700
p1660[0...n]	Current setpoint filter 1 numerator natural frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710, 6710
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 1999.0 [Hz]
p1661[0...n]	Current setpoint filter 1 numerator damping		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710, 6710
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.000	Max 10.000	Factory setting 0.700
p1662[0...n]	Current setpoint filter 2 type		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: DDS	Function diagram: 5710, 6710
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0001 hex	Max 0002 hex	Factory setting 0001 hex

p1663[0...n]	Current setpoint filter 2 denominator natural frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710, 6710
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 1999.0 [Hz]
p1664[0...n]	Current setpoint filter 2 denominator damping		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710, 6710
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.001	Max 10.000	Factory setting 0.700
p1665[0...n]	Current setpoint filter 2 numerator natural frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710, 6710
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 1999.0 [Hz]
p1666[0...n]	Current setpoint filter 2 numerator damping		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710, 6710
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.000	Max 10.000	Factory setting 0.700
p1667[0...n]	Current setpoint filter 3 type		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: DDS	Function diagram: 5710
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0001 hex	Max 0002 hex	Factory setting 0001 hex
p1668[0...n]	Current setpoint filter 3 denominator natural frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 1999.0 [Hz]

p1669[0...n]	Current setpoint filter 3 denominator damping		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.001	Max 10.000	Factory setting 0.700
p1670[0...n]	Current setpoint filter 3 numerator natural frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 1999.0 [Hz]
p1671[0...n]	Current setpoint filter 3 numerator damping		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.000	Max 10.000	Factory setting 0.700
p1672[0...n]	Current setpoint filter 4 type		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: DDS	Function diagram: 5710
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0001 hex	Max 0002 hex	Factory setting 0001 hex
p1673[0...n]	Current setpoint filter 4 denominator natural frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 1999.0 [Hz]
p1674[0...n]	Current setpoint filter 4 denominator damping		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0.001	Max 10.000	Factory setting 0.700
p1675[0...n]	Current setpoint filter 4 numerator natural frequency		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 5710
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 0.5 [Hz]	Max 16000.0 [Hz]	Factory setting 1999.0 [Hz]

p1676[0...n]	Current setpoint filter 4 numerator damping		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: -	Function diagram: 5710
	P-Group: Closed-loop control		Unit selection: -
	Min 0.000	Max 10.000	Factory setting 0.700
p1699	Filter data transfer		
SERVO	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Closed-loop control		Unit selection: -
	Min 0	Max 1	Factory setting 0
p1701[0...n]	Current controller reference model deadtime		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: -	Function diagram: 5714
	P-Group: Closed-loop control		Unit selection: -
	Min 0.0	Max 1.0	Factory setting 1.0
p1715[0...n]	Current controller P gain		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: GAIN_CURRENT_CTRL	Function diagram: 5714, 6714
	P-Group: Closed-loop control		Unit selection: p0528
	Min 0.000 [V/A]	Max 100000.000 [V/A]	Factory setting 0.000 [V/A]
p1717[0...n]	Current controller integral-action time		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: TIME_M3	Function diagram: 5714, 6714
	P-Group: Closed-loop control		Unit selection: -
	Min 0.00 [ms]	Max 1000.00 [ms]	Factory setting 2.00 [ms]
r1732	Direct-axis voltage setpoint		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: VOLTAGE_AC_EFF	Function diagram: 1630, 5714, 6714, 5718
	P-Group: Closed-loop control		Unit selection: -
	Min - [Veff]	Max - [Veff]	Factory setting - [Veff]

r1733	Quadrature-axis voltage setpoint		
SERVO	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 1630, 5714, 5718, 6714, 6719
	P-Group: Closed-loop control	Units group: VOLTAGE_AC_EFF	Unit selection: -
	Min - [Veff]	Max - [Veff]	Factory setting - [Veff]
p1752[0...n]	Motor model changeover speed operation with encoder		
SERVO	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: DDS	Function diagram: -
	P-Group: Closed-loop control	Units group: SPEED_ROT	Unit selection: -
	Min 0.0 [1/min]	Max 210000.0 [1/min]	Factory setting 210000.0 [1/min]
p1752[0...n]	Motor model with encoder changeover velocity		
SERVO (Lin)	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: DDS	Function diagram: -
	P-Group: Closed-loop control	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.0 [m/min]	Max 1000.0 [m/min]	Factory setting 1000.0 [m/min]
p1755[0...n]	Motor model changeover speed sensorless operation		
SERVO	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: DDS	Function diagram: -
	P-Group: Closed-loop control	Units group: SPEED_ROT	Unit selection: -
	Min 0.0 [1/min]	Max 210000.0 [1/min]	Factory setting 210000.0 [1/min]
p1755[0...n]	Motor model changeover velocity sensorless operation		
SERVO (Lin)	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: DDS	Function diagram: -
	P-Group: Closed-loop control	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.0 [m/min]	Max 1000.0 [m/min]	Factory setting 1000.0 [m/min]
p1756	Motor model changeover speed hysteresis		
SERVO	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.0 [%]	Max 90.0 [%]	Factory setting 5.0 [%]

r1778	Motor model flux angle difference		
SERVO	Can be changed: -		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: ANGLE	Unit selection: -
	Min - [°]	Max - [°]	Factory setting - [°]
p1780[0...n]	Motor model configuration adaptation		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Unsigned8	Dynamic index: DDS	Function diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0000 bin	Max 0011 1110 bin	Factory setting 0011 1100 bin
p1800[0...n]	Pulse frequency		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: -
	P-Group: Modulation	Units group: FREQUENCY_P3	Unit selection: -
	Min 1.000 [kHz]	Max 32.000 [kHz]	Factory setting 4.000 [kHz]
p1827	Infeed compensation valve lockout time operating mode		
A_INF	Can be changed: U, T		Access level: 4
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Modulation	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 0
p1980[0...n]	Pole position identification technique		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: MDS	Function diagram: -
	P-Group: Motor identification	Units group: -	Unit selection: -
	Min 0	Max 99	Factory setting 99
p1981[0...n]	Pole position identification maximum distance		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: -
	P-Group: Motor identification	Units group: ANGLE	Unit selection: -
	Min 0 [°]	Max 90 [°]	Factory setting 10 [°]
p1982[0...n]	Pole position identification selection		
SERVO	Can be changed: T		Access level: 3
	Data type: Integer16	Dynamic index: MDS	Function diagram: -
	P-Group: Motor identification	Units group: -	Unit selection: -
	Min 0	Max 2	Factory setting 0

p1983	Pole position identification, test		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Motor identification	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 0
r1984	Pole position identification, angular difference		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Motor identification	Units group: ANGLE	Unit selection: -
	Min - [°]	Max - [°]	Factory setting - [°]
r1985	Pole position identification, saturation characteristic		
SERVO	Can be changed: -		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Motor identification	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r1987	Pole position identification trigger characteristic		
SERVO	Can be changed: -		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Motor identification	Units group: PERCENT	Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
p1990	Angular commutation offset, commissioning support		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Motor identification	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 0
p1991[0...n]	Motor changeover, angular commutation correction		
SERVO	Can be changed: T		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: -
	P-Group: -	Units group: ANGLE	Unit selection: -
	Min -180 [°]	Max 180 [°]	Factory setting 0 [°]
r1992	Pole position identification diagnostics		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

p1993[0...n]	Pole position identification current, motion-based		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: -
	P-Group: Motor identification	Units group: CURRENT_AC_EFF	Unit selection: -
	Min 0.00 [Aeff]	Max 20000.00 [Aeff]	Factory setting 0.00 [Aeff]
p1994[0...n]	Pole position identification rise time, motion-based		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: -
	P-Group: Motor identification	Units group: TIME_M3	Unit selection: -
	Min 0 [ms]	Max 2500 [ms]	Factory setting 100 [ms]
p1995[0...n]	Pole position identification gain, motion-based		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: -
	P-Group: Motor identification	Units group: GAIN_SPEED_CTRL	Unit selection: -
	Min 0.000 [Nms/rad]	Max 999999.000 [Nms/rad]	Factory setting 0.300 [Nms/rad]
p1995[0...n]	Pole position identification gain, motion-based		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: -
	P-Group: Motor identification	Units group: GAIN_SPEED_CTRL_LIN	Unit selection: -
	Min 0.000 [Ns/m]	Max 999999.000 [Ns/m]	Factory setting 10.000 [Ns/m]
p1996[0...n]	Pole position identification, integral action time, motion-based		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: -
	P-Group: Motor identification	Units group: TIME_M3	Unit selection: -
	Min 1.0 [ms]	Max 500.0 [ms]	Factory setting 2.0 [ms]
p1997[0...n]	Pole position identification, smoothing time, motion-based		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: MDS	Function diagram: -
	P-Group: Motor identification	Units group: TIME_M3	Unit selection: -
	Min 0.0 [ms]	Max 50.0 [ms]	Factory setting 0.0 [ms]
p2000	Reference frequency		
A_INF	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: FREQUENCY	Unit selection: -
	Min 0.10 [Hz]	Max 1000.00 [Hz]	Factory setting 50.00 [Hz]

p2000	Reference speed reference frequency		
SERVO	Can be changed: T	Access level: 2	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: SPEED_ROT	Unit selection: -
	Min 6.00 [1/min]	Max 210000.00 [1/min]	Factory setting 3000.00 [1/min]
p2000	Reference velocity, reference frequency		
SERVO (Lin)	Can be changed: T	Access level: 2	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.60 [m/min]	Max 600.00 [m/min]	Factory setting 120.00 [m/min]
p2001	Reference voltage		
A_INF, SERVO	Can be changed: T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: VOLTAGE_AC_EFF	Unit selection: -
	Min 10.0 [Veff]	Max 10000.0 [Veff]	Factory setting 1000.0 [Veff]
p2002	Reference current		
A_INF, SERVO	Can be changed: T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: CURRENT_AC_EFF	Unit selection: -
	Min 0.10 [Aeff]	Max 10000.00 [Aeff]	Factory setting 100.00 [Aeff]
p2003	Reference torque		
SERVO	Can be changed: T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: TORQUE	Unit selection: -
	Min 0.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 1.00 [Nm]
p2003	Reference force		
SERVO (Lin)	Can be changed: T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: FORCE	Unit selection: -
	Min 0.00 [N]	Max 1000000.00 [N]	Factory setting 100.00 [N]
r2004	Reference power		
A_INF, SERVO	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: POWER_P3	Unit selection: -
	Min - [kW]	Max - [kW]	Factory setting - [kW]

r2032	Master control, control word effective		
A_INF	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2032	Master control, control word effective		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p2037	PROFIBUS STW1.10 = 0 mode		
SERVO	Can be changed: T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	2	0
p2038	PROFIBUS STW/ZSW interface mode		
SERVO	Can be changed: T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	2	0
p2040	COMM INT monitoring time		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: TIME_M3	Unit selection: -
	Min	Max	Factory setting
	0 [ms]	65535000 [ms]	20 [ms]
r2043	BO: PROFIBUS PZD status		
CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Unsigned8	Dynamic index: -	Function diagram: 2410
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p2044	PROFIBUS fault delay		
A_INF, SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 2410
	P-Group: Communications	Units group: TIME	Unit selection: -
	Min	Max	Factory setting
	0 [s]	100 [s]	0 [s]

p2045	CI: Clock synchronous PROFIBUS signal source for master sign-of-life		
CU_CX32, CU_I, SERVO	Can be changed: T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2444
	P-Group: Communications		Unit selection: -
	Min	Max	Factory setting
	-	-	0
r2050[0...4]	CO: PROFIBUS PZD receive word		
A_INF, CU_CX32, CU_I	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Communications		Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2050[0...15]	CO: PROFIBUS PZD receive word		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Integer16	Units group: -	Function diagram: 2440, 2460
	P-Group: Communications		Unit selection: -
	Min	Max	Factory setting
	-	-	-
p2051[0...6]	CI: PROFIBUS PZD send word		
CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Communications		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p2051[0...4]	CI: PROFIBUS PZD send word		
A_INF	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Communications		Unit selection: -
	Min	Max	Factory setting
	-	-	0
p2051[0...18]	CI: PROFIBUS PZD send word		
SERVO	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2470
	P-Group: Communications		Unit selection: -
	Min	Max	Factory setting
	-	-	0
r2053[0...6]	PROFIBUS diagnostics send PZD word		
CU_CX32, CU_I	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: -
	P-Group: Communications		Unit selection: -
	Min	Max	Factory setting
	-	-	-

r2053[0...4]	PROFIBUS diagnostics send PZD word		
A_INF	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: -
	P-Group: Communications	Max	Unit selection: -
	Min	-	Factory setting
	-	-	-
r2053[0...18]	PROFIBUS diagnostics send PZD word		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: 2450, 2470
	P-Group: Communications	Max	Unit selection: -
	Min	-	Factory setting
	-	-	-
r2054	COMM INT state		
CU_CX32, CU_I	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Communications	Max	Unit selection: -
	Min	-	Factory setting
	-	-	-
r2058[0...139]	COMM INT receive configuration data		
CU_CX32, CU_I	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: -
	P-Group: Communications	Max	Unit selection: -
	Min	-	Factory setting
	-	-	-
r2059[0...7]	COMM INT identification data		
CU_CX32, CU_I	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: -
	P-Group: Communications	Max	Unit selection: -
	Min	-	Factory setting
	-	-	-

r2060[0...14]	CO: PROFIBUS PZD receive double word		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Integer32		Function diagram: 2440, 2460
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p2061[0...14]	CI: PROFIBUS PZD send double word		
SERVO	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 2470
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
r2063[0...14]	PROFIBUS diagnostics PZD send double word		
SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 2450, 2470
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2064[0...7]	PROFIBUS diagnostics clock synchronous mode		
CU_CX32, CU_I	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Integer32		Function diagram: 2410
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2065	PROFIBUS diagnostics master sign-of-life		
CU_CX32, CU_I, SERVO	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16		Function diagram: 2410
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2075[0...4]	PROFIBUS diagnostics telegram offset PZD receive		
A_INF, CU_CX32, CU_I	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16		Function diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r2075[0...15]	PROFIBUS diagnostics telegram offset PZD receive		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2076[0...6]	PROFIBUS PZD diagnostics telegram offset send		
CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2076[0...4]	PROFIBUS PZD diagnostics telegram offset send		
A_INF	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2076[0...18]	PROFIBUS PZD diagnostics telegram offset send		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p2079	PROFIBUS PZD telegram selection extended		
CU_CX32, CU_I	Can be changed: C2(1), T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	390	999	999
p2079	PROFIBUS PZD telegram selection extended		
A_INF	Can be changed: C2(1), T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	370	999	999
p2079	PROFIBUS PZD telegram selection extended		
SERVO	Can be changed: C2(1), T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	2	999	999

p2080[0...15]	BI: PROFIBUS send status word 1		
All objects	Can be changed: U, T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2472
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p2081[0...15]	BI: PROFIBUS send status word 2		
All objects	Can be changed: U, T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2472
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p2082[0...15]	BI: PROFIBUS send free status word 3		
All objects	Can be changed: U, T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2472
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p2083[0...15]	BI: PROFIBUS send free status word 4		
All objects	Can be changed: U, T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2472
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p2088[0...3]	PROFIBUS invert status word		
All objects	Can be changed: U, T	Access level: 3	
	Data type: Unsigned16	Dynamic index: -	Function diagram: 2472
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0000 bin	1111 1111 1111 1111 bin	0000 bin
r2089[0...3]	CO: PROFIBUS send status word		
All objects	Can be changed: -	Access level: 3	
	Data type: Unsigned16	Dynamic index: -	Function diagram: 2472
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2090	BO: PROFIBUS PZD1 receive bit-serial		
All objects	Can be changed: -	Access level: 3	
	Data type: Unsigned16	Dynamic index: -	Function diagram: 2460
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r2091	BO: PROFIBUS PZD2 received bit-serial		
All objects	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 2460
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2092	BO: PROFIBUS PZD3 received bit-serial		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 2460
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2093	BO: PROFIBUS PZD4 received bit-serial		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 2460
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2094	BO: PROFIBUS PZD received bit-serial		
All objects	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 2460
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2095	BO: PROFIBUS PZD received bit-serial		
All objects	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 2460
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p2098[0...1]	Invert connector-binector converter bit-serial		
All objects	Can be changed: U, T		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 2460
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0000 bin	1111 1111 1111 1111 bin	0000 bin
p2099[0...1]	CI: PROFIBUS PZD selection receive bit-serial		
All objects	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2460
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0

p2100[0...19]	Setting the fault number for fault response		
All objects	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned16		Function diagram: 1750, 8075
	P-Group: Messages	Units group: -	Unit selection: -
	Min 0	Max 65535	Factory setting 0
p2101[0...19]	Setting the fault response		
CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Integer16		Function diagram: 1750, 8075
	P-Group: Messages	Units group: -	Unit selection: -
	Min 0	Max 0	Factory setting 0
p2101[0...19]	Setting the fault response		
A_INF	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Integer16		Function diagram: 1750, 8075
	P-Group: Messages	Units group: -	Unit selection: -
	Min 0	Max 2	Factory setting 0
p2101[0...19]	Setting the fault response		
SERVO	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Integer16		Function diagram: 1750, 8075
	P-Group: Messages	Units group: -	Unit selection: -
	Min 0	Max 7	Factory setting 0
p2103	BI: 1. Acknowledge faults		
CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: -
	P-Group: Messages	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p2103[0...n]	BI: 1. Acknowledge faults		
A_INF, SERVO	Can be changed: U, T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32		Function diagram: 2442, 2443, 2546, 8920
	P-Group: Messages	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0

p2104	BI: 2. Acknowledge faults		
CU_CX32, CU_I	Can be changed: U, T Data type: Unsigned32 P-Group: Messages Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: - Unit selection: - Factory setting 0
p2104[0...n]	BI: 2. Acknowledge faults		
A_INF, SERVO	Can be changed: U, T Data type: Unsigned32 P-Group: Messages Min -	Dynamic index: CDS Units group: - Max -	Access level: 3 Function diagram: 2546, 8920 Unit selection: - Factory setting 0
p2105	BI: 3. Acknowledge faults		
CU_CX32, CU_I	Can be changed: U, T Data type: Unsigned32 P-Group: Messages Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: - Unit selection: - Factory setting 0
p2105[0...n]	BI: 3. Acknowledge faults		
A_INF, SERVO	Can be changed: U, T Data type: Unsigned32 P-Group: Messages Min -	Dynamic index: CDS Units group: - Max -	Access level: 3 Function diagram: 2546, 8920 Unit selection: - Factory setting 0
p2106	BI: External fault 1		
CU_CX32, CU_I	Can be changed: U, T Data type: Unsigned32 P-Group: Messages Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: - Unit selection: - Factory setting 1
p2106[0...n]	BI: External fault 1		
A_INF, SERVO	Can be changed: U, T Data type: Unsigned32 P-Group: Messages Min -	Dynamic index: CDS Units group: - Max -	Access level: 3 Function diagram: 2546 Unit selection: - Factory setting 1

p2107	BI: External fault 2		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	1
p2107[0...n]	BI: External fault 2		
A_INF, SERVO	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 2546
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	1
p2108	BI: External fault 3		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	1
p2108[0...n]	BI: External fault 3		
A_INF, SERVO	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 2546
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	1
r2109[0...63]	Fault time removed in milliseconds		
All objects	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 1750, 8060
	P-Group: Messages	Units group: TIME_M3	Unit selection: -
	Min	Max	Factory setting
	- [ms]	- [ms]	- [ms]
r2110[0...63]	Alarm number		
All objects	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: 8065
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

p2111	Alarm counter			
All objects	Can be changed: U, T		Dynamic index: -	Access level: 3
	Data type: Unsigned16			Function diagram: 1750, 8065
	P-Group: Messages		Units group: -	Unit selection: -
	Min 0		Max 65535	Factory setting 0
p2112	BI: External alarm 1			
CU_CX32, CU_I	Can be changed: U, T		Dynamic index: -	Access level: 3
	Data type: Unsigned32		Units group: -	Function diagram: -
	P-Group: Messages			Unit selection: -
	Min -		Max -	Factory setting 1
p2112[0...n]	BI: External alarm 1			
A_INF, SERVO	Can be changed: U, T		Dynamic index: CDS	Access level: 3
	Data type: Unsigned32		Units group: -	Function diagram: 2546
	P-Group: Messages			Unit selection: -
	Min -		Max -	Factory setting 1
r2114[0...1]	System runtime total			
CU_CX32, CU_I	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Unsigned32		Units group: -	Function diagram: -
	P-Group: Messages			Unit selection: -
	Min -		Max -	Factory setting -
p2116	BI: External alarm 2			
CU_CX32, CU_I	Can be changed: U, T		Dynamic index: -	Access level: 3
	Data type: Unsigned32		Units group: -	Function diagram: -
	P-Group: Messages			Unit selection: -
	Min -		Max -	Factory setting 1
p2116[0...n]	BI: External alarm 2			
A_INF, SERVO	Can be changed: U, T		Dynamic index: CDS	Access level: 3
	Data type: Unsigned32		Units group: -	Function diagram: 2546
	P-Group: Messages			Unit selection: -
	Min -		Max -	Factory setting 1
p2117	BI: External alarm 3			
CU_CX32, CU_I	Can be changed: U, T		Dynamic index: -	Access level: 3
	Data type: Unsigned32		Units group: -	Function diagram: -
	P-Group: Messages			Unit selection: -
	Min -		Max -	Factory setting 1

p2117[0...n]	BI: External alarm 3			
A_INF, SERVO	Can be changed: U, T		Dynamic index: CDS	Access level: 3
	Data type: Unsigned32		Units group: -	Function diagram: 2546
	P-Group: Messages			Unit selection: -
	Min		Max	Factory setting
	-		-	1
p2118[0...19]	Sets the message number for message type.			
All objects	Can be changed: U, T		Dynamic index: -	Access level: 3
	Data type: Unsigned16			Function diagram: 1750, 8075
	P-Group: Messages		Units group: -	Unit selection: -
	Min		Max	Factory setting
	0		65535	0
p2119[0...19]	Setting the message type			
All objects	Can be changed: U, T		Dynamic index: -	Access level: 3
	Data type: Integer16			Function diagram: 1750, 8075
	P-Group: Messages		Units group: -	Unit selection: -
	Min		Max	Factory setting
	1		3	1
r2120	Sum of fault and alarm buffer changes			
All objects	Can be changed: -		Dynamic index: -	Access level: 4
	Data type: Unsigned16		Units group: -	Function diagram: 8065
	P-Group: Messages			Unit selection: -
	Min		Max	Factory setting
	-		-	-
r2121	Counter, alarm buffer changes			
All objects	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Unsigned16		Units group: -	Function diagram: 8065
	P-Group: Messages			Unit selection: -
	Min		Max	Factory setting
	-		-	-
r2122[0...63]	Alarm code			
All objects	Can be changed: -		Dynamic index: -	Access level: 2
	Data type: Unsigned16			Function diagram: 1750, 8065
	P-Group: Messages		Units group: -	Unit selection: -
	Min		Max	Factory setting
	-		-	-

r2123[0...63]	Alarm time received in milliseconds		
All objects	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 1750, 8065
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2124[0...63]	Alarm value		
All objects	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Integer32		Function diagram: 1750, 8065
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2125[0...63]	Alarm time removed in milliseconds		
All objects	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 1750, 8065
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p2126[0...19]	Setting fault number for acknowledge mode		
All objects	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned16		Function diagram: 1750, 8075
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	65535	0
p2127[0...19]	Sets acknowledgment mode		
All objects	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Integer16		Function diagram: 1750, 8075
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	1	2	1
p2128[0...15]	Selecting fault/alarm code for trigger		
All objects	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned16		Function diagram: 1750, 8070
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	65535	0

r2129	CO/BO: Trigger word for faults and alarms			
All objects	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Unsigned16			Function diagram: 1530, 8070
	P-Group: Messages		Units group: -	Unit selection: -
	Min		Max	Factory setting
	-		-	-
r2130[0...63]	Fault time received in days			
All objects	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Unsigned16			Function diagram: 8060
	P-Group: Messages		Units group: -	Unit selection: -
	Min		Max	Factory setting
	-		-	-
r2131	CO: Actual fault code			
All objects	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Unsigned16			Function diagram: 8060
	P-Group: Messages		Units group: -	Unit selection: -
	Min		Max	Factory setting
	-		-	-
r2132	CO: Actual alarm code			
All objects	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Unsigned16			Function diagram: 8065
	P-Group: Messages		Units group: -	Unit selection: -
	Min		Max	Factory setting
	-		-	-
r2133[0...63]	Fault value for float values			
All objects	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Floating Point			Function diagram: 8060
	P-Group: Messages		Units group: -	Unit selection: -
	Min		Max	Factory setting
	-		-	-
r2134[0...63]	Alarm value for float values			
All objects	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Floating Point			Function diagram: 8065
	P-Group: Messages		Units group: -	Unit selection: -
	Min		Max	Factory setting
	-		-	-

r2135	CO/BO: Status word faults/alarms 2		
All objects	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: 1530, 2548
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2136[0...63]	Fault time removed in days		
All objects	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 8060
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2138	CO/BO: Control word faults/alarms		
All objects	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: 1530, 2546
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2139	CO/BO: Status word faults/alarms 1		
All objects	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: 1530, 2548
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p2140[0...n]	Hysteresis speed 2		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 8010
	P-Group: Messages	Units group: SPEED_ROT	Unit selection: -
	Min	Max	Factory setting
	0.00 [1/min]	300.00 [1/min]	90.00 [1/min]
p2140[0...n]	Hysteresis velocity 2		
SERVO (Lin)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 8010
	P-Group: Messages	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min	Max	Factory setting
	0.00 [m/min]	10.00 [m/min]	0.90 [m/min]

p2141[0...n]	Speed threshold 1		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 5.00 [1/min]
p2141[0...n]	Velocity threshold value 1		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [m/min]	Max 1000.00 [m/min]	Factory setting 0.05 [m/min]
p2142[0...n]	Hysteresis speed 1		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [1/min]	Max 300.00 [1/min]	Factory setting 2.00 [1/min]
p2142[0...n]	Hysteresis velocity 1		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [m/min]	Max 10.00 [m/min]	Factory setting 0.02 [m/min]
r2145[0...63]	Alarm time received in days		
All objects	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: 8065
	P-Group: Messages		Unit selection: -
	Min -	Max -	Factory setting -
r2146[0...63]	Alarm time removed in days		
All objects	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: 8065
	P-Group: Messages		Unit selection: -
	Min -	Max -	Factory setting -

p2147	Delete fault buffer of all drive objects		
CU_CX32, CU_1	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Integer16	Units group: -	Function diagram: 8060
	P-Group: Displays, signals		Unit selection: -
	Min 0	Max 1	Factory setting 0
p2148[0...n]	BI: Ramp-function generator active		
SERVO	Can be changed: U, T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min -	Max -	Factory setting 0
p2149[0...n]	Monitoring, configuration		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0000 bin	Max 0001 bin	Factory setting 0000 bin
p2150[0...n]	Hysteresis speed 3		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [1/min]	Max 300.00 [1/min]	Factory setting 2.00 [1/min]
p2150[0...n]	Hysteresis velocity 3		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [m/min]	Max 3.00 [m/min]	Factory setting 0.02 [m/min]
p2151[0...n]	CI: Speed setpoint for messages/signals		
SERVO	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min -	Max -	Factory setting 1170[0]
p2153[0...n]	Speed actual value filter time constant		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: TIME_M3	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0 [ms]	Max 1000000 [ms]	Factory setting 0 [ms]

p2154[0...n]	CI: Speed setpoint 2		
SERVO	Can be changed: T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min -	Max -	Factory setting 0
p2155[0...n]	Speed threshold 2		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 900.00 [1/min]
p2155[0...n]	Velocity threshold value 2		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [m/min]	Max 1000.00 [m/min]	Factory setting 9.00 [m/min]
p2156[0...n]	On delay, comparison value reached		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: TIME_M3	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.0 [ms]	Max 10000.0 [ms]	Factory setting 0.0 [ms]
p2161[0...n]	Speed threshold 3		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 5.00 [1/min]
p2161[0...n]	Velocity threshold value 3		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [m/min]	Max 1000.00 [m/min]	Factory setting 0.05 [m/min]

p2162[0...n]	Hysteresis speed n_act > n_max		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [1/min]	Max 60000.00 [1/min]	Factory setting 600.00 [1/min]
p2162[0...n]	Hysteresis velocity n_act > n_max		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [m/min]	Max 1000.00 [m/min]	Factory setting 6.00 [m/min]
p2163[0...n]	Speed threshold 4		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 90.00 [1/min]
p2163[0...n]	Velocity threshold value 4		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [m/min]	Max 1000.00 [m/min]	Factory setting 0.90 [m/min]
p2164[0...n]	Hysteresis speed 4		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [1/min]	Max 200.00 [1/min]	Factory setting 2.00 [1/min]
p2164[0...n]	Hysteresis velocity 4		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 8010
	P-Group: Messages		Unit selection: -
	Min 0.00 [m/min]	Max 10.00 [m/min]	Factory setting 0.02 [m/min]

p2166[0...n]	Off delay n_act = n_set		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 8010
	P-Group: Messages	Units group: TIME_M3	Unit selection: -
	Min 0.0 [ms]	Max 10000.0 [ms]	Factory setting 200.0 [ms]
p2167[0...n]	Switch-on delay n_act = n_set		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 8010
	P-Group: Messages	Units group: TIME_M3	Unit selection: -
	Min 0.0 [ms]	Max 10000.0 [ms]	Factory setting 200.0 [ms]
r2169	CO: Speed actual value smoothed signals		
SERVO	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 1750, 8010, 8012, 8013
	P-Group: Messages	Units group: SPEED_ROT	Unit selection: -
	Min - [1/min]	Max - [1/min]	Factory setting - [1/min]
r2169	CO: Velocity actual value, smoothed signals		
SERVO (Lin)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 1750, 8010, 8012, 8013
	P-Group: Messages	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min - [m/min]	Max - [m/min]	Factory setting - [m/min]
p2174[0...n]	Torque threshold value 1		
SERVO	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 8012
	P-Group: Messages	Units group: TORQUE	Unit selection: -
	Min 0.00 [Nm]	Max 99999.00 [Nm]	Factory setting 5.13 [Nm]
p2174[0...n]	Force threshold value 1		
SERVO (Lin)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 8012
	P-Group: Messages	Units group: FORCE	Unit selection: -
	Min 0.00 [N]	Max 99999.00 [N]	Factory setting 1000.00 [N]

p2175[0...n]	Motor locked speed threshold		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 8012
	P-Group: Messages		Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 120.00 [1/min]
p2175[0...n]	Motor locked, velocity threshold		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 8012
	P-Group: Messages		Unit selection: -
	Min 0.00 [m/min]	Max 1000.00 [m/min]	Factory setting 1.20 [m/min]
p2177[0...n]	Motor locked delay time		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: TIME	Function diagram: 8012
	P-Group: Messages		Unit selection: -
	Min 0.000 [s]	Max 65.000 [s]	Factory setting 1.000 [s]
p2181[0...n]	Load monitoring, response		
SERVO (Extended msg)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Integer16	Units group: -	Function diagram: 8013
	P-Group: Messages		Unit selection: -
	Min 0	Max 6	Factory setting 0
p2182[0...n]	Load monitoring, speed threshold value 1		
SERVO (Extended msg)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 8013
	P-Group: Messages		Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 150.00 [1/min]
p2182[0...n]	Load monitoring, velocity threshold 1		
SERVO (Lin, Extended msg)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 8013
	P-Group: Messages		Unit selection: -
	Min 0.00 [m/min]	Max 1000.00 [m/min]	Factory setting 0.05 [m/min]

p2183[0...n]	Load monitoring, speed threshold value 2		
SERVO (Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages	Dynamic index: DDS Units group: SPEED_ROT	Access level: 3 Function diagram: 8013 Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 900.00 [1/min]
p2183[0...n]	Load monitoring, velocity threshold 2		
SERVO (Lin, Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 3 Function diagram: 8013 Unit selection: -
	Min 0.00 [m/min]	Max 1000.00 [m/min]	Factory setting 0.05 [m/min]
p2184[0...n]	Load monitoring, speed threshold value 3		
SERVO (Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages	Dynamic index: DDS Units group: SPEED_ROT	Access level: 3 Function diagram: 8013 Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 1500.00 [1/min]
p2184[0...n]	Load monitoring, velocity threshold 3		
SERVO (Lin, Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages	Dynamic index: DDS Units group: SPEED_LIN_METRIC_P3	Access level: 3 Function diagram: 8013 Unit selection: -
	Min 0.00 [m/min]	Max 1000.00 [m/min]	Factory setting 0.05 [m/min]
p2185[0...n]	Load monitoring torque threshold 1, upper		
SERVO (Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages	Dynamic index: DDS Units group: TORQUE	Access level: 3 Function diagram: 8013 Unit selection: -
	Min 0.00 [Nm]	Max 99999.00 [Nm]	Factory setting 99999.00 [Nm]
p2185[0...n]	Load monitoring force threshold 1, upper		
SERVO (Lin, Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages	Dynamic index: DDS Units group: FORCE	Access level: 3 Function diagram: 8013 Unit selection: -
	Min 0.00 [N]	Max 100000.00 [N]	Factory setting 100000.00 [N]

p2186[0...n]	Load monitoring torque threshold 1, lower		
SERVO (Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages Min 0.00 [Nm]	Dynamic index: DDS Units group: TORQUE Max 99999.00 [Nm]	Access level: 3 Function diagram: 8013 Unit selection: - Factory setting 0.00 [Nm]
p2186[0...n]	Load monitoring force threshold 1, lower		
SERVO (Lin, Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages Min 0.00 [N]	Dynamic index: DDS Units group: FORCE Max 100000.00 [N]	Access level: 3 Function diagram: 8013 Unit selection: - Factory setting 0.00 [N]
p2187[0...n]	Load monitoring torque threshold 2, upper		
SERVO (Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages Min 0.00 [Nm]	Dynamic index: DDS Units group: TORQUE Max 99999.00 [Nm]	Access level: 3 Function diagram: 8013 Unit selection: - Factory setting 99999.00 [Nm]
p2187[0...n]	Load monitoring force threshold 2, upper		
SERVO (Lin, Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages Min 0.00 [N]	Dynamic index: DDS Units group: FORCE Max 100000.00 [N]	Access level: 3 Function diagram: 8013 Unit selection: - Factory setting 100000.00 [N]
p2188[0...n]	Load monitoring torque threshold 2, lower		
SERVO (Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages Min 0.00 [Nm]	Dynamic index: DDS Units group: TORQUE Max 99999.00 [Nm]	Access level: 3 Function diagram: 8013 Unit selection: - Factory setting 0.00 [Nm]
p2188[0...n]	Load monitoring force threshold 2, lower		
SERVO (Lin, Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages Min 0.00 [N]	Dynamic index: DDS Units group: FORCE Max 100000.00 [N]	Access level: 3 Function diagram: 8013 Unit selection: - Factory setting 0.00 [N]
p2189[0...n]	Load monitoring torque threshold 3, upper		
SERVO (Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages Min 0.00 [Nm]	Dynamic index: DDS Units group: TORQUE Max 99999.00 [Nm]	Access level: 3 Function diagram: 8013 Unit selection: - Factory setting 99999.00 [Nm]

p2189[0...n]	Load monitoring force threshold 3, upper		
SERVO (Lin, Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages	Dynamic index: DDS Units group: FORCE	Access level: 3 Function diagram: 8013 Unit selection: - Factory setting: 100000.00 [N]
	Min 0.00 [N]	Max 100000.00 [N]	
p2190[0...n]	Load monitoring torque threshold 3, lower		
SERVO (Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages	Dynamic index: DDS Units group: TORQUE	Access level: 3 Function diagram: 8013 Unit selection: - Factory setting: 0.00 [Nm]
	Min 0.00 [Nm]	Max 99999.00 [Nm]	
p2190[0...n]	Load monitoring force threshold 3, lower		
SERVO (Lin, Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages	Dynamic index: DDS Units group: FORCE	Access level: 3 Function diagram: 8013 Unit selection: - Factory setting: 0.00 [N]
	Min 0.00 [N]	Max 100000.00 [N]	
p2192[0...n]	Load monitoring, delay time		
SERVO (Extended msg)	Can be changed: U, T Data type: Floating Point P-Group: Messages	Dynamic index: DDS Units group: TIME	Access level: 3 Function diagram: 8013 Unit selection: - Factory setting: 10.00 [s]
	Min 0.00 [s]	Max 65.00 [s]	
p2194[0...n]	Torque threshold value 2		
SERVO	Can be changed: U, T Data type: Floating Point P-Group: Messages	Dynamic index: DDS Units group: PERCENT	Access level: 2 Function diagram: 8012 Unit selection: - Factory setting: 90.00 [%]
	Min 0.00 [%]	Max 100.00 [%]	
p2195[0...n]	Torque utilization switch-off delay		
SERVO	Can be changed: U, T Data type: Floating Point P-Group: Messages	Dynamic index: DDS Units group: TIME_M3	Access level: 2 Function diagram: 8012 Unit selection: - Factory setting: 800.0 [ms]
	Min 0.0 [ms]	Max 1000.0 [ms]	
r2197	CO/BO: Status word monitoring 1		
SERVO	Can be changed: - Data type: Unsigned16 P-Group: Messages	Dynamic index: - Units group: -	Access level: 2 Function diagram: 1530, 2534 Unit selection: - Factory setting: -
	Min -	Max -	

r2198	CO/BO: Status word monitoring 2		
SERVO	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Unsigned16		Function diagram: 1530, 2536
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r2199	CO/BO: Status word monitoring 3		
SERVO	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Unsigned16		Function diagram: 1530, 2536
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p2200[0...n]	BI: Technology controller enable		
SERVO (Tech_ctrl)	Can be changed: U, T	Dynamic index: CDS	Access level: 2
	Data type: Unsigned32		Function diagram: 7958
	P-Group: Technology	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p2201[0...n]	CO: Technology controller, fixed value 1		
SERVO (Tech_ctrl)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point		Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min	Max	Factory setting
	-200.00 [%]	200.00 [%]	10.00 [%]
p2202[0...n]	CO: Technology controller, fixed value 2		
SERVO (Tech_ctrl)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point		Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min	Max	Factory setting
	-200.00 [%]	200.00 [%]	20.00 [%]
p2203[0...n]	CO: Technology controller, fixed value 3		
SERVO (Tech_ctrl)	Can be changed: U, T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point		Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min	Max	Factory setting
	-200.00 [%]	200.00 [%]	30.00 [%]

p2204[0...n]	CO: Technology controller, fixed value 4		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 40.00 [%]
p2205[0...n]	CO: Technology controller, fixed value 5		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 50.00 [%]
p2206[0...n]	CO: Technology controller, fixed value 6		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 60.00 [%]
p2207[0...n]	CO: Technology controller, fixed value 7		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 70.00 [%]
p2208[0...n]	CO: Technology controller, fixed value 8		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 80.00 [%]
p2209[0...n]	CO: Technology controller, fixed value 9		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 90.00 [%]
p2210[0...n]	CO: Technology controller, fixed value 10		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 100.00 [%]

p2211[0...n]	CO: Technology controller, fixed value 11		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 110.00 [%]
p2212[0...n]	CO: Technology controller, fixed value 12		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 120.00 [%]
p2213[0...n]	CO: Technology controller, fixed value 13		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 130.00 [%]
p2214[0...n]	CO: Technology controller, fixed value 14		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 140.00 [%]
p2215[0...n]	CO: Technology controller, fixed value 15		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 150.00 [%]
p2220[0...n]	BI: Technology controller fixed value selection bit 0		
SERVO (Tech_ctrl)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 7950
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p2221[0...n]	BI: Technology controller fixed value selection bit 1		
SERVO (Tech_ctrl)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 7950
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0

p2222[0...n]	BI: Technology controller fixed value selection bit 2		
SERVO (Tech_ctrl)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 7950
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p2223[0...n]	BI: Technology controller fixed value selection bit 3		
SERVO (Tech_ctrl)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 7950
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
r2224	CO: Technology controller, fixed value effective		
SERVO (Tech_ctrl)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 7950
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min	Max	Factory setting
	- [%]	- [%]	- [%]
r2229	Technology controller current number		
SERVO (Tech_ctrl)	Can be changed: -		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: 7950
	P-Group: Technology	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p2230[0...n]	Technology controller motorized potentiometer configuration		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: DDS	Function diagram: 7954
	P-Group: Technology	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0000 bin	1111 bin	0110 bin
r2231	Technology controller motorized potentiometer setpoint memory		
SERVO (Tech_ctrl)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 7954
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min	Max	Factory setting
	- [%]	- [%]	- [%]
p2235[0...n]	BI: Technology controller motorized potentiometer, raise setpoint		
SERVO (Tech_ctrl)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 7954
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0

p2236[0...n]	BI: Technology controller motorized potentiometer, lower setpoint		
SERVO (Tech_ctrl)	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 7954
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p2237[0...n]	Technology controller motorized potentiometer maximum value		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7954
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 100.00 [%]
p2238[0...n]	Technology controller motorized potentiometer minimum value		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7954
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting -100.00 [%]
p2240[0...n]	Technology controller motorized potentiometer starting value		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7954
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 0.00 [%]
r2245	CO: Technology controller mot. potentiometer setpoint before RFG		
SERVO (Tech_ctrl)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 7954
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
p2247[0...n]	Technology controller motorized potentiometer ramp-up time		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7954
	P-Group: Technology	Units group: TIME	Unit selection: -
	Min 0.0 [s]	Max 1000.0 [s]	Factory setting 10.0 [s]
p2248[0...n]	Technology controller motorized potentiometer ramp-down time		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7954
	P-Group: Technology	Units group: TIME	Unit selection: -
	Min 0.0 [s]	Max 1000.0 [s]	Factory setting 10.0 [s]

r2250	CO: Technology controller motorized potentiometer setpoint after RFG		
SERVO (Tech_ctrl)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 7954
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
p2253[0...n]	CI: Technology controller setpoint 1		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 7958
	P-Group: Technology	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p2254[0...n]	CI: Technology controller setpoint 2		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 7958
	P-Group: Technology	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p2255	Technology controller setpoint 1 scaling		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min 0.00 [%]	Max 100.00 [%]	Factory setting 100.00 [%]
p2256	Technology controller setpoint 2 scaling		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min 0.00 [%]	Max 100.00 [%]	Factory setting 100.00 [%]
p2257	Technology controller, ramp-up time		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: TIME	Unit selection: -
	Min 0.00 [s]	Max 650.00 [s]	Factory setting 1.00 [s]
p2258	Technology controller ramp-down time		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: TIME	Unit selection: -
	Min 0.00 [s]	Max 650.00 [s]	Factory setting 1.00 [s]

r2260	CO: Technology controller setpoint after ramp-function generator		
SERVO (Tech_ctrl)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
p2261	Technology controller setpoint filter time constant		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: TIME	Unit selection: -
	Min 0.00 [s]	Max 60.00 [s]	Factory setting 0.00 [s]
r2262	CO: Technology controller setpoint after filter		
SERVO (Tech_ctrl)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
p2263	Technology controller type		
SERVO (Tech_ctrl)	Can be changed: T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 0
p2264[0...n]	CI: Technology controller actual value		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 7958
	P-Group: Technology	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p2265	Technology controller actual value filter time constant		
SERVO (Tech_ctrl)	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: TIME	Unit selection: -
	Min 0.00 [s]	Max 60.00 [s]	Factory setting 0.00 [s]
r2266	CO: Technology controller actual value after filter		
SERVO (Tech_ctrl)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]

r2273	CO: Technology controller error		
SERVO (Tech_ctrl)	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: PERCENT	Function diagram: 7958
	P-Group: Technology		Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
p2274	Technology controller differentiation, time constant		
SERVO (Tech_ctrl)	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: TIME	Function diagram: 7958
	P-Group: Technology		Unit selection: -
	Min 0.000 [s]	Max 60.000 [s]	Factory setting 0.000 [s]
p2280	Technology controller proportional gain		
SERVO (Tech_ctrl)	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: -	Function diagram: 7958
	P-Group: Technology		Unit selection: -
	Min 0.000	Max 1000.000	Factory setting 1.000
p2285	Technology controller integral action time		
SERVO (Tech_ctrl)	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: TIME	Function diagram: 7958
	P-Group: Technology		Unit selection: -
	Min 0.000 [s]	Max 60.000 [s]	Factory setting 0.000 [s]
p2289[0...n]	CI: Technology controller pre-control signal		
SERVO (Tech_ctrl)	Can be changed: U, T	Dynamic index: CDS	Access level: 2
	Data type: Unsigned32	Units group: -	Function diagram: 7958
	P-Group: Technology		Unit selection: -
	Min -	Max -	Factory setting 0
p2291	CO: Technology controller maximum limiting		
SERVO (Tech_ctrl)	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: PERCENT	Function diagram: 7958
	P-Group: Technology		Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 100.00 [%]
p2292	CO: Technology controller minimum limiting		
SERVO (Tech_ctrl)	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: PERCENT	Function diagram: 7958
	P-Group: Technology		Unit selection: -
	Min -200.00 [%]	Max 200.00 [%]	Factory setting 0.00 [%]

p2293	Technology controller ramp-up/ramp-down time		
SERVO (Tech_ctrl)	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: TIME	Unit selection: -
	Min 0.00 [s]	Max 100.00 [s]	Factory setting 1.00 [s]
r2294	CO: Technology controller output signal		
SERVO (Tech_ctrl)	Can be changed: -	Access level: 2	
	Data type: Floating Point	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
p2295	CO: Technology controller output scaling		
SERVO (Tech_ctrl)	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: PERCENT	Unit selection: -
	Min -100.00 [%]	Max 100.00 [%]	Factory setting 100.00 [%]
p2296[0...n]	CI: Technology controller output scaling		
SERVO (Tech_ctrl)	Can be changed: U, T	Access level: 2	
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 7958
	P-Group: Technology	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 2295[0]
p2297[0...n]	CI: Technology controller maximum limiting		
SERVO (Tech_ctrl)	Can be changed: U, T	Access level: 2	
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 7958
	P-Group: Technology	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 2291[0]
p2298[0...n]	CI: Technology controller minimum limiting		
SERVO (Tech_ctrl)	Can be changed: U, T	Access level: 2	
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: 7958
	P-Group: Technology	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 2292[0]
r2349	CO/BO: Technology controller status word		
SERVO (Tech_ctrl)	Can be changed: -	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: 7958
	P-Group: Technology	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

p2900[0...n]	CO: Fixed value 1 [%]		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: PERCENT	Function diagram: 1021
	P-Group: Free function blocks		Unit selection: -
	Min -10000.00 [%]	Max 10000.00 [%]	Factory setting 0.00 [%]
p2901[0...n]	CO: Fixed value 2 [%]		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: PERCENT	Function diagram: 1021
	P-Group: Free function blocks		Unit selection: -
	Min -10000.00 [%]	Max 10000.00 [%]	Factory setting 0.00 [%]
p2930[0...n]	CO: Fixed value M [Nm]		
SERVO	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: TORQUE	Function diagram: 1021
	P-Group: Free function blocks		Unit selection: -
	Min -100000.00 [Nm]	Max 100000.00 [Nm]	Factory setting 0.00 [Nm]
p2930[0...n]	CO: Fixed value F [N]		
SERVO (Lin)	Can be changed: U, T	Dynamic index: DDS	Access level: 3
	Data type: Floating Point	Units group: FORCE	Function diagram: 1021
	P-Group: Free function blocks		Unit selection: -
	Min -100000.00 [N]	Max 100000.00 [N]	Factory setting 0.00 [N]
p3110	External fault 3, power-up delay		
All objects	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: TIME_M3	Function diagram: 2546
	P-Group: Messages		Unit selection: -
	Min 0 [ms]	Max 1000 [ms]	Factory setting 0 [ms]
p3111	BI: External fault 3, enable		
CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 2546
	P-Group: Messages		Unit selection: -
	Min -	Max -	Factory setting 1
p3111[0...n]	BI: External fault 3, enable		
A_INF, SERVO	Can be changed: U, T	Dynamic index: CDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Messages		Unit selection: -
	Min -	Max -	Factory setting 1

p3112	BI: External fault 3 enable negated		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2546
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p3112[0...n]	BI: External fault 3 enable negated		
A_INF, SERVO	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: CDS	Function diagram: -
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
r3113	CO/BO: NAMUR message bit bar		
All objects	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Messages	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p3400	Infeed configuration word		
A_INF	Can be changed: C2(1), T		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: 8940
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0000 bin	1111 1111 1111 1111 bin	1010 bin
r3402	Infeed internal status		
A_INF	Can be changed: -		Access level: 2
	Data type: Integer16	Dynamic index: -	Function diagram: 8832, 8932
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r3405	CO/BO: Status word infeed		
A_INF	Can be changed: -		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: 8928
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p3410	Infeed identification method		
A_INF	Can be changed: C2(1), T		Access level: 2
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	5	5

r3411[0...1]	Infeed identified inductance		
A_INF	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: INDUCTANCE_M3	Function diagram: -
	P-Group: Closed-loop control		Unit selection: -
	Min - [mH]	Max - [mH]	Factory setting - [mH]
r3412[0...1]	Infeed DC-link capacitance identified		
A_INF	Can be changed: -	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: CAPACITY_M3	Function diagram: -
	P-Group: Closed-loop control		Unit selection: -
	Min - [mF]	Max - [mF]	Factory setting - [mF]
p3415[0...1]	Infeed excitation current L identification		
A_INF	Can be changed: T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: PERCENT	Function diagram: -
	P-Group: Closed-loop control		Unit selection: -
	Min 0.00 [%]	Max 100.00 [%]	Factory setting [0] 30.00 [%] [1] 48.00 [%]

4.4 Parameter p3416 - p8711

p3416	Infeed excitation amplitude C identification		
A_INF	Can be changed: T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.10 [%]	Max 20.00 [%]	Factory setting 2.00 [%]
p3417	Infeed excitation frequency C identification		
A_INF	Can be changed: T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: FREQUENCY	Unit selection: -
	Min 10.00 [Hz]	Max 200.00 [Hz]	Factory setting 50.00 [Hz]
p3421	Infeed inductance		
A_INF	Can be changed: T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: INDUCTANCE_M3	Unit selection: -
	Min 0.00 [mH]	Max 1000.00 [mH]	Factory setting 2.00 [mH]
p3422	Infeed DC link capacitance		
A_INF	Can be changed: T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: CAPACITY_M3	Unit selection: -
	Min 0.00 [mF]	Max 1000.00 [mF]	Factory setting 2.00 [mF]
p3440	Smart mode configuration		
A_INF	Can be changed: T		Access level: 4
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 0000 bin	Max 1111 1111 1111 1111 bin	Factory setting 0001 bin
r3452	Infeed PLL status		
A_INF	Can be changed: -		Access level: 4
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

p3458	Infeed PLL smoothing time			
A_INF	Can be changed: U, T		Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -	
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -	
	Min 2.0 [ms]	Max 1000.0 [ms]	Factory setting 50.0 [ms]	
r3460	Infeed PLL system deviation			
A_INF	Can be changed: -		Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -	
	P-Group: Closed-loop control	Units group: ANGLE	Unit selection: -	
	Min - [°]	Max - [°]	Factory setting - [°]	
r3461	Infeed PLL system deviation after filtering			
A_INF	Can be changed: -		Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -	
	P-Group: Closed-loop control	Units group: ANGLE	Unit selection: -	
	Min - [°]	Max - [°]	Factory setting - [°]	
p3463	Infeed, line angle change, phase failure detection			
A_INF	Can be changed: T		Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -	
	P-Group: Closed-loop control	Units group: ANGLE	Unit selection: -	
	Min -180.0 [°]	Max 180.0 [°]	Factory setting 15.0 [°]	
p3469[0...n]	Latch delay time correction, zero crossover detection			
A_INF	Can be changed: T		Access level: 4	
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -	
	P-Group: Closed-loop control	Units group: TIME_M6	Unit selection: -	
	Min -10000.0 [µs]	Max 10000.0 [µs]	Factory setting 0.0 [µs]	
r3470	Infeed active current filter			
A_INF	Can be changed: -		Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -	
	P-Group: Closed-loop control	Units group: CURRENT_AC_EFF	Unit selection: -	
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]	
r3471	Infeed reactive current filter			
A_INF	Can be changed: -		Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -	
	P-Group: Closed-loop control	Units group: CURRENT_AC_EFF	Unit selection: -	
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]	

p3480	Infeed modulation depth limit		
A_INF	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: PERCENT	Function diagram: 8940
	P-Group: Closed-loop control		Unit selection: -
	Min 50.0 [%]	Max 110.0 [%]	Factory setting 97.0 [%]
p3481	Infeed standby controller dynamic response		
A_INF	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: TIME_M3	Function diagram: 8940
	P-Group: Closed-loop control		Unit selection: -
	Min 0.0 [ms]	Max 1000.0 [ms]	Factory setting 7.5 [ms]
r3485	Infeed standby controller output		
A_INF	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: VOLTAGE_DC	Function diagram: 8940
	P-Group: Closed-loop control		Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]
p3490	Infeed OFF command delay time		
A_INF	Can be changed: T	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: TIME_M3	Function diagram: 8932
	P-Group: Closed-loop control		Unit selection: -
	Min 0.0 [ms]	Max 1000000.0 [ms]	Factory setting 0.0 [ms]
p3491	Infeed I-offset measurement monitoring time		
A_INF	Can be changed: T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: TIME_M3	Function diagram: 8932
	P-Group: Commands		Unit selection: -
	Min 0 [ms]	Max 65000 [ms]	Factory setting 2000 [ms]
p3492	Infeed, line supply undervoltage delay time		
A_INF	Can be changed: T	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: TIME	Function diagram: -
	P-Group: Commands		Unit selection: -
	Min 0 [s]	Max 300 [s]	Factory setting 0 [s]
p3510	Infeed DC link voltage setpoint		
A_INF	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Floating Point	Units group: VOLTAGE_DC	Function diagram: 1774, 8940
	P-Group: Closed-loop control		Unit selection: -
	Min 300.00 [V]	Max 1600.00 [V]	Factory setting 600.00 [V]

p3511	CI: Infeed DC link voltage supplementary setpoint		
A_INF	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 8940
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p3513	BI: Inhibit voltage-controlled operation		
A_INF	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p3514	Infeed supplementary active current steady-state		
A_INF	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 8940
	P-Group: Closed-loop control	Units group: CURRENT_AC_EFF	Unit selection: -
	Min	Max	Factory setting
	-1000.00 [Aeff]	1000.00 [Aeff]	0.00 [Aeff]
p3515	CI: Infeed supplementary active current		
A_INF	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 8940
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p3516	Infeed current distribution factor (parallel connection)		
A_INF	Can be changed: T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: 8940
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min	Max	Factory setting
	0.00 [%]	100.00 [%]	100.00 [%]
r3517	Infeed active current controller unlimited setpoint		
A_INF	Can be changed: -		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: 8940
	P-Group: Closed-loop control	Units group: CURRENT_AC_EFF	Unit selection: -
	Min	Max	Factory setting
	- [Aeff]	- [Aeff]	- [Aeff]
p3520[0...3]	CI: Infeed power pre-control		
A_INF	Can be changed: U, T		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0

p3521[0...3]	Infeed pre-control power scaling		
A_INF	Can be changed: U, T Data type: Floating Point P-Group: Closed-loop control Min -100000.00000 [%]	Dynamic index: - Units group: PERCENT Max 100000.00000 [%]	Access level: 2 Function diagram: - Unit selection: - Factory setting 100.00000 [%]
p3530	Infeed current limit, motoring		
A_INF	Can be changed: U, T Data type: Floating Point P-Group: Closed-loop control Min 1.00 [Aeff]	Dynamic index: - Units group: CURRENT_AC_EFF Max 100000.00 [Aeff]	Access level: 3 Function diagram: 8940 Unit selection: - Factory setting 10000.00 [Aeff]
p3531	Infeed current limit, regenerating		
A_INF	Can be changed: U, T Data type: Floating Point P-Group: Closed-loop control Min -100000.00 [Aeff]	Dynamic index: - Units group: CURRENT_AC_EFF Max -1.00 [Aeff]	Access level: 3 Function diagram: 8940 Unit selection: - Factory setting -10000.00 [Aeff]
p3532	BI: Infeed, inhibit motoring		
A_INF	Can be changed: T Data type: Unsigned32 P-Group: - Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: 8920 Unit selection: - Factory setting 0
p3533	BI: Infeed, inhibit regenerative operation		
A_INF	Can be changed: T Data type: Unsigned32 P-Group: - Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: 8920 Unit selection: - Factory setting 0
r3554	Infeed Vdc controller integral component		
A_INF	Can be changed: - Data type: Floating Point P-Group: Closed-loop control Min - [Aeff]	Dynamic index: - Units group: CURRENT_AC_EFF Max - [Aeff]	Access level: 2 Function diagram: 8940 Unit selection: - Factory setting - [Aeff]
p3560	Infeed Vdc controller proportional gain		
A_INF	Can be changed: U, T Data type: Floating Point P-Group: Closed-loop control Min 0.01 [%]	Dynamic index: - Units group: PERCENT Max 1000.00 [%]	Access level: 2 Function diagram: 8940 Unit selection: - Factory setting 100.00 [%]

p3562	Infeed,Vdc controller integral action time		
A_INF	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 8940
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.10 [%]	Max 100000.00 [%]	Factory setting 100.00 [%]
p3564	Infeed Vdc monitor, time constant		
A_INF	Can be changed: T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: TIME_M3	Unit selection: -
	Min 0.0 [ms]	Max 100.0 [ms]	Factory setting 0.2 [ms]
p3566	Infeed Vdc ramp duration		
A_INF	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 8932
	P-Group: Commands	Units group: TIME_M3	Unit selection: -
	Min 40 [ms]	Max 1000 [ms]	Factory setting 100 [ms]
r3602	Infeed control status		
A_INF	Can be changed: -		Access level: 4
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
p3603	Infeed current pre-control factor D-action		
A_INF	Can be changed: U, T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: 8946
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.00 [%]	Max 500.00 [%]	Factory setting 100.00 [%]
r3606	Infeed active current controller system deviation		
A_INF	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 8946
	P-Group: Closed-loop control	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r3608	Infeed reactive current controller system deviation		
A_INF	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 8946
	P-Group: Closed-loop control	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]

p3610	Infeed reactive current fixed setpoint		
A_INF	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 1774, 8946
	P-Group: Closed-loop control	Units group: CURRENT_AC_EFF	Unit selection: -
	Min -10000.0 [Aeff]	Max 10000.0 [Aeff]	Factory setting 0.0 [Aeff]
p3611	CI: Infeed reactive current supplementary setpoint		
A_INF	Can be changed: U, T		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: 8946
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p3615	Infeed current controller P gain		
A_INF	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 8946
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.00 [%]	Max 1000.00 [%]	Factory setting 100.00 [%]
p3617	Infeed current controller integral action time		
A_INF	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 8946
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.10 [%]	Max 100000.00 [%]	Factory setting 100.00 [%]
r3618	Infeed active current controller, integral component		
A_INF	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 8946
	P-Group: Closed-loop control	Units group: VOLTAGE_AC_EFF	Unit selection: -
	Min - [Veff]	Max - [Veff]	Factory setting - [Veff]
r3619	Infeed reactive current controller integral component		
A_INF	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 8946
	P-Group: Closed-loop control	Units group: VOLTAGE_AC_EFF	Unit selection: -
	Min - [Veff]	Max - [Veff]	Factory setting - [Veff]
p3620	Infeed current controller adaptation lower application threshold		
A_INF	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Motor	Units group: PERCENT	Unit selection: -
	Min 0.00 [%]	Max 100.00 [%]	Factory setting 0.00 [%]

p3622	Infeed current controller adaptation reduction factor		
A_INF	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Motor	Units group: PERCENT	Unit selection: -
	Min 0.01 [%]	Max 100.00 [%]	Factory setting 100.00 [%]
p3624[0...1]	Infeed harmonics controller order		
A_INF	Can be changed: T		Access level: 2
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Min 5	Max 13	Factory setting [0] 5 [1] 7
p3625[0...1]	Infeed harmonics controller scaling		
A_INF	Can be changed: U, T		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: PERCENT	Unit selection: -
	Min 0.0 [%]	Max 300.0 [%]	Factory setting 100.0 [%]
r3626[0...1]	Infeed harmonics control output		
A_INF	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: VOLTAGE_AC_EFF	Unit selection: -
	Min - [Veff]	Max - [Veff]	Factory setting - [Veff]
r3632	Infeed input voltage Vsd (active component)		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1774, 8946, 8950
	P-Group: Closed-loop control	Units group: VOLTAGE_AC_EFF	Unit selection: -
	Min - [Veff]	Max - [Veff]	Factory setting - [Veff]
r3633	Infeed input voltage Vsq (reactive component)		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 1774, 8946, 8950
	P-Group: Closed-loop control	Units group: VOLTAGE_AC_EFF	Unit selection: -
	Min - [Veff]	Max - [Veff]	Factory setting - [Veff]

r3635	Infeed output voltage angle		
A_INF	Can be changed: - Data type: Floating Point P-Group: Closed-loop control Min - [°]	Dynamic index: - Units group: ANGLE Max - [°]	Access level: 2 Function diagram: 8950 Unit selection: - Factory setting - [°]
p3660	VSM input line supply voltage, voltage scaler		
A_INF	Can be changed: T Data type: Floating Point P-Group: Closed-loop control Min 0.00 [%]	Dynamic index: - Units group: PERCENT Max 100000.00 [%]	Access level: 3 Function diagram: - Unit selection: - Factory setting 0.00 [%]
r3661	CO: VSM input line supply voltage u1 - u2		
A_INF	Can be changed: - Data type: Floating Point P-Group: Closed-loop control Min - [V]	Dynamic index: - Units group: VOLTAGE_AC_PP Max - [V]	Access level: 3 Function diagram: 8850, 8950, 9880 Unit selection: - Factory setting - [V]
r3662	CO: VSM input line supply voltage u2 - u3		
A_INF	Can be changed: - Data type: Floating Point P-Group: Closed-loop control Min - [V]	Dynamic index: - Units group: VOLTAGE_AC_PP Max - [V]	Access level: 3 Function diagram: 8850, 8950, 9880 Unit selection: - Factory setting - [V]
r3664	BO: VSM temperature evaluation, status		
A_INF	Can be changed: - Data type: Unsigned16 P-Group: Terminals Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: - Unit selection: - Factory setting -
p3665[0...n]	VSM temperature evaluation, sensor type		
A_INF	Can be changed: T Data type: Integer16 P-Group: Closed-loop control Min 0	Dynamic index: - Units group: - Max 2	Access level: 3 Function diagram: - Unit selection: - Factory setting 0

r3666	CO: VSM temperature KTY		
A_INF	Can be changed: - Data type: Floating Point P-Group: Closed-loop control Min - [°C]	Dynamic index: - Units group: TEMPERATURE Max - [°C]	Access level: 3 Function diagram: - Unit selection: - Factory setting - [°C]
p3667	VSM line filter overtemperature alarm threshold		
A_INF	Can be changed: T Data type: Unsigned16 P-Group: - Min 0 [°C]	Dynamic index: - Units group: TEMPERATURE Max 301 [°C]	Access level: 4 Function diagram: - Unit selection: - Factory setting 150 [°C]
p3668	VSM line filter overtemperature shutdown threshold		
A_INF	Can be changed: T Data type: Unsigned16 P-Group: - Min 0 [°C]	Dynamic index: - Units group: TEMPERATURE Max 301 [°C]	Access level: 4 Function diagram: - Unit selection: - Factory setting 180 [°C]
p3669	VSM line filter overtemperature hysteresis		
A_INF	Can be changed: T Data type: Unsigned16 P-Group: - Min 1 [K]	Dynamic index: - Units group: TEMPERATURE_K Max 50 [K]	Access level: 4 Function diagram: - Unit selection: - Factory setting 3 [K]
p3670	VSM 10 V input CT gain		
A_INF	Can be changed: T Data type: Floating Point P-Group: Closed-loop control Min 0.000 [A]	Dynamic index: - Units group: CURRENT_AC_PP Max 1000.000 [A]	Access level: 3 Function diagram: - Unit selection: - Factory setting 1.000 [A]
r3671	CO: VSM 10 V input CT 1 actual value		
A_INF	Can be changed: - Data type: Floating Point P-Group: Closed-loop control Min - [A]	Dynamic index: - Units group: CURRENT_AC_PP Max - [A]	Access level: 3 Function diagram: - Unit selection: - Factory setting - [A]
r3672	CO: VSM 10 V input CT 2 actual value		
A_INF	Can be changed: - Data type: Floating Point P-Group: Closed-loop control Min - [A]	Dynamic index: - Units group: CURRENT_AC_PP Max - [A]	Access level: 3 Function diagram: - Unit selection: - Factory setting - [A]

r3673	CO: VSM 10 V input 1 actual value		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: VOLTAGE_AC_PP	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]
r3674	CO: VSM 10 V input 2 actual value		
A_INF	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: VOLTAGE_AC_PP	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]
p3676	VSM line filter capacitance alarm threshold		
A_INF	Can be changed: T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: PERCENT	Unit selection: -
	Min 0.00 [%]	Max 100.00 [%]	Factory setting 0.00 [%]
r3677[0...2]	VSM line filter capacitance		
A_INF	Can be changed: -		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: CAPACITY_M6	Unit selection: -
	Min - [μ F]	Max - [μ F]	Factory setting - [μ F]
p3820[0...n]	Friction characteristic, value n0		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_ROT	Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 15.00 [1/min]
p3820[0...n]	Friction characteristic, value n0		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.00 [m/min]	Max 21000.00 [m/min]	Factory setting 1.50 [m/min]
p3821[0...n]	Friction characteristic, value n1		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_ROT	Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 30.00 [1/min]

p3821[0...n]	Friction characteristic, value n1		
SERVO (Lin)	Can be changed: T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 7010
	P-Group: Functions		Unit selection: -
	Min 0.00 [m/min]	Max 21000.00 [m/min]	Factory setting 3.00 [m/min]
p3822[0...n]	Friction characteristic, value n2		
SERVO	Can be changed: T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 7010
	P-Group: Functions		Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 60.00 [1/min]
p3822[0...n]	Friction characteristic, value n2		
SERVO (Lin)	Can be changed: T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 7010
	P-Group: Functions		Unit selection: -
	Min 0.00 [m/min]	Max 21000.00 [m/min]	Factory setting 6.00 [m/min]
p3823[0...n]	Friction characteristic, value n3		
SERVO	Can be changed: T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 7010
	P-Group: Functions		Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 120.00 [1/min]
p3823[0...n]	Friction characteristic, value n3		
SERVO (Lin)	Can be changed: T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_LIN_METRIC_P3	Function diagram: 7010
	P-Group: Functions		Unit selection: -
	Min 0.00 [m/min]	Max 21000.00 [m/min]	Factory setting 12.00 [m/min]
p3824[0...n]	Friction characteristic, value n4		
SERVO	Can be changed: T	Dynamic index: DDS	Access level: 2
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: 7010
	P-Group: Functions		Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 150.00 [1/min]

p3824[0...n]	Friction characteristic, value n4		
SERVO (Lin)	Can be changed: T	Access level: 2	
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.00 [m/min]	Max 21000.00 [m/min]	Factory setting 15.00 [m/min]
p3825[0...n]	Friction characteristic, value n5		
SERVO	Can be changed: T	Access level: 2	
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_ROT	Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 300.00 [1/min]
p3825[0...n]	Friction characteristic, value n5		
SERVO (Lin)	Can be changed: T	Access level: 2	
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.00 [m/min]	Max 21000.00 [m/min]	Factory setting 30.00 [m/min]
p3826[0...n]	Friction characteristic, value n6		
SERVO	Can be changed: T	Access level: 2	
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_ROT	Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 600.00 [1/min]
p3826[0...n]	Friction characteristic, value n6		
SERVO (Lin)	Can be changed: T	Access level: 2	
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.00 [m/min]	Max 21000.00 [m/min]	Factory setting 60.00 [m/min]
p3827[0...n]	Friction characteristic, value n7		
SERVO	Can be changed: T	Access level: 2	
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_ROT	Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 1200.00 [1/min]

p3827[0...n]	Friction characteristic, value n7		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.00 [m/min]	Max 21000.00 [m/min]	Factory setting 120.00 [m/min]
p3828[0...n]	Friction characteristic, value n8		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_ROT	Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 1500.00 [1/min]
p3828[0...n]	Friction characteristic, value n8		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.00 [m/min]	Max 21000.00 [m/min]	Factory setting 150.00 [m/min]
p3829[0...n]	Friction characteristic, value n9		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_ROT	Unit selection: -
	Min 0.00 [1/min]	Max 210000.00 [1/min]	Factory setting 3000.00 [1/min]
p3829[0...n]	Friction characteristic, value n9		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: SPEED_LIN_METRIC_P3	Unit selection: -
	Min 0.00 [m/min]	Max 21000.00 [m/min]	Factory setting 300.00 [m/min]
p3830[0...n]	Friction characteristic, value M0		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: TORQUE	Unit selection: -
	Min -1000000.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 0.00 [Nm]

p3830[0...n]	Friction characteristic, value M0		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: FORCE	Unit selection: -
	Min -1000000.00 [N]	Max 1000000.00 [N]	Factory setting 0.00 [N]
p3831[0...n]	Friction characteristic, value M1		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: TORQUE	Unit selection: -
	Min -1000000.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 0.00 [Nm]
p3831[0...n]	Friction characteristic, value M1		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: FORCE	Unit selection: -
	Min -1000000.00 [N]	Max 1000000.00 [N]	Factory setting 0.00 [N]
p3832[0...n]	Friction characteristic, value M2		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: TORQUE	Unit selection: -
	Min -1000000.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 0.00 [Nm]
p3832[0...n]	Friction characteristic, value M2		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: FORCE	Unit selection: -
	Min -1000000.00 [N]	Max 1000000.00 [N]	Factory setting 0.00 [N]
p3833[0...n]	Friction characteristic, value M3		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: TORQUE	Unit selection: -
	Min -1000000.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 0.00 [Nm]
p3833[0...n]	Friction characteristic, value M3		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: FORCE	Unit selection: -
	Min -1000000.00 [N]	Max 1000000.00 [N]	Factory setting 0.00 [N]

p3834[0...n]	Friction characteristic, value M4		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: TORQUE	Unit selection: -
	Min -1000000.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 0.00 [Nm]
p3834[0...n]	Friction characteristic, value M4		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: FORCE	Unit selection: -
	Min -1000000.00 [N]	Max 1000000.00 [N]	Factory setting 0.00 [N]
p3835[0...n]	Friction characteristic, value M5		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: TORQUE	Unit selection: -
	Min -1000000.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 0.00 [Nm]
p3835[0...n]	Friction characteristic, value M5		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: FORCE	Unit selection: -
	Min -1000000.00 [N]	Max 1000000.00 [N]	Factory setting 0.00 [N]
p3836[0...n]	Friction characteristic, value M6		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: TORQUE	Unit selection: -
	Min -1000000.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 0.00 [Nm]
p3836[0...n]	Friction characteristic, value M6		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: FORCE	Unit selection: -
	Min -1000000.00 [N]	Max 1000000.00 [N]	Factory setting 0.00 [N]
p3837[0...n]	Friction characteristic, value M7		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: TORQUE	Unit selection: -
	Min -1000000.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 0.00 [Nm]

p3837[0...n]	Friction characteristic, value M7		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: FORCE	Unit selection: -
	Min -1000000.00 [N]	Max 1000000.00 [N]	Factory setting 0.00 [N]
p3838[0...n]	Friction characteristic, value M8		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: TORQUE	Unit selection: -
	Min -1000000.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 0.00 [Nm]
p3838[0...n]	Friction characteristic, value M8		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: FORCE	Unit selection: -
	Min -1000000.00 [N]	Max 1000000.00 [N]	Factory setting 0.00 [N]
p3839[0...n]	Friction characteristic, value M9		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: TORQUE	Unit selection: -
	Min -1000000.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 0.00 [Nm]
p3839[0...n]	Friction characteristic, value M9		
SERVO (Lin)	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: FORCE	Unit selection: -
	Min -1000000.00 [N]	Max 1000000.00 [N]	Factory setting 0.00 [N]
r3840	CO/BO: Friction characteristic, status word		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: 7010
	P-Group: Functions	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r3841	CO: Friction characteristic output		
SERVO	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 7010
	P-Group: Functions	Units group: TORQUE	Unit selection: -
	Min - [Nm]	Max - [Nm]	Factory setting - [Nm]

r3841	CO: Friction characteristic output		
SERVO (Lin)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: 7010
	P-Group: Functions	Units group: FORCE	Unit selection: -
	Min - [N]	Max - [N]	Factory setting - [N]
p3842	Friction characteristic activation		
SERVO	Can be changed: T		Access level: 2
	Data type: Integer16	Dynamic index: -	Function diagram: 7010
	P-Group: Functions	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 0
p3845	Friction characteristic plot activation		
SERVO	Can be changed: T		Access level: 2
	Data type: Integer16	Dynamic index: -	Function diagram: 7010
	P-Group: Functions	Units group: -	Unit selection: -
	Min 0	Max 3	Factory setting 0
p3846[0...n]	Friction characteristic plot ramp-up/ramp-down time		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: TIME	Unit selection: -
	Min 0.000 [s]	Max 999999.000 [s]	Factory setting 10.000 [s]
p3847[0...n]	Friction characteristic plot warm-up time		
SERVO	Can be changed: T		Access level: 2
	Data type: Floating Point	Dynamic index: DDS	Function diagram: 7010
	P-Group: Functions	Units group: TIME	Unit selection: -
	Min 0.000 [s]	Max 3600.000 [s]	Factory setting 0.000 [s]
p3870	Long stator configuration		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min 0000 bin	Max 0011 bin	Factory setting 0000 bin
p3871	BI: Set long stator signal source commutation angle (p3872)		
SERVO	Can be changed: T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0

p3872	CI: Long stator signal source commutation angle		
SERVO	Can be changed: T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	3878[0]
p3873	BI: Long stator sig. source to change over to cl.-loop ctrl w/ enc.		
SERVO	Can be changed: T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Functions	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p3874	CI: Long stator signal source commutation angle oper. with encoder		
SERVO	Can be changed: T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	3879[0]
r3875	CO/BO: Long stator status word		
SERVO	Can be changed: -	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p3876	BI: Unpark long stator signal source 1 encoder		
SERVO	Can be changed: T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p3878	CO: Long stator commutation angle 1		
SERVO	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: ANGLE	Unit selection: -
	Min	Max	Factory setting
	-180 [°]	180 [°]	0 [°]
p3879	CO: Long stator commutation angle 2		
SERVO	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: ANGLE	Unit selection: -
	Min	Max	Factory setting
	-180 [°]	180 [°]	0 [°]

p3900	Completion of quick commissioning		
A_INF	Can be changed: C2(1)	Dynamic index: -	Access level: 1
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: -		Unit selection: -
	Min 0	Max 3	Factory setting 0
p3900	Completion of quick commissioning		
SERVO	Can be changed: C2(1)	Dynamic index: -	Access level: 1
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Displays, signals		Unit selection: -
	Min 0	Max 3	Factory setting 0
p3902[0...n]	Power module EEPROM Vdc calibration		
A_INF, SERVO	Can be changed: C1, C2(1), T	Dynamic index: PDS	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: -		Unit selection: -
	Min 0	Max 4294967295	Factory setting 0
p3950	Service parameter		
CU_CX32, CU_I	Can be changed: C1, U, T	Dynamic index: -	Access level: 4
	Data type: Unsigned16	Units group: -	Function diagram: -
	P-Group: -		Unit selection: -
	Min 0	Max 65535	Factory setting 0
p3981	Faults, acknowledge drive object		
All objects	Can be changed: U, T	Dynamic index: -	Access level: 2
	Data type: Unsigned8	Units group: -	Function diagram: 2501
	P-Group: Messages		Unit selection: -
	Min 0	Max 1	Factory setting 0
p3985	Master control mode selection		
A_INF, SERVO	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Setpoints		Unit selection: -
	Min 0	Max 1	Factory setting 0
r3986	No. of parameters		
All objects	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: -
	P-Group: -		Unit selection: -
	Min -	Max -	Factory setting -

r3988	Ramp-up state			
CU_CX32, CU_I	Can be changed: - Data type: Integer16 P-Group: - Min -	Dynamic index: - Units group: - Max -	Access level: 4 Function diagram: - Unit selection: - Factory setting -	
r3996	State, inhibit parameter write			
All objects	Can be changed: - Data type: Unsigned8 P-Group: - Min -	Dynamic index: - Units group: - Max -	Access level: 1 Function diagram: - Unit selection: - Factory setting -	
p4700[0...1]	Trace control			
CU_CX32, CU_I	Can be changed: U, T Data type: Integer16 P-Group: Trace and function generator Min 0	Dynamic index: - Units group: - Max 1	Access level: 3 Function diagram: - Unit selection: - Factory setting 0	
p4701	Measuring function, control			
CU_CX32, CU_I	Can be changed: U, T Data type: Integer16 P-Group: Trace and function generator Min 0	Dynamic index: - Units group: - Max 2	Access level: 3 Function diagram: - Unit selection: - Factory setting 0	
r4705[0...1]	Trace status			
CU_CX32, CU_I	Can be changed: - Data type: Integer16 P-Group: Trace and function generator Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: - Unit selection: - Factory setting -	
r4706	Measuring function, status			
CU_CX32, CU_I	Can be changed: - Data type: Integer16 P-Group: Trace and function generator Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: - Unit selection: - Factory setting -	
r4708[0...1]	Trace memory space required			
CU_CX32, CU_I	Can be changed: - Data type: Unsigned32 P-Group: Trace and function generator Min -	Dynamic index: - Units group: - Max -	Access level: 3 Function diagram: - Unit selection: - Factory setting -	

p4710[0...1]	Trace trigger condition		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min 1	Max 7	Factory setting 2
p4711[0...1]	Trace trigger signal		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
p4712[0...1]	Trace trigger threshold		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min -340.28235E36	Max 340.28235E36	Factory setting 0.00
p4713[0...1]	Trace tolerance band trigger threshold		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min -340.28235E36	Max 340.28235E36	Factory setting 0.00
p4714[0...1]	Trace tolerance band trigger threshold		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min -340.28235E36	Max 340.28235E36	Factory setting 0.00
p4715[0...1]	Trace bit mask trigger, bit mask		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min 0	Max 4294967295	Factory setting 0
p4716[0...1]	Trace, bit mask trigger, trigger condition		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min 0	Max 4294967295	Factory setting 0

p4717	Measuring function, number of averaging operations		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Unsigned8	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min 0	Max 255	Factory setting 0
p4718	Measuring function, number of stabilizing periods		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Unsigned8	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min 0	Max 255	Factory setting 0
r4719[0...1]	Trace trigger index		
CU_CX32, CU_I	Can be changed: -	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
p4720[0...1]	Trace recording cycle		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: TIME_M3	Unit selection: -
	Min 0.000 [ms]	Max 60000.000 [ms]	Factory setting 1.000 [ms]
p4721[0...1]	Trace recording time		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: TIME_M3	Unit selection: -
	Min 0.000 [ms]	Max 3600000.000 [ms]	Factory setting 1000.000 [ms]
p4722[0...1]	Trace trigger delay		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: TIME_M3	Unit selection: -
	Min -3600000.000 [ms]	Max 3600000.000 [ms]	Factory setting 0.000 [ms]
p4723[0...1]	Time slice cycle for trace		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: TIME_M3	Unit selection: -
	Min 0.03125 [ms]	Max 4.00000 [ms]	Factory setting 0.12500 [ms]

p4724[0...1]	Trace average in the time range			
CU_CX32, CU_I	Can be changed: U, T		Access level: 3	
	Data type: Unsigned8	Dynamic index: -	Function diagram: -	
	P-Group: Trace and function generator	Units group: -	Unit selection: -	
	Min 0000 bin	Max 0001 bin	Factory setting 0001 bin	
r4725[0...1]	Trace, data type 1 traced			
CU_CX32, CU_I	Can be changed: -		Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: Trace and function generator	Units group: -	Unit selection: -	
	Min -	Max -	Factory setting -	
r4726[0...1]	Trace, data type 2 traced			
CU_CX32, CU_I	Can be changed: -		Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: Trace and function generator	Units group: -	Unit selection: -	
	Min -	Max -	Factory setting -	
r4727[0...1]	Trace, data type 3 traced			
CU_CX32, CU_I	Can be changed: -		Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: Trace and function generator	Units group: -	Unit selection: -	
	Min -	Max -	Factory setting -	
r4728[0...1]	Trace, data type 4 traced			
CU_CX32, CU_I	Can be changed: -		Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: Trace and function generator	Units group: -	Unit selection: -	
	Min -	Max -	Factory setting -	
r4729[0...1]	Trace number of recorded values			
CU_CX32, CU_I	Can be changed: -		Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: Trace and function generator	Units group: -	Unit selection: -	
	Min -	Max -	Factory setting -	
p4730[0...1]	Trace record signal 0			
CU_CX32, CU_I	Can be changed: U, T		Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: Trace and function generator	Units group: -	Unit selection: -	
	Min -	Max -	Factory setting 0	

p4731[0...1]	Trace record signal 1		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0

p4732[0...1]	Trace record signal 2		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0

p4733[0...1]	Trace record signal 3		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0

r4740[0...16383]	Trace 0 trace buffer signal 0 floating point		
CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r4741[0...16383]	Trace 0 trace buffer signal 1 floating point		
CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r4742[0...16383]	Trace 0 trace buffer signal 2 floating point		
CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r4743[0...16383]	Trace 0 trace buffer signal 3 floating point		
CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r4750[0...16383] Trace 1 trace buffer signal 0 floating point

CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r4751[0...16383] Trace 1 trace buffer signal 1 floating point

CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r4752[0...16383] Trace 1 trace buffer signal 2 floating point

CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r4753[0...16383] Trace 1 trace buffer signal 3 floating point

CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r4760[0...16383] Trace 0 trace buffer signal 0

CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r4761[0...16383] Trace 0 trace buffer signal 1

CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r4762[0...16383] Trace 0 trace buffer signal 2

CU_CX32, CU_I	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r4763[0...16383] Trace 0 trace buffer signal 3

CU_CX32, CU_I	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Trace and function generator		Unit selection: -
	Min	Max	Factory setting
	-	-	-

p4780[0...1] Trace physical address signal 0

CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Trace and function generator		Unit selection: -
	Min	Max	Factory setting
	0000 hex	FFFF FFFF hex	0000 hex

p4781[0...1] Trace physical address signal 1

CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Trace and function generator		Unit selection: -
	Min	Max	Factory setting
	0000 hex	FFFF FFFF hex	0000 hex

p4782[0...1] Trace physical address signal 2

CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Trace and function generator		Unit selection: -
	Min	Max	Factory setting
	0000 hex	FFFF FFFF hex	0000 hex

p4783[0...1] Trace physical address signal 3

CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Trace and function generator		Unit selection: -
	Min	Max	Factory setting
	0000 hex	FFFF FFFF hex	0000 hex

p4789[0...1] Trace physical address trigger signal

CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Trace and function generator		Unit selection: -
	Min	Max	Factory setting
	0000 hex	FFFF FFFF hex	0000 hex

p4795 Trace memory bank changeover

CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Trace and function generator		Unit selection: -
	Min	Max	Factory setting
	0	500	0

r4799	Trace memory location free			
CU_CX32, CU_I	Can be changed: -			Access level: 3
	Data type: Unsigned32	Dynamic index: -		Function diagram: -
	P-Group: Trace and function generator	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
p4800	Function generator control			
CU_CX32, CU_I	Can be changed: U, T			Access level: 3
	Data type: Integer16	Dynamic index: -		Function diagram: -
	P-Group: Trace and function generator	Units group: -		Unit selection: -
	Min	Max		Factory setting
	0	2		0
r4805	Function generator status			
CU_CX32, CU_I	Can be changed: -			Access level: 3
	Data type: Integer16	Dynamic index: -		Function diagram: -
	P-Group: Trace and function generator	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
r4806	BO: Function generator status signal			
CU_CX32, CU_I	Can be changed: -			Access level: 3
	Data type: Unsigned32	Dynamic index: -		Function diagram: -
	P-Group: Trace and function generator	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
p4810	Function generator mode			
CU_CX32, CU_I	Can be changed: U, T			Access level: 3
	Data type: Integer16	Dynamic index: -		Function diagram: -
	P-Group: Trace and function generator	Units group: -		Unit selection: -
	Min	Max		Factory setting
	0	99		0
p4812	Function generator physical address			
CU_CX32, CU_I	Can be changed: U, T			Access level: 3
	Data type: Unsigned32	Dynamic index: -		Function diagram: -
	P-Group: Trace and function generator	Units group: -		Unit selection: -
	Min	Max		Factory setting
	0	4294967295		0
p4813	Function generator physical address reference value			
CU_CX32, CU_I	Can be changed: U, T			Access level: 3
	Data type: Floating Point	Dynamic index: -		Function diagram: -
	P-Group: Trace and function generator	Units group: -		Unit selection: -
	Min	Max		Factory setting
	1.00	1000000.00		1.00

p4815[0...2]	Function generator drive number		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min 0	Max 65535	Factory setting 0
r4818	CO: Function generator output signal		
CU_CX32, CU_I	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: PERCENT	Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]
p4819	BI: Function generator control		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 1
p4820	Function generator signal shape		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: -	Unit selection: -
	Min 1	Max 5	Factory setting 1
p4821	Function generator period		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 60000.00 [ms]	Factory setting 1000.00 [ms]
p4822	Function generator pulse width		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 60000.00 [ms]	Factory setting 500.00 [ms]
p4823	Function generator bandwidth		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: FREQUENCY	Unit selection: -
	Min 0.00 [Hz]	Max 16000.00 [Hz]	Factory setting 4000.00 [Hz]

p4824	Function generator amplitude		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: PERCENT	Unit selection: -
	Min -1600.00 [%]	Max 1600.00 [%]	Factory setting 5.00 [%]
p4825	Function generator 2nd amplitude		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: PERCENT	Unit selection: -
	Min -1600.00 [%]	Max 1600.00 [%]	Factory setting 7.00 [%]
p4826	Function generator offset		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: PERCENT	Unit selection: -
	Min -1600.00 [%]	Max 1600.00 [%]	Factory setting 0.00 [%]
p4827	Function generator ramp-up time to offset		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 100000.00 [ms]	Factory setting 32.00 [ms]
p4828	Function generator lower limit		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: PERCENT	Unit selection: -
	Min -10000.00 [%]	Max 0.00 [%]	Factory setting -100.00 [%]
p4829	Function generator upper limit		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: PERCENT	Unit selection: -
	Min 0.00 [%]	Max 10000.00 [%]	Factory setting 100.00 [%]
p4830	Function generator time slice cycle		
CU_CX32, CU_I	Can be changed: U, T		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: TIME_M3	Unit selection: -
	Min 0.03125 [ms]	Max 2.00000 [ms]	Factory setting 0.12500 [ms]

p4831	Function generator amplitude scaling		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: PERCENT	Unit selection: -
	Min 0.00000 [%]	Max 200.00000 [%]	Factory setting 100.00000 [%]
p4832[0...2]	Function generator amplitude scaling		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: PERCENT	Unit selection: -
	Min -340.28235E36 [%]	Max 340.28235E36 [%]	Factory setting 100.00000 [%]
p4833[0...2]	Function generator offset scaling		
CU_CX32, CU_I	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Trace and function generator	Units group: PERCENT	Unit selection: -
	Min -340.28235E36 [%]	Max 340.28235E36 [%]	Factory setting 100.00000 [%]
p6651	BI: Test mode, signal source ON/OFF		
A_INF, SERVO	Can be changed: T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting 0
r7000	Par_circuit No. of active power modules		
A_INF (Parallel)	Can be changed: -	Access level: 3	
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Modulation	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
p7001[0...n]	Par_circuit enable power modules		
A_INF (Parallel)	Can be changed: T	Access level: 3	
	Data type: Integer16	Dynamic index: PDS	Function diagram: -
	P-Group: Modulation	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 1
r7002[0...n]	Par_circuit status power modules		
A_INF (Parallel)	Can be changed: -	Access level: 3	
	Data type: Integer16	Dynamic index: PDS	Function diagram: -
	P-Group: Modulation	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

p7010	Par_circuit current dissymmetry alarm threshold		
A_INF (Parallel)	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: PERCENT	Function diagram: -
	P-Group: Modulation		Unit selection: -
	Min 2 [%]	Max 100 [%]	Factory setting 20 [%]
p7011	Par_circuit DC link voltage dissymmetry, alarm threshold		
A_INF (Parallel)	Can be changed: U, T	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: PERCENT	Function diagram: -
	P-Group: Modulation		Unit selection: -
	Min 2 [%]	Max 100 [%]	Factory setting 10 [%]
r7020[0...n]	Par_circuit deviation current in phase U		
A_INF (Parallel)	Can be changed: -	Dynamic index: PDS	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_PP	Function diagram: -
	P-Group: Displays, signals		Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7021[0...n]	Par_circuit deviation current in phase V		
A_INF (Parallel)	Can be changed: -	Dynamic index: PDS	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_PP	Function diagram: -
	P-Group: Displays, signals		Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7022[0...n]	Par_circuit deviation current in phase W		
A_INF (Parallel)	Can be changed: -	Dynamic index: PDS	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_PP	Function diagram: -
	P-Group: Displays, signals		Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7025	Par_circuit max. deviation currents phase U		
A_INF (Parallel)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_PP	Function diagram: -
	P-Group: Displays, signals		Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7026	Par_circuit max. deviation currents phase V		
A_INF (Parallel)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_PP	Function diagram: -
	P-Group: Displays, signals		Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]

r7027	Par_circuit max. deviation currents phase W		
A_INF (Parallel)	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: CURRENT_AC_PP	Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7030[0...n]	Par_circuit deviation DC link voltage		
A_INF (Parallel)	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: VOLTAGE_DC	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]
r7031	Par_circuit max. deviation, DC link voltage		
A_INF (Parallel)	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: VOLTAGE_DC	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]
p7035	Infeed par_circuit circulating current control, operating mode		
A_INF (Parallel)	Can be changed: U, T	Access level: 3	
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Modulation	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 1
p7036	Infeed par_cct circulating current controller, proportional gain		
A_INF (Parallel)	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Modulation	Units group: PERCENT	Unit selection: -
	Min 0.00000 [%]	Max 1000.00000 [%]	Factory setting 100.00000 [%]
p7037	Infeed par_cct circulating current control, integral action time		
A_INF (Parallel)	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Modulation	Units group: PERCENT	Unit selection: -
	Min 0.0 [%]	Max 100000.0 [%]	Factory setting 100.0 [%]
p7038	Infeed par_circuit circulating current control, limit		
A_INF (Parallel)	Can be changed: U, T	Access level: 3	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Modulation	Units group: PERCENT	Unit selection: -
	Min 1 [%]	Max 100 [%]	Factory setting 100 [%]

p7040[0...n]	Par_circuit correction, valve lockout time phase U		
A_INF (Parallel)	Can be changed: U, T	Dynamic index: PDS	Access level: 4
	Data type: Floating Point	Units group: TIME_M6	Function diagram: -
	P-Group: Modulation		Unit selection: -
	Min 0.00 [µs]	Max 1000000.00 [µs]	Factory setting 0.00 [µs]
p7042[0...n]	Par_circuit correction, valve lockout time phase V		
A_INF (Parallel)	Can be changed: U, T	Dynamic index: PDS	Access level: 4
	Data type: Floating Point	Units group: TIME_M6	Function diagram: -
	P-Group: Modulation		Unit selection: -
	Min 0.00 [µs]	Max 1000000.00 [µs]	Factory setting 0.00 [µs]
p7044[0...n]	Par_circuit correction, valve lockout time phase W		
A_INF (Parallel)	Can be changed: U, T	Dynamic index: PDS	Access level: 4
	Data type: Floating Point	Units group: TIME_M6	Function diagram: -
	P-Group: Modulation		Unit selection: -
	Min 0.00 [µs]	Max 1000000.00 [µs]	Factory setting 0.00 [µs]
r7050[0...n]	Par_circuit circulating current phase U		
A_INF (Parallel)	Can be changed: -	Dynamic index: PDS	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_PP	Function diagram: -
	P-Group: Displays, signals		Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7051[0...n]	Par_circuit circulating current phase V		
A_INF (Parallel)	Can be changed: -	Dynamic index: PDS	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_PP	Function diagram: -
	P-Group: Displays, signals		Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7052[0...n]	Par_circuit circulating current phase W		
A_INF (Parallel)	Can be changed: -	Dynamic index: PDS	Access level: 3
	Data type: Floating Point	Units group: CURRENT_AC_PP	Function diagram: -
	P-Group: Displays, signals		Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7100[0...99]	Par_circuit ring buffer fault/alarm code		
A_INF (Parallel)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Displays, signals		Unit selection: -
	Min -	Max -	Factory setting -

r7101[0...99]	Par_circuit ring buffer data set number		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r7102[0...99]	Par_circuit ring buffer fault/alarm received		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r7103[0...99]	Par_circuit ring buffer fault/alarm gone		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Displays, signals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r7200[0...n]	Par_circuit power module overload I2T		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: PERCENT	Unit selection: -
	Min	Max	Factory setting
	- [%]	- [%]	- [%]
r7201[0...n]	Par_circuit power module temperatures max. inverter		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min	Max	Factory setting
	- [°C]	- [°C]	- [°C]
r7202[0...n]	Par_circuit power module temperatures max. depletion layer		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min	Max	Factory setting
	- [°C]	- [°C]	- [°C]
r7203[0...n]	Par_circuit power module temperatures max. rectifier		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min	Max	Factory setting
	- [°C]	- [°C]	- [°C]

r7204[0...n]	Par_circuit power module temperatures air intake		
A_INF (Parallel)	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7205[0...n]	Par_circuit power module temperatures electronics		
A_INF (Parallel)	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7206[0...n]	Par_circuit power module temperatures inverter 1		
A_INF (Parallel)	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7207[0...n]	Par_circuit power module temperatures inverter 2		
A_INF (Parallel)	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7208[0...n]	Par_circuit power module temperatures inverter 3		
A_INF (Parallel)	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7209[0...n]	Par_circuit power module temperatures inverter 4		
A_INF (Parallel)	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7210[0...n]	Par_circuit power module temperatures inverter 5		
A_INF (Parallel)	Can be changed: -	Access level: 3	
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]

r7211[0...n]	Par_circuit power module temperatures inverter 6		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7212[0...n]	Par_circuit power module temperatures inverter 1		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7213[0...n]	Par_circuit power module temperatures inverter 2		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7214[0...n]	Par_circuit power module temperatures depletion layer 1		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7215[0...n]	Par_circuit power module temperatures depletion layer 2		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7216[0...n]	Par_circuit power module temperatures depletion layer 3		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7217[0...n]	Par_circuit power module temperatures depletion layer 4		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]

r7218[0...n]	Par_circuit power module temperatures depletion layer 5		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7219[0...n]	Par_circuit power module temperatures depletion layer 6		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: TEMPERATURE	Unit selection: -
	Min - [°C]	Max - [°C]	Factory setting - [°C]
r7220[0...n]	Infeed par_circuit absolute current value, motoring permissible		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r7221[0...n]	Infeed par_circuit absolute current regenerating, permissible		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r7222[0...n]	Par_circuit absolute current actual value		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r7223[0...n]	Par_circuit phase current, actual value phase U		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: CURRENT_AC_PP	Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7224[0...n]	Par_circuit phase current, actual value phase V		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: CURRENT_AC_PP	Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]

r7225[0...n]	Par_circuit phase current, actual value phase W		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: CURRENT_AC_PP	Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7226[0...n]	Par_circuit phase current actual value, phase U offset		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: CURRENT_AC_PP	Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7227[0...n]	Par_circuit phase current, actual value, phase V offset		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: CURRENT_AC_PP	Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7228[0...n]	Par_circuit phase current, actual value, phase W offset		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: CURRENT_AC_PP	Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7229[0...n]	Par_circuit phase current actual value sum U, V, W		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: CURRENT_AC_PP	Unit selection: -
	Min - [A]	Max - [A]	Factory setting - [A]
r7230[0...n]	Par_circuit DC link voltage actual value		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: VOLTAGE_DC	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]
r7231[0...n]	Par_circuit phase voltage, actual value phase U		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: VOLTAGE_AC_PP	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]

r7232[0...n]	Par_circuit phase voltage, actual value phase V		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: VOLTAGE_AC_PP	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]
r7233[0...n]	Par_circuit phase voltage, actual value phase W		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: PDS	Function diagram: -
	P-Group: Displays, signals	Units group: VOLTAGE_AC_PP	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]
r7250[0...4]	Par_circuit power module rated power		
A_INF (Parallel)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Converter	Units group: POWER_P3	Unit selection: -
	Min - [kW]	Max - [kW]	Factory setting - [kW]
r7251[0...4]	Par_circuit power module rated current		
A_INF (Parallel)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Converter	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r7252[0...4]	Par_circuit maximum power module current		
A_INF (Parallel)	Can be changed: -		Access level: 2
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Converter	Units group: CURRENT_AC_EFF	Unit selection: -
	Min - [Aeff]	Max - [Aeff]	Factory setting - [Aeff]
r7300[0...n]	CO: Par_circuit VSM input line voltage u1 - u2		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: VOLTAGE_AC_PP	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]
r7301[0...n]	CO: Par_circuit VSM input line voltage u2 - u3		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: VOLTAGE_AC_PP	Unit selection: -
	Min - [V]	Max - [V]	Factory setting - [V]

r7305[0...n]	Par_circuit VSM temperature evaluation, status		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Terminals	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r7306[0...n]	CO: Par_circuit VSM temperature KTY		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: TEMPERATURE	Unit selection: -
	Min	Max	Factory setting
	- [°C]	- [°C]	- [°C]
r7310[0...n]	CO: Par_circuit VSM 10 V input CT1 actual value		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: CURRENT_AC_PP	Unit selection: -
	Min	Max	Factory setting
	- [A]	- [A]	- [A]
r7311[0...n]	CO: Par_circuit VSM 10 V input CT2 actual value		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: CURRENT_AC_PP	Unit selection: -
	Min	Max	Factory setting
	- [A]	- [A]	- [A]
r7315[0...n]	CO: Par_circuit VSM 10 V input 1 actual value		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: VOLTAGE_AC_PP	Unit selection: -
	Min	Max	Factory setting
	- [V]	- [V]	- [V]
r7316[0...n]	CO: Par_circuit VSM 10 V input 2 actual value		
A_INF (Parallel)	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: VOLTAGE_AC_PP	Unit selection: -
	Min	Max	Factory setting
	- [V]	- [V]	- [V]
r7320[0...n]	Par_circuit VSM line filter capacitance phase U		
A_INF (Parallel)	Can be changed: -		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Closed-loop control	Units group: CAPACITY_M6	Unit selection: -
	Min	Max	Factory setting
	- [µF]	- [µF]	- [µF]

r7321[0...n]	Par_circuit VSM line filter capacitance phase V		
A_INF (Parallel)	Can be changed: - Data type: Floating Point P-Group: Closed-loop control	Dynamic index: - Units group: CAPACITY_M6	Access level: 4 Function diagram: - Unit selection: - Factory setting - [μF]
	Min - [μF]	Max - [μF]	
r7322[0...n]	Par_circuit VSM line filter capacitance phase W		
A_INF (Parallel)	Can be changed: - Data type: Floating Point P-Group: Closed-loop control	Dynamic index: - Units group: CAPACITY_M6	Access level: 4 Function diagram: - Unit selection: - Factory setting - [μF]
	Min - [μF]	Max - [μF]	
p7820	DRIVE-CLiQ component, component number		
CU_CX32, CU_I	Can be changed: U, T Data type: Unsigned16 P-Group: -	Dynamic index: - Units group: -	Access level: 4 Function diagram: - Unit selection: - Factory setting 0
	Min 0	Max 65535	
p7821	DRIVE-CLiQ component, parameter number		
CU_CX32, CU_I	Can be changed: U, T Data type: Unsigned16 P-Group: -	Dynamic index: - Units group: -	Access level: 4 Function diagram: - Unit selection: - Factory setting 0
	Min 0	Max 65535	
p7822	DRIVE-CLiQ component, parameter index		
CU_CX32, CU_I	Can be changed: U, T Data type: Unsigned16 P-Group: -	Dynamic index: - Units group: -	Access level: 4 Function diagram: - Unit selection: - Factory setting 0
	Min 0	Max 65535	
r7823	DRIVE-CLiQ component, read parameter value		
CU_CX32, CU_I	Can be changed: - Data type: Unsigned32 P-Group: -	Dynamic index: - Units group: -	Access level: 4 Function diagram: - Unit selection: - Factory setting -
	Min -	Max -	
p7828	Firmware download component number		
CU_CX32, CU_I	Can be changed: U, T Data type: Unsigned16 P-Group: -	Dynamic index: - Units group: -	Access level: 3 Function diagram: - Unit selection: - Factory setting 0
	Min 0	Max 399	

p7829	Activate firmware download			
CU_CX32, CU_I	Can be changed: U, T		Access level: 3	
	Data type: Integer16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	0	999	0	
p7830	Diagnostics telegram selection			
SERVO	Can be changed: T		Access level: 4	
	Data type: Integer16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	0	3	0	
r7831[0...15]	Telegram diagnostics signals			
SERVO	Can be changed: -		Access level: 4	
	Data type: Integer16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r7832[0...15]	Telegram diagnostics numerical format			
SERVO	Can be changed: -		Access level: 4	
	Data type: Integer16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r7833[0...15]	Telegram diagnostics unsigned			
SERVO	Can be changed: -		Access level: 4	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r7834[0...15]	Telegram diagnostics signed			
SERVO	Can be changed: -		Access level: 4	
	Data type: Integer32	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r7835[0...15]	Telegram diagnostics real			
SERVO	Can be changed: -		Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	

r7836[0...15]	Telegram diagnostics unit			
SERVO	Can be changed: -		Access level: 4	
	Data type: Integer16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r7843[0...20]	CompactFlash card serial number			
CU_CX32, CU_I	Can be changed: -		Access level: 1	
	Data type: Unsigned8	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r7850[0...15]	Drive object not operational/ready for operation			
CU_CX32, CU_I	Can be changed: -		Access level: 4	
	Data type: Integer16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
p7852	Number of indices for r7853			
CU_CX32, CU_I	Can be changed: U, T		Access level: 4	
	Data type: Unsigned16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	1	200	1	
r7853[0...n]	Component available/not available			
CU_CX32, CU_I	Can be changed: -		Access level: 4	
	Data type: Unsigned16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r7901[0...19]	Time slice cycle times			
CU_CX32, CU_I	Can be changed: -		Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: TIME_M6	Unit selection: -	
	Min	Max	Factory setting	
	- [µs]	- [µs]	- [µs]	
p8550	AOP LOCAL/REMOTE			
CU_CX32, CU_I	Can be changed: U, T		Access level: 4	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	0000 bin	1111 1111 1111 1111 1111 1111 1111 1111 bin	0100 1001 bin	

r8570[0...9]	Macro drive unit			
CU_CX32, CU_I	Can be changed: -			Access level: 1
	Data type: Unsigned32	Dynamic index: -		Function diagram: -
	P-Group: -	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
r8570[0...9]	Macro drive object			
A_INF, SERVO	Can be changed: -			Access level: 1
	Data type: Unsigned32	Dynamic index: -		Function diagram: -
	P-Group: -	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
r8571[0...9]	Macro Binector Input (BI)			
A_INF, SERVO	Can be changed: -			Access level: 1
	Data type: Unsigned32	Dynamic index: -		Function diagram: -
	P-Group: -	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
r8572[0...9]	Macro Connector Inputs (CI) for speed setpoints			
A_INF, SERVO	Can be changed: -			Access level: 1
	Data type: Unsigned32	Dynamic index: -		Function diagram: -
	P-Group: -	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
r8573[0...9]	Macro Connector Inputs (CI) for torque setpoints			
A_INF, SERVO	Can be changed: -			Access level: 1
	Data type: Unsigned32	Dynamic index: -		Function diagram: -
	P-Group: -	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
p8641	CBC abort connection option code			
SERVO (CAN)	Can be changed: T			Access level: 3
	Data type: Integer16	Dynamic index: -		Function diagram: -
	P-Group: -	Units group: -		Unit selection: -
	Min	Max		Factory setting
	0	3		3

p8700[0...1]	CBC receive PDO 1		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9204, 9206
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max 8000 06DF hex	Factory setting [0] 8000 06DF hex [1] 00FE hex
p8701[0...1]	CBC receive PDO 2		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9204, 9206
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max 8000 06DF hex	Factory setting [0] 8000 06DF hex [1] 00FE hex
p8702[0...1]	CBC receive PDO 3		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9204, 9206
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max 8000 06DF hex	Factory setting [0] 8000 06DF hex [1] 00FE hex
p8703[0...1]	CBC receive PDO 4		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9204, 9206
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max 8000 06DF hex	Factory setting [0] 8000 06DF hex [1] 00FE hex
p8704[0...1]	CBC receive PDO 5		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9204
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max 8000 06DF hex	Factory setting [0] 8000 06DF hex [1] 00FE hex
p8705[0...1]	CBC receive PDO 6		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9204
	P-Group: Communications	Units group: -	Unit selection: -

	Min 0000 hex	Max 8000 06DF hex	Factory setting [0] 8000 06DF hex [1] 00FE hex
p8706[0...1] SERVO (CAN)	CBC receive PDO 7		
	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 9204
	P-Group: Communications		Unit selection: -
	Min 0000 hex	Max 8000 06DF hex	Factory setting [0] 8000 06DF hex [1] 00FE hex
p8707[0...1] SERVO (CAN)	CBC receive PDO 8		
	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 9204
	P-Group: Communications		Unit selection: -
	Min 0000 hex	Max 8000 06DF hex	Factory setting [0] 8000 06DF hex [1] 00FE hex
p8710[0...3] SERVO (CAN)	CBC receive mapping for RPDO 1		
	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 9204, 9206
	P-Group: Communications		Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p8711[0...3] SERVO (CAN)	CBC receive mapping for RPDO 2		
	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 9204, 9206
	P-Group: Communications		Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex

4.5 Parameter p8712 - p9976

p8712[0...3]	CBC receive mapping for RPDO 3		
SERVO (CAN)	Can be changed: C1(3), T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: 9204, 9206
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p8713[0...3]	CBC receive mapping for RPDO 4		
SERVO (CAN)	Can be changed: C1(3), T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: 9204, 9206
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p8714[0...3]	CBC receive mapping for RPDO 5		
SERVO (CAN)	Can be changed: C1(3), T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: 9204
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p8715[0...3]	CBC receive mapping for RPDO 6		
SERVO (CAN)	Can be changed: C1(3), T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: 9204
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p8716[0...3]	CBC receive mapping for RPDO 7		
SERVO (CAN)	Can be changed: C1(3), T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: 9204
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p8717[0...3]	CBC receive mapping for RPDO 8		
SERVO (CAN)	Can be changed: C1(3), T	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: 9204
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex

p8720[0...4]	CBC transmit PDO 1		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9208, 9210
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max C000 06DF hex	Factory setting [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex
p8721[0...4]	CBC transmit PDO 2		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9208, 9210
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max C000 06DF hex	Factory setting [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex
p8722[0...4]	CBC transmit PDO 3		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9208, 9210
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max C000 06DF hex	Factory setting [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex
p8723[0...4]	CBC transmit PDO 4		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9208, 9210
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max C000 06DF hex	Factory setting [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex

p8724[0...4]	CBC transmit PDO 5		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 9208
	P-Group: Communications		Unit selection: -
	Min 0000 hex	Max C000 06DF hex	Factory setting [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex
p8725[0...4]	CBC transmit PDO 6		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 9208
	P-Group: Communications		Unit selection: -
	Min 0000 hex	Max C000 06DF hex	Factory setting [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex
p8726[0...4]	CBC transmit PDO 7		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 9208
	P-Group: Communications		Unit selection: -
	Min 0000 hex	Max C000 06DF hex	Factory setting [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex
p8727[0...4]	CBC transmit PDO 8		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 9208
	P-Group: Communications		Unit selection: -
	Min 0000 hex	Max C000 06DF hex	Factory setting [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex

p8730[0...3]	CBC send mapping for TPDO 1		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9208, 9210
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p8731[0...3]	CBC send mapping for TPDO 2		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9208, 9210
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p8732[0...3]	CBC send mapping for TPDO 3		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9208, 9210
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p8733[0...3]	CBC send mapping for TPDO 4		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9208, 9210
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p8734[0...3]	CBC send mapping for TPDO 5		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9208
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p8735[0...3]	CBC send mapping for TPDO 6		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32		Function diagram: 9208
	P-Group: Communications	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex

p8736[0...3]	CBC send mapping for TPDO 7		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 9208
	P-Group: Communications		Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p8737[0...3]	CBC send mapping for TPDO 8		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: 9208
	P-Group: Communications		Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p8744	CBC PDO mapping configuration		
SERVO (CAN)	Can be changed: C2, T	Dynamic index: -	Access level: 2
	Data type: Integer16	Units group: -	Function diagram: 9204, 9206, 9208, 9210
	P-Group: -		Unit selection: -
	Min 0	Max 2	Factory setting 2
r8750[0...15]	CBC mapped 16-bit receive objects		
SERVO (CAN)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: -
	P-Group: Communications		Unit selection: -
	Min -	Max -	Factory setting -
r8751[0...15]	CBC mapped 16-bit transmit objects		
SERVO (CAN)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: -
	P-Group: Communications		Unit selection: -
	Min -	Max -	Factory setting -
r8760[0...14]	CBC mapped 32-bit receive objects		
SERVO (CAN)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: -
	P-Group: Communications		Unit selection: -
	Min -	Max -	Factory setting -
r8761[0...14]	CBC mapped 32-bit transmit objects		
SERVO (CAN)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: -
	P-Group: Communications		Unit selection: -
	Min -	Max -	Factory setting -

r8784	CO: CBC status word		
SERVO (CAN)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: 8010
	P-Group: Communications	Max	Unit selection: -
	Min	-	Factory setting
	-	-	-
p8785	BI: CBC status word bit 8		
SERVO (CAN)	Can be changed: T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Communications	Max	Unit selection: -
	Min	-	Factory setting
	-	-	0
p8786	BI: CBC status word bit 14		
SERVO (CAN)	Can be changed: T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Communications	Max	Unit selection: -
	Min	-	Factory setting
	-	-	0
p8787	BI: CBC status word bit 15		
SERVO (CAN)	Can be changed: T	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Communications	Max	Unit selection: -
	Min	-	Factory setting
	-	-	0
p8790	CBC control word - auto interconnection		
SERVO (CAN)	Can be changed: C1(3), T	Dynamic index: -	Access level: 3
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Communications	Max	Unit selection: -
	Min	1	Factory setting
	0	-	0
r8795	CBC control word		
SERVO (CAN)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: -
	P-Group: -	Max	Unit selection: -
	Min	-	Factory setting
	-	-	-
r8796	CBC target velocity		
SERVO (CAN)	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Integer32	Units group: -	Function diagram: -
	P-Group: -	Max	Unit selection: -
	Min	-	Factory setting
	-	-	-

r8797	CBC target torque			
SERVO (CAN)	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Integer16		Units group: -	Function diagram: -
	P-Group: -		Max	Unit selection: -
	Min		-	Factory setting
	-		-	-
p8798[0...1]	CBC speed conversion factor			
SERVO (CAN)	Can be changed: T		Dynamic index: -	Access level: 3
	Data type: Unsigned32		Units group: -	Function diagram: -
	P-Group: -		Max	Unit selection: -
	Min		4294967295	Factory setting
	1		-	1
r8850[0...15]	CO: COMM BOARD PZD receive word			
SERVO	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Integer16		Units group: -	Function diagram: 9204, 9206
	P-Group: Communications		Max	Unit selection: -
	Min		-	Factory setting
	-		-	-
p8851[0...15]	CI: COMM BOARD PZD send word			
SERVO	Can be changed: U, T		Dynamic index: -	Access level: 3
	Data type: Unsigned32		Units group: -	Function diagram: 9208
	P-Group: Communications		Max	Unit selection: -
	Min		-	Factory setting
	-		-	0
r8853[0...15]	COMM BOARD PZD send diagnostics			
SERVO	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Unsigned16		Units group: -	Function diagram: 9208, 9210
	P-Group: Communications		Max	Unit selection: -
	Min		-	Factory setting
	-		-	-
r8860[0...14]	CO: COMM BOARD PZD receive double word			
SERVO	Can be changed: -		Dynamic index: -	Access level: 3
	Data type: Integer32		Units group: -	Function diagram: 9204, 9206
	P-Group: Communications		Max	Unit selection: -
	Min		-	Factory setting
	-		-	-

p8861[0...14]	CI: COMM BOARD PZD send doubleword		
SERVO	Can be changed: U, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 9208, 9210
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
r8890	BO: COMM BOARD PZD1 receive bit-serial		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 9204, 9206
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r8891	BO: COMM BOARD PZD2 receive bit-serial		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 9204, 9206
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r8892	BO: COMM BOARD PZD3 receive bit-serial		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 9204, 9206
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r8893	BO: COMM BOARD PZD4 receive bit-serial		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 9204, 9206
	P-Group: Communications	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r9406[0...19]	PS file parameter number, parameter not transferred		
All objects	Can be changed: -		Access level: 4
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r9407[0...19]	PS file parameter index, parameter not transferred			
All objects	Can be changed: -		Access level: 1	
	Data type: Unsigned16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r9408[0...19]	PS file fault code parameter not transferred			
All objects	Can be changed: -		Access level: 1	
	Data type: Unsigned16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r9409	Number of parameters to be saved			
All objects	Can be changed: -		Access level: 4	
	Data type: Unsigned16	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r9481	No. of BICO interconnections			
All objects	Can be changed: -		Access level: 3	
	Data type: Unsigned16	Dynamic index: -	Function diagram: -	
	P-Group: Commands	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r9482[0...59]	BICO interconnections, BI/CI parameters			
All objects	Can be changed: -		Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: Commands	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
r9483[0...59]	BICO interconnections, BO/CO parameters			
All objects	Can be changed: -		Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: Commands	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	-	-	-	
p9484	BICO interconnections, search signal source			
All objects	Can be changed: T		Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min	Max	Factory setting	
	0	4294967295	0	

r9485	BICO interconnections, signal source search number		
All objects	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r9486	BICO interconnections, signal source search first index		
All objects	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r9490	Number of BICO interconnections to other drives		
All objects	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r9491[0...9]	BI/CI of BICO interconnections to other drives		
All objects	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

r9492[0...9]	BO/CO of BICO interconnections to other drives		
All objects	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-

p9493[0...9]	Reset BICO interconnections to other drives		
All objects	Can be changed: T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0000 hex	000F hex	000F hex

p9495	BICO behavior to de-activated drive objects		
All objects	Can be changed: T		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	2	0

p9496	Restore BICO to the drive objects that are now activated		
All objects	Can be changed: T	Access level: 3	
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min 0	Max 2	Factory setting 0
p9497	BICO number of interconnections to de-activated drive objects		
All objects	Can be changed: T	Access level: 3	
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min 0	Max 65535	Factory setting 0
r9498[0...29]	BICO BI/CI parameters to de-activated drive objects		
All objects	Can be changed: -	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9499[0...29]	BICO BO/CO parameters to de-activated drive objects		
All objects	Can be changed: -	Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
p9500	SI motion monitoring clock cycle		
SERVO	Can be changed: U, T	Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: TIME_M3	Unit selection: -
	Min 0.50 [ms]	Max 25.00 [ms]	Factory setting 12.00 [ms]
p9501	SI motion enable safety-relevant functions		
SERVO	Can be changed: U, T	Access level: 4	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 0000 bin	Max 1111 1111 1111 1111 1111 1111 1111 1111 bin	Factory setting 0000 bin
p9502	SI motion axis type		
SERVO	Can be changed: U, T	Access level: 4	
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 0

p9516	SI motion motor encoder configuration, safety-relevant functions		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 0000 bin	Max 0011 bin	Factory setting 0000 bin
p9517	SI motion linear scale, grid division		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: LENGTH_M9	Unit selection: -
	Min 0.00 [nm]	Max 250000000.00 [nm]	Factory setting 10000.00 [nm]
p9518	SI motion encoder pulses per revolution		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 0	Max 100000	Factory setting 2048
p9519	SI motion fine resolution G1_XIST1		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 2	Max 18	Factory setting 11
p9520	SI motion spindle pitch		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: LENGTH_M3	Unit selection: -
	Min 0.10 [mm]	Max 8388.00 [mm]	Factory setting 10.00 [mm]
p9521[0...7]	SI motion gearbox encoder/load denominator		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 1	Max 2147000000	Factory setting 1
p9522[0...7]	SI motion gearbox encoder/load numerator		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 1	Max 2147000000	Factory setting 1

p9526	SI motion encoder assignment, control		
SERVO	Can be changed: U, T Data type: Unsigned32 P-Group: Safety Integrated Min 1	Dynamic index: - Units group: - Max 3	Access level: 4 Function diagram: - Unit selection: - Factory setting 1
p9530	SI motion standstill tolerance		
SERVO	Can be changed: U, T Data type: Floating Point P-Group: Safety Integrated Min 0.00 [mm]	Dynamic index: - Units group: LENGTH_M3 Max 100.00 [mm]	Access level: 4 Function diagram: - Unit selection: - Factory setting 1.00 [mm]
p9530	SI motion standstill tolerance		
SERVO (Safety rot)	Can be changed: U, T Data type: Floating Point P-Group: Safety Integrated Min 0.00 [°]	Dynamic index: - Units group: ANGLE Max 100.00 [°]	Access level: 4 Function diagram: - Unit selection: - Factory setting 1.00 [°]
p9531[0...3]	SI motion SG limit values		
SERVO	Can be changed: U, T Data type: Floating Point P-Group: Safety Integrated Min 0.00 [mm/min]	Dynamic index: - Units group: SPEED_LIN_METRIC Max 1000000.00 [mm/min]	Access level: 4 Function diagram: - Unit selection: - Factory setting 2000.00 [mm/min]
p9531[0...3]	SI motion SG limit values		
SERVO (Safety rot)	Can be changed: U, T Data type: Floating Point P-Group: Safety Integrated Min 0.00 [1/min]	Dynamic index: - Units group: SPEED_ROT Max 1000000.00 [1/min]	Access level: 4 Function diagram: - Unit selection: - Factory setting 2000.00 [1/min]
p9532[0...15]	SI motion SG override factor		
SERVO	Can be changed: U, T Data type: Floating Point P-Group: Safety Integrated Min 0.000 [%]	Dynamic index: - Units group: PERCENT Max 100.000 [%]	Access level: 4 Function diagram: - Unit selection: - Factory setting 100.000 [%]
p9534[0...1]	SI motion SE upper limit values		
SERVO	Can be changed: U, T Data type: Floating Point P-Group: Safety Integrated Min -2147000.00 [mm]	Dynamic index: - Units group: LENGTH_M3 Max 2147000.00 [mm]	Access level: 4 Function diagram: - Unit selection: - Factory setting 100000.00 [mm]

p9534[0...1] SI motion SE upper limit values

SERVO (Safety rot)	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: ANGLE	Function diagram: -
	P-Group: Safety Integrated		Unit selection: -
	Min -2147000.00 [°]	Max 2147000.00 [°]	Factory setting 100000.00 [°]

p9535[0...1] SI motion SE lower limit values

SERVO	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: LENGTH_M3	Function diagram: -
	P-Group: Safety Integrated		Unit selection: -
	Min -2147000.00 [mm]	Max 2147000.00 [mm]	Factory setting -100000.00 [mm]

p9535[0...1] SI motion SE lower limit values

SERVO (Safety rot)	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: ANGLE	Function diagram: -
	P-Group: Safety Integrated		Unit selection: -
	Min -2147000.00 [°]	Max 2147000.00 [°]	Factory setting -100000.00 [°]

p9536[0...29] SI motion SN plus cam position

SERVO	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: LENGTH_M3	Function diagram: -
	P-Group: Safety Integrated		Unit selection: -
	Min -2147000.00 [mm]	Max 2147000.00 [mm]	Factory setting 10.00 [mm]

p9536[0...29] SI motion SN plus cam position

SERVO (Safety rot)	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: ANGLE	Function diagram: -
	P-Group: Safety Integrated		Unit selection: -
	Min -2147000.00 [°]	Max 2147000.00 [°]	Factory setting 10.00 [°]

p9537[0...29] SI motion SN minus cam position

SERVO	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: LENGTH_M3	Function diagram: -
	P-Group: Safety Integrated		Unit selection: -
	Min -2147000.00 [mm]	Max 2147000.00 [mm]	Factory setting -10.00 [mm]

p9537[0...29] SI motion SN minus cam position

SERVO (Safety rot)	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: ANGLE	Function diagram: -
	P-Group: Safety Integrated		Unit selection: -
	Min -2147000.00 [°]	Max 2147000.00 [°]	Factory setting -10.00 [°]

p9540	SI motion SN tolerance		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: LENGTH_M3	Unit selection: -
	Min 0.0010 [mm]	Max 10.0000 [mm]	Factory setting 0.1000 [mm]
p9540	SI motion SN tolerance		
SERVO (Safety rot)	Can be changed: U, T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: ANGLE	Unit selection: -
	Min 0.0010 [°]	Max 10.0000 [°]	Factory setting 0.1000 [°]
p9542	SI motion actual value comparison tolerance (crosswise)		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: LENGTH_M3	Unit selection: -
	Min 0.0010 [mm]	Max 360.0000 [mm]	Factory setting 0.1000 [mm]
p9542	SI motion actual value comparison tolerance (crosswise)		
SERVO (Safety rot)	Can be changed: U, T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: ANGLE	Unit selection: -
	Min 0.0010 [°]	Max 360.0000 [°]	Factory setting 0.1000 [°]
p9544	SI motion actual value comparison tolerance (referencing)		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: LENGTH_M3	Unit selection: -
	Min 0.0000 [mm]	Max 36.0000 [mm]	Factory setting 0.0100 [mm]
p9544	SI motion actual value comparison tolerance (referencing)		
SERVO (Safety rot)	Can be changed: U, T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: ANGLE	Unit selection: -
	Min 0.0000 [°]	Max 36.0000 [°]	Factory setting 0.0100 [°]
p9546	SI motion velocity limit n_x		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: SPEED_LIN_METRIC	Unit selection: -
	Min 0.00 [mm/min]	Max 6000.00 [mm/min]	Factory setting 20.00 [mm/min]

p9546	SI motion velocity limit n_x		
SERVO (Safety rot)	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: -
	P-Group: Safety Integrated		Unit selection: -
	Min 0.00 [1/min]	Max 6000.00 [1/min]	Factory setting 20.00 [1/min]
p9548	SI motion SBR actual speed tolerance		
SERVO	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: SPEED_LIN_METRIC	Function diagram: -
	P-Group: Safety Integrated		Unit selection: -
	Min 0.00 [mm/min]	Max 120000.00 [mm/min]	Factory setting 300.00 [mm/min]
p9548	SI motion SBR actual speed tolerance		
SERVO (Safety rot)	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: -
	P-Group: Safety Integrated		Unit selection: -
	Min 0.00 [1/min]	Max 120000.00 [1/min]	Factory setting 300.00 [1/min]
p9549	SI motion slip speed tolerance		
SERVO	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: SPEED_LIN_METRIC	Function diagram: -
	P-Group: Safety Integrated		Unit selection: -
	Min 0.00 [mm/min]	Max 6000.00 [mm/min]	Factory setting 6.00 [mm/min]
p9549	SI motion slip speed tolerance		
SERVO (Safety rot)	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: SPEED_ROT	Function diagram: -
	P-Group: Safety Integrated		Unit selection: -
	Min 0.00 [1/min]	Max 6000.00 [1/min]	Factory setting 6.00 [1/min]
p9550	SI motion SGE changeover tolerance time		
SERVO	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Floating Point	Units group: TIME_M3	Function diagram: -
	P-Group: Safety Integrated		Unit selection: -
	Min 0.00 [ms]	Max 10000.00 [ms]	Factory setting 500.00 [ms]

p9551	SI motion SG changeover delay time		
SERVO	Can be changed: U, T	Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 60000.00 [ms]	Factory setting 100.00 [ms]
p9552	SI motion transition time STOP C to SBH		
SERVO	Can be changed: U, T	Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 10000.00 [ms]	Factory setting 100.00 [ms]
p9553	SI motion transition time STOP D to SBH		
SERVO	Can be changed: U, T	Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 60000.00 [ms]	Factory setting 100.00 [ms]
p9554	SI motion transition time STOP E to SBH		
SERVO	Can be changed: U, T	Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 60000.00 [ms]	Factory setting 100.00 [ms]
p9555	SI motion transition time STOP F to STOP B		
SERVO	Can be changed: U, T	Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 60000.00 [ms]	Factory setting 0.00 [ms]
p9556	SI motion pulse cancellation delay time		
SERVO	Can be changed: U, T	Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 10000.00 [ms]	Factory setting 100.00 [ms]
p9557	SI motion pulse cancelation test time		
SERVO	Can be changed: U, T	Access level: 4	
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 10000.00 [ms]	Factory setting 100.00 [ms]

p9558	SI motion acceptance test mode, time limit		
SERVO	Can be changed: U, T Data type: Floating Point P-Group: Safety Integrated Min 5000.00 [ms]	Dynamic index: - Units group: TIME_M3 Max 100000.00 [ms]	Access level: 4 Function diagram: - Unit selection: - Factory setting 40000.00 [ms]
p9560	SI motion pulse cancellation shutdown speed		
SERVO	Can be changed: U, T Data type: Floating Point P-Group: Safety Integrated Min 0.00 [mm/min]	Dynamic index: - Units group: SPEED_LIN_METRIC Max 6000.00 [mm/min]	Access level: 4 Function diagram: - Unit selection: - Factory setting 0.00 [mm/min]
p9560	SI motion pulse cancellation shutdown speed		
SERVO (Safety rot)	Can be changed: U, T Data type: Floating Point P-Group: Safety Integrated Min 0.00 [1/min]	Dynamic index: - Units group: SPEED_ROT Max 6000.00 [1/min]	Access level: 4 Function diagram: - Unit selection: - Factory setting 0.00 [1/min]
p9561	SI motion SG stop response		
SERVO	Can be changed: U, T Data type: Integer16 P-Group: Safety Integrated Min 0	Dynamic index: - Units group: - Max 14	Access level: 4 Function diagram: - Unit selection: - Factory setting 5
p9562	SI motion SE stop response		
SERVO	Can be changed: U, T Data type: Integer16 P-Group: Safety Integrated Min 2	Dynamic index: - Units group: - Max 4	Access level: 4 Function diagram: - Unit selection: - Factory setting 2
p9563[0...3]	SI motion SG-specific stop response		
SERVO	Can be changed: U, T Data type: Integer16 P-Group: Safety Integrated Min 0	Dynamic index: - Units group: - Max 14	Access level: 4 Function diagram: - Unit selection: - Factory setting 2
p9570	SI motion acceptance test mode		
SERVO	Can be changed: U, T Data type: Integer16 P-Group: Safety Integrated Min 0000 hex	Dynamic index: - Units group: - Max 00AC hex	Access level: 4 Function diagram: - Unit selection: - Factory setting 0000 hex

r9571	SI motion acceptance test status		
SERVO	Can be changed: -		Access level: 4
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p9580	SI motion pulse cancellation delay time after bus failure		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Floating Point	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: TIME_M3	Unit selection: -
	Min	Max	Factory setting
	0.00 [ms]	800.00 [ms]	0.00 [ms]
r9590[0...2]	SI motion version, safe motion monitoring functions		
SERVO	Can be changed: -		Access level: 4
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p9601	SI enables safety functions (Control Unit)		
SERVO	Can be changed: C2		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0000 bin	0001 bin	0000 bin
p9602	SI enable safe brake control (Control Unit)		
SERVO	Can be changed: C2		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: 2814
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0	1	0
p9620	BI: SI signal source for safe standstill (Control Unit)		
SERVO	Can be changed: C2		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2810
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	0
p9650	SI SGE changeover tolerance time (Control Unit)		
SERVO	Can be changed: C2		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 2810
	P-Group: Safety Integrated	Units group: TIME_M3	Unit selection: -
	Min	Max	Factory setting
	0.00 [ms]	2000.00 [ms]	500.00 [ms]

p9658	SI transition time STOP F to STOP A (Control Unit)		
SERVO	Can be changed: C2		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 2802
	P-Group: Safety Integrated	Units group: TIME_M3	Unit selection: -
	Min 0.00 [ms]	Max 30000.00 [ms]	Factory setting 0.00 [ms]
p9659	SI forced checking procedure timer		
SERVO	Can be changed: C2		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 2810
	P-Group: Safety Integrated	Units group: TIME_H	Unit selection: -
	Min 0.00 [h]	Max 9000.00 [h]	Factory setting 8.00 [h]
r9710[0...1]	SI motion diagnostics result list 1		
SERVO	Can be changed: -		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9711[0...1]	SI motion diagnostics result list 2		
SERVO	Can be changed: -		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9718	CO/BO: SI motion control signals 1		
SERVO	Can be changed: -		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9719	CO/BO: SI motion control signals 2		
SERVO	Can be changed: -		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9725	SI motion, diagnostics STOP F		
SERVO	Can be changed: -		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

p9726	SI motion, user agreement selection/de-selection		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min 0000 hex	Max 00AC hex	Factory setting 0000 hex
r9727	SI motion user agreement, inside the drive		
SERVO	Can be changed: -		Access level: 3
	Data type: Integer16	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9728[0...1]	SI motion actual checksum, SI parameters		
SERVO	Can be changed: -		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
p9729[0...1]	SI motion reference checksum, SI parameters		
SERVO	Can be changed: U, T		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
r9744	SI message buffer changes, counter		
SERVO	Can be changed: -		Access level: 4
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Messages	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9747[0...63]	SI message code		
SERVO	Can be changed: -		Access level: 4
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Messages	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9748[0...63]	SI message time received in milliseconds		
SERVO	Can be changed: -		Access level: 4
	Data type: Unsigned32	Dynamic index: -	Function diagram: -
	P-Group: Messages	Units group: TIME_M3	Unit selection: -
	Min - [ms]	Max - [ms]	Factory setting - [ms]

r9749[0...63]	SI message value			
SERVO	Can be changed: -			Access level: 4
	Data type: Integer32	Dynamic index: -		Function diagram: -
	P-Group: Messages	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
p9752	SI message cases, counter			
SERVO	Can be changed: U, T			Access level: 4
	Data type: Unsigned16	Dynamic index: -		Function diagram: -
	P-Group: Messages	Units group: -		Unit selection: -
	Min	Max		Factory setting
	0	65535		0
r9753[0...63]	SI message value for float values			
SERVO	Can be changed: -			Access level: 4
	Data type: Floating Point	Dynamic index: -		Function diagram: -
	P-Group: Messages	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
r9754[0...63]	SI message time received in days			
SERVO	Can be changed: -			Access level: 4
	Data type: Unsigned16	Dynamic index: -		Function diagram: -
	P-Group: Messages	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
r9755[0...63]	SI message time removed in milliseconds			
SERVO	Can be changed: -			Access level: 4
	Data type: Unsigned32	Dynamic index: -		Function diagram: -
	P-Group: Messages	Units group: TIME_M3		Unit selection: -
	Min	Max		Factory setting
	- [ms]	- [ms]		- [ms]
r9756[0...63]	SI message time removed in days			
SERVO	Can be changed: -			Access level: 4
	Data type: Unsigned16	Dynamic index: -		Function diagram: -
	P-Group: Messages	Units group: -		Unit selection: -
	Min	Max		Factory setting
	-	-		-
p9759	SI, acknowledge messages, drive object			
SERVO	Can be changed: U, T			Access level: 4
	Data type: Unsigned8	Dynamic index: -		Function diagram: -
	P-Group: Messages	Units group: -		Unit selection: -
	Min	Max		Factory setting
	0	1		0

p9761	SI password input		
SERVO	Can be changed: C1, T		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2800
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p9762	SI password new		
SERVO	Can be changed: C2		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2800
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p9763	SI password acknowledgment		
SERVO	Can be changed: C2		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2800
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
r9770[0...2]	SI vers. safety fcts that run indep. in the drive (Control Unit)		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 2802
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9771	SI common functions (Control Unit)		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2804
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9772	CO/BO: SI status (Control Unit)		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2804
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9773	CO/BO: SI status (Control Unit + Motor Module)		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2804
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

r9774	CO/BO: SI status (safe standstill group)		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2804
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r9780	SI monitoring clock cycle (Control Unit)		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 2802
	P-Group: Safety Integrated	Units group: TIME_M3	Unit selection: -
	Min	Max	Factory setting
	- [ms]	- [ms]	- [ms]
r9794[0...19]	SI crosswise comparison list (Control Unit)		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 2802
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r9795	SI diagnostics STOP F (Control Unit)		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2802
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
r9798	SI actual checksum SI parameters (Control Unit)		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2800
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min	Max	Factory setting
	-	-	-
p9799	SI reference checksum SI parameters (Control Unit)		
SERVO	Can be changed: C2		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2800
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0000 hex	FFFF FFFF hex	0000 hex
p9801	SI enables safety functions (Motor Module)		
SERVO	Can be changed: C2		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min	Max	Factory setting
	0000 bin	0001 bin	0000 bin

p9802	SI enable safe brake control (Motor Module)		
SERVO	Can be changed: C2		Access level: 3
	Data type: Integer32	Dynamic index: -	Function diagram: 2814
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 0	Max 1	Factory setting 0
p9810	SI PROFIsafe address (Motor Module)		
SERVO	Can be changed: C2		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFE hex	Factory setting 0000 hex
p9850	SI SGE changeover tolerance time (Motor Module)		
SERVO	Can be changed: C2		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 2810
	P-Group: Safety Integrated	Units group: TIME_M6	Unit selection: -
	Min 0.00 [µs]	Max 2000000.00 [µs]	Factory setting 500000.00 [µs]
p9858	SI transition time STOP F to STOP A (Control Unit)		
SERVO	Can be changed: C2		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 2802
	P-Group: Safety Integrated	Units group: TIME_M6	Unit selection: -
	Min 0.00 [µs]	Max 30000000.00 [µs]	Factory setting 0.00 [µs]
r9870[0...2]	SI version (Motor Module)		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 2802
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9871	SI common functions (Motor Module)		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2804
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9872	CO/BO: SI status list (Motor Module)		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2804
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -

r9880	SI monitoring clock cycle (Motor Module)		
SERVO	Can be changed: -		Access level: 3
	Data type: Floating Point	Dynamic index: -	Function diagram: 2802
	P-Group: Safety Integrated	Units group: TIME_M3	Unit selection: -
	Min - [ms]	Max - [ms]	Factory setting - [ms]
r9881[0...11]	SI motion Sensor Module Node Identifier control		
SERVO	Can be changed: -		Access level: 4
	Data type: Unsigned8	Dynamic index: -	Function diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9890[0...2]	SI version (Sensor Module)		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9894[0...19]	SI crosswise comparison list (Motor Module)		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned16	Dynamic index: -	Function diagram: 2802
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9895	SI diagnostics STOP F (Motor Module)		
SERVO	Can be changed: -		Access level: 2
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2802
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
r9898	SI actual checksum SI parameters (Motor Module)		
SERVO	Can be changed: -		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2800
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min -	Max -	Factory setting -
p9899	SI reference checksum SI parameters (Motor Module)		
SERVO	Can be changed: C2		Access level: 3
	Data type: Unsigned32	Dynamic index: -	Function diagram: 2800
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex

p9904	Topology comparison, acknowledge differences		
CU_CX32, CU_I	Can be changed: C1(1)	Dynamic index: -	Access level: 3
	Data type: Unsigned32	Units group: -	Function diagram: -
	P-Group: Topology		Unit selection: -
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
p9905	Device specialization		
CU_CX32, CU_I	Can be changed: C1(1)	Dynamic index: -	Access level: 3
	Data type: Unsigned16	Units group: -	Function diagram: -
	P-Group: Topology		Unit selection: -
	Min 0	Max 1	Factory setting 0
p9906	Topology comparison, comparison stage of all components		
CU_CX32, CU_I	Can be changed: C1(1)	Dynamic index: -	Access level: 3
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Topology		Unit selection: -
	Min 0	Max 99	Factory setting 0
p9907	Topology comparison, comparison stage of the component number		
CU_CX32, CU_I	Can be changed: C1(1)	Dynamic index: -	Access level: 3
	Data type: Unsigned8	Units group: -	Function diagram: -
	P-Group: Topology		Unit selection: -
	Min 0	Max 199	Factory setting 0
p9908	Topology comparison, comparison stage of a component		
CU_CX32, CU_I	Can be changed: C1(1)	Dynamic index: -	Access level: 3
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Topology		Unit selection: -
	Min 0	Max 99	Factory setting 0
p9909	Topology comparison, component replacement		
CU_CX32, CU_I	Can be changed: C1(1)	Dynamic index: -	Access level: 3
	Data type: Unsigned8	Units group: -	Function diagram: -
	P-Group: Topology		Unit selection: -
	Min 0	Max 1	Factory setting 1
p9910	Transfer additional components into the target topology		
CU_CX32, CU_I	Can be changed: C1(1)	Dynamic index: -	Access level: 1
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: Topology		Unit selection: -
	Min 0	Max 5	Factory setting 1

p9915	DRIVE-CLiQ data transfer error, shutdown threshold, master			
CU_CX32, CU_I	Can be changed: C1(1)		Access level: 4	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: Topology	Units group: -	Unit selection: -	
	Min 0000 hex	Max 0007 07FF hex	Factory setting 0007 02FF hex	
p9916	DRIVE-CLiQ data transfer error, shutdown threshold, slave			
CU_CX32, CU_I	Can be changed: C1(1)		Access level: 4	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: Topology	Units group: -	Unit selection: -	
	Min 0000 hex	Max 0007 07FF hex	Factory setting 0007 02FF hex	
r9925[0...99]	CompactFlash card file error			
CU_CX32, CU_I	Can be changed: -		Access level: 2	
	Data type: Unsigned8	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min -	Max -	Factory setting -	
r9926	CompactFlash card check status			
CU_CX32, CU_I	Can be changed: -		Access level: 2	
	Data type: Unsigned8	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min -	Max -	Factory setting -	
p9930[0...8]	System logbook activation			
CU_CX32, CU_I	Can be changed: U, T		Access level: 3	
	Data type: Unsigned8	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min 0	Max 255	Factory setting 0	
p9931[0...99]	System logbook module selection			
CU_CX32, CU_I	Can be changed: U, T		Access level: 3	
	Data type: Unsigned32	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex	
p9932	Save system logbook EEPROM			
CU_CX32, CU_I	Can be changed: U, T		Access level: 3	
	Data type: Unsigned8	Dynamic index: -	Function diagram: -	
	P-Group: -	Units group: -	Unit selection: -	
	Min 0	Max 255	Factory setting 0	

p9950 Runtime measurement, control

CU_CX32, CU_I	Can be changed: U, T	Dynamic index: -	Access level: 4
	Data type: Integer16	Units group: -	Function diagram: -
	P-Group: -		Unit selection: -
	Min 0	Max 3	Factory setting 0

r9976[0...7] System load

CU_CX32, CU_I	Can be changed: -	Dynamic index: -	Access level: 3
	Data type: Floating Point	Units group: PERCENT	Function diagram: -
	P-Group: -		Unit selection: -
	Min - [%]	Max - [%]	Factory setting - [%]

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Siemens AG
 A&D MC MS
 P. O. Box 3180
 D-91050 Erlangen
 Federal Republic of Germany
 Tel. +49 (0) 180 50 50 - 222 [Hotline]
 Fax +49 (0) 9131 98 - 63315[Documentation]
 email: mailto:motioncontrol.docu@siemens.com

Suggestions

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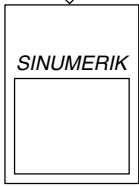
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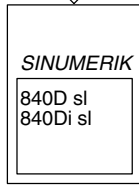
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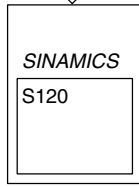
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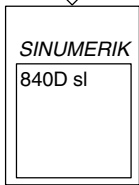


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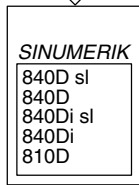


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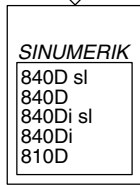
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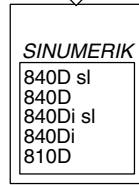
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– HMI Embedded *)
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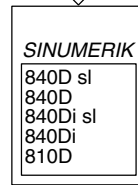
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Diagnostics Guide *)

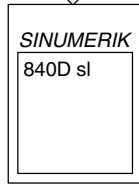
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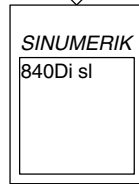
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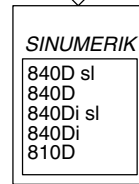
Equipment Manual Operator Components *)



Commissioning Manual CNC *)
– Part 1 NCK, PLC, Drive
– Part 2 HMI
– Part 3 ShopMill
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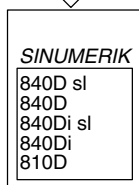


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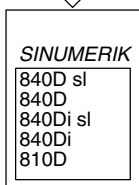


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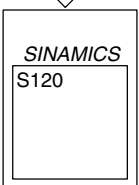
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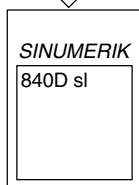
Description of Functions
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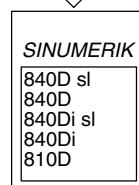
Description of Functions
– Synchronized Actions
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Description of Functions
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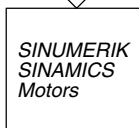


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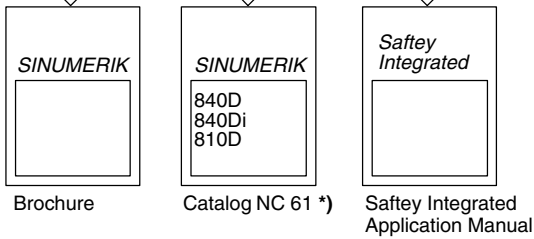


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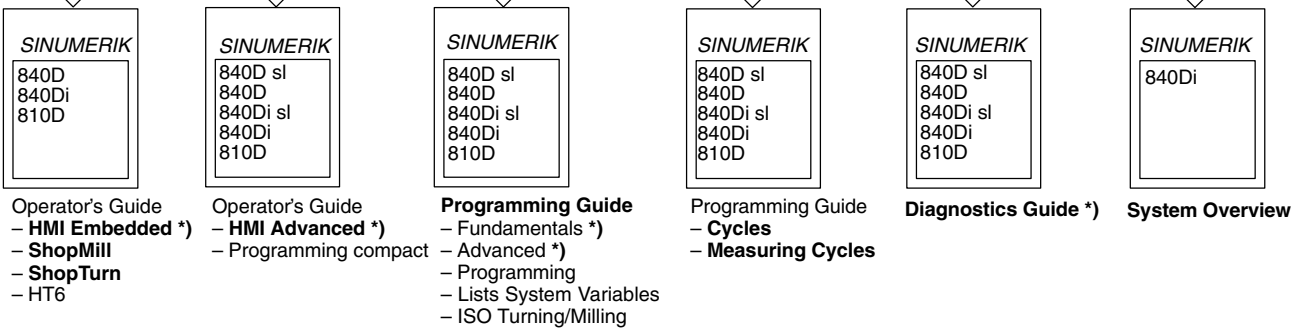
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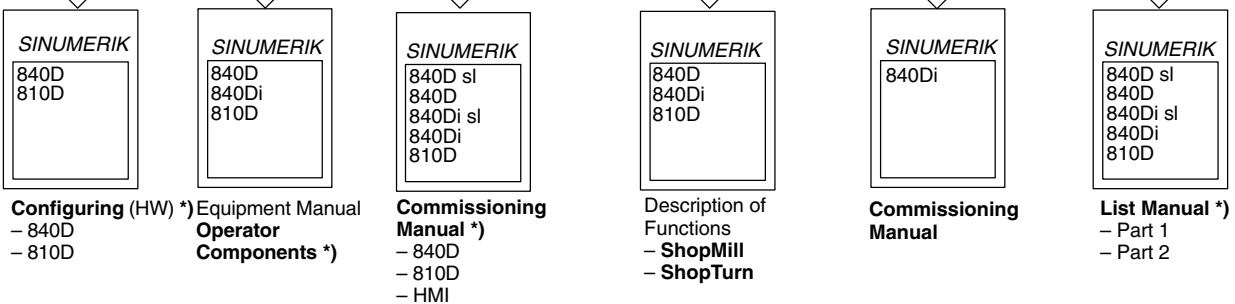
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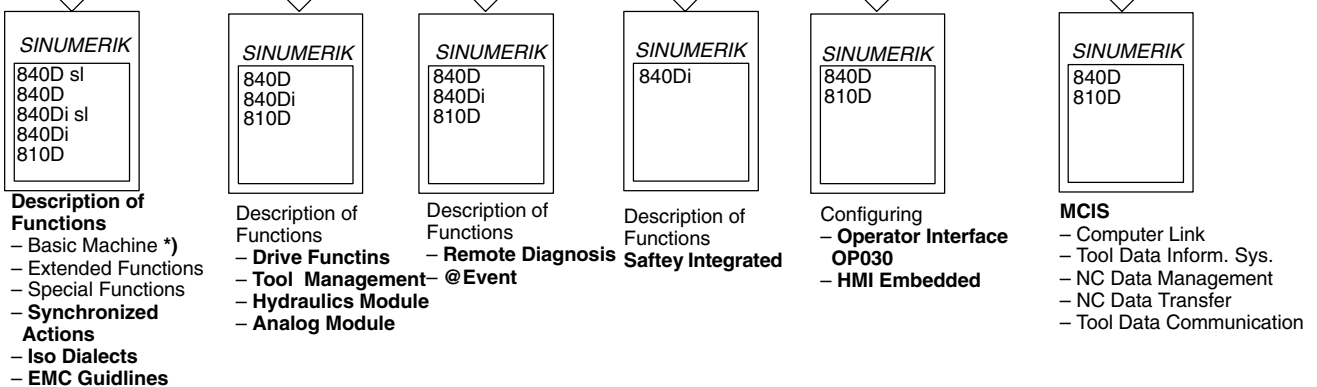
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