SIEMENS

Data sheet

6ES7215-1AG40-0XB0

SIMATIC S7-1200, CPU 1215C, compact CPU, DC/DC/DC, 2 PROFINET ports, onboard I/O: 14 DI 24 V DC; 10 DO 24 V DC; 0.5A; 2 AI 0-10 V DC, 2 AO 0-20 mA DC, Power supply: DC 20.4-28.8V DC, Program/data memory 125 KB



Figure similar

- 38-11.0	
General information	
Product type designation	CPU 1215C DC/DC/DC
Firmware version	V4.6
Engineering with	
Programming package	STEP 7 V18 or higher
Supply voltage	
Rated value (DC)	
• 24 V DC	Yes
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Load voltage L+	
Rated value (DC)	24 V
 permissible range, lower limit (DC) 	20.4 V
 permissible range, upper limit (DC) 	28.8 V
Input current	
Current consumption (rated value)	500 mA; CPU only
Current consumption, max.	1 500 mA; CPU with all expansion modules
Inrush current, max.	12 A; at 28.8 V DC
l²t	0.5 A ² ·s
Output current	
for backplane bus (5 V DC), max.	1 600 mA; Max. 5 V DC for SM and CM
Encoder supply	
24 V encoder supply	
• 24 V	L+ minus 4 V DC min.
Power loss	
Power loss, typ.	12 W
Memory	
Work memory	
integrated	200 kbyte
Load memory	
integrated	4 Mbyte
 Plug-in (SIMATIC Memory Card), max. 	with SIMATIC memory card
Backup	
present	Yes
maintenance-free	Yes
 without battery 	Yes
CPU processing times	
for bit operations, typ.	0.08 μs; / instruction

for word operations, typ.	1.7 µs; / instruction
for floating point arithmetic, typ.	2.3 µs; / instruction
CPU-blocks	
Number of blocks (total)	DBs, FCs, FBs, counters and timers. The maximum number of addressable blocks ranges from 1 to 65535. There is no restriction, the entire working memory can be used
OB	
Number, max.	Limited only by RAM for code
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	14 kbyte
Flag	
• Size, max.	8 kbyte; Size of bit memory address area
Local data	
 per priority class, max. 	16 kbyte; Priority class 1 (program cycle): 16 KB, priority class 2 to 26: 6 KB
Address area	
Process image	
Inputs, adjustable	1 kbyte
• Outputs, adjustable	1 kbyte
Hardware configuration	
Number of modules per system, max.	3 comm. modules, 1 signal board, 8 signal modules
Time of day	
Clock	
Hardware clock (real-time)	Yes
Backup time	
Deviation per day, max.	480 h; Typical ±60 s/month at 25 °C
· · · ·	
Digital inputs	
Number of digital inputs	14; Integrated
of which inputs usable for technological functions	6; HSC (High Speed Counting)
Source/sink input	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	14
Input voltage	
Rated value (DC)	24 V
 for signal "0" 	5 V DC at 1 mA
fan ainm al 1141	
• for signal "1"	15 V DC at 2.5 mA
Input delay (for rated value of input voltage)	15 V DC at 2.5 mA
Input delay (for rated value of input voltage) for standard inputs	
Input delay (for rated value of input voltage) for standard inputs — parameterizable	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min.	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max.	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms Yes
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions — parameterizable	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions — parameterizable Cable length	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions — parameterizable Cable length • shielded, max.	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz Hz
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions — parameterizable Cable length • shielded, max. • unshielded, max.	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz Hz
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions — parameterizable Cable length • shielded, max. • unshielded, max. • Unshielded, max.	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz 500 m; 50 m for technological functions 300 m; for technological functions: No
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions — parameterizable Cable length • shielded, max. • unshielded, max. • unshielded, max. • unshielded, max. • of which high-speed outputs	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz 500 m; 50 m for technological functions 300 m; for technological functions: No
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions — parameterizable Cable length • shielded, max. • unshielded, max. • unshielded, max. Digital outputs • of which high-speed outputs Limitation of inductive shutdown voltage to	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz 500 m; 50 m for technological functions 300 m; for technological functions: No
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions — parameterizable Cable length • shielded, max. • unshielded, max. • unshielded, max. Digital outputs • of which high-speed outputs Limitation of inductive shutdown voltage to Switching capacity of the outputs	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz 500 m; 50 m for technological functions 300 m; for technological functions: No
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions — parameterizable Cable length • shielded, max. • unshielded, max. • unshielded, max. Unshielded, max. • unshielded, max.	 0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz 500 m; 50 m for technological functions 300 m; for technological functions: No 10 4; 100 kHz Pulse Train Output L+ (-48 V) 0.5 A
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions — parameterizable Cable length • shielded, max. • unshielded, max. • of which high-speed outputs Limitation of inductive shutdown voltage to Switching capacity of the outputs • with resistive load, max. • on lamp load, max.	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz 500 m; 50 m for technological functions 300 m; for technological functions: No 10 4; 100 kHz Pulse Train Output L+ (-48 V)
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions — parameterizable Cable length • shielded, max. • unshielded, max. • of which high-speed outputs Limitation of inductive shutdown voltage to Switching capacity of the outputs • with resistive load, max. • on lamp load, max. Output voltage	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz 500 m; 50 m for technological functions 300 m; for technological functions 10 4; 100 kHz Pulse Train Output L+ (-48 V) 0.5 A 5 W
Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions — parameterizable Cable length • shielded, max. • unshielded, max. • of which high-speed outputs Limitation of inductive shutdown voltage to Switching capacity of the outputs • with resistive load, max. • on lamp load, max.	 0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz 500 m; 50 m for technological functions 300 m; for technological functions: No 10 4; 100 kHz Pulse Train Output L+ (-48 V) 0.5 A

 for signal "1" rated value 	0.5 A
 for signal "0" residual current, max. 	0.1 mA
Output delay with resistive load	
• "0" to "1", max.	1 µs
• "1" to "0", max.	5 µs
Switching frequency	
 of the pulse outputs, with resistive load, max. 	100 kHz
Relay outputs	
Number of relay outputs	0
Cable length	
 shielded, max. 	500 m
• unshielded, max.	150 m
Analog inputs	
Number of analog inputs	2
Input ranges	
Voltage	Yes
Input ranges (rated values), voltages	
• 0 to +10 V	Yes
— Input resistance (0 to 10 V)	≥100k ohms
Cable length	
 shielded, max. 	100 m; twisted and shielded
Analog outputs	
Number of analog outputs	2
Output ranges, current	
• 0 to 20 mA	Yes
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
 Resolution with overrange (bit including sign), max. 	10 bit
 Integration time, parameterizable 	Yes
 Conversion time (per channel) 	625 µs
Analog value generation for the outputs	
Analog value generation for the outputs Integration and conversion time/resolution per channel	
	10 bit
Integration and conversion time/resolution per channel	10 bit
Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.	10 bit
Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders	10 bit Yes
Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder	
Integration and conversion time/resolution per channel	
Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor	Yes
Integration and conversion time/resolution per channel	Yes PROFINET Yes
Integration and conversion time/resolution per channel	Yes PROFINET Yes Yes
Integration and conversion time/resolution per channel	Yes PROFINET Yes Yes Yes
Integration and conversion time/resolution per channel	Yes PROFINET Yes Yes
Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Encoder Connectable encoders 2-wire sensor I. Interface Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types	Yes PROFINET Yes Yes Yes Yes
Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Encoder Connectable encoders 2-wire sensor I. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types RJ 45 (Ethernet)	Yes PROFINET Yes Yes Yes Yes Yes Yes Yes
Integration and conversion time/resolution per channel	Yes PROFINET Yes Yes Yes Yes Yes Yes 2
Integration and conversion time/resolution per channel	Yes PROFINET Yes Yes Yes Yes Yes Yes Yes
Integration and conversion time/resolution per channel	Yes PROFINET Yes Yes Yes Yes Yes Yes 2
Integration and conversion time/resolution per channel	Yes PROFINET Yes
Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device	Yes PROFINET Yes
Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication	Yes PROFINET Yes
Integration and conversion time/resolution per channel	Yes PROFINET Yes
Integration and conversion time/resolution per channel	Yes PROFINET Yes
Integration and conversion time/resolution per channel	Yes PROFINET Yes
Integration and conversion time/resolution per channel	Yes PROFINET Yes
Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Encoder Connectable encoders 2-wire sensor Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types RJ 45 (Ethernet) Number of ports integrated switch Protocols PROFINET IO Controller PROFINET IO Device SIMATIC communication Veb server Media redundancy PROFINET IO Controller Transmission rate, max.	Yes PROFINET Yes
Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services	Yes PROFINET Yes
Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services — PG/OP communication	Yes PROFINET Yes
Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services - PG/OP communication - Isochronous mode	Yes PROFINET Yes
Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services — PG/OP communication	Yes PROFINET Yes

Profested startup Normer of connectable ID Devices, max. Number of connectable ID Devices, max. Number of connectable ID Devices, max. Second Startup (ID Devices) Number of connectable ID Devices, max. Second Startup (ID Devices) Number of Conducts ID Devices Number of Conducts ID Device Services ProCPINET ID Device Service Service ProCPINET ID Device Service ProCPINET ID Device Service ProCPINET ID Device Service ProCPINET ID Device Service Service Service Service Service Service Service Servi		
 Number of connectable ID Paviosas max. Number of connectable ID Devices for RT, max. of which in line, max. Activation/deactivation of ID Devices Number of ID Devices bat can be simultaneously as intervention. Updating line Updating line Proof ID Devices The minimum value of the update line site depends on the communication of configured user data. Proof Devices Services Proof Device is and the signal and the signal	— Prioritized startup	Yes
 	 Number of IO devices with prioritized startup, max. 	16
	 Number of connectable IO Devices, max. 	16
 Activation of IO Denotes Yes Water of IO Denotes that on the simultaneous and iteration activation of IO Denotes and the quantity activation activatio	 — Number of connectable IO Devices for RT, max. 	16
- Ausher of IO Devices that can be simultaneously achieved/decircles/achiev	— of which in line, max.	16
adivialideacitization of the update time also depends on the communication component set for PROFINET I to Device PROFINET I to PROFINET PROFINET I TO PROFINET I TO PROFINET I TO PROFINET PROFINET PROFINET I TO PROFINET I TO PROFINET I TO PROFINET PROFINET PROFINET I TO PROFINET I TO PROFINET I TO PROFINET PROFINET PROFINET PROFINET I TO PROFINET I TO PROFINET PROFINET I TO PROFINET I TO PROFINET PROFINET PROFINET PROFINE	 Activation/deactivation of IO Devices 	Yes
		8
Component set for PROFINET IO, on the number of IO devices and the quantity of CPROFINET IO, on the number of IO devices and the quantity of CPROF communication - PROF communication Yes; encryption with TLS V1.3 pre-selected - Bothronous mode No - IRT No - Services Yes; - Started device Yes; - Number of IO Controllers with shared device, max. 2 PRofisade Yes; PROFISION Yes; OPCUA Yes; Services Yes; PROFisade Yes; PROFisade Yes; PROFISION Yes; Services Yes; PROFisade Yes; Protocols Yes; OPCP Yes;	activated/deactivated, max.	
PROFINET IC Device Services - PCOCP communication Yes; encryption with TLS V1.3 pre-selected - Isochnonus mode No - IRT No - PROFIlenergy Yes - Shared device Yes - Shared device Yes - Number of IO Controllers with shared device, max 2 Protocols Yes Supports protocol for PROFINET IO Yes PROFIBUS Yes: CM 1243.5 (master) or CM 1242.5 (slave) required OPC UA Yes: CM 1243.2 (master) or CM 1242.5 (slave) required PROFIBUS Yes: CM 1243.2 (master) OPC UA Yes: CM 1243.2 (master) A Sinterface Yes: CM 1243.2 (master) PROFIBUS Yes OPC P Yes • DCP Yes • LLDP Yes Redundancy mode Yes Media reginancy - - MRP Yes, as MRP redundancy manager and/or MRP client - MRP Yes - Data length, max. 8 kbyte • ISO-n TCP (RFC TOOO) Yes </td <td>— Updating time</td> <td>component set for PROFINET IO, on the number of IO devices and the quantity</td>	— Updating time	component set for PROFINET IO, on the number of IO devices and the quantity
	PROFINET IO Device	
− Isochanous mode No − IRT No − IRT No − RRCPIenergy Yes − Shared device Yes − Number of IO Controllers with shared device, max 2 Protocols Supports protocol for PROFINET IO Yes Supports protocol for PROFINET IO Yes No PROFIsale No No PROFISIO Yes CM 1242-5 (slave) required OPC UA Yes Yes TOP/P Yes Yes OPC P Yes Yes UDP Yes, as MRP redundancy manager and/or MRP client − MRP Yes, as MRP redundancy manager and/or MRP client − MRP Yes		
− Isochanous mode No − IRT No − IRT No − RRCPIenergy Yes − Shared device Yes − Number of IO Controllers with shared device, max 2 Protocols Supports protocol for PROFINET IO Yes Supports protocol for PROFINET IO Yes No PROFIsale No No PROFISIO Yes CM 1242-5 (slave) required OPC UA Yes Yes TOP/P Yes Yes OPC P Yes Yes UDP Yes, as MRP redundancy manager and/or MRP client − MRP Yes, as MRP redundancy manager and/or MRP client − MRP Yes	— PG/OP communication	Yes; encryption with TLS V1.3 pre-selected
− PROFlenergy Yes − Shared device Yes − Number of IO Controllers with shared device, max. 2 Protocol Supports protocol for PROFINET IO Yes PROFIside No PROFISIde Yes, OPC UA Server AS-Interface Yes, OPC UA Server AS-Interface Yes, CM 1243-5 (master) or CM 1242-5 (slave) required OPC UA Yes, OPC UA Server AS-Interface Yes, CM 1243-5 (master) or CM 1242-5 (slave) required OPC UA Yes, CPC UA Server AS-Interface Yes, CM 1243-5 (master) or CM 1242-5 (slave) required OPC UA Yes, CPC UA Server • DICP No • SIMMP Yes • DICP No • SIMMP Yes • DCP Yes • MRP Yes, as MRP redundancy manager and/or MRP client - MRP Yes, as MRP redundancy manager and/or MRP client - MRP Yes, as MRP redundancy manager and/or MRP client • TCP/IP Yes • Data length, max. 8 kbyle • IDP - Data length, max.	— Isochronous mode	
− Shared device Yes − Number of IC Controllers with shared device, max. 2 Protocola ************************************	— IRT	No
− Shared device Yes − Number of IC Controllers with shared device, max. 2 Protocola ************************************	— PROFleneray	Yes
Number of IO Controllers with shared device, max. 2 Protocols		
Protocols Supports protocol for PROFINET IO Yes PROFIsels No PROFISUS Yes, CM 1243-5 (master) or CM 1242-5 (slave) required OPC UA Yes, OPC UA Server AS-Interface Yes, CM 1243-2 required Protocols (Etheme) Yes • DCPP Yes • DCPP Yes • DLOP Yes • LDP Yes • LDP Yes • CMRP Yes • LDP Yes • CMR Yes, as MRP redundancy manager and/or MRP client		
Supports protocol for PROFINET IO Yes PROFIBUS No OPC UA Yes; CM 1243-5 (master) or CM 1242-6 (slave) required OPC UA Yes; CM 1243-2 required PROTEBUS Yes; CM 1243-2 required PROTECOSI (Ethernet) Yes • TCP/IP Yes • DHCP No • SIM/P Yes • DCP Yes • DCP Yes • Redundancy mode Yes Media redundancy - - MRP Yes • MRPD Yes • SIMATIC communication Yes • ST routing Open El communication • ST routing Yes • Data length, max. 8 kbyte • IDP Yes - Data length, max. 8 kbyte • UDP Yes - Data length, max. 1472 byte • UDP Yes • UDP Yes • Data length, max. 1472 byte • Supported Yes • UDP		
PROFisafe No PROFisafe Yes; CM 1243-5 (master) or CM 1242-5 (slave) required OPC UA Yes; CM 1243-2 required AS-Interface Yes; CM 1243-2 required Protocols (Ethernet) Yes • CP/IP Yes • DHCP No • SIMP Yes • CP/IP Yes • CP/IP Yes • CP/IP Yes • CP Yes Redundancy mode Yes; as MRP redundancy manager and/or MRP client - MRP Yes; as MRP redundancy manager and/or MRP client - MRP Yes; as MRP redundancy manager and/or MRP client - MRP Yes; as MRP redundancy manager and/or MRP client - MRP Yes Open IE communication Yes • S7 routing Yes Open IE communication Yes • ICP/IP Yes - Data length, max. 8 kbyle • UDP Yes - Data length, max. 1472 byle Web server Yes • UDP Yes		Yes
PROFIBUS Yes; CM 1243-5 (master) or CM 1242-5 (slave) required OPC UA Yes; OPC UA Server AS-Interface Yes; CM 1243-2 required Protocols (Ethernet) Yes • CP/IP Yes • DHCP No • SIMP Yes • CCP Yes • CCP Yes • CCP Yes • CCP Yes • Edundancy mode Yes Media redundancy Yes - MRP Yes; as MRP redundancy manager and/or MRP client - MRPD No SIMATIC communication Yes • TCP/IP Yes - Data length, max. 8 kbyte • ISO-on-TCP (RFC1006) Yes - Data length, max. 8 kbyte • UDP Yes - Data length, max. 8 kbyte • UDP Yes - Data length, max. 9 kbyte • UDP Yes - Data length, max. 9 kbyte • UDP Yes - Data length, max. 9 kbyte • UDP Yes - Data length, max. 1472 byte Web server Yes • User-defined websites Yes OPCUA Yes	··· ·	
OPC UA Yes; OPC UA Server AS-Interface Yes; CM 1243-2 required Protocols (Ethernet) • • TCP/IP Yes • DHCP No • SIMP Yes • DHCP No • SIMP Yes • LDP Yes • LDP Yes • LDP Yes Redundancy mode Yes; as MRP redundancy manager and/or MRP client - MRP Yes; as MRP redundancy manager and/or MRP client - MRPD Yes; as MRP redundancy manager and/or MRP client - MRPD Yes; as MRP redundancy manager and/or MRP client - MRPD Yes; as MRP redundancy manager and/or MRP client - MRPD Yes; as MRP redundancy manager and/or MRP client - MRPD Yes; as MRP redundancy manager and/or MRP client - MRPD Yes; as MRP redundancy manager and/or MRP client - MRPD Yes; as MRP redundancy manager and/or MRP client - DRI Redminication Yes - Data length, max. 8 kbyte • BO-On-TCP (RPC1006) Yes - Data length, max. 1472 byte Web server Yes - Data length, max. Yes • UDP Yes; "Basic" license required • OPC UA Yes OP		
AS-Interface Yes; CM 1243-2 required Protocols (Ethernet) Yes • TCP/IP Yes • OHCP No • SNMP Yes • DCP Yes • LLDP Yes Redundancy mode Yes; as MRP redundancy manager and/or MRP client MRPD Yes; as MRP redundancy manager and/or MRP client MRPD No SIMATIC communication Yes • ST routing Yes Open IE communication Yes • TCP/IP Yes - Data length, max. 8 kbyte • IDP Yes - Data length, max. 8 kbyte • UDP Yes - Data length, max. 8 kbyte • UDP Yes - Data length, max. 9 Kes • Upported Yes • User-defined websites Yes OPC UA Yes 'Basic* license required • Application authentication Apalication action (interme license required Application authentication - Application authentication *anonymous* or by user name & password - Number of subscript		
Protocols (Ethemet) Yes • CP/IP Yes • DHCP No • SIMMP Yes • DCP Yes • DCP Yes • DCP Yes • LDP Yes Redundancy mode Media redundancy		
• TCP/IPYes• DHCPNo• SNMPYes• DCPYes• LLDPYes• Redundancy modeYesMedia redundancy MRPYes; as MRP redundancy manager and/or MRP client- MRPDNoSIMATIC communicationYes• S7 routingYesOpen IE communicationYes- Data length, max.8 kbyte• ISO-on-TCP (RFC1006)Yes- Data length, max.8 kbyte• UDPYes- Data length, max.1472 byteWeb serverYes• UDPYes- Data length, max.1472 byteWeb serverYes• User-defined websitesYesOPC UAYes; "Basic" license required• Application authenticationYes; "Basic" license required• OPC UAYes; "Basic" license required• Application authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subcriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.20		Yes; CM 1243-2 required
• DHCPNo• SNMPYes• DCPYes• LLDPYesRedundancy mode		N/
• SNMPYes• DCPYes• LLDPYesRedundancy modeMedia redundancy- MRPYes; as MRP redundancy manager and/or MRP client- MRPYes; as MRP redundancy manager and/or MRP client- MRPDYes; as MRP redundancy manager and/or MRP client- MRPDYes; as MRP redundancy manager and/or MRP client- MRPDYes; as MRP redundancy manager and/or MRP client- MRPDYes;• STorutingYes• STorutingYes- Data length, max.8 kbyte• ICP/IPYes- Data length, max.8 kbyte• IDPYes- Data length, max.8 kbyte• UDPYes- Data length, max.9 Kes- Runtime license required9 Kes- Number of sessions, max.10- Number of sessio		
• DCPYes• LLDPYesRedundancy modeMedia redundancy- MRPYes; as MRP redundancy manager and/or MRP client- MRPDNoSIMATIC communicationSTroutingYesOpen IE communication• TCP/IPYes- Data length, max.8 kbyte• ISO-on-TCP (RFC1006)Yes- Data length, max.8 kbyte• UDPYes- Data length, max.8 kbyte• UDPYes- Data length, max.9 kbyte• UDPYes- Data length, max.1472 byteWeb serverYes• User-defined websitesYes• OPC UAYes• SupportedYes; data access (read, write, subscribe), method call, runtime license required• Application authentication*anonymous" or by user name & password- Number of subscriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20		
• LLDP Yes Redundancy mode Media redundancy		
Redundancy mode Media redundancy MRP Yes; as MRP redundancy manager and/or MRP client MRPD No SIMATIC communication ************************************		
Media redundancy MRP Yes; as MRP redundancy manager and/or MRP client MRPD No SIMATIC communication Ves; • S7 routing Yes Open IE communication Yes • TCP/IP Yes - Data length, max. 8 kbyte • ISO-on-TCP (RFC1006) Yes - Data length, max. 8 kbyte • UDP Yes - Data length, max. 1 472 byte Web server Yes • User-defined websites Yes OPC UA Yes; "Basic" license required • Runtime license required Yes; "Basic" license required • OPC UA Server Yes; "Basic" license required • Application authentication "anonymous" or by user name & password • Number of sessions, max. 10 • Sampling interval, min. 100 ms • Sampling interval, min. 200 ms		Yes
MRPYes; as MRP redundancy manager and/or MRP client MRPDNoSIMATIC communicationYes• S7 routingYesOpen IE communicationYes Data length, max.8 kbyte• ISC-on-TCP (RFC1006)Yes Data length, max.8 kbyte• UDPYes Data length, max.8 kbyte• UDPYes Data length, max.8 kbyte• UDPYes Data length, max.9 kbyte Data length, max.1472 byteWeb serverYes SupportedYes SupportedYes Sarpeling iterval, min.Yes; 'Basic' license required Application authentication'Yes; data access (read, write, subscribe), method call, runtime license required Application authentication'anonymous" or by user name & password Number of sessions, max.10 Number of sessions, max.5 Sampling interval, min.100 ms Publishing interval, min.200 ms Number of server methods, max.20		
MRPDNoSIMATIC communication• S7 routingYesOpen IE communication• TCP/IPYes- Data length, max.8 kbyte• ISO-on-TCP (RFC1006)Yes- Data length, max.8 kbyte• UDPYes- Data length, max.8 kbyte• UDPYes- Data length, max.9 kbyte• UDPYes- Data length, max.1472 byteWeb serverYes• User-defined websitesYes• Runtime license requiredYes; "Basic" license required• OPC UAYes; data access (read, write, subscribe), method call, runtime license required• Application authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of sessions, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20	-	
SIMATIC communication Yes Open IE communication • TCP/IP • TCP/IP Yes • Data length, max. 8 kbyte • ISO-on-TCP (RFC1006) Yes • Data length, max. 8 kbyte • UDP Yes • Data length, max. 1 472 byte Web server • USP • supported Yes • User-defined websites Yes OPC UA Yes; "Basic" license required • OPC UA Server Yes; "Basic" license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required • Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 • User authentication "anonymous" or by user name & password • Number of subscriptions per session, max. 10 • Number of subscriptions per session, max. 5 • Sampling interval, min. 100 ms • Number of server methods, max. 20		Yes; as MRP redundancy manager and/or MRP client
• S7 routing Yes Open IE communication ************************************		No
Open IE communication• TCP/IPYes- Data length, max.8 kbyte• ISO-on-TCP (RFC1006)Yes- Data length, max.8 kbyte• UDPYes- Data length, max.1472 byteWeb serverYes- Data length, max.Yes• SupportedYes• SupportedYes• SupportedYes• SupportedYes• SupportedYes• SupportedYes• Runtime license requiredYes; "Basic" license required• OPC UAYes; data access (read, write, subscribe), method call, runtime license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required- Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Rsa266- User authentication"anonymous" or by user name & password- Number of subscriptions per session, max.10- Number of subscriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20	SIMATIC communication	
• TCP/IPYes- Data length, max.8 kbyte• ISO-on-TCP (RFC1006)Yes- Data length, max.8 kbyte• UDPYes- Data length, max.1 472 byteWeb serverYes- Data length websitesYes• Uber-defined websitesYes• UDPYes• CPC UAYes• Runtime license requiredYes; "Basic" license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required- Application authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of sessions, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20		Yes
Data length, max.8 kbyte• ISO-on-TCP (RFC1006)Yes- Data length, max.8 kbyte• UDPYes- Data length, max.1 472 byte• Data length, max.1 472 byte• SupportedYes• SupportedYes• User-defined websitesYes• CPC UAVes• Runtime license requiredYes; "Basic" license required,• OPC UA ServerYes; "Basic" license required,• OPC UA ServerYes; "Basic" license required,• Application authentication"anonymous" or by user name & password• User authentication"anonymous" or by user name & password• Number of sessions, max.10• Number of subscriptions per session, max.5• Sampling interval, min.100 ms• Publishing interval, min.200 ms• Number of server methods, max.20	Open IE communication	
• ISO-on-TCP (RFC1006)Yes- Data length, max.8 kbyte• UDPYes- Data length, max.1 472 byteWeb serverYes• supportedYes• User-defined websitesYes• User-defined websitesYes• OPC UAYes; "Basic" license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required• Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of subscriptions per session, max.10- Sampling interval, min.100 ms- Sampling interval, min.200 ms- Number of server methods, max.20	• TCP/IP	Yes
- Data length, max.8 kbyte• UDPYes- Data length, max.1 472 byteWeb serverYes• supportedYes• supportedYes• User-defined websitesYesOPC UAYes; "Basic" license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required• Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of subscriptions per session, max.10- Number of subscriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20	— Data length, max.	8 kbyte
• UDPYes- Data length, max.1 472 byteWeb server1 472 byte• supportedYes• supportedYes• User-defined websitesYesOPC UAVes; "Basic" license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required- Application authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20	 ISO-on-TCP (RFC1006) 	Yes
Data length, max.1 472 byteWeb server• supportedYes• User-defined websitesYesOPC UA• Runtime license requiredYes; "Basic" license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required- Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20	— Data length, max.	8 kbyte
Web server • supported Yes • User-defined websites Yes OPC UA Yes; "Basic" license required • Runtime license required Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required • Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 5 - Sampling interval, min. 100 ms - Publishing interval, min. 200 ms - Number of server methods, max. 20	• UDP	Yes
supportedYesUser-defined websitesYesOPC UA• Runtime license requiredYes; "Basic" license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required• Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms	— Data length, max.	1 472 byte
Yes OPC UA Yes; "Basic" license required • Runtime license required Yes; "Basic" license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required • OPC UA Server Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 5 - Sampling interval, min. 100 ms - Publishing interval, min. 200 ms	Web server	
OPC UA • Runtime license required Yes; "Basic" license required • OPC UA Server Yes; data access (read, write, subscribe), method call, runtime license required - Application authentication Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 - User authentication "anonymous" or by user name & password - Number of sessions, max. 10 - Number of subscriptions per session, max. 5 - Sampling interval, min. 100 ms - Publishing interval, min. 200 ms - Number of server methods, max. 20	supported	Yes
 Runtime license required OPC UA Server Application authentication User authentication Number of sessions, max. Sampling interval, min. Publishing interval, min. Number of server methods, max. Quotable security policies Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Rsa15, Basic256Sha256 Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Rsa15, Basic256Sha256 Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Rsa15, Basic256Rsa15, Basic256Sha256 Yes; data access (read, write, subscribe), method security policies: None, Basic128Rsa15, Basic256Rsa15, Basic	User-defined websites	Yes
• OPC UA ServerYes; data access (read, write, subscribe), method call, runtime license required- Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20	OPC UA	
Application authenticationAvailable security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256- User authentication"anonymous" or by user name & password- Number of sessions, max.10- Number of subscriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20	Runtime license required	Yes; "Basic" license required
Basic256Sha256— User authentication"anonymous" or by user name & password— Number of sessions, max.10— Number of subscriptions per session, max.5— Sampling interval, min.100 ms— Publishing interval, min.200 ms— Number of server methods, max.20	OPC UA Server	Yes; data access (read, write, subscribe), method call, runtime license required
Number of sessions, max.10 Number of subscriptions per session, max.5 Sampling interval, min.100 ms Publishing interval, min.200 ms Number of server methods, max.20	- Application authentication	
- Number of subscriptions per session, max.5- Sampling interval, min.100 ms- Publishing interval, min.200 ms- Number of server methods, max.20	— User authentication	"anonymous" or by user name & password
— Sampling interval, min.100 ms— Publishing interval, min.200 ms— Number of server methods, max.20	— Number of sessions, max.	10
— Publishing interval, min. 200 ms — Number of server methods, max. 20	- Number of subscriptions per session, max.	5
- Number of server methods, max. 20	— Sampling interval, min.	100 ms
- Number of server methods, max. 20	— Publishing interval, min.	200 ms
	-	20
- Number of server interfaces, max. 2		
— Number of nodes for user-defined server interfaces, 2 000		
max.		

MODBUS Yes communication functions / header S7 communication supported supported Yes as server as client User data per job, max. Number of connections overall PG Connections: 4 reserved / 4 max; HMI Connections: 12 reserved / 18 ma S7 Connections: 8 reserved / 14 max; Open User Connections: 8 reserved /	Further protocols	
ST communication	· · · · · · · · · · · · · · · · · · ·	Yes
97 communication Yes • supported Yes • or servert Yes • or servert Yes • User data per job, max. See celline help (S7 communication, user data size) Number of connections. PC Connections: 4 reserved / 4 max, (M0 Connections: 12 reserved / 16 max) • overall S7 connections: 4 reserved / 14 max, (Sopen User Connections: 10 reserved / 16 max) • Statuscontrol In overall • statuscontrol variable Yes • Number of configurable Traces 2 • RUMSTOP LED Yes • RUMSTOP LED Yes • RUMSTOP LED Yes • RUMSTOP LED Yes • Number of positioning aces variable distribution formation Dispositio Lander of positioning aces variable distribution formation • Counting frequency mask 04 • Counting frequency mask 04 • Counteris 6 • Counteri		
• supported Yes • use aroure Yes • user data per job, max. See online help (S7 communication, user data size) • warber of connections: 12 reserved / 10 max. PG connections: 4 reserved / 4 max. HMI connections: 12 reserved / 10 max. • overall See online help (S7 communication, user data size) • overall PG connections: 4 reserved / 4 max. • overall See online help (S7 communications: 12 reserved / 10 max. • formation in the connections: 3 reserved / 4 max. Personections: 3 reserved / 4 max. • formation in the connections: 3 reserved / 4 max. Personections: 6 reserved / 4 max. • formation Yes Personection: 5 reserved / 4 max. • formation Yes Personection: 5 reserved / 4 max. • formation Yes Personection: 5 reserved / 4 max. • formation Yes Personection: 5 reserved / 4 max. • formation information Yes Personection: 5 reserved / 4 max. • formation information Yes Personection: 5 reserved / 4 max. • formation information Yes Personection: 5 reserved / 4 max. • formation information Yes Personection: 5 reserved /		
• as server Yes • as server Yes • as celent See online help (S7 communication, user data size) Number of connections Fee Sconnections, & reserved / 4 max, HMI Connections, 12 reserved / 18 max S7 Connections, & reserved / 4 max, Coern User Connections, B reserved / 4 max. • overfall STALISACONTO Status/control Yes • status/control variable Yes • forcing Yes • forcing Yes • forcing Yes • forcing the force on figurable Traces 2 • forconing Yes		Yes
• scient Yes • verrall Second products on the hole (S7 communication, user data size) • verrall Second products a reserved / 4 max. HMI connections: 12 reserved / 8 max. • overrall Second products a reserved / 4 max. • status connections: 8 reserved / 4 max. Second products a reserved / 4 max. • status connections: 8 reserved / 4 max. Second products a reserved / 4 max. • status connections: 9 reserved / 4 max. Second products a reserved / 4 max. • status connections: 9 reserved / 4 max. Second products a reserved / 4 max. • status connections: 9 reserved / 4 max. Second products a reserved / 4 max. • status connections: 9 reserved / 4 max. Second products a reserved / 4 max. • status connections: 9 reserved / 4 max. Yes • status connections: 9 reserved / 4 max. Second products a reserved / 4 max. • status connections: 9 reserved / 4 max. Second products a reserved / 4 max. • status connections: 9 reserved / 4 max. Second products a reserved / 4 max. • status connections: 9 reserved / 4 max. Second products a reserved / 4 max. • status connections: 9 reserved / 4 max. Second products a reserved / 4 max. • status connections: 9 reserved / 4 max.		
• User data per job, max.See online help (S7 communication, user data size)Number of connections4 max. Holl Connections: 34 reserved / 4 max. Holl Connections: 34 reserved / 4 max. Connections: 34 reserved / 4 max. Connections: 34 reserved / 4 max.• versilStatus/control user Connections: 34 reserved / 4 max.Test commissioning functionsYes• status/control valableYes• status/control valableYes• status/control valableYes• forcingYes• forcingYes• forcingYes• forcingYes• forcing to the fo		
Number of connections Percent of A max. Percent 14 max		
• overall PG Connections: 4 seared / 14 max; HMI Connections: 2 reserved / 10 max; Web Connections: 2 rese		dee onine help (or communication, user data size)
Status/control • Status/control variable Yes • Variables Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters Forcing Yes • Depresent Yes • Number of configurable Traces 2 • RUNVSTOP LED Yes • REGR LED Yes • Number of counters 6 • Counting frequency, max. 100 kHz Frequency measurement Yes • Counting frequency, max. 100 kHz Frequency measurement Yes • Counting frequency, max. 100 kHz Frequency measurement Yes • Distributed positioning axes, inax. 8 Number of position-portrol positioning axes, inax. 4 Number of pulse outputs 4 • Potential separation digital inputs 10 kHz • Potential separation digital inputs No • Potential separation digital outputs Yes • Potential separatin digital outputs Yes		PG Connections: 4 reserved / 4 max; HMI Connections: 12 reserved / 18 max; S7 Connections: 8 reserved / 14 max; Open User Connections: 8 reserved / 14 max; Web Connections: 2 reserved / 30 max; OPC UA Connections: 0 reserved / 10 max; Total Connections: 34 reserved / 64 max
	Test commissioning functions	
evaniables Inputs/outputs, memory bits, DBs, distributed i/Os, timers, counters Forcing Yes Diagness buffer Ves epresent Yes encode 2 Momory of configurable Traces 2 Momory star per trace, max, 2 Momory star per trace, max, 2 Dispresent Information Ves Interpreter Information Ves ERNOR LED Yes eRNOR TOP LED Yes Integrated Functions 6 Counter 6 Counter 9 Number of conters 100 MHz Frequency measurement Yes United of positioning axes, max. 8 Number of positioning axes in pulse-direction interface 4 With integrated outputs Prequent measurement Yes Dial controlied positioning axes, max. 8 Number of positioning axes via pulse-direction interface 4 With integrated outputs Potential separation digital inputs No Potential separation digital inputs No <th< td=""><td>Status/control</td><td></td></th<>	Status/control	
Forcing Yes • Forcing Yes Diagnostic buffer • present Yes Traces 2 Number of configurable Traces 2 Memory size per trace, max. 512 kbyte Interrupts/diagnostics/status information Diagnostic indication LED RNNSTOP LED Yes ERROR LED Yes Main T LED Yes Counter Number of counters 6 Counting frequency, max. 100 kHz Frequency measurement Countoing frequency, max. 100 kHz Prequency measurement Countoiler Yes Scontrolled positioning axes, max. 8 Number of position-controlled positioning axes, max. 8 Number of positioning the outputs 4 Number of positioning axes via pulse-direction interface 4; With integrated outputs 1 Potential separation Dietwent the channels, in groups of 1 Potential separation digital inputs No between the channels, in groups of 1 Potential separation digital outputs Ves between the channels, in groups of 1 Potential separation digital outputs No between the channels, in groups of 1 Potential separation digital outp	Status/control variable	Yes
• ForcingYesDiagnostic bufferYes• JansentYes• Number of configurable Traces512 kbyte• Memory size per trace, max.512 kbyteInterrupts/diagnostics/status information512 kbyteDiagnostics indication LEDYes• RUNSTOP LEDYes• Counting frequency, max.100 kHz• Counting frequency, max.100 kHz• Countop frequency, max.8• Number of positioning axes, max.8• Number of positioning axes via pulse-direction interface4. With integrated outputs• Potential separation4• Number of pulse outputs4• Dottriel reparator1• Potential separation digital inputsNo• Dottriel separation digital outputsYes• Potential separation digital outputsYes• Potential separation digital outputsYes• Dottriel separation digital outputsYes• Dottriel separation digital discharge of static electricityYes• Interference immunity on s	Variables	Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
Diagnostic buffer Yes • Number of configurable Traces 2 • Number of configurable Traces 2 • Memory size per trace, max. 512 buyte Diagnostics status information Filter and Status information Diagnostics indication LED Yes • RENOR RED Yes • ERROR RED Yes • Outrier 6 • Counting Frequency, max. 100 kHz • Number of counters 6 • Counting frequency, max. 8 Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 4 Number of position-controlled positioning axes, max. 4 Number of position-controlled positioning axes, max. 4 Number of position-controlled positioning axes in pubs. 4 PID controller Yes • Potential separation digital inputs No • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels, in grou	Forcing	
• present Yes Traces 2 • Memory size per trace, max. 512 kbyte Diagnostics ideation LED 512 kbyte • RUN/STOP LED Yes • RUN/STOP LED Yes • MAINT LED Yes • MAINT LED Yes • MAINT LED Yes • Number of counters 6 • Counting frequency, max. 100 kHz Frequency measurement Yes • Outring frequency, max. 8 Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 8 Number of puise outputs 4 Number of puise outputs 4 Limit frequency (puise) 100 kHz Potential separation digital inputs 1 • Potential separation digital inputs 1 • Potential separation digital outputs Yes • Dotential separation digital outputs Yes • Detential separation digital outputs Yes <td< td=""><td>• Forcing</td><td>Yes</td></td<>	• Forcing	Yes
Traces 2 • Number of configurable Traces 2 • Memory size per trace, max. 512 kbyte Interrupts/diagnostics/status information 1 Diagnostics indication LED Yes • RUNSTOP LED Yes • MAINT LED Yes Integradof Functions 6 Counter 6 • Counting frequency, max. 100 kHz Frequency measurement Yes Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 4 Number of position-controlled positioning axes, max. 8 Number of pastion-controlled positioning axes, max. 8 Number of pastion-controlled positioning axes, max. 4 Limit frequency (pulse) 100 kHz Potential separation 4 Number of pulse outpuls 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs No • between the channels, in groups of 1 Potential separatin digital outputs Yes	Diagnostic buffer	
Number of configurable Traces Memory size per trace, max. 512 bkyte Interropts/diagnostics/status information Diagnostics/status information Diagnostics/status information RUN/STOP LED Yes ERROR LED Yes MarkIT LED Yes Mumber of counters Counter Number of counters Counting frequency, max. 100 kHz Frequency measurement Yes Number of positioning axes via pulse-direction Number of positioning axes via pulse-direction interface Yes Number of positioning axes via pulse-direction interface Yes Number of positioning axes via pulse-direction interface Yes Number of positioning inputs A Number of positioning inputs Yes Number of positioning inputs Yes Number of positioning inputs Yes Number of positioning axes via pulse-direction interface Yes Number of positioning inputs Yes Number of positioning inputs Yes Number of positioning inputs Yes Number of pulse outputs Unit frequency (pulse) 100 kHz Potential separation digital inputs Potential separation digital inputs Potential separation digital inputs No between the channels, in groups of 1 Potential separation digital outputs Potential separation digital outputs No between the channels, in groups of 1 Potential separation digital inputs No between the channels, in groups of 1 Potential separation digital outputs Potential separation digital outputs No between the channels, in groups of 1 Potential separation digital outputs Potential separation digital outputs Boutputs Boutputs Distribute Potential separation digital outputs Boutputs Potential separation digital outputs Boutputs Boutput	• present	Yes
 Memory size per trace, max. 512 kbyte Interruptidlagnostica/status information Diagnostica indication LED RUNSTOP LED Yes ERROR LED Yes ERROR LED Yes Thegrated Functions Counter Counting frequency, max. 100 kHz Frequency measurement Yes Number of positioning axes, max. 8 Number of positioning axes, max. 8 Number of positioning axes via pulse-direction interface 4. With integrated outputs Plo controller positioning axes, max. 4 Number of positioning axes via pulse-direction interface Yes Number of positioning axes via pulse-direction interface Potential separation digital inputs Potential separation digital inputs Detential separation digital inputs Detential separation digital inputs Detential separation digital outputs Yes Potential separation digital outputs Detential separation digital outputs Yes Detential separation digital outputs Detential separation digital outputs Yes Detential separation digital outputs Yes No between the channels, in groups of 1 ENC Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against discharge KiV Therference immunity on signal cables acc. to IEC 61000- 44 Interference immunity on signal cables acc. to IEC 61000- 44 		
Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • RUN/S	Number of configurable Traces	2
Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED • RUN/S	-	512 kbyte
• RUN/STOP LED Yes • ERROR LED Yes • MAINT LED Yes Integrated Functions Formation (Conternation (Cont	Interrupts/diagnostics/status information	
• RUN/STOP LED Yes • ERROR LED Yes • MAINT LED Yes Integrated Functions ************************************	Diagnostics indication LED	
• ERROR LED Yes • MAINT LED Yes Integrated Functions • Counter 6 • Number of counters 6 • Counting frequency, max. 100 kHz Frequency measurement Yes controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 8 Number of pulse outputs 4 Unith frequency (pulse) 100 kHz Potential separation digital inputs 4 • Potential separation digital inputs No • Detential separation digital outputs 1 • Potential separation digital outputs Yes • Detential separation digital outputs No • between the channels No <		Yes
• MAINT LED Yes Integrated Functions Counter 6 • Counting frequency, max. 100 kHz Frequency measurement Yes controlled positioning axes, max. 8 Number of positioning axes via pulse-direction interface 4; With integrated outputs PID controller Yes Number of positioning axes via pulse-direction interface 4; With integrated outputs PID controller Yes Number of alarm inputs 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs 4 • Potential separation digital inputs 1 • Potential separation digital inputs No • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels, in groups of 1 EMC 1 Interference immunity against discharge of static electricity Yes • Test voltage at air discharge 8 kV		
Integrated Functions Counter 6 • Number of counters 6 • Counting frequency, max. 100 kHz Frequency measurement Yes controlled positioning axes, max. 8 Number of positioning axes via pulse-direction interface 4: With integrated outputs PID controller Yes Number of alarm inputs 4 Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs 4 • Potential separation digital inputs No • between the channels, in groups of 1 • Potential separation digital outputs Yes • between the channels No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge 8 kV - Test voltage at air discharge 6 kV Interference immunity on supply l		
Counter 6 • Number of counters 6 • Counting frequency, max. 100 kHz Frequency measurement Yes controlled positioning Yes Number of position-controlled positioning axes, max. 8 Number of positioning axes via pulse-direction interface 4; With integrated outputs PID controller Yes Number of alarm inputs 4 Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation 100 kHz Potential separation digital inputs 4 • Potential separation digital inputs No • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge 8 kV - Test voltage at origital cicksharge 6 kV		
• Number of counters 6 • Counting frequency, max. 100 kHz Frequency measurement Yes controlled positioning Yes Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 100 kHz PiD controller Yes Number of alarm inputs 4 Number of alarm inputs 4 Number of pulse outputs 100 kHz Potential separation digital inputs 4 • Potential separation digital inputs No • between the channels, in groups of 1 • between the channels No • between the channels No • between the channels, in groups of 1 • between the channels No • between the channels, in groups of 1 • Detential separation digital outputs Yes • between the channels, in groups of 1 • Interference immunity against discharge of static electricity • • Interference immunity against di		
• Counting frequency, max. 100 kHz Frequency measurement Yes controlled positioning Yes Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes via pulse-direction interface 4; With integrated outputs PID controller Yes Number of pulse outputs 4 Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs 4 • Potential separation digital inputs No • Potential separation digital outputs Yes • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge 8 kV <td></td> <td>6</td>		6
Frequency measurement Yes controlled positioning Yes Number of position-controlled positioning axes, max. 8 Number of positioning axes via pulse-direction interface 4; With integrated outputs PID controller Yes Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation 100 kHz Potential separation digital inputs No Potential separation digital outputs Potential separatice discharge of static electricity		
controlled positioning Yes Number of position-controlled positioning axes, max. 8 Number of positioning axes via pulse-direction interface 4; With integrated outputs PID controller Yes Number of palarm inputs 4 Number of alarm inputs 4 Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs No • Potential separation digital inputs No • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge 8 kV - Test voltage at air discharge 8 kV - Test voltage at air discharge 6 kV Interference immunity on supply lines acc. to IEC 61000- 4.4 Yes		Yes
Number of position-controlled positioning axes, max. 8 Number of positioning axes via pulse-direction interface 4; With integrated outputs PID controller Yes Number of alarm inputs 4 Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs 4 • Potential separation digital inputs No • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Yes - Test voltage at air discharge 8 kV - Test voltage at air discharge 6 kV Interference immunity on supply lines acc. to IEC 61000- Yes • Interference immunity on supply lines acc. to IEC 61000- Yes		
Number of positioning axes via pulse-direction interface 4; With integrated outputs PID controller Yes Number of alarm inputs 4 Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation 100 kHz Potential separation digital inputs No • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge 8 kV — Test voltage at air discharge 6 kV Interference immunity to cable-borne interference Yes • Interference immunity on supply lines acc. to IEC 61000- 4-4 Yes		
PID controller Yes Number of alarm inputs 4 Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs Potential separation digital inputs No • Potential separation digital outputs No • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels No • Interference immunity against discharge of static electricity Yes — Test voltage at air discharge 8 kV — Test voltage at contact discharge 6 kV Interferen		
Number of alarm inputs 4 Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation Potential separation digital inputs • Potential separation digital inputs No • between the channels, in groups of 1 Potential separation digital outputs Yes • Potential separation digital outputs Yes • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels, in groups of 1 EMC No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Yes - Test voltage at air discharge 8 kV - Test voltage at ontact discharge 6 kV Interference immunity to cable-borne interference Yes • Interference immunity on supply lines acc. to IEC 61000- Yes		
Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation Potential separation digital inputs • Potential separation digital inputs No • Potential separation digital outputs 1 • Potential separation digital outputs Yes • Potential separation digital outputs Yes • Potential separation digital outputs Yes • between the channels No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Yes • Interference immunity against discharge 8 kV - Test voltage at air discharge 6 kV Interference immunity to cable-borne interference Yes • Interference immunity on supply lines acc. to IEC 61000- 4.4 Yes		
Limit frequency (pulse) 100 kHz Potential separation Potential separation digital inputs Potential separation digital inputs Potential separation digital inputs Potential separation digital outputs Potential separation digital discharge of static electricity Potential voltage at contact dis		
Potential separation Potential separation digital inputs • Potential separation digital inputs • between the channels, in groups of • Potential separation digital outputs • between the channels • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity • Interference immunity against discharge 8 kV — Test voltage at air discharge 6 kV Interference immunity to cable-borne interference • Interference immunity on supply lines acc. to IEC 61000- 4-4 • Interference immunity on supply lines acc. to IEC 61000- 4-4		
Potential separation digital inputs No • Potential separation digital inputs No • between the channels, in groups of 1 Potential separation digital outputs Yes • Potential separation digital outputs Yes • between the channels No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Yes - Test voltage at air discharge 8 kV - Test voltage at contact discharge 6 kV Interference immunity to cable-borne interference 6 kV Interference immunity on supply lines acc. to IEC 61000- 4-4 Yes		
Potential separation digital inputs No between the channels, in groups of 1 Potential separation digital outputs Potential separation digital outputs Yes between the channels No between the channels No between the channels No between the channels 1 between t		
• between the channels, in groups of 1 Potential separation digital outputs Yes • Potential separation digital outputs Yes • between the channels No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Yes • Interference immunity against discharge of static electricity Yes • Interference immunity against discharge 8 kV - Test voltage at air discharge 8 kV - Test voltage at contact discharge 6 kV Interference immunity to cable-borne interference Yes • Interference immunity on supply lines acc. to IEC 61000- 4-4 Yes		No
Potential separation digital outputs Yes • Potential separation digital outputs Yes • between the channels No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Yes • Interference immunity against discharge of static electricity Yes • Interference immunity against discharge 8 kV Test voltage at air discharge 6 kV Interference immunity to cable-borne interference 6 kV Interference immunity on supply lines acc. to IEC 61000- 4-4 Yes • Interference immunity on signal cables acc. to IEC 61000- 4-4 Yes		
• Potential separation digital outputsYes• between the channelsNo• between the channels, in groups of1EMCInterference immunity against discharge of static electricity• Interference immunity against discharge of staticYes• Interference immunity against discharge of staticYes- Test voltage at air discharge8 kV- Test voltage at contact discharge6 kVInterference immunity to cable-borne interferenceYes• Interference immunity on supply lines acc. to IEC 61000- 4-4Yes		1
• between the channels No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Yes • Interference immunity against discharge 8 kV Test voltage at air discharge 6 kV Interference immunity to cable-borne interference 9 kV Test voltage at contact discharge 7 ks Interference immunity on supply lines acc. to IEC 61000-4-2 Yes	-	Vee
between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity acc. to IEC 61000-4-2 — Test voltage at air discharge 8 kV — Test voltage at contact discharge 6 kV Interference immunity to cable-borne interference Interference immunity on supply lines acc. to IEC 61000- 4-4 Interference immunity on signal cables acc. to IEC 61000- Yes	· • •	
EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity acc. to IEC 61000-4-2 Test voltage at air discharge 8 kV Test voltage at contact discharge 6 kV Interference immunity to cable-borne interference • Interference immunity on supply lines acc. to IEC 61000- 4-4 • Interference immunity on signal cables acc. to IEC 61000- Yes		
Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity acc. to IEC 61000-4-2 - Test voltage at air discharge 8 kV - Test voltage at contact discharge 6 kV Interference immunity to cable-borne interference 9 kV • Interference immunity on supply lines acc. to IEC 61000-4-4 Yes • Interference immunity on signal cables acc. to IEC 61000-Yes Yes		
Interference immunity against discharge of static electricity acc. to IEC 61000-4-2 Test voltage at air discharge 8 kV Test voltage at contact discharge 6 kV Interference immunity to cable-borne interference Interference immunity on supply lines acc. to IEC 61000- 4-4 Interference immunity on signal cables acc. to IEC 61000- Yes		
electricity acc. to IEC 61000-4-2 — Test voltage at air discharge 8 kV — Test voltage at contact discharge 6 kV Interference immunity to cable-borne interference Interference immunity on supply lines acc. to IEC 61000- 4-4 Interference immunity on signal cables acc. to IEC 61000- Yes		
 Test voltage at contact discharge Interference immunity to cable-borne interference Interference immunity on supply lines acc. to IEC 61000- 4-4 Interference immunity on signal cables acc. to IEC 61000- Yes 	electricity acc. to IEC 61000-4-2	
Interference immunity to cable-borne interference • Interference immunity on supply lines acc. to IEC 61000- 4-4 • Interference immunity on signal cables acc. to IEC 61000- Yes		
Interference immunity on supply lines acc. to IEC 61000- 4-4 Interference immunity on signal cables acc. to IEC 61000- Yes		6 kV
4-4Interference immunity on signal cables acc. to IEC 61000- Yes	· · · · · · · · · · · · · · · · · · ·	
		Yes
		Yes
Interference immunity against voltage surge	Interference immunity against voltage surge	
Interference immunity on supply lines acc. to IEC 61000- Yes	 Interference immunity on supply lines acc. to IEC 61000- 	Yes

4-5	
Interference immunity against conducted variable disturbance indu	iced by high-frequency fields
 Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 	Yes
Emission of radio interference acc. to EN 55 011	
Limit class A, for use in industrial areas	Yes; Group 1
• Limit class B, for use in residential areas	Yes; When appropriate measures are used to ensure compliance with the limits for Class B according to EN 55011
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
cULus	Yes
FM approval	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
Marine approval	Yes
Ambient conditions	
Free fall	
• Fall height, max.	0.3 m; five times, in product package
Ambient temperature during operation	
• min.	-20 °C
• max.	60 °C; Number of simultaneously activated inputs or outputs 7 or 5 (no adjacent points) at 60 °C horizontal or 50 °C vertical, 14 or 10 at 55 °C horizontal or 45 °C vertical
 horizontal installation, min. 	-20 °C
 horizontal installation, max. 	60 °C
 vertical installation, min. 	-20 °C
 vertical installation, max. 	50 °C
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Air pressure acc. to IEC 60068-2-13	
Operation, min.	795 hPa
Operation, max.	1 080 hPa
 Storage/transport, min. 	660 hPa
Storage/transport, max.	1 080 hPa
Altitude during operation relating to sea level	
Installation altitude, min.	-1 000 m
 Installation altitude, max. 	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Relative humidity	
Operation, max.	95 %; no condensation
Vibrations	
 Vibration resistance during operation acc. to IEC 60068- 2-6 	2 g (m/s ²) wall mounting, 1 g (m/s ²) DIN rail
 Operation, tested according to IEC 60068-2-6 	Yes
Shock testing	
 tested according to IEC 60068-2-27 	Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms
Pollutant concentrations	
 SO2 at RH < 60% without condensation 	S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free
configuration / header	
configuration / programming / header	
Programming language	
— LAD	Yes
— FBD	Yes
— SCL	Yes
Know-how protection	
User program protection/password protection	Yes
Copy protection	Yes
 Block protection 	Yes

Access protection	
 protection of confidential configuration data 	Yes
 Protection level: Write protection 	Yes
 Protection level: Read/write protection 	Yes
 Protection level: Complete protection 	Yes
programming / cycle time monitoring / header	
adjustable	Yes
Dimensions	
Width	130 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	500 g

last modified:

11/7/2023 🖸