SIEMENS

Data sheet

6ES7516-3AN01-0AB0



*** Spare part *** SIMATIC S7-1500, CPU 1516-3 PN/DP, central processing unit with work memory 1 MB for program and 5 MB for data, 1st interface: PROFINET IRT with 2-port switch, 2nd interface: PROFINET RT, 3rd interface: PROFIBUS, 10 ns bit performance, SIMATIC Memory Card required

General information	
Product type designation	CPU 1516-3 PN/DP
HW functional status	FS03
Firmware version	V2.9
Product function	
• I&M data	Yes; I&M0 to I&M3
Isochronous mode	Yes; Distributed and central; with minimum OB 6x cycle of 375 μs (distributed) and 1 ms (central)
Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	V17 (FW V2.9) / V13 SP1 Update 4 (FW V1.8) or higher
Configuration control	
via dataset	Yes
Display	
Screen diagonal [cm]	6.1 cm
Control elements	
Number of keys	6
Mode selector switch	1
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Mains buffering	
 Mains/voltage failure stored energy time 	5 ms
Repeat rate, min.	1/s
Input current	
Current consumption (rated value)	0.85 A
Inrush current, max.	2.4 A; Rated value
l²t	0.02 A ² ·s
Power	
Infeed power to the backplane bus	12 W
Power consumption from the backplane bus (balanced)	6.7 W
Power loss	
Power loss, typ.	7 W
Memory	
Number of slots for SIMATIC memory card	1
SIMATIC memory card required	Yes
Work memory	
 integrated (for program) 	1 Mbyte

• integrated (for data)	5 Mbyte
Load memory	
Plug-in (SIMATIC Memory Card), max.	32 Gbyte
Backup	
maintenance-free	Yes
CPU processing times	
for bit operations, typ.	10 ns
for word operations, typ.	12 ns
for fixed point arithmetic, typ.	16 ns
for floating point arithmetic, typ.	64 ns
CPU-blocks	
Number of elements (total)	8 000; Blocks (OB, FB, FC, DB) and UDTs
DB	
Number range	1 60 999; subdivided into: number range that can be used by the user: 1 59 999, and number range of DBs created via SFC 86: 60 000 60 999
• Size, max.	5 Mbyte; For DBs with absolute addressing, the max. size is 64 KB
FB	
Number range	0 65 535
• Size, max.	1 Mbyte
FC	
Number range	0 65 535
• Size, max.	1 Mbyte
OB	
• Size, max.	1 Mbyte
Number of free cycle OBs	100
Number of time alarm OBs	20
 Number of delay alarm OBs 	20
 Number of cyclic interrupt OBs 	20; With minimum OB 3x cycle of 250 μs
 Number of process alarm OBs 	50
 Number of DPV1 alarm OBs 	3
 Number of isochronous mode OBs 	3
 Number of technology synchronous alarm OBs 	2
 Number of startup OBs 	100
 Number of asynchronous error OBs 	4
 Number of synchronous error OBs 	2
 Number of diagnostic alarm OBs 	1
Nesting depth	
 per priority class 	24
Counters, timers and their retentivity	
S7 counter	
• Number	2 048
Retentivity	
— adjustable	Yes
IEC counter	
• Number	Any (only limited by the main memory)
Retentivity	
— adjustable	Yes
S7 times	
• Number	2 048
Retentivity	
— adjustable	Yes
IEC timer	
• Number	Any (only limited by the main memory)
Retentivity	
— adjustable	Yes
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	512 kbyte; In total; available retentive memory for bit memories, timers,
Extended retentive data area (incl. timers, counters, flags),	counters, DBs, and technology data (axes): 472 KB 5 Mbyte; When using PS 6 0W 24/48/60 V DC HF
max.	
Flag	
• Size, max.	16 kbyte
 Number of clock memories 	8; 8 clock memory bit, grouped into one clock memory byte

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Data blocks	
Retentivity adjustable	Yes
Retentivity preset	No
Local data	
• per priority class, max.	64 kbyte; max. 16 KB per block
Address area	
Number of IO modules	8 192; max. number of modules / submodules
I/O address area	
Inputs	32 kbyte; All inputs are in the process image
Outputs	32 kbyte; All outputs are in the process image
per integrated IO subsystem	
— Inputs (volume)	8 kbyte
— Outputs (volume)	8 kbyte
per CM/CP	
— Inputs (volume)	8 kbyte
— Outputs (volume)	8 kbyte
Subprocess images Number of subprocess images, max. 	32
Hardware configuration	
Number of distributed IO systems	64; A distributed I/O system is characterized not only by the integration of distributed I/O via PROFINET or PROFIBUS communication modules, but also by the connection of I/O via AS-i master modules or links (e.g. IE/PB-Link)
Number of DP masters	
 integrated 	1
• Via CM	8; A maximum of 8 CMs/CPs (PROFIBUS, PROFINET, Ethernet) can be inserted in total
Number of IO Controllers	
integratedVia CM	2 8; A maximum of 8 CMs/CPs (PROFIBUS, PROFINET, Ethernet) can be inserted in total
Rack	
Modules per rack, max.	32; CPU + 31 modules
Number of lines, max.	1
PtP CM	
Number of PtP CMs	the number of connectable PtP CMs is only limited by the number of available slots
Time of day	
Clock	
• Туре	Hardware clock
Backup time	6 wk; At 40 °C ambient temperature, typically
Deviation per day, max.	10 s; Typ.: 2 s
Operating hours counter	
Number Clock symphronization	16
Clock synchronization	Yes
 supported to DP, master 	Yes
• in AS, master	Yes
• in AS, slave	Yes
on Ethernet via NTP	Yes
Interfaces	
Number of PROFINET interfaces	2
Number of PROFIBUS interfaces	1
1. Interface	
Interface types	
RJ 45 (Ethernet)	Yes; X1
Number of ports	2
integrated switch	Yes
Protocols	
IP protocol	Yes; IPv4
PROFINET IO Controller	Yes
PROFINET IO Device	Yes
 SIMATIC communication 	Yes
 Open IE communication 	Yes; Optionally also encrypted

Web server	Yes
Media redundancy	Yes
PROFINET IO Controller	
Services	
— PG/OP communication	Yes
— Isochronous mode	Yes
— Direct data exchange	Yes; Requirement: IRT and isochronous mode (MRPD optional)
— IRT	Yes
— PROFlenergy	Yes; per user program
— Prioritized startup	Yes; Max. 32 PROFINET devices
- Number of connectable IO Devices, max.	256; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET
— Of which IO devices with IRT, max.	64
 — Number of connectable IO Devices for RT, 	256
max.	
— of which in line, max.	256
 Number of IO Devices that can be 	8; in total across all interfaces
simultaneously activated/deactivated, max.	
 Number of IO Devices per tool, max. 	8
— Updating times	The minimum value of the update time also depends on communication share set for PROFINET IO, on the number of IO devices, and on the quantity of configured user data
Update time for IRT	
— for send cycle of 250 μs	250 μs to 4 ms; Note: In the case of IRT with isochronous mode, the minimum update time of 375 μs of the isochronous OB is decisive
— for send cycle of 500 µs	500 µs to 8 ms
— for send cycle of 1 ms	1 ms to 16 ms
— for send cycle of 2 ms	2 ms to 32 ms
— for send cycle of 4 ms	4 ms to 64 ms
— With IRT and parameterization of "odd" send	Update time = set "odd" send clock (any multiple of 125 µs: 375 µs, 625
cycles	μs 3 875 μs)
Update time for RT	
— for send cycle of 250 μs	250 µs to 128 ms
— for send cycle of 500 μs	500 µs to 256 ms
 for send cycle of 1 ms 	1 ms to 512 ms
— for send cycle of 2 ms	2 ms to 512 ms
— for send cycle of 4 ms	4 ms to 512 ms
PROFINET IO Device	
Services	
— PG/OP communication	Yes
— Isochronous mode	No
— IRT	Yes
— PROFlenergy	Yes; per user program
— Shared device	Yes
 Number of IO Controllers with shared device, 	4
max. — activation/deactivation of I-devices	Vest per user program
Activation/deactivation of I-devices Asset management record	Yes; per user program Yes; per user program
-	
2. Interface	
Interface types	Voc. V2
RJ 45 (Ethernet)	Yes; X2 1
Number of ports integrated switch	1 No
integrated switch Protocols	
IP protocol	Yes; IPv4
PROFINET IO Controller	Yes
PROFINETIO Device	Yes
SIMATIC communication	Yes
 Open IE communication Web server 	Yes; Optionally also encrypted Yes
Media redundancy PROFINET IO Controller	No
Services	
— PG/OP communication	Yes
 — PG/OP communication — Isochronous mode 	No
	NU

— Direct data exchange	No
— IRT	No
— PROFlenergy	Yes; per user program
— Prioritized startup	No
— Number of connectable IO Devices, max.	32; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET
 — Number of connectable IO Devices for RT, max. 	32
— of which in line, max.	32
— Number of IO Devices that can be	
simultaneously activated/deactivated, max.	8; in total across all interfaces
— Number of IO Devices per tool, max.	8
— Updating times	The minimum value of the update time also depends on communication
	share set for PROFINET IO, on the number of IO devices, and on the quantity of configured user data
Update time for RT	
— for send cycle of 1 ms	1 ms to 512 ms
PROFINET IO Device	
Services	
— PG/OP communication	Yes
— Isochronous mode	No
— IRT	No
— PROFlenergy	Yes; per user program
— Prioritized startup	No
— Shared device	Yes
— Number of IO Controllers with shared device,	4
max.	•
 activation/deactivation of I-devices 	Yes; per user program
 Asset management record 	Yes; per user program
3. Interface	
Interface types	Ver V2
RS 485	Yes; X3
Number of ports	1
Desta sala	
Protocols	Ver
PROFIBUS DP master	Yes
PROFIBUS DP masterPROFIBUS DP slave	No
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication 	
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master 	No Yes
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. 	No Yes 48; for the integrated PROFIBUS DP interface
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master 	No Yes 48; for the integrated PROFIBUS DP interface 125; In total, up to 1 000 distributed I/O devices can be connected via
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. Number of DP slaves, max. 	No Yes 48; for the integrated PROFIBUS DP interface
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. Number of DP slaves, max. Services 	No Yes 48; for the integrated PROFIBUS DP interface 125; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. Number of DP slaves, max. Services — PG/OP communication 	No Yes 48; for the integrated PROFIBUS DP interface 125; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET Yes
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. Number of DP slaves, max. Services PG/OP communication Equidistance 	No Yes 48; for the integrated PROFIBUS DP interface 125; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET Yes Yes
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. Number of DP slaves, max. Services PG/OP communication Equidistance Isochronous mode 	No Yes 48; for the integrated PROFIBUS DP interface 125; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET Yes Yes Yes
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. Number of DP slaves, max. Services — PG/OP communication — Equidistance — Isochronous mode — Activation/deactivation of DP slaves 	No Yes 48; for the integrated PROFIBUS DP interface 125; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET Yes Yes
PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. Number of DP slaves, max. Services — PG/OP communication — Equidistance — Isochronous mode — Activation/deactivation of DP slaves Interface types	No Yes 48; for the integrated PROFIBUS DP interface 125; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET Yes Yes Yes
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. Number of DP slaves, max. Services PG/OP communication Equidistance Isochronous mode Activation/deactivation of DP slaves Interface types RJ 45 (Ethernet) 	No Yes 48; for the integrated PROFIBUS DP interface 125; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET Yes Yes Yes Yes
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. Number of DP slaves, max. Number of DP slaves, max. Services PG/OP communication Equidistance Isochronous mode Activation/deactivation of DP slaves Interface types RJ 45 (Ethernet) 100 Mbps 	No Yes 48; for the integrated PROFIBUS DP interface 125; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET Yes Yes Yes Yes
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 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. Number of DP slaves, max. Number of DP slaves, max. Services PG/OP communication Equidistance Isochronous mode Activation/deactivation of DP slaves Interface types RJ 45 (Ethernet) 100 Mbps Autonegotiation Autorossing 	No Yes 48; for the integrated PROFIBUS DP interface 125; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET Yes Yes Yes Yes Yes
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 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. Number of DP slaves, max. Services PG/OP communication Equidistance Isochronous mode Activation/deactivation of DP slaves Interface types RJ 45 (Ethernet) 100 Mbps Autonegotiation Autorossing Industrial Ethernet status LED RS 485 Transmission rate, max. PROFIsafe Number of connections, max. Number of connections, max. Number of connections, max. Number of connections via integrated interfaces Number of S7 routing paths 	No Yes 48; for the integrated PROFIBUS DP interface 125; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. Number of DP slaves, max. Services PG/OP communication Equidistance Isochronous mode Activation/deactivation of DP slaves Interface types RJ 45 (Ethernet) 100 Mbps Autonegotiation Autorossing Industrial Ethernet status LED RS 485 Transmission rate, max. PROFIsafe Number of connections, max. Number of connections, max. Number of connections reserved for ES/HMI/web Number of S7 routing paths 	No Yes 48; for the integrated PROFIBUS DP interface 125; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET Yes Yes Yes Yes Yes Yes 12 Mbit/s 12 Mbit/s No 256; via integrated interfaces of the CPU and connected CPs / CMs 10 128 16
 PROFIBUS DP master PROFIBUS DP slave SIMATIC communication PROFIBUS DP master Number of connections, max. Number of DP slaves, max. Services PG/OP communication Equidistance Isochronous mode Activation/deactivation of DP slaves Interface types RJ 45 (Ethernet) 100 Mbps Autonegotiation Autorossing Industrial Ethernet status LED RS 485 Transmission rate, max. PROFIsafe Number of connections, max. Number of connections, max. Number of connections, max. Number of connections via integrated interfaces Number of S7 routing paths 	No Yes 48; for the integrated PROFIBUS DP interface 125; In total, up to 1 000 distributed I/O devices can be connected via AS-i, PROFIBUS or PROFINET Yes Yes Yes Yes Yes Yes 12 Mbit/s 12 Mbit/s 256; via integrated interfaces of the CPU and connected CPs / CMs 10 128

- Mela redundancy - MelP		
	— Media redundancy	only via 1st interface (X1)
 MRP interconnection; supported Yes; as MRP interconding to IEC 62439-2 Edition 3.0 Yes; For MRP, bumpless for MRPD SubArtClasmmunication SUBARTCLasmmunication SPOOP Demonstriction as server SPOOP Demonstriction as server Yes; exception with TLS V1.3 pre-selected STruing Yes; exception with TLS V1.3 pre-selected Yes; exception Yes; Yes; exception the rest; yes; exception the pre-selected Yes; exception Yes; Yes; exception Yes; Yes; exception the pre-selected Yes; exception Yes; Yes; exception Yes; Yes; exception the pre-selected Yes; Yes; fax: 5 muticast circuits Yes; Yes; Yes; Sandard and user pages Yes; Yes; Yes; Yes; Yes; Yes; Yes; Yes;		
MRPD	- MRP interconnection supported	-
- Switchover fune on line heres, typ. 200 ms; For MRP. pumpless for MRP.D SIMULE communication • PCOP for communication as server • ST routing • Strating • Strating • Strating • User data per job, max. • TCP/IP • Data length, max. • Data length, max. • Data length, max. • User data per job, max. • TCP/IP • Data length, max. • User data per job, max. • TCP/IP • TCP/IP • Data length, max. • USE • USE		
 – Number of stations in the ring, max. SPC/CP communication Yes: encryption with TLS V1.3 pre-selected SF communication, as elever Yes SF communication, as elever Yes Yes User data proph, max. See online help (S7 communication, user data size) Openile communication TCPIP TCPIP<td></td><td></td>		
SIMATIC communication Yes, encryption with TLS V1.3 pre-selected • PCOP Communication, as select Yes, • Data record routing Yes, • S7 communication, as select Yes, • S7 communication, as select Yes, • User data per Joh, max. See conline help (S7 communication, user data size) Open LE communication Yes, • TCP/IP Yes • Total length, max. Get ktypte - Data length, max. Z ktypte; - DDP muticest Yes, • DNCP Yes • DNCP Yes • DNCP Yes • DNS Yes, Optional Web server Yes, Standard and user pages • HTTP Yes, Standard and user pages • DRC AC Clear Yes • DRC AC Clear Yes • PORDUCAS Yes • DRCP Yes • DRCP Yes • DRCP Yes • DRome of a stander dand user pag		
PGGP communication, as server For couling Yes S7 communication, as server Yes S7 communication, as server Yes Yes S7 communication, as server Yes	-	
 SY routing Date record routing Secont routing<!--</td--><td></td><td>Yes: encryption with TLS V1.3 pre-selected</td>		Yes: encryption with TLS V1.3 pre-selected
balar second routing Yes SP communication, as client Yes User data per job, max. See online help (S7 communication, user data size) OPCINE: See online help (S7 communication, user data size) OPCINE: See online help (S7 communication, user data size) OPCINE: See online help (S7 communication, user data size) OPCINE: See online help (S7 communication, user data size) OPCINE: See online help (S7 communication, user data size) See online help (S7 communication, user data size) See online help (S7 communication, user data size) OPCINE: See online help (S7 communication, user data size) See online help (S7 communication, user data size) See online help (S7 communication, user data size) See online help (S7 communication, user data size) See online help (S7 communication, user data size) - OPC IN Yes See online help (S7 communication, user data size) - Dobal length, max. G4 ktyle Yes - DDP multicest Yes, Max. 5 multicast circuits - DDP multicest Yes - Second yes Yes - Second yes Yes - Number of commetions, max. Yes - Application authentication Yes - Number of commetions, max. 100 - Number of simultaneous calls of the client instruc		
 S7 communication, as server S7 communication, as server S7 communication, as server S7 communication, as server See online help (S7 communication, user data size) Open Lie communication TCO-PI TCO-PI Total length, max. Seave plassive connections per port, supported SIS-On-TCP (RFC1006) Yes Soon TCP (RFC1006) Yes Soon TCP (RFC1006) Yes Data length, max. BANP Data length, max. Abyte: 1422 bytes for UDP broadcast DHCP Data length, max. BKARS DHCP Yes SMMP Yes Standard and user pages HTTPS Yes: Maddard and user pages OPC UA Seaver Standard and user pages OPC UA Seaver Standard and user pages OPC UA Seaver Standard and user pages OPC UA Standard and user pages OPC UA Seaver 	0	
 S* Communication, as client User data per job, max. Gen IE communication TCP/IP Obtal length, max. K kbyte - several passive connections per port, supported ISO-on-TCP (IRC1006) - Data length, max. K kbyte UOP - Data length, max. K kbyte Ves S kbasever Ves Ves S kondard and user pages Ves Ves Notifier Ves Notifier Ves S kondard and user pages Ves Ves Available security policies: None, Basici 28Rsa15, Basic 256Rsa15, Basic	C C	Yes
• User data per job, max. See online help (S7 communication, user data size) • TCP/IP Yes - Data length, max. 64 ktyte - several passive connections per port, supported Yes - Data length, max. 64 ktyte - Data length, max. 64 ktyte - Data length, max. 2 ktyte; 1472 bytes for UDP broadcast - UDP mutitoast Yes; - DAta length, max. 2 ktyte; 1472 bytes for UDP broadcast - UDP mutitoast Yes; - DHCP Yes • DHCP Yes; • DNS Yes; • DNS Yes; • DMP Yes; • DLP Yes; • DLP Yes; • DLP Yes; • DP Yes; • DCP Yes; • LLP Yes; • HTTPS Yes; • Polication authentication Yes; • Application authentication Yes; • Application authentication Yes; • Number of connecofors, max. 10		
Open IE communication Yes • TCP/IP Ves - Jata length, max. 64 kbyte - several passive connections per port, supported Yes • ISD-on-TCP (RC-1006) Yes - Data length, max. 64 kbyte • UDP - Data length, max. - UDP muticast Yes, Max. 5 muticcast circuits • DHCP Yes • DNS Yes • DNS Yes • DDP Yes • DDP Yes • DNS Yes • DPCP Yes • DCP Yes • Encryption Yes • HTTP Yes • HTTP Yes • HTTP Yes • Pacinatine license required Yes • OPC UA Yes • Number of oncencins, max. 10 - Number of ondees the circle intinefaces, recommended max. 2000 • Number of elements for one call of OPC_UA, NedGetHandleList, max. 200 • Number of simultaneous calls of the client interfaces, recommended max. 200		See online help (S7 communication, user data size)
 Data length, max. geveral passive connections par port. Geveral passive connection. Geveral pa		
several assiste connections per port.Yes- Data length, max.64 kDyte- UDPYes- Data length, max.24 kDyte: 1 472 bytes for UDP broadcast- UDP multicastYes; Max. 5 multicast circuits- ENCYptionYes; OptomalWeb serverYes; Standard and user pages- HTTPsYes; Standard and user pagesOPC UAYes; Maclum* license required- Application authenticationYes; Maclum* license required- Security policiesAvailable security policies: None, Basic1286Rsa15, Basic256Rsa15, Basic256Rsa256- Number of elements for one call of DOC_UA, Nedestrabel be cilent instructions for ascess, per connection, max.10- Number of elements for one call of DOC_UA, MethodCettradieLsit, max.10- Number of elements for one call of DOC_UA, MethodCettradieLsit, max.10- Number of elements for one call of DOC_UA, MethodCettradieLsit, max.10- Number of elements for one call of DOC_UA, MethodCettradieLsit, max.10 <td>• TCP/IP</td> <td>Yes</td>	• TCP/IP	Yes
supported • ISO-on-CPC (RFC1006) · Data length, max. • UDP · Data length, max. • Ves: Valuation of the second · CPC · LDP · Encryption · Ves: Standard and user pages · HTTPS · Ves: Standard and user pages · OPC UA · OPC UA · OPC UA · OPC UA Clent · Application authentication · Number of connections, max. · Number of connections, max. · Number of connections, max. · Number of olements for one call of OPC_UA, NameSpaceGetIndexList, max. · Number of elements for one call of OPC_UA, NameSpaceGetIndexList, max. · Number of elements for one call of OPC_UA, NameSpaceGetIndexList, max. · Number of elements for one call of OPC_UA, NameSpaceGetIndexList, max. · Number of elements for one call of OPC_UA, NameSpaceGetIndexList, max. · Number of elements for one call of OPC_UA, NameSpaceGetIndexList, max. · Number of elements for one call of OPC_UA, NameSpaceGetIndexList, max. · Number of elements for one call of OPC_UA, NameSpaceGetIndexList, max. · Number of elements for one call of OPC_UA, NameSpaceGetIndexList, max. · Number of elements for one call of OPC_UA, NameSpaceGetIndexList, max. · Number of elements for one call of OPC_UA, NameSpaceGetIndexList, max. · Number of elements for one call of OPC_UA, NameSpaceGetIndexList, max. · Number of elements for one call of the client instructions for season management, per connection, max. · Number of elements for one call of the client instructions for data access, per connection, max. · Number of lengtistrable method calls of OPC_UA, MethodCeII, max. · Number of lengtistrable method calls of OPC_UA, MethodCeII,	— Data length, max.	64 kbyte
• ISC-in-TCP (RPC1006)Yes- Data length, max.64 kbyte• UDPYes- Data length, max.2 kbyte: 1 472 bytes for UDP broadcast- UDP multicastYes; Max. 5 multicast circuits• DHCPYes• DHCPYes• DNSYes• SNMPYes• DDPYes• DDPYes• DNSYes• SNMPYes• DDPYes• DDPYes• DDPYes• LDPYes• LDPYes: OptionalWeb serverYes: Standard and user pagesOPCUAYes• PRUItine license requiredYes: Standard and user pagesOPCUAYes• OPCUA ClientYes• Application authenticationYes- Security policiesPasiz2565Na256- Number of nodes of the client interfaces, recommended max.10- Number of ondes of the client interfaces, recommended max.20- Number of elements for one call of OPC_UA_NeedSelfandeList, max.10- Number of elements for one call of OPC_UA_NeedSelfandeList, max.10- Number of elements for one call of OPC_UA_MethodGelfandeList, max.5000- Number of elements for one call of OPC_UA_MethodGelfandeList, max.5000- Number of registratile nodes, max.5000 </td <td></td> <td>Yes</td>		Yes
Data length, max.64 kbyle• UDPYes• Data length, max.2 kbyle: 1 472 byles for UDP broadcast• UDP multicastYes. Max. 5 multicast circuits• UDP multicastYes. Max. 5 multicast circuits• UNFYes• NNSYes• NNPYes. Optional• DCPYes. Optional• LDPYes. OptionalWeb serverYes. Standard and user pages• HTTPSYes. Standard and user pages• HTTPSYes. Standard and user pages• OPC UAYes. Medium" license required• OPC UAYes. Medium" license required• OPC UA ClentYes. Medium" license required• OPC UAYes. Medium" license required• Number of consections, max.10- Number of consections, max.2000- Number of elements for one call of OPC_UA, MaxeSpaceEdetIndexList, max.2000• Number of elements for one call of OPC_UA, MaxeSpaceEdetIndexList, max.2000• Number of elements for one call of OPC_UA, MaxeSpaceEdetIndexList, max.2000• Number of elements for one call of OPC_UA, MaxeSpaceEdetIndexList, max.10• Number of elements for one call of OPC_UA, MaxeSpaceEdetIndexList, max.5000• Number of elements for one call of OPC_UA, MaxeSpaceEdetIndexList, max.5000• Number of elements for one call of OPC_UA, MaxeSpaceEdetIndexList, max.5000• Number of elements for one call of OPC_UA, MaxeSpaceEdetIndexList, max.5000• Number of elements for one call of OPC_UA, MaxeSpaceEdetIndexList, max.5000		
 UDP - Data length, max. 2 kbyte: 1.472 bytes for UDP broadcast UDP multicast Ves: Max. 5 multicast circuits DHCP VbS Ves SNMP Ves Standard and user pages Ves: Standard and user pages Ves: Standard and user pages Ves: Standard and user pages OPC UA Ves: Standard and user pages OPC UA Ves: Standard and user pages OPC UA Ves: Medium* license required Ves: Medium* license required Ves: Mailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Rsa16, Basic256Rsa15, Basic256Rsa16, Basic256Rsa15, Basic256Rsa	 ISO-on-TCP (RFC1006) 	Yes
Data length, max.2 kbyte: 1 472 bytes for UDP broadcast UDP nuticastYes; Max. 5 multicast circuits•- UDP nuticastYes;• DNSYes;• DNSYes;• DNSYes;• DCPYes;• LDPYes;• EncryptionYes;Web serverYes;• HTTPsYes;• HTTPsYes;OPC UAVes;• Application authenticationYes;• Security policies:Yes;- Application authenticationYes;- Number of connections, max.10- Number of elements for one call of OPC_UA_MeedGetHandlekList, max.200- Number of elements for one call of OPC_UA_MeetGetHandlekList, max.100- Number of elements for one call of OPC_UA_MeetGetHandlekList, max.200- Number of elements for one call of OPC_UA_MeetGetHandlekList, max.200- Number of elements for one call of OPC_UA_MeetGetHandlekList, max.100- Number of elements for one call of OPC_UA_MeetGetHandlekList, max.5000- Number of elements for one call of OPC_UA_MeetGetHandlekList, max.5000<	— Data length, max.	64 kbyte
	• UDP	Yes
• DHCPYes• DNSYes• DCPYes• DCPYes• LDPYes• LDPYes• LDPYes• EncryptionYes: OptionalWeb serverYes: Standard and user pages• HTTPSYes: Standard and user pages• DPC UAYes: Standard and user pages• DPC UAYes: Standard and user pages• PRIntine license requiredYes: Yes• Application authenticationYes- Security policiesAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Rsa15, Basic256Rsa15, Basic256Rsa16- Number of connections, max.10- Number of nonections, max.10- Number of elements for one call of OPC_UA_NoneCellendeHandList(NCC_UA_ReadList); max.300- Number of elements for one call of OPC_UA_NoneSpaceGetIndexList, max.10- Number of simultaneous calls of the client instructions for data access, per connection, max.10- Number of simultaneous calls of the client instructions for data access, per connection, max.5000- Number of simultaneous calls of the client instructions for data access, per connection, max.5000- Number of registerable nodes, max.5000- Number of registerable nod	— Data length, max.	2 kbyte; 1 472 bytes for UDP broadcast
• DNSYes• SNMPYes• CCPYes• LLDPYes• EncryptionYes; OptionalWeb serer-• HTTPYes: Standard and user pages• HTTPSYes: Standard and user pages• PROL UA ClientYes; Tkedium" license required• PROL UA ClientYes• Runtime license requiredYes; Tkedium" license required• PROL UA ClientYes• Runtime license requiredYes; Tkedium" license required• Runtime license requiredYes• Runtime license requiredYes• Runtime license requiredYes• Runtime license requiredYes• Number of connections, max.10- Number of connections, max.10- Number of connections, max.2000• Number of elements for one call of OPC_UA_NameSpaceGeIndexList, max.20• Number of elements for one call of OPC_UA_MethodCetHandleList, max.10• Number of elements for one call of OPC_UA_MethodCetHandleList, max.5000• Number of simultaneous calls of the client instructions for session management, per connection, max.5000• Number of registerable nodes, per connection, max.5000• Number of notifyoty when calling OPC_UA_MethodCall, max.5000• Number of notifyoty when calling OPC_UA_MethodCall, max.74• Number of registerable nodes of the client instructions for data access, per connection, max.5000• Number of notifyoty when calling OPC_UA_MethodCall, max.74• Numbe	— UDP multicast	Yes; Max. 5 multicast circuits
• SNMPYes• DCPYes• LLDPYes• EncryptionYes; OptionalWeb serverYes; Standard and user pages• HTTPYes; Standard and user pages• HTTPSYes; Standard and user pagesOPC UAYes; Twedium" license required• OPC UAYes; Twedium" license required• Application authenticationYes; Twedium" license required• OPC UAYes; Twedium" license required• OPC UAYes• Runtime license requiredYes; Twedium" license required• OPC UAYes- Application authenticationYes- Security policiesAvailable security policies: None, Basic128Rsa15, Basic256Rsa15,	• DHCP	Yes
 DCP Ves Encryption Yes: Optional Web server HTTP Yes: Standard and user pages HTTP Yes: Standard and user pages OPC UA OPC UA Client OPC CU A Client OPC CU A Client Yes Application authentication Number of elements for one call of OPC_UA_ReadList, max. Number of elements for one call of OPC_UA_ReadList, max. Number of elements for one call of OPC_UA_ReadList, max. Number of elements for one call of OPC_UA_NethodCetHandleList, max. Number of elements for one call of OPC_UA_NethodCetHandleList, max. Number of elements for one call of OPC_UA_NethodCetHandleList, max. Number of elements for one call of OPC_UA_NethodCetHandleList, max. Number of elements for one call of OPC_UA_NethodCetHandleList, max. Number of elements for one call of OPC_UA_NethodCetHandleList, max. Number of elements for one call of OPC_UA_NethodCetHandleList, max. Number of elements for one call of OPC_UA_NethodCetHandleList, max. Number of registerable notes, max. Number of registerable notes, max. Number of registerable modes, max. Number of inputs/outputs when calling OPC_UA_NethodCall, max. OPC_UA_NethodCall, max. OPC UA Server Application authentication Yes Subta access (read, write, subscribe), method call, custom address space Application authentication Yes Nationes contry policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 User authentication Yes Nationes Clause Application authentication Yes Nation access (read, write, subscribe), method call, custom address space Application authentication Yes Natiaacce	• DNS	Yes
• LLDPYes• EncryptionYes; OptionalWeb server•• HTTPYes; Standard and user pages• HTTPSYes; Standard and user pagesOPC UA•• Runtime license requiredYes; "Medium" license required• OPC UA ClientYes• Application authenticationYes- Application authenticationYes- User authenticationYes- Number of connections, max.10- Number of connections, max.2000- Number of odes of the client interfaces, recommended max.300- Number of elements for one call of OPC_UA_NedGetHandleList/OPC_UA_ReadList, max.20- Number of elements for one call of OPC_UA_NedGetHandleList, max.10- Number of simultaneous calls of the client instructions for assesion management, per connection, max.100- Number of elements for one call of OPC_UA_NedGetHandleList, max.5000- Number of elements for one call of OPC_UA_MethodEstHandleList, max.100- Number of simultaneous calls of the client instructions for assesion management, per connection, max.5000- Number of simultaneous calls of the client instructions for data access, per connection, max.5000- Number of inputs/outputs when calling OPC_UA_MethodCall, max.20- Number of inputs/outputs when calling OPC_UA_MethodCall, max.5000- Number of inputs/outputs when calling OPC_UA_MethodCall, max.5000- Number of inputs/outputs when calling OPC_UA_MethodCall, max.20- Application authenticati	• SNMP	Yes
• Encryption Yes; Optional Web server • Construction • HTTP Yes; Standard and user pages • PC UA Yes; Standard and user pages OPC UA Ves; "Medium" license required • OPC UA Client Yes - Application authentication Yes - Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Rsa256Rsa15, Basic256Rsa256Rsa15, Basic256Rsa15, Basic256Rsa256Rsa15, Basic256Rsa15, Basic256Rsa15, Ba	• DCP	Yes
Web server +HTTP +HTTP Yes; Standard and user pages OPC UA Yes; "Medium" license required • OPC UA Client Yes - Application authentication Yes - Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of connections, max. 10 - Number of condes of the client interfaces, recommended max. 2000 - Number of nodes of the client interfaces, recommended max. -Number of nodes of the client interfaces, recommended max. - Number of solde GeltHandleList/OPC_UA_ReadList/ max. -Number of nodes of the client interfaces, reconnended max. - Number of simultaneous calls of the client instructions for dat access, per connection, max. 10 - Number of simultaneous calls of the client instructions for dat access, per connection, max. 5 000 - Number of registerable nodes, max. 5 000 - Number of nout/Soutputs when calling OPC_UA_MethodCall, max. 20 - Number of nout/Soutputs when calling OPC_UA_MethodCall, max. 5 000 - Number of nout/Soutputs when calling OPC_UA_MethodCall, max. 5 000 - Number of nout/Soutputs when calling OPC_UA_MethodCall, max. 20	• LLDP	Yes
• HTTP Yes; Standard and user pages • HTTPS Yes; Standard and user pages OPC UA Yes; Thedium" license required • OPC UA Client Yes; "Medium" license required • OPC UA Client Yes; "Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Rsa15, Basic256Rsa15, Basic256Rsa15, Basic256Rsa15, Basic256Rsa15, Basic268Rsa15, Basic268Rsa16, Basic268Rsa15,	Encryption	Yes; Optional
• HTTPS Yes; Standard and user pages OPC UA • Runtime license required Yes; "Medium" license required • OPC UA Client Yes - Application authentication Yes - Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256 has a construction - User authentication "anonymous" or by user name & password - Number of connections, max. 10 - Number of ondes of the client interfaces, recommended max. 2000 - Number of elements for one call of OPC_UA_NodeSetHandleList/OPC_UA_ReadList/C max. 300 - Number of elements for one call of OPC_UA_MedGetHandleList, max. 10 - Number of elements for one call of OPC_UA_MethodGetHandleList, max. 10 - Number of elements for one call of OPC_UA_MethodGetHandleList, max. 100 - Number of simultaneous calls of the client instructions for session management, per connection, max. 1 - Number of registerable method calls of OPC_UA_MethodCall, max. 5000 - Number of registerable method calls of OPC_UA_MethodCall, max. 5000 - Number of registerable method calls of OPC_UA_MethodCall, max. 5000 - Number of registerable method calls of OPC_UA_MethodCall, max. 5000 - Number of registerable meth	Web server	
OPC UA Yes: "Medium" license required • OPC UA Client Yes: "Medium" license required • Application authentication Yes - Application authentication Yes - Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of connections, max. 10 - Number of elements for one call of OPC_UA_NedGetHandleList/OPC_UA_ReadList/C max. 300 - Number of elements for one call of OPC_UA_MespaceGetIndexList, max. 20 - Number of elements for one call of OPC_UA_MespaceGetIndexList, max. 20 - Number of registerable nodes, max. 10 - Number of registerable nodes, max. 5000 - Number of registerable nethod calls of the client instructions for data access, per connection, max. 5 000 - Number of registerable method calls of OPC_UA_MethoCall, max. 5 000 - Number of registerable method calls of OPC_UA_MethoCall, max. 5 000 - Number of inputs/outputs when calling OPC_UA_MethoCall, max. 5 000 - Application authentication Yes - Application authentication Yes - Application authentication Yes - User		
• Runtime license required Yes; "Medium" license required • OPC UA Client Yes - Application authentication Yes - Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of connections, max. 10 - Number of nodes of the client interfaces, recommended max. 2 000 - Number of elements for one call of OPC_UA_NodeGetHandleList/OPC_UA_ReadList/C max. 300 - Number of elements for one call of OPC_UA_NethodGetHandleList, max. 10 - Number of simultaneous calls of the client instructions for session management, per connection, max. 10 - Number of eigisterable nodes, max. 5 000 - Number of registerable nodes, max. 5 000 - Number of registerable nodes, max. 5 000 - Number of registerable method calls of 0PC_UA_MethodCall, max. 5 000 - Number of registerable method calls of 0PC_UA_MethodCall, max. 5 000 - Number of registerable method calls of 0PC_UA_MethodCall, max. 5 000 - Number of registerable nodes, max. 5 000 - Number of registerable method calls of 0PC_UA_MethodCall, max. 5 000 - OPC UA Server	-	Yes; Standard and user pages
• OPC UA ClientYes- Application authenticationYes- Security policiesAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of connections, max.10- Number of nodes of the client interfaces, recommended max.2000- Number of elements for one call of OPC_UA_NodeGetHandleList/OPC_UA_ReadList/ max.300- Number of elements for one call of OPC_UA_MendGetHandleList, max.20- Number of elements for one call of OPC_UA_MendGetHandleList, max.20- Number of simultaneous calls of the client instructions for session management, per connection, max.10- Number of registerable method calls of OPC_UA_MethodCall, max.5000- Number of registerable method calls of OPC_UA_MethodCall, max.20- OPC UA ServerYes; Data access (read, write, subscribe), method call, custom address space- Application authenticationYes- Application authenticationYes- ApplicationYes- User authentication'Yes- User authentication'Yes' or bu user name & password		
 Application authentication Yes Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Rsa256 User authentication Number of connections, max. Number of nodes of the client interfaces, recommended max. Number of elements for one call of OPC_UA_NodeGetHandleList/OPC_UA_ReadList/C max. Number of elements for one call of OPC_UA_NameSpaceGetIndexList, max. Number of elements for one call of OPC_UA_MethodGetHandleList, max. Number of simultaneous calls of the client instructions for data access, per connection, max. Number of registerable nodes, max. Number of inputs/outputs when calling OPC_UA_MethodCall, max. OPCC UA Server Application authentication Security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Rsa15		·
- Security policiesAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authenticationanonymous" or by user name & password- Number of connections, max.10- Number of nodes of the client interfaces, recommended max.2 000- Number of elements for one call of OPC_UA_NodeGetHandleList/OPC_UA_ReadList/ max.300- Number of elements for one call of OPC_UA_NameSpaceGetIndexList, max.20- Number of elements for one call of OPC_UA_MethodGetHandleList, max.20- Number of simultaneous calls of the client instructions for session management, per connection, max.11- Number of registerable method calls of OPC_UA_MethodCall, max.5 000- Number of registerable method calls of OPC_UA_MethodCall, max.5 000- Number of inputs/outputs when calling OPC_UA_MethodCall, max.20- Number of inputs/outputs when calling OPC_UA_MethodCall, max.5 000- Number of inputs/outputs when calling OPC_UA_MethodCall, max.5 000- Number of inputs/outputs when calling OPC_UA_MethodCall, max.20- Application authenticationYes: Data access (read, write, subscribe), method call, custom address space- Application authenticationYes- Application authenticationYes- Security policiesYes: Data access (read, write, subscribe), method call, custom address space- Application authenticationYes- Application authenticationYes- Security policiesYes- Liser authentication"anonymous" or by user name & pas		
Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of connections, max. 10 - Number of nodes of the client interfaces, recommended max. 2000 - Number of elements for one call of OPC_UA_NodeGetHandleList/OPC_UA_ReadList/omax. 300 - Number of elements for one call of OPC_UA_NameSpaceGetIndexList, max. 20 - Number of selements for one call of OPC_UA_NameSpaceGetIndexList, max. 20 - Number of simultaneous calls of the client instructions for session management, per connection, max. 100 - Number of registerable nodes, max. 5 000 - Number of registerable nodes, max. 5 000 - Number of inputs/outputs when calling OPC_UA_MethodCall, max. 20 - Number of inputs/outputs when calling OPC_UA_MethodCall, max. 5 000 - Number of sinultaneous calls of the client instructions for data access, per connection, max. 5 000 - Number of inputs/outputs when calling OPC_UA_MethodCall, max. 20 - OPC UA Server Yes; Data access (read, write, subscribe), method call, custom address space - Application authentication Yes - Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Rsa15, Basic256Rsa15, Basic256Rsa256 - User authentication		
User authentication"anonymous" or by user name & password Number of connections, max.10 Number of nodes of the client interfaces, recommended max.2 000 Number of elements for one call of OPC_UA_NodeGetHandleList/OPC_UA_ReadList/ max.300 Number of elements for one call of OPC_UA_NameSpaceGetIndexList, max.20 Number of elements for one call of OPC_UA_MethodGetHandleList, max.20 Number of elements for one call of OPC_UA_MethodGetHandleList, max.100 Number of simultaneous calls of the client instructions for data access, per connection, max.100 Number of registerable nodes, max.5 Number of registerable nodes, max.5000 Number of inpultaneous calls of the client instructions for data access, per connection, max.100 Number of inpultaneous calls of the client instructions for data access, per connection, max.5000 Number of registerable nodes, max.5000 Number of inpults/outputs when calling OPC_UA_MethodCall, max.20 Number of inpults/outputs when calling OPC_UA_MethodCall, max.20 Application authentication Security policiesYes Application authentication Security policiesYes Autientication Security policiesYes Autientication Security policiesYes User authentication User authentication'anonymous" or by user name & password	- Security policies	
	— User authentication	
Number of nodes of the client interfaces, recommended max.2 000 Number of elements for one call of OPC_UA_NodeGetHandleList/OPC_UA_ReadList/ max.300 Number of elements for one call of OPC_UA_NameSpaceGetIndexList, max.20 Number of elements for one call of OPC_UA_MethodGetHandleList, max.100 Number of simultaneous calls of the client instructions for data access, per connection, max.1 Number of registerable nodes, max.5 Number of registerable method calls of OPC_UA_MethodCall, max.5000 Number of registerable method calls of OPC_UA_MethodCall, max.100 Number of inputs/outputs when calling OPC_UA_Server20 Application authentication Security policies20 Application authentication Security policiesYes - Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 User authentication"anonymous" or by user name & password		5 5 1
recommended max. Number of elements for one call of 300 OPC_UA_NodeGetHandleList/OPC_UA_ReadList/ 300 - Number of elements for one call of 20 OPC_UA_NameSpaceGetIndexList, max. 100 - Number of elements for one call of 0PC_UA_MethodGetHandleList, max. - Number of elements for one call of 100 OPC_UA_MethodGetHandleList, max. 100 - Number of simultaneous calls of the client 1 instructions for session management, per connection, max. 5 - Number of simultaneous calls of the client 100 - Number of simultaneous calls of the client 5 instructions for data access, per connection, max. 5000 - Number of registerable mothed calls of 100 OPC_UA_MethodCall, max. 5000 - Number of registerable mothed calls of 100 OPC_UA_MethodCall, max. 20 - Number of inputs/outputs when calling 20 OPC_UA_MethodCall, max. 5000 - Number of inputs/outputs when calling 20 OPC_UA_MethodCall, max. 20 - Application authentication Yes; Data access (read, write, subscribe), method call, custom address space	•	
OPC_UA_NodeGetHandleList/OPC_UA_ReadList/C ax. - Number of elements for one call of 20 OPC_UA_NameSpaceGetIndexList, max. - - Number of elements for one call of 100 OPC_UA_MethodGetHandleList, max. - - Number of simultaneous calls of the client instructions for session management, per connection, max. 1 - Number of simultaneous calls of the client instructions for data access, per connection, max. 5 - Number of registerable nodes, max. 5 - Number of rinputs/outputs when calling OPC_UA_MethodCall, max. 20 - Number of inputs/outputs when calling OPC_UA_MethodCall, max. 20 - Number of inputs/outputs when calling OPC_UA_MethodCall, max. 20 - Number of inputs/outputs when calling OPC_UA_MethodCall, max. Yes; Data access (read, write, subscribe), method call, custom address space - Application authentication Yes - Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password		2000
max.Number of elements for one call of OPC_UA_NameSpaceGetIndexList, max.20- Number of elements for one call of OPC_UA_MethodGetHandleList, max.100- Number of simultaneous calls of the client instructions for session management, per connection, max.1- Number of simultaneous calls of the client instructions for data access, per connection, max.1- Number of registerable nodes, max.5 000- Number of notify/outputs when calling OPC_UA_MethodCall, max.20- Number of inputs/outputs when calling OPC_UA_MethodCall, max.Yes; Data access (read, write, subscribe), method call, custom address space- Application authentication - Security policiesYes- Nurber of security policiesAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password	 Number of elements for one call of 	300
- Number of elements for one call of OPC_UA_NameSpaceGetIndexList, max.20- Number of elements for one call of OPC_UA_MethodGetHandleList, max.100- Number of simultaneous calls of the client instructions for session management, per connection, max.1- Number of simultaneous calls of the client instructions for data access, per connection, max.5- Number of registerable nodes, max.5000- Number of registerable nodes, max.5000- Number of registerable method calls of OPC_UA_MethodCall, max.100- Number of registerable method calls of OPC_UA_MethodCall, max.20- Number of inputs/outputs when calling OPC_UA_MethodCall, max.20- Application authentication - Security policiesYes; Data access (read, write, subscribe), method call, custom address space- Application authentication - Security policiesYes- User authentication'Yes- User authentication'Yanonymous' or by user name & password	OPC_UA_NodeGetHandleList/OPC_UA_ReadList/C	
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Number of elements for one call of OPC_UA_MethodGetHandleList, max.100 Number of simultaneous calls of the client instructions for session management, per connection, max.1 Number of simultaneous calls of the client instructions for data access, per connection, max.5 Number of simultaneous calls of the client instructions for data access, per connection, max.5 Number of registerable nodes, max.5 Number of registerable nodes, max.5000 Number of registerable method calls of OPC_UA_MethodCall, max.100 Number of inputs/outputs when calling OPC_UA_MethodCall, max.20 OPC UA ServerYes; Data access (read, write, subscribe), method call, custom address space Application authentication Security policiesYes Nuse authenticationYes User authentication"anonymous" or by user name & password		20
OPC_UA_MethodGetHandleList, max.1- Number of simultaneous calls of the client instructions for session management, per connection, max.1- Number of simultaneous calls of the client instructions for data access, per connection, max.5- Number of simultaneous calls of the client instructions for data access, per connection, max.5- Number of registerable nodes, max.5- Number of registerable method calls of OPC_UA_MethodCall, max.100- Number of inputs/outputs when calling OPC_UA_MethodCall, max.20• OPC UA ServerYes; Data access (read, write, subscribe), method call, custom address space- Application authentication - Security policiesYes- Security policiesAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password		100
 Number of simultaneous calls of the client instructions for session management, per connection, max. Number of simultaneous calls of the client instructions for data access, per connection, max. Number of registerable nodes, max. Number of registerable method calls of 0PC_UA_MethodCall, max. Number of inputs/outputs when calling 0PC_UA_MethodCall, max. OPC UA Server Application authentication Security policies User authentication Instruction Instruction Instructions Instructions Instruction Instr		
instructions for session management, per connection, max.s- Number of simultaneous calls of the client instructions for data access, per connection, max.5- Number of registerable nodes, max.5 000- Number of registerable method calls of OPC_UA_MethodCall, max.100- Number of inputs/outputs when calling OPC_UA_MethodCall, max.20- Number of inputs/outputs when calling OPC_UA_MethodCall, max.20- Application authenticationYes; Data access (read, write, subscribe), method call, custom address space- Application authenticationYes- Security policiesAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password		1
connection, max.S- Number of simultaneous calls of the client instructions for data access, per connection, max.5- Number of registerable nodes, max.5000- Number of registerable method calls of OPC_UA_MethodCall, max.100- Number of inputs/outputs when calling OPC_UA_MethodCall, max.20- Number of inputs/outputs when calling OPC_UA_MethodCall, max.Yes; Data access (read, write, subscribe), method call, custom address space- Application authentication - Security policiesYes- User authentication"anonymous" or by user name & password		
instructions for data access, per connection, max.5 000 Number of registerable nodes, max.5 000 Number of registerable method calls of OPC_UA_MethodCall, max.100 Number of inputs/outputs when calling OPC_UA_MethodCall, max.20 OPC UA ServerYes; Data access (read, write, subscribe), method call, custom address space Application authenticationYes Security policiesAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 User authentication"anonymous" or by user name & password		
Number of registerable nodes, max.5 000 Number of registerable method calls of OPC_UA_MethodCall, max.100 Number of inputs/outputs when calling OPC_UA_MethodCall, max.20 OPC UA ServerYes; Data access (read, write, subscribe), method call, custom address space Application authentication Security policiesYes User authenticationYes User authentication"anonymous" or by user name & password		5
Number of registerable method calls of OPC_UA_MethodCall, max.100 Number of inputs/outputs when calling OPC_UA_MethodCall, max.20• OPC UA ServerYes; Data access (read, write, subscribe), method call, custom address space Application authenticationYes Security policiesAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 User authentication"anonymous" or by user name & password		
OPC_UA_MethodCall, max.20Number of inputs/outputs when calling OPC_UA_MethodCall, max.20• OPC UA ServerYes; Data access (read, write, subscribe), method call, custom address spaceApplication authenticationYesSecurity policiesAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256User authentication"anonymous" or by user name & password	-	
 Number of inputs/outputs when calling OPC_UA_MethodCall, max. OPC UA Server Yes; Data access (read, write, subscribe), method call, custom address space Application authentication Yes Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 User authentication "anonymous" or by user name & password 		100
OPC_UA_MethodCall, max. Yes; Data access (read, write, subscribe), method call, custom address space - Application authentication Yes - Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password		20
 OPC UA Server Yes; Data access (read, write, subscribe), method call, custom address space Application authentication Yes Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 User authentication "anonymous" or by user name & password 		20
- Application authentication yes - Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password		
— Application authentication Yes — Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 — User authentication "anonymous" or by user name & password	OPC UA Server	Yes: Data access (read, write, subscribe), method call, custom address
— Security policies Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 — User authentication "anonymous" or by user name & password	OPC UA Server	
— User authentication Basic256Sha256 — User authentication "anonymous" or by user name & password		space
	— Application authentication	space Yes Available security policies: None, Basic128Rsa15, Basic256Rsa15,
— GDS support (certificate management) Yes	 Application authentication Security policies 	space Yes Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256
	 Application authentication Security policies User authentication 	space Yes Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 "anonymous" or by user name & password

	10
— Number of sessions, max.	48
 Number of accessible variables, max. 	100 000
 Number of registerable nodes, max. 	20 000
 Number of subscriptions per session, max. 	20
— Sampling interval, min.	100 ms
 Publishing interval, min. Number of server methods, max. 	200 ms 50
	20
 — Number of inputs/outputs per server method, max. 	20
 — Number of monitored items, recommended 	2 000; for 1 s sampling interval and 1 s send interval
max.	, · - · · · · · · · · ·
 Number of server interfaces, max. 	10 of each "Server interfaces" / "Companion specification" type and 20
	of the type "Reference namespace"
 Number of nodes for user-defined server 	5 000
interfaces, max. Alarms and Conditions	Yes
Alarms and Conditions — Number of program alarms	200
— Number of plogram alarms — Number of alarms for system diagnostics	100
Further protocols	100
MODBUS	Yes; MODBUS TCP
Isochronous mode	
	Voc
	Yes
S7 message functions	
Number of login stations for message functions, max.	64
Program alarms	Yes
Number of configurable program messages, max.	10 000; Program messages are generated by the "Program_Alarm" block, ProDiag or GRAPH
Number of loadable program messages in PLIN may	5 000
Number of loadable program messages in RUN, max.	5 000
Number of simultaneously active program alarms Number of program alarms 	1 000
Number of alarms for system diagnostics	200
	160
 Number of alarms for motion technology objects 	100
Test commissioning functions	
Joint commission (Team Engineering)	Yes; Parallel online access possible for up to 8 engineering systems
Joint commission (Team Engineering) Status block	Yes; Up to 8 simultaneously (in total across all ES clients)
Joint commission (Team Engineering) Status block Single step	Yes; Up to 8 simultaneously (in total across all ES clients) No
Joint commission (Team Engineering) Status block Single step Number of breakpoints	Yes; Up to 8 simultaneously (in total across all ES clients)
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control	Yes; Up to 8 simultaneously (in total across all ES clients) No 8
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables	Yes; Up to 8 simultaneously (in total across all ES clients) No 8
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max.	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max.	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max.	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. Forcing	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. Forcing • Forcing	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. Forcing • Forcing • Forcing • Forcing, variables	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job Yes Peripheral inputs/outputs
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. Forcing • Forcing • Forcing, variables • Number of variables, max.	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. Forcing • Forcing • Forcing • Forcing, variables	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job Yes Peripheral inputs/outputs
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. Forcing • Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job Yes Peripheral inputs/outputs 200
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present • Number of entries, max.	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job 200; per job Yes Peripheral inputs/outputs 200
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. Forcing • Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job Yes Peripheral inputs/outputs 200
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. Forcing • Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job Yes Peripheral inputs/outputs 200
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job Yes Peripheral inputs/outputs 200 Yes 3 200 500
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. Forcing • Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces Interrupts/diagnostics/status information	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job Yes Peripheral inputs/outputs 200 Yes 3 200 500
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. Forcing • Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces Interrupts/diagnostics/status information Diagnostics indication LED	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job Yes Peripheral inputs/outputs 200 Yes 3 200 500
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. Forcing • Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces Interrupts/diagnostics/status information	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job Yes Peripheral inputs/outputs 200 Yes 3 200 500 4; Up to 512 KB of data per trace are possible
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. of which status variables, max. of which control variables, max. of which control variables, max. Forcing • Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present • Number of entries, max. of which powerfail-proof Traces • Number of configurable Traces Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job 200; per job Yes Peripheral inputs/outputs 200 Yes 3 200 500 4; Up to 512 KB of data per trace are possible
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. of which status variables, max. of which control variables, max. of which control variables, max. Forcing • Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present • Number of entries, max. of which powerfail-proof Traces • Number of configurable Traces Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job Yes Peripheral inputs/outputs 200 Yes 3 200 500 4; Up to 512 KB of data per trace are possible Yes
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • Connection display LINK TX/RX	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job Yes Peripheral inputs/outputs 200 Yes 3 200 500 4; Up to 512 KB of data per trace are possible Yes Yes Yes
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED • Connection display LINK TX/RX Supported technology objects	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job 200; per job Yes Peripheral inputs/outputs 200 Yes 3 200 500 4; Up to 512 KB of data per trace are possible Yes Yes Yes Yes Yes
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED • Connection display LINK TX/RX	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job Yes Peripheral inputs/outputs 200 Yes 3 200 500 4; Up to 512 KB of data per trace are possible Yes Yes Yes
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED • Connection display LINK TX/RX Supported technology objects	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job Yes Peripheral inputs/outputs 200 Yes 3 200 500 4; Up to 512 KB of data per trace are possible Yes Yes Yes Yes Yes Yes
Joint commission (Team Engineering) Status block Single step Number of breakpoints Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. Forcing • Forcing • Forcing, variables • Number of variables, max. Diagnostic buffer • present • Number of entries, max. — of which powerfail-proof Traces • Number of configurable Traces Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • ERROR LED • MAINT LED • Connection display LINK TX/RX Supported technology objects Motion Control	Yes; Up to 8 simultaneously (in total across all ES clients) No 8 Yes Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters 200; per job 200; per job 200; per job 200; per job Yes Peripheral inputs/outputs 200 Yes 3 200 500 4; Up to 512 KB of data per trace are possible Yes Yes Yes Yes Yes Yes Yes Yes

 Required Motion Control resources 	
	40
— per speed-controlled axis	80
— per positioning axis	
— per synchronous axis	160
— per external encoder	80
— per output cam	20
— per cam track	160
— per probe	40
 Positioning axis 	
 — Number of positioning axes at motion control cycle of 4 ms (typical value) 	7
 — Number of positioning axes at motion control cycle of 8 ms (typical value) 	14
Controller	
 PID_Compact 	Yes; Universal PID controller with integrated optimization
PID_3Step	Yes; PID controller with integrated optimization for valves
• PID-Temp	Yes; PID controller with integrated optimization for temperature
Counting and measuring	
High-speed counter	Yes
Ambient conditions	
Ambient temperature during operation	
horizontal installation, min.	0°0
 nonzontal installation, min. horizontal installation, max. 	
■ HUHZUHIAI IHSIAIIAUUH, IHAX.	60 °C; Display: 50 °C, at an operating temperature of typically 50 °C, the display is switched off
• vertical installation, min.	0 °C
 vertical installation, max. 	40 °C; Display: 40 °C, at an operating temperature of typically 40 °C, the
	display is switched off
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Altitude during operation relating to sea level	10.0
Allitude during operation relating to sea level	
 Installation altitude above see level max 	5 000 m: Postrictions for installation altitudes > 2 000 m. see manual
Installation altitude above sea level, max.	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
configuration / header	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
configuration / header configuration / programming / header	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
configuration / header configuration / programming / header Programming language	
configuration / header configuration / programming / header Programming language — LAD	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual Yes
configuration / header configuration / programming / header Programming language — LAD — FBD	
configuration / header configuration / programming / header Programming language — LAD	Yes
configuration / header configuration / programming / header Programming language — LAD — FBD	Yes Yes
configuration / header configuration / programming / header Programming language — LAD — FBD — STL — STL — SCL — GRAPH	Yes Yes Yes
configuration / header configuration / programming / header Programming language — LAD — FBD — STL — SCL	Yes Yes Yes Yes
configuration / header configuration / programming / header Programming language — LAD — FBD — STL — STL — SCL — GRAPH	Yes Yes Yes Yes
configuration / header configuration / programming / header Programming language — LAD — FBD — STL — STL — SCL — GRAPH Know-how protection	Yes Yes Yes Yes Yes
configuration / programming / header Programming language — LAD — FBD — STL — GRAPH Know-how protection • User program protection/password protection	Yes Yes Yes Yes Yes
configuration / programming / header Programming language — LAD — FBD — STL — SCL — GRAPH Know-how protection • User program protection/password protection • Copy protection	Yes Yes Yes Yes Yes Yes
configuration / header configuration / programming / header Programming language — LAD — FBD — STL — SCL — GRAPH Know-how protection • User program protection/password protection • Copy protection • Block protection	Yes Yes Yes Yes Yes Yes
configuration / programming / header Programming language — LAD — FBD — STL — SCL — GRAPH Know-how protection • User program protection/password protection • Block protection • Block protection Access protection	Yes Yes Yes Yes Yes Yes Yes
configuration / programming / header Programming language — LAD — FBD — STL — SCL — GRAPH Know-how protection • User program protection/password protection • Block protection • Block protection • protection • protection	Yes Yes Yes Yes Yes Yes Yes
configuration / header configuration / programming / header Programming language — LAD — FBD — STL — SCL — GRAPH Know-how protection • User program protection/password protection • Copy protection • Block protection • Protection of confidential configuration data • Password for display • Protection level: Write protection	Yes Yes Yes Yes Yes Yes Yes Yes Yes
configuration / programming / header Programming language — LAD — FBD — STL — SCL — GRAPH Know-how protection • User program protection/password protection • Block protection • Block protection • Protection of confidential configuration data • Password for display • Protection level: Write protection • Protection level: Read/write protection	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
configuration / programming / header Programming language — LAD — FBD — STL — SCL — GRAPH Know-how protection • User program protection/password protection • Block protection • Block protection • Protection of confidential configuration data • Password for display • Protection level: Write protection • Protection level: Complete protection	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
configuration / header configuration / programming / header Programming language — LAD — FBD — STL — SCL — GRAPH Know-how protection • User program protection/password protection • Copy protection • Block protection • Protection of confidential configuration data • Password for display • Protection level: Write protection • Protection level: Complete protection • Protection level: Complete protection • Programming / cycle time monitoring / header	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
configuration / programming / header Programming language — LAD — FBD — STL — SCL — GRAPH Know-how protection • User program protection/password protection • Copy protection • Block protection • Protection of confidential configuration data • Password for display • Protection level: Write protection • Protection level: Complete protection • Programming / cycle time monitoring / header • lower limit	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
configuration / programming / header Programming language — LAD — FBD — STL — SCL — GRAPH Know-how protection • User program protection/password protection • Copy protection • Block protection • Protection of confidential configuration data • Password for display • Protection level: Write protection • Protection level: Complete protection • Iower limit • upper limit	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
configuration / programming / header Programming language - LAD - FBD - STL - SCL - GRAPH Know-how protection • User program protection/password protection • Copy protection • Block protection • Protection of confidential configuration data • Password for display • Protection level: Write protection • Protection level: Complete protection • Dimensions	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
configuration / programming / header Programming language - LAD - FBD - STL - SCL - GRAPH Know-how protection • User program protection/password protection • Copy protection • Block protection • Protection of confidential configuration data • Password for display • Protection level: Write protection • Protection level: Complete protection • Dimensions Width	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
configuration / programming / header Programming language - LAD - FBD - STL - SCL - GRAPH Know-how protection • User program protection/password protection • Copy protection • Block protection • Protection of confidential configuration data • Password for display • Protection level: Write protection • Protection level: Complete protection • Dimensions Width Height	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
configuration / programming / header Programming language - LAD - FBD - STL - SCL - GRAPH Know-how protection • User program protection/password protection • Copy protection • Block protection • Protection of confidential configuration data • Password for display • Protection level: Write protection • Protection level: Complete protection • lower limit • upper limit Dimensions Width Height Depth	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
configuration / programming / header Programming language - LAD - FBD - STL - SCL - GRAPH Know-how protection • User program protection/password protection • Copy protection • Block protection • Protection of confidential configuration data • Password for display • Protection level: Write protection • Protection level: Complete protection • Dimensions Width Height	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
configuration / programming / header Programming language - LAD - FBD - STL - SCL - GRAPH Know-how protection • User program protection/password protection • Copy protection • Block protection • Protection of confidential configuration data • Password for display • Protection level: Write protection • Protection level: Complete protection • Dower limit • upper limit Dimensions Width Height Depth	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
configuration / programming / header Programming language - LAD - FBD - STL - SCL - GRAPH Know-how protection • User program protection/password protection • Copy protection • Block protection • Protection of confidential configuration data • Password for display • Protection level: Write protection • Protection level: Complete protection • Protection level: Complete protection • Iower limit • upper limit Dimensions Width Height Depth	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes