## SIEMENS

## Data sheet

## 6ES7516-3AN02-0AB0



SIMATIC S7-1500, CPU 1516-3 PN/DP, central processing unit with 1 MB work memory 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	FS01
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 $\mu s$ (distributed) and 1 ms (central)
Engineering with	
STEP 7 TIA Portal configurable/integrated from version	V17 (FW V2.9) / V16 (FW V2.8) or higher; with older TIA Portal versions configurable as 6ES7516-3AN01-0AB0
Configuration control	
via dataset	Yes
Display	
Screen diagonal [cm]	6.1 cm
Control elements	
Number of keys	8
Mode buttons	2
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	
<ul> <li>Mains/voltage failure stored energy time</li> </ul>	5 ms
Repeat rate, min.	1/s
Input current	
Current consumption (rated value)	0.85 A
Current consumption, max.	1.1 A
Inrush current, max.	2.4 A; Rated value
l²t	0.02 A <sup>2</sup> ·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	

<ul> <li>integrated (for program)</li> </ul>	1 Mbyte
integrated (for program)     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	
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     Number of technology synchronous alarm OBs	3 2
Number of technology synchronous alarm OBs     Number of startup OBs	
<ul> <li>Number of startup OBs</li> <li>Number of asynchronous error OBs</li> </ul>	100 4
Number of asynchronous error OBs     Number of synchronous error OBs	2
Number of synchronous error OBs     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, counters, DBs, and technology data (axes): 472 KB
Extended retentive data area (incl. timers, counters, flags), max.	5 Mbyte; When using PS 6 0W 24/48/60 V DC HF
Flag	

• Size, max.	16 kbyte
<ul> <li>Number of clock memories</li> </ul>	8; 8 clock memory bit, grouped into one clock memory byte
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	9 402: may number of modulos / submodulos
	8 192; max. number of modules / submodules
I/O address area	20 liberter All lines de sers la dis annons lines en
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	
<ul> <li>Number of subprocess images, max.</li> </ul>	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	
<ul> <li>integrated</li> </ul>	1
• Via CM	8; A maximum of 8 CMs/CPs (PROFIBUS, PROFINET, Ethernet) can be
	inserted in total
Number of IO Controllers	
<ul> <li>integrated</li> </ul>	2
• Via CM	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 DtD CMs is only limited by the number of available
	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
<ul> <li>Deviation per day, max.</li> </ul>	10 s; Typ.: 2 s
Deviation per day, max.     Operating hours counter	10 8, 19p 2 8
Number	16
Clock synchronization	10
	Vas
• supported	Yes
• 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
<ul> <li>integrated switch</li> </ul>	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)
	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
<ul> <li>Number of connectable IO Devices for RT, max.</li> </ul>	256
— of which in line, max.	256
<ul> <li>— Number of IO Devices that can be simultaneously activated/deactivated, max.</li> </ul>	8; in total across all interfaces
<ul> <li>Number of IO Devices per tool, max.</li> </ul>	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 $375 \mu s$ 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 cycles	Update time = set "odd" send clock (any multiple of 125 $\mu s:$ 375 $\mu s,$ 625 $\mu s$ 3 875 $\mu s)$
Update time for RT	
— for send cycle of 250 μs	250 µs to 128 ms
— for send cycle of 500 $\mu$ s	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
<ul> <li>— Number of IO Controllers with shared device, max.</li> </ul>	4
- activation/deactivation of I-devices	Yes; per user program
- Asset management record	Yes; per user program
2. Interface	
Interface types	
RJ 45 (Ethernet)	Yes; X2
Number of ports	1
integrated switch	No
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	No

PROFINET IO Controller	
Services	
— PG/OP communication	Yes
— Isochronous mode	No
— Direct data exchange	No
— IRT	No
— PROFlenergy	Yes; per user program
— Prioritized startup	No
	32; In total, up to 1 000 distributed I/O devices can be connected via AS-i,
- Number of connectable IO Devices, max.	PROFIBUS or PROFINET
- Number of connectable IO Devices for RT, max.	32
— of which in line, max.	32
<ul> <li>— Number of IO Devices that can be simultaneously activated/deactivated, max.</li> </ul>	8; in total across all interfaces
<ul> <li>Number of IO Devices per tool, max.</li> </ul>	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, max.	4
- activation/deactivation of I-devices	Yes; per user program
<ul> <li>Asset management record</li> </ul>	Yes; per user program
3. Interface	
Interface types	
• RS 485	Yes; X3
Number of ports	1
Protocols	
PROFIBUS DP master	Yes
<ul> <li>PROFIBUS DP slave</li> </ul>	No
<ul> <li>PROFIBUS DP slave</li> <li>SIMATIC communication</li> </ul>	No Yes
SIMATIC communication	
SIMATIC communication     PROFIBUS DP master     Number of connections, max.	Yes 48; for the integrated PROFIBUS DP interface
SIMATIC communication     PROFIBUS DP master	Yes
SIMATIC communication     PROFIBUS DP master     Number of connections, max.	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,
<ul> <li>SIMATIC communication</li> <li>PROFIBUS DP master</li> <li>Number of connections, max.</li> <li>Number of DP slaves, max.</li> </ul>	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,
SIMATIC communication PROFIBUS DP master     Number of connections, max.     Number of DP slaves, max. Services	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
SIMATIC communication PROFIBUS DP master     Number of connections, max.     Number of DP slaves, max. Services     — PG/OP communication	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
SIMATIC communication PROFIBUS DP master     Number of connections, max.     Number of DP slaves, max. Services     — PG/OP communication     — Equidistance	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
SIMATIC communication      PROFIBUS DP master      Number of connections, max.      Number of DP slaves, max.      Services          — PG/OP communication         — Equidistance         — Isochronous mode	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
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	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
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	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
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)	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
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)	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
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	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
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	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
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)          400 Mbps          Autonegotiation          Autocrossing          Industrial Ethernet status LED      RS 485	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
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          Autocrossing          Industrial Ethernet status LED      RS 485          Transmission rate, max.	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 Ye
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)          4100 Mbps          Autonegotiation          Autocrossing          Industrial Ethernet status LED      RS 485          • Transmission rate, max.	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 12 Mbit/s 12 Mbit/s
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)          4utonegotiation          Autocrossing          Industrial Ethernet status LED      RS 485          Transmission rate, max.      PROFIsafe	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 Ye
<ul> <li>SIMATIC communication</li> <li>PROFIBUS DP master         <ul> <li>Number of connections, max.</li> <li>Number of DP slaves, max.</li> </ul> </li> <li>Services         <ul> <li>PG/OP communication</li> <li>Equidistance</li> <li>Isochronous mode</li> <li>Activation/deactivation of DP slaves</li> </ul> </li> <li>Interface types         <ul> <li>RJ 45 (Ethernet)</li> <li>100 Mbps</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Industrial Ethernet status LED</li> <li>RS 485</li> <li>Transmission rate, max.</li> </ul> </li> <li>PROFIsafe         <ul> <li>Number of connections</li> </ul> </li> </ul>	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 12 Mbit/s No
<ul> <li>SIMATIC communication</li> <li>PROFIBUS DP master         <ul> <li>Number of connections, max.</li> <li>Number of DP slaves, max.</li> </ul> </li> <li>Services         <ul> <li>PG/OP communication</li> <li>Equidistance</li> <li>Isochronous mode</li> <li>Activation/deactivation of DP slaves</li> </ul> </li> <li>Interface types         <ul> <li>RJ 45 (Ethernet)</li> <li>100 Mbps</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Industrial Ethernet status LED</li> </ul> </li> <li>RS 485         <ul> <li>Transmission rate, max.</li> </ul> </li> <li>PROFIsafe         <ul> <li>Number of connections, max.</li> </ul> </li> </ul>	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 I Abbit/s 12 Mbit/s 256; via integrated interfaces of the CPU and connected CPs / CMs
<ul> <li>SIMATIC communication</li> <li>PROFIBUS DP master         <ul> <li>Number of connections, max.</li> <li>Number of DP slaves, max.</li> </ul> </li> <li>Services         <ul> <li>PG/OP communication</li> <li>Equidistance</li> <li>Isochronous mode</li> <li>Activation/deactivation of DP slaves</li> </ul> </li> <li>Interface types         <ul> <li>RJ 45 (Ethernet)</li> <li>100 Mbps</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Industrial Ethernet status LED</li> <li>RS 485</li> <li>Transmission rate, max.</li> </ul> </li> <li>PROFIsafe         <ul> <li>Number of connections</li> </ul> </li> </ul>	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 12 Mbit/s No

• Number of \$7 routing nothe	16
Number of S7 routing paths     Redundancy mode	10
H-Sync forwarding	Yes
Media redundancy	
— Media redundancy	only via 1st interface (X1)
— MRP	Yes; MRP Automanager according to IEC 62439-2 Edition 2.0, MRP Manager;
	MRP Client
<ul> <li>MRP interconnection, supported</li> <li>MRPD</li> </ul>	Yes; as MRP ring node according to IEC 62439-2 Edition 3.0 Yes; Requirement: IRT
— Switchover time on line break, typ.	200 ms; For MRP, bumpless for MRPD
<ul> <li>Number of stations in the ring, max.</li> </ul>	50
SIMATIC communication	
<ul> <li>PG/OP communication</li> </ul>	Yes; encryption with TLS V1.3 pre-selected
S7 routing	Yes
<ul> <li>Data record routing</li> </ul>	Yes
<ul> <li>S7 communication, as server</li> </ul>	Yes
S7 communication, as client	Yes
• User data per job, max.	See online help (S7 communication, user data size)
Open IE communication	
• TCP/IP	Yes
— Data length, max.	64 kbyte
— bata length, max.     — several passive connections per port, supported	Yes
ISO-on-TCP (RFC1006)     Date length max	Yes
— Data length, max.	64 kbyte
• UDP	Yes
— Data length, max.	2 kbyte; 1 472 bytes for UDP broadcast
— UDP multicast	Yes; Max. 5 multicast circuits
• DHCP	Yes
• DNS	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
• Encryption	Yes; Optional
Web server	
• HTTP	Yes; Standard and user pages
• 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, Basic256Sha256
— User authentication	"anonymous" or by user name & password
<ul> <li>Number of connections, max.</li> </ul>	10
<ul> <li>— Number of nodes of the client interfaces, recommended max.</li> </ul>	2 000
— Number of elements for one call of OPC_UA_NodeGetHandleList/OPC_UA_ReadList/OPC_I 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 session management, per connection, max.	1
<ul> <li>— Number of simultaneous calls of the client instructions for data access, per connection, max.</li> </ul>	5
— Number of registerable nodes, max.	5 000
— Number of registerable method calls of	100
OPC_UA_MethodCall, max. — 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     Security policies     Application authentication     Security policies     Anallable security policies     Norme of policies     Nor	Application authentication	Vac
Back285 back286           - User aufvertication         "encomprove of up user name & password           - OOS support (cellificate management)         Yes           - Number of sessions, max.         20           - Number of rongistrable marks, max.         20000           - Number of rongistrable marks, max.         20000           - Number of session, max.         20000           - Number of service mathods, max.         20000           - Number of organ alarms         Yes           - Number of organ alarms         Yes           - Number of organ alarms         Yes           - Number of service mathods, max.         20000           - Number of service mathods, max.         20000           - Number of organalarms <t< td=""><td></td><td></td></t<>		
<ul> <li>— OS suppri (configure management).</li> <li>— Vas</li> <li>— Number of accessible variables, max.</li> <li>100 000</li> <li>— Number of accessible variables, max.</li> <li>20 000</li> <li>— Number of accessible variables, max.</li> <li>20 000</li> <li>— Number of accessible variables, max.</li> <li>20 000</li> <li>— Budiber of ablaccington per seasion, max.</li> <li>100 ms</li> <li>— Budiber of ablaccington per seasion, max.</li> <li>100 ms</li> <li>— Budiber of analysis per sever methods, max.</li> <li>— Number of motional per server method, max.</li> <li>— Number of motional per server method, max.</li> <li>— Number of motional per server methods, max.</li> <li>— Number of nondes for user-defined server interfaces, max.</li> <li>— Number of nondes for user-defined server interfaces, max.</li> <li>— Number of nondes for user-defined server interfaces, max.</li> <li>— Number of nondes for user-defined server interfaces, max.</li> <li>— Number of nondes for user-defined server interfaces, max.</li> <li>— Number of nongen atoms</li> <li>— Number of nongen atoms</li> <li>— Number of nessage functions</li> <li>— Number of nessage functions, max.</li> <li>= MoDSUS</li> <li>— Yes, MODSUS TCP</li> <li>Interfaces functions</li> <li>= Number of nongen atoms</li> <li>= Solo</li> <li>Number of configurable program messages in RLM, max.</li> <li>Number of configurable program messages in RLM, max.</li> <li>Number of configurable program larms</li> <li>= Number of configurable program larms</li> <li>= Number of configurable, max.</li> <li>= Number of configurable, max.</li> <li>= Number of configurable, max.</li> <li>= Number of configurable program larms</li> <li>= Number of configurable, max.</li> <li>= Number of configurable program larms</li> <li>= Number of configurable program larms</li> <li>= Number of configurable, max.</li> <li></li></ul>	- Security policies	
<ul> <li>— OS suppri (configure management).</li> <li>— Vas</li> <li>— Number of accessible variables, max.</li> <li>100 000</li> <li>— Number of accessible variables, max.</li> <li>20 000</li> <li>— Number of accessible variables, max.</li> <li>20 000</li> <li>— Number of accessible variables, max.</li> <li>20 000</li> <li>— Budiber of ablaccington per seasion, max.</li> <li>100 ms</li> <li>— Budiber of ablaccington per seasion, max.</li> <li>100 ms</li> <li>— Budiber of analysis per sever methods, max.</li> <li>— Number of motional per server method, max.</li> <li>— Number of motional per server method, max.</li> <li>— Number of motional per server methods, max.</li> <li>— Number of nondes for user-defined server interfaces, max.</li> <li>— Number of nondes for user-defined server interfaces, max.</li> <li>— Number of nondes for user-defined server interfaces, max.</li> <li>— Number of nondes for user-defined server interfaces, max.</li> <li>— Number of nondes for user-defined server interfaces, max.</li> <li>— Number of nongen atoms</li> <li>— Number of nongen atoms</li> <li>— Number of nessage functions</li> <li>— Number of nessage functions, max.</li> <li>= MoDSUS</li> <li>— Yes, MODSUS TCP</li> <li>Interfaces functions</li> <li>= Number of nongen atoms</li> <li>= Solo</li> <li>Number of configurable program messages in RLM, max.</li> <li>Number of configurable program messages in RLM, max.</li> <li>Number of configurable program larms</li> <li>= Number of configurable program larms</li> <li>= Number of configurable, max.</li> <li>= Number of configurable, max.</li> <li>= Number of configurable, max.</li> <li>= Number of configurable program larms</li> <li>= Number of configurable, max.</li> <li>= Number of configurable program larms</li> <li>= Number of configurable program larms</li> <li>= Number of configurable, max.</li> <li></li></ul>	- User authentication	"anonymous" or by user name & password
<ul> <li>Number of server interfaces, max.</li> <li>44</li> <li>Number of acustative servers, max.</li> <li>20 000</li> <li>Number of acustative servers, max.</li> <li>20 000</li> <li>Standard interval, min.</li> <li>20 ms</li> <li>Publishing interval, min.</li> <li>20 ms</li> <li>Number of server interfaces, max.</li> <li>Number of server interfaces, max.</li> <li>Number of acustative servers method, max.</li> <li>Number of server interfaces, max.</li> <li>Number of server interfaces, max.</li> <li>Number of acustative servers interfaces, max.</li> <li>Number of acustative servers interfaces, max.</li> <li>Number of acustative servers interfaces.</li> <li>Soudo (servers)</li> <li>Number of acustative servers interfaces.</li> <li>Number of acustative acustative se</li></ul>	- GDS support (certificate management)	
<ul> <li>Number of registerable nodes, max.</li> <li>Sumpting interval, min.</li> <li>Do ms</li> <li>Publishing interval, min.</li> <li>Do ms</li> <li>Publishing interval, min.</li> <li>Do ms</li> <li>Number of neutronous, max.</li> <li>Sums of monitored interval</li> <li>Number of neutronous, momentade max.</li> <li>Number of neutronous momentade max.</li> <li>Number of neutronous for user-defined server interfaces, max.</li> <li>Number of neutronous for user-defined server interfaces.</li> <li>Number of neutronous for usenages.</li> <li>Number of neutronous defined server.</li></ul>		48
<ul> <li>Mumber of allocation part seasion, max.</li> <li>Sampling interval, min.</li> <li>Publishing interval, min.</li> <li>Number of neuroscient performance interval</li> <li>Number of inputs/outputs per server method, max.</li> <li>Number of inputs/outputs per server method, max.</li> <li>Source of server interfords, max.</li> <li>Number of inputs/outputs per server method, max.</li> <li>Number of inputs/outputs per server method, max.</li> <li>Number of inputs/outputs per server method, max.</li> <li>Number of inputs/outputs per server interfordser, "Companion specification" type and 20 of the type "Reference namespace".</li> <li>Number of indivisions</li> <li>Number of indindivisions</li> <li>Number of indindivisio</li></ul>	<ul> <li>Number of accessible variables, max.</li> </ul>	100 000
<ul> <li>Mumber of allocation part seasion, max.</li> <li>Sampling interval, min.</li> <li>Publishing interval, min.</li> <li>Number of neuroscient performance interval</li> <li>Number of inputs/outputs per server method, max.</li> <li>Number of inputs/outputs per server method, max.</li> <li>Source of server interfords, max.</li> <li>Number of inputs/outputs per server method, max.</li> <li>Number of inputs/outputs per server method, max.</li> <li>Number of inputs/outputs per server method, max.</li> <li>Number of inputs/outputs per server interfordser, "Companion specification" type and 20 of the type "Reference namespace".</li> <li>Number of indivisions</li> <li>Number of indindivisions</li> <li>Number of indindivisio</li></ul>	- Number of registerable nodes, max.	20 000
<ul> <li>Sampling interval, min.</li> <li>Solutions interval, min.</li> <li>Polyabilizing interval, min.</li> <li>Number of server methods, max.</li> <li>Number of server methods, max.</li> <li>Solution of inpublicity per server methods, max.</li> <li>Number of noncost for user-defined server interfaces, max.</li> <li>Number of noncost server interfaces, max.</li> <li>Strinterspectrations</li> <li>Yes, MODBUS TCP</li> <li>Strinterspectrations, max.</li> <li>Strinterspectrations</li> <li>Yes, MODBUS TCP</li> <li>Strinterspectrations, max.</li> <li>Strinterspectrations, m</li></ul>	-	20
<ul> <li>Publishing interval, min.</li> <li>Number of server methods, max.</li> <li>Number of inputs/outpake per server method, max.</li> <li>Number of nonlocred items, recommended max.</li> <li>Number of nonlocred items, economended max.</li> <li>Number of nonlocred items, temperature items, economended max.</li> <li>Number of nonlocred items for system diagnostics</li> <li>Number of ongurable program messages, max.</li> <li>Number of lagnitations for messages, max.</li> <li>Number of lagnitations for system diagnostics</li> <li>Number of lagnitems for system diagnostics</li> <li>Number of lagnitatin</li></ul>		100 ms
<ul> <li>- Number of nucleixa peer over method, max.</li> <li>- Number of monitored items, recommended max.</li> <li>- Number of monitored items, recommended max.</li> <li>- Number of nodes for user-defined server interfaces.</li> <li>- Sumber of nodes for user-defined server interfaces.</li> <li>- Number of nodes for message functions.</li> <li>- Number of nodes tendes.</li> <li>- Number of dama for notion technology objects.</li> <li>- Number of dama for notion technology objects.</li> <li>- Number of variables.</li> <li>- Number of variables.</li> <li>- Or which saturations.</li> <li>- Or which saturations.</li> <li>- Or or variables.</li> <li>- Or variables.</li></ul>		200 ms
Number of nonlaterial terms, recommended max.     2000; for 1 seampling inferval and 1 send interval      Number of actives for user-defined server interfaces, max.     5 000      Number of program alarms     200      Number of program alarms     7 wes.       Statisticance     Yes       Statisticance     Yes       Statisticance     Yes       Statisticance     Yes       Number of fourglurable program messages in RUN, max.     5 000       Number of program alarms     1 000       Number of alarms for system diagnostics     200       Statisticanterial for motechnology objects     100       Number of alarms for system diagnostics     200       Statisticanterial for motechnology objects     100       Statisticanterial for alarms for system diagnostics     200	— Number of server methods, max.	50
Number of server interfaces, max.10 of each 'Sanver interfaces' /Companion specification' type and 20 of the type 'Reference namespace'' Number of ordes for user-defined server interfaces, max.5000 Number of anams for system diagnostics200 Number of anams for system diagnostics100 Number of anams for system diagnostics100 Number of anams for system diagnostics100 Number of program alarms201 Number of program starmsYes, MODBUS TCP Number of login stations for message functions.64 Program alarmsYesNumber of onfigurable program messages, max.10000, Program messages are generated by the "Program_Alarm" block, Prodga of alarns for system diagnosticsNumber of onfigurable program messages, max.10000, Program messages are generated by the "Program_Alarm" block, Prodga of alarns for system diagnosticsNumber of alarns for motion technology objects1000Number of alarns for motion technology objects1000Number of alarns for motion technology objects1000Number of alarns for motion technology objects1000Status block200Number of variables, max.200- of which status va	<ul> <li>— Number of inputs/outputs per server method, max.</li> </ul>	20
Hype "Reference namespace"         Main	<ul> <li>— Number of monitored items, recommended max.</li> </ul>	2 000; for 1 s sampling interval and 1 s send interval
Number of nodes for user-defined server interfaces, max.5000Number of parm alarms200Number of alarms for system diagnostics100Further of alarms for system diagnostics100Strates and Conduct and Strates and Str	- Number of server interfaces, max.	
• Alarms and Conditions     Yes       - Number of program alarms     200       - Number of alarms for system diagnostics     100       Further protocols     Yes; MODBUS TCP       Iacchronous mode     Yes       Equidistance     Yes       27 message functions     64       Program alarms     Yes       Number of configurable program messages, max.     64       Program alarms     Yes       Number of configurable program messages in RUN, max.     5000       Number of longin stations for message in RUN, max.     5000       Number of alarms for system diagnostics     200       • Status/control variables     Yes       • Status/control variables, max.     200; per job       • Of which status variables, max.     200       • O which cotrol variables, m		
Number of program alarms     200       Number of alarms for system diagnostics     100       Further products     Yes; MODBUS TCP       Isochronous mode     Equidistance       Stronessage functions     Yes       Stronessage functions     64       Program alarms     Yes       Number of login stations for messages, max.     ProDiag or GRAPH       Number of configurable program messages, max.     ProDiag or GRAPH       Number of oladable program messages, max.     5000       Number of oladable program messages max.     5000       Number of oladable program messages max.     5000       Number of program alarms     1 000       Number of program alarms     1 000       Number of alarms for motion technology objects     160       Test commission (Team Engineering)     Yes; Parallel online access possible for up to 8 engineering systems       Status block     Yes       Status block     Yes       Status block     Yes       Variables     Inputs/outputs, memory bits, DBs, distributed blos, timers, counters       Number of variables, max.     200       - of which status variables, max.     200       - of which control variables, max.     200       - of which control variables, max.     200       - of which control variables, max.     200       <		Yes
Number of alarms for system diagnostics         100           Further protocods         Yes; MODBUS           Status         Yes           Equidistance         Yes           Status         64           Program slams         Yes           Number of configurable program messages in RUN, max.         64           Program slams         Yes           Number of configurable program messages, max.         10 000; Program messages are generated by the "Program_Alarm" block, Probag or GRAPH           Number of simultaneously active program alarms         000           Number of alarms for motos technology objects         5000           Number of alarms for motos technology objects         1000           • Number of alarms for moton technology objects         1000           • Number of alarms for moton technology objects         1000           • Status/control variable         Yes; Parallel online access possible for up to 8 engineering systems           Status/control variables         No           Number of brashpoints         8           Status/control variables, max.         200; per job           • Orwinds status variables, max.         200; per job           • Forcing         Yes           • Forcing         Yes           • Number of variables, max.         200		
Further protocols       Yes; MODBUS TCP         Equidistance       Yes         S7 message functions       Yes         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, Problag or GRAPH         Number of oliginations for system diagnostics       200         • Number of program alarms       1000         • Number of alarms for motion technology objects       200         • Number of alarms for motion technology objects       1000         • Number of breakpoints       200         Status block       Yes; Parailel online access possible for up to 8 engineering systems         Status block       Yes; Up to 8 simultaneously up to 10 all encions all ES clients)         Status block       Yes; Dry to 8 aimultaneously (in total across all ES clients)         Status block       Yes         • Status/control variables       8         • Status/control variables, max.       200; per job         • Ording, variables       Yes         • Number of variables, max.       200; per job         • Ording, variables       Yes         • Number of variables, max.       200         • Ording, variables       Yes		
• MODBUS         Yes; MODBUS TCP           Isochronous mode         Equidistance         Yes           S7 message functions         64           Program alarms         Yes           Number of configurable program messages, max.         10 000; Program messages are generated by the "Program_Alarm" block, Problag or GRAPH           Number of loadable program messages in RUN, max.         5 000           Number of program alarms         10 000; Program messages are generated by the "Program_Alarm" block, Problag or GRAPH           Number of alarms for rostoin technology objects         100           Number of alarms for rostoin technology objects         100           Number of alarms for rostoin technology objects         100           Status block         Yes; Yup to 8 simultaneously (in total across all ES clients)           Single step         No           Number of breakpoints         8           Status/control variables         Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters           Number of variables, max.         200; per job           - of which control variables, max.         200; per job           - of which control variables, max.         200; per job           - of which status variables, max.         200; per job           - of which control variables, max.         200; per job           - of		
Isochronous mode         Yes           Equidistance         Yes           27 message functions         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 configurable program messages, max.         10 000; Program messages are generated by the "Program_Alarm" block, ProDiag or GRAPH           Number of adatms for system diagnostics         200           Number of alarms for motion technology objects         160           Joint commission (Team Engineering)         Yes; Parallel online access possible for up to 8 engineering systems           Status block         Yes; Up to 8 simultaneously (in total across all ES clients)           Single step         No           Number of breakpoints         8           Status/control variables, max.         200; per job           - of which status variables, max.         200; per job           - of which ontrol variables, max.         200; per job           - of which ontrol variables, max.         200           - of which ontrol variables, max.         200; per job           - of which ontrol variables, max.         200           - of which ontrol variables, max.         200           - of which powerfail-proof         500 </td <td></td> <td>Yes: MODBUS TCP</td>		Yes: MODBUS TCP
Equidistance     Yes       S7 message functions     F       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 login alarms     1 000       • Number of program alarms for motion technology objects     160       Test commissioning functions     200       • Joint commission (Team Engineering)     Yes; Parallel online access possible for up to 8 engineering systems       Status block     Yes; Up to 8 simultaneously (in total across all ES clients)       Single step     No       Number of variables, max.     200; per job       • Status/control variables, max.     200; per job       - of which status variables, max.     200; per job       • Forcing     Yes       • Forcing, variables, max.     200       • present     Yes       • present     Yes       • of which porter and be, max.     200       • of which porter and be, max.     200       • present     Yes       • winther of conf		
S7 message functions         64           Program alarms         Yes           Number of configurable program messages, max.         10.00; Program messages are generated by the "Program_Alarm" block, ProDiag or GRAPH           Number of configurable program messages in RUN, max.         5.000           Number of simultaneously active program alarms         1.000           • Number of alarms for system diagnostics         200           • Number of alarms for motion technology objects         160           Test commissioning functions         200           Joint commission (Team Engineering)         Yes; Parallel online access possible for up to 8 engineering systems           Status block         Yes; Parallel online access possible for up to 8 engineering systems           Status block         Yes; Parallel online access possible for up to 8 engineering systems           Status foorthol         8           Status block         Yes           • Variables         Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters           • Ownber of variables, max.         200; per job           - of which control variables, max.         200; per job           • Forcing         Yes           • Forcing, variables, max.         200           • Forcing, variables, max.         200           Diagnostic butfer         Sio0		Yes
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 RUN, max.         5 000           Number of loadination of program alarms         1 000           • Number of program alarms or system diagnostics         200           • Number of alarms for system diagnostics         200           • Number of alarms for motion technology objects         160           Test commission (Team Engineering)         Yes; Parallel online access possible for up to 8 engineering systems           Status block         Yes; Up to 8 simultaneously (in total across all ES clients)           Single step         No           • Variables         Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters           • Variables         Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters           • of which control variables, max.         200; per job           • of which control variables, max.         200; per job           • of which control variables, max.         200; per job           • of ording.         Yes           • of which powerfail-proof         500           Diagnostic buffer         Yes		
Program alarms       Yes         Number of configurable program messages, max.       Yes         10 000; Program messages are generated by the "Program_Alarm" block, ProDiag or GRAPH         Number of loadable program messages in RUN, max.       5 000         Number of simultaneously active program alarms       1 000         • Number of alarms for motion technology objects       100         • Number of alarms for motion technology objects       100         fest commission (Team Engineering)       Yes; Parallel online access possible for up to 8 engineering systems         Status block       Yes; Up to 8 simultaneously (in total across all ES clients)         Number of breakpoints       8         Status/control variables       No         • Vumber of variables, max.       200; per job         - of which status variables, max.       200; per job         - of which control variables, max.       200; per job         • Forcing       Yes         • Forcing, variables, max.       200; per job         • Or which ostatus save:       200; per job         • Or which provertial-proof       500         Diagnostic buffer       Yes         • present       Yes         • Number of configurable max.       3200         • Or which powertail-proof       500		64
Number of configurable program messages, max.       10 000; Program messages are generated by the "Program_Alarm" block, Problag or GRAPH         Number of loadable program messages in RUN, max.       5 000         Number of simultaneously active program alarms       1 000         • Number of alarms for system diagnostics       200         • Number of alarms for motion technology objects       160         Test commission (Team Engineering)       Yes; Parallel online access possible for up to 8 engineering systems         Status block       Yes; Up to 8 simultaneously (in total across all ES clients)         Single step       No         Number of breakpoints       8         Status/control variables, max.       200; per job         - of which status variables, max.       200; per job         - of which status variables, max.       200; per job         - of which status variables, max.       200; per job         - of which control variables, max.       200; per job         Porcing       Yes         • Forcing, variables, max.       200         - of which status variables, max.       200; per job         Peripheral inputs/outputs       200         Porcing       Yes         • Number of traisbles, max.       200         - of which powerfail-proof       500         •		
ProDiag or GRAPH           Number of loadable program messages in RUN, max.         5 000           Number of simultaneously active program alarms         1 000           • Number of program alarms of program alarms involves of alarms for system diagnostics         200           • Number of alarms for system diagnostics         200           • Number of alarms for motion technology objects         160           Test commission(Team Engineering)         Yes; Parallel online access possible for up to 8 engineering systems           Status block         Yes; Up to 8 simultaneously (in total across all ES clients)           Single step         No           Number of breakpoints         8           Status/control         Yes           • Status/control variables, max.         200; per job           • Of which status variables, max.         200; per job           - of which control variables, max.         200; per job           Forcing         Yes           • Forcing, variables         Peripheral inputs/outputs           • Number of variables, max.         200           • Of which control variables, max.         200           • Of which optices, max.         200           Diagnostic buffer         -           • present         Yes           • Number of configurable Traces	0	
Number of simultaneously active program alarms       1 000         Number of alarms for system diagnostics       200         Number of alarms for motion technology objects       160         Test commission (Team Engineering)       Yes; Parallel online access possible for up to 8 engineering systems         Status block       Yes; Up to 8 simultaneously (in total across all ES clients)         Single step       No         Number of variables       8         Status/control       8         Status/control variables, max.       200; per job         – of which status variables, max.       200; per job         – of which control variables, max.       200; per job         Forcing       Yes         • Forcing, variables, max.       200         – of which status variables, max.       200         – of which status variables, max.       200; per job         Forcing       Yes         • Forcing       Yes         • Forcing, variables, max.       200         • Juagnostic buffer       -         • present       Yes         • Number of configurable Traces       4; Up to 512 KB of data per trace are possible         Interrupts/diagnostics/status information       1000         Diagnostic indication LED       Yes		ProDiag or GRAPH
• Number of program alarms     1 000       • Number of alarms for system diagnostics     200       • Number of alarms for motion technology objects     160 <b>fest commissioning functions</b>		5 000
• Number of alarms for system diagnostics     200       • Number of alarms for motion technology objects     160       Test commissioning functions     160       Joint commission (Team Engineering)     Yes; Parallel online access possible for up to 8 engineering systems       Status block     Yes; Up to 8 simultaneously (in total across all ES clients)       Single step     No       Number of breakpoints     8       Status/control     *Yes       • Status/control variables     Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters       • Number of variables, max.     -       - of which status variables, max.     200; per job       - of which control variables, max.     200; per job       - of which status variables, max.     200; per job       - of which status variables, max.     200; per job       - of which status variables, max.     200; per job       - of which status variables, max.     200; per job       - of which control variables     Peripheral inputs/outputs       • Number of variables, max.     200       - present     Yes       • present     Yes       • Number of configurable Traces     4; Up to 512 KB of data per trace are possible       Interrupts/diagnostics/status information     Interrupts/diagnostics/status information       Diagnostic indication LED     Yes <td< td=""><td></td><td></td></td<>		
• Number of alarms for motion technology objects         160           Test commission (Team Engineering)         Yes; Parallel online access possible for up to & engineering systems           Status block         Yes; Up to & simultaneously (in total across all ES clients)           Single step         No           Number of breakpoints         &           Status/control         *Yes           • Status/control variable         Yes           • Variables         Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters           • Number of variables, max.         200; per job           - of which status variables, max.         200; per job           - of which control variables, max.         200; per job           • Forcing         Yes           • Forcing         Yes           • Forcing variables         Peripheral inputs/outputs           • Number of variables, max.         200           • Peripheral inputs/outputs         200           • Peripheral inputs/outputs         200           • Number of originables, max.         200           • Peripheral inputs/outputs         200           • Peripheral inputs/outputs         200           • Induct powerfail-proof         3200           - of which powerfail-proof         3200		
Test commission (Incations         Joint commission (Team Engineering)       Yes; Parallel online access possible for up to 8 engineering systems         Status block       Yes; Up to 8 simultaneously (in total across all ES clients)         Single step       No         Number of breakpoints       8         Status/control       *         • Status/control variables       Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters         • Number of variables, max.       200; per job         - of which status variables, max.       200; per job         - of which control variables, max.       200; per job         Forcing       Yes         • Forcing, variables       Peripheral inputs/outputs         • Number of variables, max.       200         • Forcing       Yes         • Forcing       Yes         • Forcing       Yes         • Number of variables, max.       200         Diagnostic buffer       200         • present       Yes         • Number of configurable Traces       4; Up to 512 KB of data per trace are possible         Interrupts/diagnostics/status information       Diagnostics indication LED         • RUN/STOP LED       Yes         • ERROR LED       Yes         • MAINT LED <t< td=""><td></td><td></td></t<>		
Joint commission (Team Engineering)       Yes; Parallel online access possible for up to 8 engineering systems         Status block       Yes; Up to 8 simultaneously (in total across all ES clients)         Single step       No         Number of breakpoints       8         Status/control       Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters         • Variables       Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters         • Variables, max.       200; per job         — of which control variables, max.       200; per job         — of which control variables, max.       200; per job         Forcing       Yes         • Forcing, variables, max.       200         • Forcing       Yes         • Forcing       Yes         • Forcing       Yes         • Peripheral inputs/outputs       200         Diagnostic buffer       200         • Number of variables, max.       200         Diagnostic buffer       500         • of which powerfail-proof       500         Traces       4; Up to 512 KB of data per trace are possible         Interrupts/diagnostics/status information       10         Diagnostics indication LED       Yes         • ERROR LED       Yes         • MAINT		160
Status block       Yes; Up to 8 simultaneously (in total across all ES clients)         Single step       No         Number of breakpoints       8         Status/control       Yes         • Status/control variable       Yes         • Variables       Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters         • Variables, max.       200; per job         - of which status variables, max.       200; per job         - of which control variables, max.       200; per job         Forcing       Yes         • Forcing, variables       Peripheral inputs/outputs         • Number of variables, max.       200         Diagnostic buffer       200         • Number of ordingurables, max.       200         Diagnostic buffer       3 200         - of which powerfail-proof       500         Traces       4; Up to 512 KB of data per trace are possible         Interrupts/diagnostics/status information       10         Diagnostic sidication LED       Yes         • RUN/STOP LED       Yes         • RUN/STOP LED       Yes         • RUN/STOP LED       Yes         • RUN/STOP LED       Yes         • MAINT LED       Yes		
Single step       No         Number of breakpoints       8         Status/control       *         • Status/control variable       Yes         • Variables       Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters         • Variables, max.       *         - of which status variables, max.       200; per job         Forcing       Yes         • Forcing variables, max.       200; per job         Forcing       Yes         • Forcing variables, max.       200; per job         Diagnostic buffer       *         • present       Yes         • Number of entries, max.       200         • Of which powerfail-proof       500         Traces       4; Up to 512 KB of data per trace are possible         Interrupts/diagnostics/status information       *         Diagnostics indication LED       Yes         • RUN/STOP LED       Yes         • RUN/STOP LED       Yes         • RUN/STOP LED       Yes         • MAINT LED       Yes		
Number of breakpoints       8         Status/control       Filt         • Status/control variable       Yes         • Variables       Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters         • Variables       Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters         • Variables, max.       200; per job         - of which control variables, max.       200; per job         - of which control variables, max.       200; per job         • Forcing       Yes         • Number of variables, max.       200         Diagnostic buffer       200         • Number of entries, max.       200         • Diagnostic buffer       Yes         • Number of configurable Traces       4; Up to 512 KB of data per trace are possible         Interrupts/diagnostics/status information       Interrupts/diagnostics/status information         Diagnostics indication LED       Yes         • RROR LED       Yes         • MAINT LED       Yes		
Status/control       Yes         • Status/control variable       Yes         • Variables       Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters         • Number of variables, max.       200; per job         - of which status variables, max.       200; per job         - of which control variables, max.       200; per job         Forcing       Yes         • Forcing, variables       Peripheral inputs/outputs         • Forcing, variables, max.       200         Diagnostic buffer       200         • present       Yes         • Number of entries, max.       3 200         - of which powerfail-proof       500         Traces       - of which pometries/fatus information         Interrupts/diagnostics/status information       Interrupts/diagnostics/status information         Diagnostics indication LED       Yes         • RUN/STOP LED       Yes         • RROR LED       Yes         • MAINT LED       Yes	• • •	
• Status/control variableYes• VariablesInputs/outputs, memory bits, DBs, distributed I/Os, timers, counters• Number of variables, max.200; per job— of which status variables, max.200; per job— of which control variables, max.200; per jobForcingYes• Forcing, variablesPeripheral inputs/outputs• Forcing, variables, max.200• Forcing, variables, max.200• Forcing, variables, max.200• Forcing, variables, max.200• Number of variables, max.200• Number of variables, max.200• Number of entries, max.3 200— of which powerfail-proof500• Number of configurable Traces4; Up to 512 KB of data per trace are possible• Number of configurable Traces4; Up to 512 KB of data per trace are possible• RUN/STOP LEDYes• RUN/STOP LEDYes• RROR LEDYes• MAINT LEDYes	•	8
• VariablesInputs/outputs, memory bits, DBs, distributed I/Os, timers, counters• Number of variables, max.200; per job- of which control variables, max.200; per job• of which control variables, max.200; per job• ForcingYes• Forcing, variablesPeripheral inputs/outputs• Number of variables, max.200Diagnostic buffer200• presentYes• number of entries, max.200- of which powerfail-proof3200- of which powerfail-proof500Traces4; Up to 512 KB of data per trace are possible• Number of configurable Traces4; Up to 512 KB of data per trace are possibleInterrupts/diagnostics/status informationYesPRINNSTOP LEDYes• RUN/STOP LEDYes• RUN/STOP LEDYes• RUN/STOP LEDYes• MAINT LEDYes		
• Number of variables, max.200; per job of which status variables, max.200; per job of which control variables, max.200; per jobForcingYes• Forcing, variablesPeripheral inputs/outputs• Number of variables, max.200Diagnostic bufferYes• presentYes• Number of entries, max.3 200 of which powerfail-proof500Traces of which powerfail-proof• Number of configurable Traces4; Up to 512 KB of data per trace are possibleInterrupts/diagnostics/status informationYesDiagnostics indication LEDYes• RUN/STOP LEDYes• RUN/STOP LEDYes• MAINT LEDYes		
of which status variables, max.200; per job of which control variables, max.200; per jobForcingYes Forcing, variablesPeripheral inputs/outputs Number of variables, max.200Diagnostic bufferYes presentYes of which powerfail-proof3 200 of which powerfail-proof500Traces Number of configurable Traces4; Up to 512 KB of data per trace are possibleInterrupts/diagnostics/status informationDiagnostics indication LEDYes RUN/STOP LEDYes RUN/STOP LEDYes MAINT LEDYes		Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
of which control variables, max.200; per jobForcingYes• Forcing, variablesPeripheral inputs/outputs• Number of variables, max.200Diagnostic bufferYes• presentYes• Number of entries, max.3 200 of which powerfail-proof500TracesInterrupts/diagnostics/status informationDiagnostics indication LED• RUN/STOP LEDYes• RUN/STOP LEDYes• RUN/STOP LEDYes• MAINT LEDYes		
Forcing• ForcingYes• Forcing, variablesPeripheral inputs/outputs• Number of variables, max.200Diagnostic buffer200• presentYes• Number of entries, max.3 200 of which powerfail-proof500Traces of which powerfail-proof• Number of configurable Traces4; Up to 512 KB of data per trace are possibleInterrupts/diagnostics/status information		
• ForcingYes• Forcing, variablesPeripheral inputs/outputs• Number of variables, max.200Diagnostic bufferYes• presentYes• Number of entries, max.3 200- of which powerfail-proof500Traces• Number of configurable Traces4; Up to 512 KB of data per trace are possibleInterrupts/diagnostics/status informationDiagnostics indication LED• RUN/STOP LEDYes• RUN/STOP LEDYes• ERROR LEDYes• MAINT LEDYes		200; per Job
• Forcing, variablesPeripheral inputs/outputs• Number of variables, max.200Diagnostic bufferYes• presentYes• Number of entries, max.3 200- of which powerfail-proof500Traces• Number of configurable Traces4; Up to 512 KB of data per trace are possibleInterrupts/diagnostics/status informationDiagnostics indication LED• RUN/STOP LEDYes• RUN/STOP LEDYes• MAINT LEDYes	-	Vee
• Number of variables, max.200Diagnostic bufferVes• presentYes• Number of entries, max.3 200- of which powerfail-proof500Traces4; Up to 512 KB of data per trace are possibleInterrupts/diagnostics/status informationInterrupts/diagnostics/status informationDiagnostics indication LEDYes• RUN/STOP LEDYes• MAINT LEDYes	-	
Diagnostic buffer• presentYes• Number of entries, max.3 200- of which powerfail-proof500Traces• Number of configurable Traces4; Up to 512 KB of data per trace are possibleInterrupts/diagnostics/status informationDiagnostics indication LEDYes• RUN/STOP LEDYes• ERROR LEDYes• MAINT LEDYes	-	
• presentYes• Number of entries, max.3 200- of which powerfail-proof500Traces• Number of configurable Traces4; Up to 512 KB of data per trace are possibleInterrupts/diagnostics/status informationInterrupts/diagnostics/status informationDiagnostics indication LEDYes• RUN/STOP LEDYes• ERROR LEDYes• MAINT LEDYes		200
Number of entries, max.3 200— of which powerfail-proof500Traces• Number of configurable Traces4; Up to 512 KB of data per trace are possibleInterrupts/diagnostics/status informationDiagnostics indication LED• RUN/STOP LEDYes• ERROR LEDYes• MAINT LEDYes		Vac
of which powerfail-proof500Traces• Number of configurable Traces4; Up to 512 KB of data per trace are possibleInterrupts/diagnostics/status informationDiagnostics indication LED• RUN/STOP LEDYes• ERROR LEDYes• MAINT LEDYes	•	
Traces         • Number of configurable Traces       4; Up to 512 KB of data per trace are possible         Interrupts/diagnostics/status information         Diagnostics indication LED         • RUN/STOP LED       Yes         • ERROR LED       Yes         • MAINT LED       Yes		
• Number of configurable Traces4; Up to 512 KB of data per trace are possibleInterrupts/diagnostics/status informationDiagnostics indication LED• RUN/STOP LED• ERROR LED• MAINT LEDYes		500
Interrupts/diagnostics/status information         Diagnostics indication LED       Yes         • RUN/STOP LED       Yes         • ERROR LED       Yes         • MAINT LED       Yes		4; Up to 512 KB of data per trace are possible
Diagnostics indication LED         • RUN/STOP LED       Yes         • ERROR LED       Yes         • MAINT LED       Yes		
• RUN/STOP LEDYes• ERROR LEDYes• MAINT LEDYes		
MAINT LED Yes	RUN/STOP LED	Yes
	• ERROR LED	Yes
STOP ACTIVE LED Yes	MAINT LED	Yes
	STOP ACTIVE LED	Yes

• Venice of available Advances     198       Motion Control     Yes       • Number of available Advances for exchanges graded     Yes       • Number of available Advances     2400       • Per per sectoronus asis     80       - per sectoronus asis     160       - Number of postoring asis     17       - Postoring     Yes, PD controller with integrated optimization       - Number of postoring asis     17       - Postoring     17    <	<ul> <li>Connection display LINK TX/RX</li> </ul>	Yes
Motion Control         Ves. Note: The number of herbroky signed alleres the cycle time of the PLC program: selection guess was the TLA. Selection Tool.                • Number of available Motion Control resources for technology objects.             • Required Motion Control resources for technology objects.             2000               • Page selection object was the TLA. Selection Tool.             2000               • Page selection object was the Selection Tool.             2000               • per positioning asis             80               • per positioning asis             90               • per positioning asis             90               • Aunteer of positioning asis             90               • Pastiming asis             90               • Aunteer of positioning asis             90               • Pastiming asis             90		
Number of available Motion Control resources for technology objects     Por spect-controlled axis     Por spect-controller with integrated optimization     Por sp		Yes: Note: The number of technology objects affects the cycle time of the DLC
• Number of available Notion Control resources for totombody objects     2.400       • Required Motion Control resources     0       - per perdecontrol data     0       - per perdecontrol data     0       - per perdecontrol data     00       - per perdecontrol data     00       - per output can     00       - per probe     40       • Positioning axis     10       - without of opationing axis at motion control cycle of 4 ms (tyclat value)     7       • PID_Step     Yes; Universal PID controller with integrated optimization       • PID_Step     Yes; PID controller with integrated optimization for values       • PID_Step     Yes; PID controller with integrated optimization for values       • PID_Step     Yes; PID controller with integrated optimization for values       • PID_Step     Yes; PID controller with integrated optimization for values       • PID_Step     Yes; PID controller with integrated optimization for values       • PID_Step     Yes; PID controller with integrated optimization for values       • PID_Step     Yes; PID controller with integrated optimization for values       • PID_Step     Yes; PiD controller with integrated optim		
Perspansion Median Control resources     Perspansion Median Control resources     Perspansion Median Control resources     Perspansion Perspective Perspectiv		
- per speek-conclude axis 40 - per synchronous axis 160 - per external encoder 80 - per external encoder 80 - per external encoder 80 - per external encoder 80 - per cart track 160 - per cart	technology objects	
- per particular paris     80       - per synchronous axis     100       - per output cam     20       - per output cam     20       - per an track     180       - per probe     40       Persteining axis     7       - Awneber of posticining axis at motion control cycle of 4 ms (typical value)     7       - Awneber of posticining axis at motion control cycle of 9 ms (typical value)     7       - Wintber of posticining axis at motion control cycle of 9 ms (typical value)     7       - Output and measuring - PiD_Compact     Yes; Universal PID controller with integrated optimization integrated optimization for valves       - PID_temp     Yes; PID controller with integrated optimization integrated optimization for temperature of Controll and measuring - PiD_temp     Yes; PID controller with integrated optimization integrated optimization into integrated optimization into integrated optimization into integrated optimization into into integrated optimization into into integrated optimization into integrated optimization into into into into into into into	<ul> <li>Required Motion Control resources</li> </ul>	
	— per speed-controlled axis	40
- per output cam per cational encoder per output cam per cational encoder per output cam per cational encoder per output cam per probe per per probe per probe per per probe per per probe per per probe per	— per positioning axis	80
-     per output cam     20       -     per cam track     160       -     per cam track     40       -     Postitioning axis     7       -     Muther of postitioning area at motion control cycle     7       -     Muther of postitioning area at motion control cycle     7       -     Muther of postitioning area at motion control cycle     14       -     Octorolier     14       -     PUD_Compact     Yes; Universal PID controlier with integrated optimization for valves       -     PUD_Temp     Yes; PID controlier with integrated optimization for valves       -     PUD_Compact     Yes; Universal PID controlier with integrated optimization for valves       -     PUD_Compact     Yes; Universal PID controlier with integrated optimization for valves       -     PUD_Compact     Yes; Universal PID controlier with integrated optimization for valves       -     PUD_Compact     Yes; Universal PID controlier with integrated optimization for valves       -     PUD_Compact     Yes; Universal PID controlier with integrated optimization for valves       -     PUD_Compact     Yes; Universal PID controlier with integrated optimization for valves       -     PUD_Compact     Yes;       -     Put installation, min.     -25 °C; No condensation       -     •     •     • <t< td=""><td>— per synchronous axis</td><td>160</td></t<>	— per synchronous axis	160
- ber cam track 40 - per probe 40 Postconing axis 40 - Number of postconing axes at motion control cycle of 4 ms (kyclat value) - Number of postconing axes at motion control cycle of 8 ms (kyclat value) - Number of postconing axes at motion control cycle of 9 ms (kyclat value) - Number of postconing axes at motion control cycle of 9D_3Step - PID_Compat - PID_Compat - PID_Step - PID_Compat - PID_Step - PID_s	— per external encoder	80
	— per output cam	20
Positioning axis	— per cam track	160
Number of positioning axes at motion control cycle         7          Number of positioning axes at motion control cycle         14           Controller         14	— per probe	40
Number of positioning axes at motion control cycle         7          Number of positioning axes at motion control cycle         14           Controller         14	Positioning axis	
of 8 ms (typical value)         Controller         • PID_Compact       Yes; Universal PID controller with integrated optimization for valves         • PID_Tamp       Yes; PID controller with integrated optimization for temperature         Counting and measuring       Yes; PID controller with integrated optimization for temperature         Counting and measuring       Yes; PID controller with integrated optimization for temperature         Ambient conditions       Yes         Antibent temperature during operation       60 °C; Display; 50 °C; at an operating temperature of typically 50 °C; the display is switched off         • horizontal installation, min.       -25 °C; No condensation         • vertical installation, max.       40 °C; Display; 40 °C; at an operating temperature of typically 40 °C; the display is switched off         • wertical installation, min.       -40 °C         • wertical installation, max.       5000 m; Restrictions for installation altitudes > 2 000 m, see manual         configuration / header       -         • installation altitude above sea level, max.       5 000 m; Restrictions for installation altitudes > 2 000 m, see manual         configuration / header       -         configuration / header       Yes         - FaD       Yes         - Sol,       Yes         - Sol,       Yes         - GRAPH       Yes		7
• PID_Compact       • PID_Step       Yes; Universal PID controller with integrated optimization for valves       • PID-Temp       Yes; PID controller with integrated optimization for valves       • PID-Temp       Yes; PID controller with integrated optimization for temperature       Counting and measuring       • PID-Temp       Yes; PID controller with integrated optimization for temperature       / PID-Temp       Yes; PID controller with integrated optimization for temperature       // PID-Temp       // Yes; PID-controller with integrated optimization for temperature       // PID-Temp       // Yes; PID-controller with integrated optimization for temperature       // PID-Temp       // Yes		14
• PID_Step       Yes: PID controller with integrated optimization for valves         • PID_Temp       Yes: PID controller with integrated optimization for temperature         • High-speed counter       Yes         Amblent temperature during operation       -25 °C; No condensation         • horizontal installation, min.       -25 °C; No condensation         • horizontal installation, min.       -25 °C; No condensation         • vertical installation, max.       60 °C; Display, 50 °C; at an operating temperature of typically 50 °C, the display is switched off         • vertical installation, max.       -25 °C; No condensation         • vertical installation, max.       -27 °C; No condensation         • vertical installation, max.       -27 °C; No condensation         • vertical installation, max.       -27 °C; No condensation         • vertical installation, max.       -0 °C         • orink       -40 °C         • nax.       70 °C         Anthetemperature during operation relating to sea level       -0 °C         • nax.       5000 m; Restrictions for installation attitudes > 2 000 m; see manual         configuration / header       -         origination / header       Yes         - SRL       Yes         - SRD       Yes         - SRPH       Yes         - SRAPH	Controller	
• PID-Temp         Yes; PID controller with integrated optimization for temperature           Counting and measuring         •           • Infigh-speed counter         Yes           Ambient conditions         -           Ambient conditions         -           Ambient conditions         -           • Inforzontal installation, min.         -25 °C; No condensation           • Inforzontal installation, min.         -25 °C; No condensation           • vertical installation, min.         -25 °C; No condensation           • vertical installation, max.         40 °C; Display: 50 °C, at an operating temperature of typically 40 °C, the display is switched off           Ambient temperature during storage/transportation         -40 °C           • inax.         70 °C           Altitude during operation relating to sea level         500 m; Restrictions for installation altitudes > 2000 m; see manual           ofinfiguration / header         -           Programming language         -           - LAD         Yes           - SCL         Yes           - GRAPH         Yes           • lock protection         Yes           • orgeramming language         -           - LAD         Yes           - SCL         Yes           - SRAPH         Yes	PID_Compact	Yes; Universal PID controller with integrated optimization
Counting and measuring     Yes       Ambient conditions     Yes       Ambient temperature during operation     -25 °C; No condensation <ul> <li>horizontal installation, min.</li> <li>obtoint installation, max.</li> <li>do °C; Display: 50 °C, at an operating temperature of typically 50 °C, the display is switched off</li> <li>vertical installation, max.</li> <li>do °C; Display: 40 °C, at an operating temperature of typically 40 °C, the display is switched off</li> <li>min.</li> <li>-25 °C; No condensation</li> <li>min.</li> <li>-40 °C</li> <li>min.</li> <li>-40 °C</li> <li>min.</li> <li>-40 °C</li> <li>No condensation</li> <li>Mitude during operation relating to sea level</li> <li>installation altitude above sea level, max.</li> <li>5 000 m; Restrictions for installation altitudes &gt; 2 000 m, see manual</li> <li>configuration / header</li> <li>Forgramming language</li> <li>-LAD</li> <li>Yes</li> <li>-SCL</li> <li>Yes</li> <li>-SCL</li> <li>Yes</li> <li>Now-how protection</li> <li>Yes</li> <li>Access protection</li> <li>Yes</li> <li>Access protection</li> <li>Yes</li> <li>Protection lev</li></ul>	PID_3Step	Yes; PID controller with integrated optimization for valves
High-speed counter         Yes           Ambient conditions	PID-Temp	Yes; PID controller with integrated optimization for temperature
High-speed counter         Yes           Ambient conditions	•	
Ambient conditions         Ambient conditions         • horizontal installation, min.         • horizontal installation, max.         • birzontal installation, max.         • vertical installation, min.         • vertical installation, max.         • vertical installation installation, max.         • notack         • or notack         • or notack         • or notack		Yes
Ambient temperature during operation       -25 °C; No condensation <ul> <li>horizontal installation, min.</li> <li>horizontal installation, max.</li> <li>evertical installation and the above seal evel</li> <li>evertical installation relating to seal evel</li> <li>evertical installation relating to seal evel</li> <li>evertical installation relating to header</li> </ul> <li>Programming language         <ul> <li>LAD</li> <li>Yes</li> <li>SCL</li> <li>Yes</li> <li>SCL</li> <li>Yes</li> <li>Scl program protection/password protection</li> <li>Yes</li> <li>Protection evel: Write protection</li> <li>Yes</li> <li>Protection fervial configuration data</li> <li>Yes</li> <li>Protection level: Write protection</li> <li>Yes</li> <li>Protection level: Write protection</li> <li>Yes&lt;</li></ul></li>		
• horizontal installation, min.       -25 °C; No condensation         • horizontal installation, max.       60 °C; Display: 50 °C, at an operating temperature of typically 50 °C, the display is switched off         • vertical installation, max.       40 °C; Display: 40 °C, at an operating temperature of typically 40 °C, the display is switched off         • 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       -40 °C         • max.       70 °C         Antibute during operation relating to sea level       -0 °C         • installation altitude above sea level, max.       5000 m; Restrictions for installation altitudes > 2 000 m, see manual         configuration / header       -         configuration / programming / header       -         Programming language       -         - FBD       Yes         - SCL       Yes         - GRAPH       Yes         • Orgoramming protection/password protection       Yes         • Disck protection       Yes         • Protection fewel: Write protection       Yes         • Protection level: Write protection       Yes         • Protection level: Write protection       Yes         - SCL       Yes         • Protection level: Write		
• horizontal installation, max.         60 °C; Display: 50 °C, at an operating temperature of typically 50 °C, the display is switched off           • vertical installation, mix.         -25 °C; No condensation           • 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         -40 °C           • min.         -40 °C           • max.         70 °C           Altitude during operation relating to sea level, max.         500 on; Restrictions for installation altitudes > 2 000 m, see manual           configuration / header         -           Programming language         -           - FBD         Yes           - STL         Yes           - SCL         Yes           - GRAPH         Yes           Ves         -           - Block protection         Yes           - Protection fewei: Write protection         Yes           - Protection levei: Write protection         Yes           - Protection levei:		-25 °C' No condensation
display is switched off     display is switched off       • vertical installation, min.     -25 °C; No condensation       • 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     -40 °C       • min.     -40 °C       • max.     70 °C       Attitude during operation relating to sea level     -       • Installation altitude above sea level, max.     5 000 m; Restrictions for installation altitudes > 2 000 m, see manual       configuration / beader     -       Programming language     -       - FBD     Yes       - SCL     Yes       - SCL     Yes       - GRAPH     Yes       Ves     -       - GRAPH     Yes       • Disck protection/password protection     Yes       • Disck protection of confidential configuration data     Yes       • Protection level: Write protection     Yes       • Protection level: Write protection     Yes       • Protection level: Complete protection     Yes       • Protectio		
• 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         -40 °C           • max.         70 °C           Attuide during operation relating to sea level         -           • Installation altitude above sea level, max.         5 000 m; Restrictions for installation altitudes > 2 000 m, see manual           configuration / header         -           configuration / programming / header         -           Programming language         -           - LAD         Yes           - SCL         Yes           - SCL         Yes           - GRAPH         Yes           • User program protection/password protection         Yes           • Discloping of display         Yes           • Discloping of display         Yes           • Protection of confidential configuration data         Yes           • Protection levei: Kombleto protection         Yes           • Protection levei: Complete protection         Yes           • Protection levei: Complete protection         Yes           • protection of confidential configuration data         Yes           • Protection levei: Complete protection         Yes           • Protection levei: Read/writ	- nonzonas mosanduon, maxi	
display is switched off           Ambient temperature during storage/transportation           • min.         -40 °C           • max.         70 °C           Altitude during operation relating to sea level         -           • installation altitude above sea level, max.         5 000 m; Restrictions for installation altitudes > 2 000 m, see manual           configuration / heador         -           configuration / heador         -           configuration / programming / header         -           Programming language         -           -         LAD         Yes           -         FBD         Yes           -         SCL         Yes           -         SCL         Yes           -         Graph Yes         -           -         Graph Yes         Yes           -         Graph Yes         -           -         Sca Potection         Yes           -         User program protection/password protection         Yes           -         Block protection         Yes           -         Protection for Confidential configuration data         Yes           -         Protection levei: Write protection         Yes           -         Protection levei	<ul> <li>vertical installation, min.</li> </ul>	-25 °C; No condensation
display is switched off           Ambient temperature during storage/transportation           • min.         -40 °C           • max.         70 °C           Altitude during operation relating to sea level         -           • installation altitude above sea level, max.         5 000 m; Restrictions for installation altitudes > 2 000 m, see manual           configuration / heador         -           configuration / heador         -           configuration / programming / header         -           Programming language         -           -         LAD         Yes           -         FBD         Yes           -         SCL         Yes           -         SCL         Yes           -         Graph Yes         -           -         Graph Yes         Yes           -         Graph Yes         -           -         Sca Potection         Yes           -         User program protection/password protection         Yes           -         Block protection         Yes           -         Protection for Confidential configuration data         Yes           -         Protection levei: Write protection         Yes           -         Protection levei	<ul> <li>vertical installation, max.</li> </ul>	
• min.       -40 °C         • max.       70 °C         Altide during operation relating to sea level       -         • Installation altitude above sea level, max.       5 000 m; Restrictions for installation altitudes > 2 000 m, see manual         configuration / header       -         configuration / programming / header       -         Programming language       -         - LAD       Yes         - FBD       Yes         - STL       Yes         - SCL       Yes         - GRAPH       Yes         - GRAPH       Yes         Ves program protection/password protection       Yes         - Block protection       Yes         - Sock protection       Yes         - GRAPH       Yes         - Sock protection       Yes         - Protection for confidential configuration data       Yes         - Protection levei: Write protection       Yes         - Protection levei: Write protection       Yes         - Protection levei: Read/write protection       Yes         -		
• max.         70 ° C           Attitude during operation relating to sea level            • Installation altitude above sea level, max.         5 000 m; Restrictions for installation altitudes > 2 000 m, see manual           configuration / header            configuration / programming / header            Programming language            - LAD         Yes           - STL         Yes           - SCL         Yes           - GRAPH         Yes           User program protection/password protection         Yes           Copy protection         Yes           Opport of confidential configuration data         Yes           Access protection         Yes           Protection of confidential configuration data         Yes           Password for display         Yes           Protection level: Write protection         Yes           Protection level: Read/write protection         Yes           Protection level: Read/write protection         Yes           Protection level: Complete protection         Yes	Ambient temperature during storage/transportation	
Altitude during operation relating to sea level       5 000 m; Restrictions for installation altitudes > 2 000 m, see manual         configuration / header         onfiguration / programming / header         Programming language        LAD       Yes        FBD       Yes        STL       Yes        SCL       Yes        GRAPH       Yes         Voser program protection/password protection       Yes         Oxpy protection       Yes         Block protection       Yes         Access protection       Yes         Password for display       Yes         Protection level: Write protection       Yes         Protection level: Write protection       Yes         Protection level: Complete protection	● min.	
● Installation altitude above sea level, max.       5 000 m; Restrictions for installation altitudes > 2 000 m, see manual         configuration / header         Programming language        LAD       Yes        FBD       Yes         -STL       Yes         -SCL       Yes         -GRAPH       Yes         Woser program protection/password protection       Yes         0. Grap protection       Yes         Ves program protection/password protection       Yes         Protection of confidential configuration data       Yes         Protection of confidential configuration data       Yes         Protection level: Read/write protection       Yes         Protection level: Complete protection       Yes         Protection level: Read/write protection       Yes         Protection level: Read/write protection       Yes         Protection level: Complete protection       Yes         Protection level: Read/write protection       Yes         Protection level: Complete protection       Yes         Protection level: Read/write protection       Yes </td <td>• max.</td> <td>70 °C</td>	• max.	70 °C
configuration / header         Programming language         -LAD       Yes         -FBD       Yes         -FBD       Yes         -STL       Yes         -GRAPH       Yes         Wes program protection/password protection       Yes         •User program protection/password protection       Yes         •Block protection       Yes         •Detection       Yes         •Block protection       Yes         •Protection for       Yes         •Protection       Yes         •Protection       Yes         •Protection for       Yes         •Protection level: Write protection       Yes         •Protection level: Write protection       Yes         •Protection level: Complete protection       Yes         •Prot	Altitude during operation relating to sea level	
configuration / programming / header         Programming language         - LAD       Yes         - FBD       Yes         - STL       Yes         - SCL       Yes         - GRAPH       Yes         Width       70 mm	<ul> <li>Installation altitude above sea level, max.</li> </ul>	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Programming language         - LAD       Yes         - FBD       Yes         - STL       Yes         - SCL       Yes         - GRAPH       Yes         Know-how protection/password protection       Yes         Copy protection       Yes         0 User program protection/password protection       Yes         Access protection       Yes         Protection of confidential configuration data       Yes         Protection level: Write protection       Yes         Protection level: Complete protection       Yes         Protection level: Complete protection       Yes         Protection level: Complete protection       Yes         Immansion / vecite immonitoring / header       Immansion         Uswer limit       adjustable minimum cycle time         upper limit       adjustable maximum cycle time         Width       70 mm	configuration / header	
- LADYes- FBDYes- STLYes- SCLYes- GRAPHYesKnow-how protectionYes• User program protection/password protectionYes• User program protection/password protectionYes• Copy protectionYes• Block protectionYes• Protection of confidential configuration dataYes• protection of confidential configuration dataYes• Protection level: Write protectionYes• Protection level: Write protectionYes• Protection level: Write protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• Diver limitadjustable minimum cycle time• upper limitadjustable maximum cycle time• Width70 mm	configuration / programming / header	
- FBDYes- STLYes- SCLYes- GRAPHYesMow-how protectionYes- User program protection/password protectionYes- Copy protectionYes- Block protectionYes- Block protectionYes- Protection of confidential configuration dataYes- Protection of confidential configuration dataYes- Protection level: Write protectionYes- Protection level: Write protectionYes- Protection level: Write protectionYes- Protection level: Complete protectionYes- Protection level: Complete protectionYes- InversionsYes- InversionsAdjustable minimum cycle time- Upper limitadjustable maximum cycle time- Width70 mm	Programming language	
STLYes SCLYes GRAPHYesKnow-how protectionYes• User program protection/password protectionYes• Copy protectionYes• Block protectionYes• Block protection of confidential configuration dataYes• protection of confidential configuration dataYes• protection level: Write protectionYes• Protection level: Write protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• Iower limitadjustable minimum cycle time• upper limitadjustable maximum cycle time• Uth70 mm	— LAD	Yes
STLYes SCLYes GRAPHYesKnow-how protectionYes• User program protection/password protectionYes• Copy protectionYes• Block protectionYes• Block protection of confidential configuration dataYes• protection of confidential configuration dataYes• protection level: Write protectionYes• Protection level: Write protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• Iower limitadjustable minimum cycle time• upper limitadjustable maximum cycle time• Uth70 mm	— FBD	Yes
SCL GRAPHYesKnow-how protectionYes•User program protection/password protectionYes•Copy protectionYes•Block protectionYes•Block protectionYes•protection of confidential configuration dataYes•protection for displayYes•Protection level: Write protectionYes•Protection level: Write protectionYes•Protection level: Complete prote		
GRAPHYesKnow-how protectionYes• User program protection/password protectionYes• Copy protectionYes• Block protectionYes• Block protectionYesAccess protectionYes• protection of confidential configuration dataYes• Password for displayYes• Protection level: Write protectionYes• Protection level: Write protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• Diver limitadjustable minimum cycle time• upper limitadjustable maximum cycle time• Utime NoteYo mm		
Know-how protection       Yes         • User program protection/password protection       Yes         • Copy protection       Yes         • Block protection       Yes         Access protection       Yes         • protection of confidential configuration data       Yes         • Password for display       Yes         • Protection level: Write protection       Yes         • Protection level: Write protection       Yes         • Protection level: Complete protection       Yes         programming / cycle time monitoring / header       adjustable minimum cycle time         • upper limit       adjustable maximum cycle time         • upper limit       Adjustable maximum cycle time         • Width       70 mm		
• User program protection/password protectionYes• Copy protectionYes• Block protectionYes• Access protectionYes• protection of confidential configuration dataYes• Password for displayYes• Protection level: Write protectionYes• Protection level: Write protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• programming / cycle time monitoring / headeradjustable minimum cycle time• lower limitadjustable maximum cycle time• upper limitadjustable maximum cycle time• Width70 mm		
• Copy protectionYes• Block protectionYesAccess protectionYes• protection of confidential configuration dataYes• Password for displayYes• Protection level: Write protectionYes• Protection level: Write protectionYes• Protection level: Read/write protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• Protection level: Complete protectionYes• programming / cycle time monitoring / headeradjustable minimum cycle time• upper limitadjustable maximum cycle time• upper limit70 mm	· · ·	Yes
• Block protection       Yes         Access protection          • protection of confidential configuration data       Yes         • Password for display       Yes         • Protection level: Write protection       Yes         • Protection level: Write protection       Yes         • Protection level: Read/write protection       Yes         • Protection level: Complete protection       Yes         • Protection level: Complete protection       Yes         • programming / cycle time monitoring / header       Yes         • lower limit       adjustable minimum cycle time         • upper limit       adjustable maximum cycle time         Width       70 mm		
Access protection         • protection of confidential configuration data       Yes         • Password for display       Yes         • Protection level: Write protection       Yes         • Protection level: Read/write protection       Yes         • Protection level: Complete protection       Yes         • Protection level: Complete protection       Yes         • programming / cycle time monitoring / header       Yes         • lower limit       adjustable minimum cycle time         • upper limit       adjustable maximum cycle time         Width       70 mm		
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Password for displayYesProtection level: Write protectionYesProtection level: Read/write protectionYesProtection level: Complete protectionYesProtection level: Complete protectionYesprogramming / cycle time monitoring / headeradjustable minimum cycle time• lower limitadjustable maximum cycle time• upper limitadjustable maximum cycle timeDimensions70 mm	· ·	Vec
• Protection level: Write protection     Yes       • Protection level: Read/write protection     Yes       • Protection level: Complete protection     Yes       programming / cycle time monitoring / header     Yes       • lower limit     adjustable minimum cycle time       • upper limit     adjustable maximum cycle time       Vidth     70 mm		
• Protection level: Read/write protection     Yes       • Protection level: Complete protection     Yes       programming / cycle time monitoring / header     adjustable minimum cycle time       • lower limit     adjustable maximum cycle time       • upper limit     adjustable maximum cycle time       binnensions     70 mm		
• Protection level: Complete protection     Yes       programming / cycle time monitoring / header     adjustable minimum cycle time       • lower limit     adjustable minimum cycle time       • upper limit     adjustable maximum cycle time       Dimensions     70 mm	•	
programming / cycle time monitoring / header       • lower limit     adjustable minimum cycle time       • upper limit     adjustable maximum cycle time       Dimensions     70 mm	-	
• lower limit     adjustable minimum cycle time       • upper limit     adjustable maximum cycle time       Dimensions     70 mm	· · · · ·	res
• upper limit     adjustable maximum cycle time       Dimensions     70 mm		
Dimensions       Width       70 mm		
Width     70 mm		adjustable maximum cycle time
	Dimensions	
Height 147 mm		70 mm
	Height	147 mm

Depth	129 mm
Weights	
Weight, approx.	845 g
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