## **SIEMENS**

## Data sheet

## 6ES7214-1AG40-0XB0

SIMATIC S7-1200, CPU 1214C, compact CPU, DC/DC/DC, onboard I/O: 14 DI 24 V DC; 10 DO 24 V DC; 2 AI 0-10 V DC, Power supply: DC 20.4-28.8V DC, Program/data memory 100 KB



General information	
Product type designation	CPU 1214C DC/DC/DC
Firmware version	V4.2
Engineering with	
<ul> <li>Programming package</li> </ul>	STEP 7 V14 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+	
<ul> <li>Rated value (DC)</li> </ul>	24 V
<ul> <li>permissible range, lower limit (DC)</li> </ul>	20.4 V
<ul> <li>permissible range, upper limit (DC)</li> </ul>	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
l²t	0.5 A <sup>2</sup> ·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.
• Z4 V	
Power loss	
Power loss, typ.	12 W
Memory	
Work memory	
• integrated	100 kbyte
• expandable	No
Load memory	
• integrated	4 Mbyte
<ul> <li>Plug-in (SIMATIC Memory Card), max.</li> </ul>	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	Limited only by DAM for and
<ul> <li>Number, max.</li> </ul>	Limited only by RAM for code
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags),	10 kbyte
max.	
Flag	
• Number, max.	8 kbyte; Size of bit memory address area
Local data	
<ul> <li>per priority class, max.</li> </ul>	16 kbyte; Priority class 1 (program cycle): 16 KB, priority class 2 to 26: 6 KB
Address area	
Process image	

<ul> <li>Inputs, adjustable</li> </ul>	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	480 h; Typical
<ul> <li>Deviation per day, max.</li> </ul>	±60 s/month at 25 °C
Digital inputs	
Number of digital inputs	14; Integrated
<ul> <li>of which inputs usable for technological functions</li> </ul>	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	
<ul> <li>Rated value (DC)</li> </ul>	24 V
• for signal "0"	5 V DC at 1 mA
• for signal "1"	15 V DC at 2.5 mA
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
— at "0" to "1", min.	0.2 ms
— at "0" to "1", max.	12.8 ms
for interrupt inputs	
— parameterizable	Yes
for technological functions	
— parameterizable	Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz
Cable length	
• shielded, max.	500 m; 50 m for technological functions
• unshielded, max.	300 m; for technological functions: No
Digital outputs	
Number of digital outputs	10
<ul> <li>of which high-speed outputs</li> </ul>	4; 100 kHz Pulse Train Output
Limitation of inductive shutdown voltage to	L+ (-48 V)
Switching capacity of the outputs	
• with resistive load, max.	0.5 A

Output voltage       0.1 V; with 10 kOhm load         • for signal "0", max.       0.1 V; with 10 kOhm load         • for signal "1", min.       20 V         Output current       0.5 A         • for signal "0" residual current, max.       0.1 mA         Output delay with resistive load       0.1 mA         Output delay with resistive load       1 μs         • "0" to "1", max.       1 μs         • "1" to "0", max.       5 μs         Switching frequency       100 kHz         Relay outputs       0         • Shielded, max.       500 m         • shielded, max.       500 m	• on lamp load, max.	5 W
• for signal "0", max.0.1 V; with 10 kOhm load• for signal "1" min.20 VOutput current0.5 A• for signal "1" rated value0.5 A• for signal "1" residual current, max.0.1 mAOutput delay with resisitive load1 μs• '' to ''', ''max.1 μs• ''' to ''', ''max.1 μs• ''' to ''', '''100 kHzRelay outputs0• of the pulse outputs, with resistive load, max.100 kHzRelay outputs0• Number of relay outputs0• shielded, max.500 m• unshielded, max.500 m• unshielded, max.150 m• UsageYes• lot stage inputs2• lot stage inputs2• lot stage inputs2• lot stage inputs100 khrms• lot stage inputs100 khrms• lot stageYes• lot stage outputs0• lot stage input senset (0 to 10 V)100 khrmsCable lengt100 khrms• shielded, max.100 mm k wisted and shielded• kaleg autout senset (bit including sign), max.10 bit• shielded, max.10 bit• lot stage outputs10 bit• shielded, max.10 bit• kaleg aton time, parameterizableYes• conversion time/resolution per channelYes• conversion time/resolution per channel10 bit• kesolution with overrange (bit including sign), max.10 bit• heingration time, parameterizableYes<		
• for signal *1*, min.20 VOutput current		0.1 V: with 10 kOhm load
Interface         Image: Comparison of the public of t		
• for signal "1" rated value0.5 A• for signal "0" residual current, max.0.1 mAOutput delay with resistive load1 μS• "0" to "1", max.5 μSSwitching frequency0• 10" to "0", max.0 No KHz• Relay outputs0• Number of relay outputs0• Number of relay outputs500 m• unshielded, max.500 m• unshielded, max.150 mAnalog inputs2• VoltageYesInput ranges (rated values), voltages• U to +10 V2100k ohmsCable length-• unshielded, max.100 m; twisted and shieldedAnalog outputs0Cable length-• Shielded, max.100 m; twisted and shieldedAnalog outputs0Cable length-• shielded, max.100 m; twisted and shieldedAnalog outputs0Analog outputs10 bitIntegration and conversion time/resolution per channel-• Resolution with overrange (bit including sign), max.10 bit• Integration time, parameterizableYes• Conversion time (per channel)625 μsEncoder-• Livier sensorYes• Livier sensorYes• Livier sensor	-	20 0
of or signal "0" residul current, max.         0.1 mA           Output delay with resistive load         1 μs           • "0" to "1", max.         5 μs           • "1" to "0", max.         5 μs           • Switching frequency         100 kHz           • of the pulse outputs, with resistive load, max.         100 kHz           Relay outputs         0           • Number of relay outputs         0           • Shielded, max.         500 m           • unshielded, max.         150 m           Analog inputs         2           Number of analog inputs         2           • Oto +10 V         Yes           • Input ranges (rated values), voltages         100 khms           • Oto +10 V         Yes           • Input resistance (0 to 10 V)         2100k ohms           Cable length         100 m; twisted and shielded           • Oto +10 V         Yes           • Input resistance (0 to 10 km)         2100k ohms           Cable length         100 m; twisted and shielded           • Integration and conversion time/resolution per channel         Yes           • Integration and conversion time/resolution per channel         Yes           • Integration time, parameterizable         Yes           • Conversion time (per		0.5.4
Inside the resistive load       • "0" to "1", max.     5 µs       Switching frequency     5 µs       • of the pulse outputs, with resistive load, max.     100 kHz       • of the pulse outputs, with resistive load, max.     100 kHz       • Number of relay outputs     0       • Shielded, max.     500 m       • unshielded, max.     500 m       • unshielded, max.     500 m       • unshielded, max.     150 m       Analog inputs     2       Number of analog inputs     2       • Votage     Yes       • lot + 10 V     Yes       • lot + 10 V     Yes       • lot + 10 V     Yes       • lot e with the inputs     0       Cable length     100 mr, twisted and shielded       • Shielded, max.     100 mr, twisted and shielded       Analog outputs     0       Analog outputs     0       Analog outputs     0       Analog outputs     0       Integration and conversion time/resolution per channel)     10 bit       max.     10 bit       • Integration time, parameterizable     625 µS       Encoder     Yes       • Conversion time (per channel)     625 µS       Encoder     Yes       • Interface type     PROFINET	-	
• "0" to "1", max.1 μs• "1" to "0", max.5 μsSwitching frequency100 kHz• of the pulse outputs, with resistive toad, max.100 kHz• Number of relay outputs0Cable length500 m• unshielded, max.500 m• unshielded, max.150 mAnalog inputs2• Number of analog inputs2• VoltageYesInput ranges (rated values), voltages-• O to 40 VYes- Input resistance (0 to 10 V)Yes• shielded, max.100 m; twisted and shieldedAnalog outputs0Cable length-• Number of analog outputs0Cable length-• Input resistance (0 to 10 V)Yes• Input resistance (0 to 10 V)Yes• shielded, max.100 m; twisted and shieldedAnalog outputs0Cable length-• shielded, max.100 m; twisted and shieldedAnalog outputs0Integration and conversion time/resolution per channel10 bit· Resolution with overrange (bit including sign), max.10 bit· Integration time, parameterizable625 μs· Conversion time (per channel)Yes· Conversion time (per channel)Yes· Lencoder-· 2-wire sensorYesInterface typePROFINET	-	0.1111A
• "1" to "0", max.5 μsSwitching frequency100 kHz• of the pulse outputs, with resistive load, max.100 kHzRelay outputs0Cable length		1.00
Switching frequency       100 kHz         e of the pulse outputs, with resistive load, max.       100 kHz         Relay outputs       0         Cable length       0         • shielded, max.       500 m         • unshielded, max.       500 m         • unshielded, max.       150 m         Analog inputs       2         • funder of analog inputs       2         • Voltage       Yes         • Voltage (rated values), voltages       >         • Uo to +10 V       Yes         - Input resistance (0 to 10 V)       >         Cable length       -         • shielded, max.       100 m; twisted and shielded         Analog outputs       0         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         Encoder       - <td></td> <td></td>		
• of the pulse outputs, with resistive load, max.       100 kHz         Relay outputs       0         • Number of relay outputs       0         Cable length       500 m         • unshielded, max.       500 m         • unshielded, max.       150 m         Analog inputs       2         Number of analog inputs       2         Input ranges       voltage         • Voltage       Yes         Input ranges (rated values), voltages       2100k ohms         Cable length       2100k ohms         Cable length       2100k ohms         Cable length       2100k ohms         Cable length       100 m; twisted and shielded         Analog outputs       0         Analog outputs       0         Analog outputs       0         Analog outputs       0         Number of analog outputs       0         Analog value generation for the inputs       10 bit         • Resolution with overrange (bit including sign), max.       10 bit         • Integration time, parameterizable       Yes         • Conversion time (per channel)       625 µs         Encoder       2         Connectable encoders       25 µs         • 2-wire s		5 µs
Relay outputs       0         • Number of relay outputs       0         Cable length       500 m         • unshielded, max.       150 m         Analog inputs       2         Number of analog inputs       2         Input ranges       Yes         • Voltage       Yes         Input ranges (rated values), voltages       2100k ohms         Cable length       Yes         • 0 to +10 ∨       Yes         - Input resistance (0 to 10 ∨)       2100k ohms         Cable length       2100k ohms         Cable length       100 m; twisted and shielded         Analog outputs       0         Analog outputs       0         Analog outputs       0         Analog outputs       0         Integration and conversion time/resolution per channel       Integration with overrange (bit including sign), max.         • Integration time, parameterizable       Yes         • Conversion time (per channel)       625 µs         Encoder       Yes         Connectable encoders       Yes         • 2-wire sensor       Yes         1. Interface       PROFINET		
• Number of relay outputs       0         Cable length       500 m         • unshielded, max.       500 m         • unshielded, max.       150 m         Analog inputs       2         Number of analog inputs       2         Input ranges       Voltage         • Voltage       Yes         Input ranges (rated values), voltages       ≥100k ohms         Cable length       ≥100k ohms         Cable length       ≥100k ohms         Cable length       shielded, max.         • Number of analog outputs       0         Cable length          • shielded, max.       100 m; twisted and shielded         Analog outputs       0         Analog outputs       0         Analog outputs       0         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         Encoder       Yes         • 2-wire sensor       Yes         • 1.terface       PROFINET	· · ·	100 KHZ
Cable length       500 m         • unshielded, max.       500 m         • unshielded, max.       150 m         Analog inputs       2         Input ranges       2         • 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       0         Number of analog outputs       0         Analog value generation for the inputs       10 bit         Integration and conversion time/resolution per channel       Yes         • Resolution with overrange (bit including sign), max.       10 bit         • Integration time, parameterizable       Yes         • Conversion time (per channel)       625 µs         Encoder       Source sensor         • 2-wire sensor       Yes         • 1. Interface       PROFINET		0
• shielded, max.       500 m         • unshielded, max.       150 m         Analog inputs       2         Number of analog inputs       2         Input ranges       Yes         • Voltage       Yes         Input ranges (rated values), voltages       2         • 0 to +10 V       Yes         — Input resistance (0 to 10 V)       ≥100k ohms         Cable length       2         • shielded, max.       100 m; twisted and shielded         Analog outputs       0         Number of analog outputs       0         Analog value generation for the inputs       10 bit         Integration and conversion time/resolution per channel       Yes         • Resolution with overrange (bit including sign), max.       10 bit         • Integration time, parameterizable       Yes         • Conversion time (per channel)       625 μs         Encoder       Encoders         • 2-wire sensor       Yes         • 2-wire sensor       Yes         • 1. Interface       PROFINET	· ·	0
• unshielded, max.       150 m         Analog inputs       2         Number of analog inputs       2         Input ranges       Ves         • Voltage (rated values), voltages       9         • 0 to +10 V       ≥100k ohms         — Input resistance (0 to 10 V)       ≥100k ohms         Cable length       ≥100k ohms         • shielded, max.       100 m; twisted and shielded         Analog outputs       0         Number of analog outputs       0         Analog value generation for the inputs       10 bit         • Resolution with overrange (bit including sign), max.       10 bit         • Integration time, parameterizable       Yes         • Conversion time (per channel)       625 µs         Encoder       Ves         • 2-wire sensor       Yes         • 2-wire sensor       Yes         • 1. Interface       Yes		500
Analog inputs       2         Number of analog inputs       2         Input ranges       Yes         Input ranges (rated values), voltages       Yes         0 to +10 V       Yes         — Input resistance (0 to 10 V)       ≥100k ohms         Cable length       = 100 m; twisted and shielded         • shielded, max.       100 m; twisted and shielded         Analog outputs       0         Analog value generation for the inputs       0         Integration and conversion time/resolution per channel       10 bit         • Resolution with overrange (bit including sign), max.       10 bit         • Integration time, parameterizable       Yes         • Conversion time (per channel)       625 µs         Encoder       Ves         • Conversion time (per channel)       625 µs         Encoder       Yes         • Integration time, parameterizable       Yes         • Conversion time (per channel)       625 µs         Encoder       Yes         • 2-wire sensor       Yes         • 1. Interface       PROFINET		
Number of analog inputs       2         Input ranges       Yes         Input ranges (rated values), voltages       Yes         • 0 to +10 V       Yes         — Input resistance (0 to 10 V)       ≥100k ohms         Cable length       •         • shielded, max.       100 m; twisted and shielded         Analog outputs       0         Number of analog outputs       0         Analog value generation for the inputs       10 bit         Integration and conversion time/resolution per channel       • Resolution with overrange (bit including sign), max.         • Integration time, parameterizable       Yes         • Conversion time (per channel)       625 µs         Encoder       Connectable encoders         • 2-wire sensor       Yes         1. Interface       Yes         Interface type       PROFINET	• unshielded, max.	150 m
Input ranges       Yes         Input ranges (rated values), voltages       Yes         • 0 to +10 V       Yes         Input resistance (0 to 10 V)       2100k ohms         Cable length       100 m; twisted and shielded         • shielded, max.       100 m; twisted and shielded         Analog outputs       0         Analog value generation for the inputs       0         Integration and conversion time/resolution per channel       10 bit         • Resolution with overrange (bit including sign), max.       10 bit         • Integration time, parameterizable       Yes         • Conversion time (per channel)       625 µs         Encoder       Ves         • 2-wire sensor       Yes         • 1. Interface       Yes         • 1. Interface type       PROFINET	Analog inputs	
• Voltage       Yes         Input ranges (rated values), voltages       Yes         • 0 to +10 V       Yes         - Input resistance (0 to 10 V)       ≥100k ohms         Cable length       2100k ohms         Cable length       100 m; twisted and shielded         • shielded, max.       0         Analog outputs       0         Number of analog outputs       0         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         Encoder          • 2-wire sensor       Yes         • 1. Interface          Interface type       PROFINET	Number of analog inputs	2
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 0 Analog value generation for the inputs Integration and conversion time/resolution per channel ● Resolution with overrange (bit including sign), max. ● Integration time, parameterizable Yes ● Conversion time (per channel) 625 µs Encoder Encoder Connectable encoders ● 2-wire sensor Yes 1. Interface Interface type PROFINET	Input ranges	
• 0 to +10 VYes− Input resistance (0 to 10 V)≥100k ohmsCable length100 m; twisted and shielded• shielded, max.100 m; twisted and shieldedAnalog outputs0Analog value generation for the inputs0Integration and conversion time/resolution per channel10 bit• Resolution with overrange (bit including sign), max.10 bit• Integration time, parameterizableYes• Conversion time (per channel)625 μsEncoderConnectable encodersYes• 2-wire sensorYes• 1. InterfaceYesInterface typePROFINET	Voltage	Yes
Input resistance (0 to 10 V)     ≥100k ohms       Cable length     100 m; twisted and shielded       • shielded, max.     100 m; twisted and shielded       Analog outputs     0       Analog value generation for the inputs     0       Integration and conversion time/resolution per channel     10 bit       • Resolution with overrange (bit including sign), max.     10 bit       • Integration time, parameterizable     Yes       • Conversion time (per channel)     625 μs       Encoder     Connectable encoders       • 2-wire sensor     Yes       1. Interface     Yes	Input ranges (rated values), voltages	
Cable length       100 m; twisted and shielded         • shielded, max.       100 m; twisted and shielded         Analog outputs       0         Number of analog outputs       0         Analog value generation for the inputs       0         Integration and conversion time/resolution per channel       • Resolution with overrange (bit including sign), max.         • Integration time, parameterizable       Yes         • Conversion time (per channel)       625 µs         Encoder       Ves         • 2-wire sensor       Yes         • 2-wire sensor       Yes         Interface       PROFINET	• 0 to +10 V	Yes
• shielded, max.       100 m; twisted and shielded         Analog outputs       0         Number of analog outputs       0         Analog value generation for the inputs       0         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         Encoder       Ves         • 2-wire sensor       Yes         • 2-wire sensor       Yes         • 1. Interface       Yes         Interface type       PROFINET	— Input resistance (0 to 10 V)	≥100k ohms
Analog outputs       0         Analog value generation for the inputs       0         Integration and conversion time/resolution per channel       0         • Resolution with overrange (bit including sign), max.       10 bit         • Integration time, parameterizable       Yes         • Conversion time (per channel)       625 µs         Encoder       Yes         • 2-wire sensor       Yes         • 2-wire sensor       Yes         • 1. Interface       PROFINET	Cable length	
Number of analog outputs       0         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         Encoder       Ves         • 2-wire sensor       Yes         1. Interface       PROFINET	• shielded, max.	100 m; twisted and shielded
Number of analog outputs       0         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         Encoder       Ves         • 2-wire sensor       Yes         1. Interface       PROFINET	Analog outputs	
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         Encoder       Connectable encoders         • 2-wire sensor       Yes         1. Interface       PROFINET         Interface type       PROFINET		0
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         Encoder       Connectable encoders         • 2-wire sensor       Yes         1. Interface       PROFINET         Interface type       PROFINET	Analog value generation for the inputs	
max.     • Integration time, parameterizable     Yes       • Conversion time (per channel)     625 μs   Encoder Encoder		
• Integration time, parameterizable • Conversion time (per channel)Yes 625 μsEncoderConnectable encoders• 2-wire sensorYes1. InterfaceInterface typePROFINET	<ul> <li>Resolution with overrange (bit including sign),</li> </ul>	10 bit
• Conversion time (per channel) 625 µs Encoder Connectable encoders • 2-wire sensor Yes 1. Interface Interface type PROFINET	max.	
Encoder Connectable encoders • 2-wire sensor Yes 1. Interface Interface type PROFINET	<ul> <li>Integration time, parameterizable</li> </ul>	Yes
Connectable encoders       • 2-wire sensor     Yes       1. Interface       Interface type     PROFINET	Conversion time (per channel)	625 µs
Connectable encoders       • 2-wire sensor     Yes       1. Interface       Interface type     PROFINET	Encoder	
1. Interface       Interface type       PROFINET	Connectable encoders	
Interface type PROFINET	• 2-wire sensor	Yes
Interface type PROFINET	1. Interface	
Physics Ethernet		PROFINET
	Physics	Ethernet

Isolated	Yes
automatic detection of transmission rate	Yes
Autonegotiation	Yes
Autocrossing	Yes
Interface types	
Number of ports	1
<ul> <li>integrated switch</li> </ul>	No
Protocols	
PROFINET IO Controller	Yes
PROFINET IO Device	Yes
<ul> <li>SIMATIC communication</li> </ul>	Yes
Open IE communication	Yes
• Web server	Yes
Media redundancy	No
PROFINET IO Controller	
• Transmission rate, max.	100 Mbit/s
Services	
— PG/OP communication	Yes
— S7 routing	Yes
— Isochronous mode	No
— IRT	No
— MRP	No
— MRPD	No
— PROFlenergy	No
— Prioritized startup	Yes
— Number of IO devices with prioritized	16
startup, max.	
— Number of connectable IO Devices, max.	16
<ul> <li>— Number of connectable IO Devices for RT, max.</li> </ul>	16
— of which in line, max.	16
— Activation/deactivation of IO Devices	Yes
<ul> <li>— Number of IO Devices that can be simultaneously activated/deactivated, max.</li> </ul>	8
— Updating time	The minimum value of the update time also depends on the communication component set for PROFINET IO, on the number of IO devices and the quantity of configured user data.
PROFINET IO Device	
Services	
— PG/OP communication	Yes
— S7 routing	Yes
— Isochronous mode	No

— IRT	No
— MRP	No
— MRPD	No
— PROFlenergy	Yes
— Shared device	Yes
<ul> <li>— Number of IO Controllers with shared device, max.</li> </ul>	2

Protocols	
Supports protocol for PROFINET IO	Yes
PROFIBUS	Yes; CM 1243-5 (master) or CM 1242-5 (slave) required
AS-Interface	Yes; CM 1243-2 required
Protocols (Ethernet)	
• TCP/IP	Yes
• DHCP	No
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
Open IE communication	
• TCP/IP	Yes
— Data length, max.	8 kbyte
<ul> <li>ISO-on-TCP (RFC1006)</li> </ul>	Yes
— Data length, max.	8 kbyte
• UDP	Yes
— Data length, max.	1 472 byte
Web server	
• supported	Yes
<ul> <li>User-defined websites</li> </ul>	Yes
Further protocols	
• MODBUS	Yes
Communication functions	
S7 communication	
<ul> <li>supported</li> </ul>	Yes
• as server	Yes
• as client	Yes
• User data per job, max.	See online help (S7 communication, user data size)
Number of connections	
• overall	16; dynamically
Test commissioning functions	
Status/control	
Status/control variable	Yes

Forcing         Yes           Diagnostic buffer         Yes           • present         Yes           Traces         2           • Number of configurable Traces         2           • Memory size per trace, max.         512 kbyte           Interrupts/diagnostics/status information         Diagnostics indication LED           • RUNISTOP LED         Yes           • RRUN LED         Yes           • RAINT LED         Yes           • Maint LED         Yes           • Counting frequency (counter) max.         100 kHz           Frequency measurement         Yes           • Controller oposition-controlled positioning axes, max.         8           Number of position-controlled positioning axes, max.         9           Potential separation         4           Potential separation         100 kHz           Frequency (pulse)         100 kHz           • Potential separation digital inputs         1           • Potential separation digital outputs         1           • Potential separatind digital	• Variables	Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
Diagnostic buffer         Yes           • present         Yes           Traces         2           • Number of configurable Traces         2           • Memory size per trace, max.         512 kbyte           Diagnostics indication LED         -           • RUN/STOP LED         Yes           • ERROR LED         Yes           • Memory size per trace, max.         6           Counting frequency (counter) max.         100 kHz           Frequency measurement         Yes           controlled positioning axes, max.         8           Number of position-controlled positioning axes, max.         8           Number of position-controlled positioning axes, max.         100 kHz           PiD controller         Yes           PiD controller         Yes           PiD controller         Yes           Potential separation digital inputs         4           Number of paise outputs         4           Limit frequency (pulse)         100 kHz           Potential separation digital inputs         100 kHz           • Potential separation digital inputs         100 kHz           • Potential separation digital inputs         No           • between the channels, in groups of         1	Forcing	
• presentYesTraces2• Memory size per trace, max.512 kbyteInterrupts/cliagnostics/status information512 kbyteDiagnostics/status informationFUN/STOP LEDPRUNSTOP LEDYes• ERROR LEDYes• MAINT LEDYesIntegrated Functions6Counting frequency (counter) max.100 kHzFrequency measurementYescontrolled positioning axes, max.8Number of position-controlled positioning axes, max.8Number of position gates via pulse-direction4PiD controllerYesPiD controllerYesPiD controllerYesPiD controllerYesPotential separation digital inputs4Number of pulse outputs4Limit frequency (pulse)100 kHzPotential separation digital inputsNo• Potential separation digital inputsNo• Detentiel separation digital inputsNo• between the channels, in groups of1• Detentiel separation digital outputsYes• Detentiel separation digital outputsYes• between the channels, in groups of1• Detentiel separation digital outputsYes• Detentiel separation digital outputsYes• Detentiel separation digital outputsNo• between the channels, in groups of1• Detentiel separation digital outputsYes• Detentiel separation digital outputsYes• Detentiel separation digital o	• Forcing	Yes
Protect         Protect           • Number of configurable Traces         2           • Memory size per trace, max.         512 kbyte           Interrupts/diagnostics/status information         Diagnostics indication LED           • RUN/STOP LED         Yes           • REROR LED         Yes           • MAINT LED         Yes           Integrated Functions         6           Counting frequency (counter) max.         100 kHz           Frequency counters         6           Counting frequency (counter) max.         8           Number of position-controlled positioning axes, max.         8           Number of position-controlled positioning axes, max.         8           Number of position gaxes via pulse-direction interface         4           Number of pulse outputs         4           Limit frequency (pulse)         100 kHz           PID controller         Yes           Number of pulse outputs         4           Limit frequency (pulse)         100 kHz           Potential separation digital inputs         No           • Potential separation digital inputs         No           • Detween the channels, in groups of         1           Potential separation digital outputs         Yes           • between	Diagnostic buffer	
• Number of configurable Traces         2           • Memory size per trace, max.         512 kbyte           Interrupts/diagnostics/status information         -           Diagnostics indication LED         Yes           • RUNNSTOP LED         Yes           • MAINT LED         Yes           • MAINT LED         6           Counting frequency (counter) max.         100 kHz           Frequency measurement         Yes           controlled positioning axes, max.         8           Number of position-controlled positioning axes, max.         4. With integrated outputs           Interface         Yes           Protortoler         Yes           Number of position-controlled positioning axes, max.         8           Number of position-controlled positioning axes, max.         4. With integrated outputs           Interface         Yes           PiD controller         Yes           Number of pulse outputs         4           Limit frequency (pulse)         100 kHz           Potential separation digital inputs         100 kHz           Potential separation digital inputs         100 kHz           Potential separation digital outputs         100 kHz           Potential separation digital outputs         Yes	● present	Yes
Memory size per trace, max.         512 kbyte           Interrupts/diagnostics/status information            Diagnostics indication LED         Yes           • RUN/STOP LED         Yes           • MAINT LED         Yes           Integrated Functions         6           Counting frequency (counter) max.         100 kHz           Frequency measurement         Yes           Controlled positioning axes via pulse-direction         4           Number of positioning axes via pulse-direction         4           Number of position ing axes via pulse-direction         4           Number of position ing axes via pulse-direction         100 kHz           Preducted Functions         8           Number of position ing axes via pulse-direction         4           Interface         100 kHz           PID controller         Yes           Number of position ing axes via pulse-direction         4           Limit frequency (pulse)         100 kHz           Potential separation         100 kHz           Potential separation digital inputs         No           • Potential separation digital outputs         Yes           • Potential separation digital outputs         Yes           • between the channels, in groups of         1 <td>Traces</td> <td></td>	Traces	
Interrupts/diagnostics/status information Diagnostics indication LED  POIgnostics indication LED  POIgnostics indication LED  POIgnostics indication LED  Prequency Counter  Prequency (counter) max.  Prequency measurement Controlled positioning POIC controlled positioning POIC controlled positioning axes, max. Number of position-controlled positioning axes, max. POID controller POID controller POID controller POtential separation digital inputs Potential separation digital inputs POtential separation digital outputs POtential separation digital outputs POID controller	<ul> <li>Number of configurable Traces</li> </ul>	2
Diagnostics indication LED         Yes           • RUNVSTOP LED         Yes           • ERROR LED         Yes           • MAINT LED         Yes           Number of counters         6           Counting frequency (counter) max.         100 kHz           Frequency measurement         Yes           controlled positioning         Yes           Number of position-controlled positioning axes, max.         8           Number of pusite outputs         4           Number of pulse outputs         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, in groups of         1           EMC         Interference immunity against discharge of static ele	• Memory size per trace, max.	512 kbyte
RUN/STOP LEDYes• ERROR LEDYes• MAINT LEDYesIntegrated Functions6Counting frequency (counter) max.100 kHzFrequency measurementYescontrolled positioningYesNumber of position-controlled positioning axes, max.8Number of positioning axes via pulse-direction4: With integrated outputsinterfaceYesPID controllerYesNumber of positioning axes via pulse-direction4: With integrated outputsinterface100 kHzPID controllerYesNumber of positioning axes via pulse-direction4Number of positioning axes via pulse-direction100 kHzPiD controllerYesNumber of pulse outputs4Limit frequency (pulse)100 kHzPotential separation digital inputsNo• between the channels, in groups of1• Potential separation digital outputsYes• between the channels, in groups of1• tinterference immunity against discharge of static electicity acc. to EC 61000-4-2		
• ERROR LED       Yes         • MAINT LED       Yes         Integrated Functions       6         Counting frequency (counter) max.       100 kHz         Frequency measurement       Yes         controlled positioning       Yes         controlled positioning axes via pulse-direction interface       8         Number of position-controlled positioning axes, max.       8         Number of position-controlled positioning axes, max.       100 kHz         PID controller       Yes         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 positioning axes via pulse-direction interface       4         PID controller       Yes         Number of pulse outputs       4         Limit frequency (pulse)       100 kHz         Potential separation digital inputs       No         • between the channels, in groups of       1         • betwee	Diagnostics indication LED	
MAINT LEDYesIntegrated Functions6Counting frequency (counter) max.100 kHzFrequency (counter) max.100 kHzFrequency measurementYescontrolled positioningYesNumber of position-controlled positioning axes, max.8Number of position-controlled positioning axes, in provide at the set of position doubles4Number of position-controlled position100 kHzPlD controllerYesPotential separation digital inputsNo• Potential separation digital outputsNo• between the channels, in groups of1• Interference immunity against discharge of static electricity acc. to IEC 61000-4-2 	RUN/STOP LED	Yes
Integrated Functions         6           Counting frequency (counter) max.         100 kHz           Frequency measurement         Yes           controlled positioning         Yes           Number of position-controlled positioning axes, max.         8           Number of positioning axes via pulse-direction         4; With integrated outputs           interface         4; With integrated outputs           PID controller         Yes           Number of positioning axes via pulse-direction         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         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           Interference immunity against discharge of static electricity         Yes           • between the channels, in groups of         1           Int	• ERROR LED	Yes
Number of counters       6         Counting frequency (counter) max.       100 kHz         Frequency measurement       Yes         controlled positioning       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 position-controlled positioning axes, max.       4         Number of positioning axes via pulse-direction       4         Interface       Yes         PID controller       Yes         Number of pulse outputs       4         Limit frequency (pulse)       100 kHz         Potential separation       4         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 of static electricity acc. to IEC 61000-4-2       Yes	MAINT LED	Yes
Counting frequency (counter) max.100 kHzFrequency measurementYescontrolled positioningYesNumber of position-controlled positioning axes, max.8Number of positioning axes via pulse-direction interface4PID controllerYesNumber of pulse outputs4Number of pulse outputs4Number of pulse outputs100 kHzPotential separation digital inputs100 kHzPotential separation digital inputsNo• between the channels, in groups of1Potential separation digital outputsYes• between the channels, in groups of1• between the channelsNo• Terf voltage at air discharge of static electr	Integrated Functions	
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           Number of pulse outputs         4           Limit frequency (pulse)         100 kHz           Potential separation digital inputs         100 kHz           Potential separation digital inputs         1           Potential separation digital outputs         1           Potential separation digital outputs         1           Potential separation digital outputs         Yes           between the channels, in groups of         1           EMC         Interference immunity against discharge of static electricity acc. to IEC 61000-4-2           - Test voltage at air discharge         8 kV           - Test voltage at air discharge         6 kV	Number of counters	6
controlled positioningYesNumber of position-controlled positioning axes, max.8Number of positioning axes via pulse-direction interface4; With integrated outputsPID controllerYesNumber of alarm inputs4Number of pulse outputs4Limit frequency (pulse)100 kHzPotential separation digital inputs• Potential separation digital inputsNo• between the channels, in groups of1• Potential separation digital outputsYes• Potential separation digital outputsNo• between the channels, in groups of1• Detential separation digital outputsYes• between the channels, in groups of1• Detential separation digital outputsYes• between the channelsNo• between the channels, in groups of1• Detential separation digital outputsYes• between the channels, in groups of1• between the channels, in groups of1• Detential separation digital outputsYes• between the channels, in groups of1• Detential separation digital outputsNo• between the channels, in groups of1• Detential separation digital outputsSecond• Detential separation digital outputsNo• Detential separation digital outputsYes• Detential separation digital discharge of static electricityYes• Interference immunity against discharge8 kV• Test voltage at air discharge6 kV<	Counting frequency (counter) max.	100 kHz
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       • Potential separation digital inputs     No       • Potential separation digital outputs     1       • Potential separation digital outputs     Yes       • Potential separation digital outputs     No       • between the channels, in groups of     1       • Potential separation digital outputs     Yes       • between the channels     No       • between the channels, in groups of     1       • between the channels, in groups of     1       • between the channels     No       • between the channels     No       • between the channels, in groups of     1       • Interference immunity against discharge of static electrict     Yes       • Interference immunity against discharge of static electricty acc. to IEC 61000-4-2     Yes       • Test voltage at air discharge     8 kV <td>Frequency measurement</td> <td>Yes</td>	Frequency measurement	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 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       No         • between the channels, in groups of       1         • Detential separation digital outputs       Yes         • between the channels, in groups of       1         • Detentiel separation digital outputs       Yes         • between the channels, in groups of       1         • between the channels, in groups of       1         • Interference immunity against discharge of static electricity       Yes         • Interference immunity against discharge of static electricity acc. to IEC 61000-4-2       Yes         • Test voltage at air discharge       8 kV       6 kV <td>controlled positioning</td> <td>Yes</td>	controlled positioning	Yes
interface         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           • 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           Potential separation digital outputs         Yes           • between the channels, in groups of         1           Interference immunity against discharge of static electricity acc. to IEC 61000-4-2         Yes           • Interference immunity against discharge of static electricity acc. to IEC 61000-4-2         Yes           - Test voltage at air discharge         8 kV           - Test voltage at air discharge         6 kV		
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 inputs       1         • Potential separation digital outputs       1         • Potential separation digital outputs       Yes         • Potential separation digital outputs       No         • between the channels       No         • between the channels, in groups of       1         • between the channels       No         • between the channels, in groups of       1         • Detertial separation digital discharge of static electricity acc. to IEC 61000-4-2       • Test voltage at air discharge         • Test voltage at air discharge       8 kV       6 kV		4; With integrated outputs
Number of pulse outputs4Limit frequency (pulse)100 kHzPotential separationPotential separation digital inputsPotential separation digital inputsNo• Potential separation digital outputs1Potential separation digital outputsYes• Potential separation digital outputsNo• Detential separation digital outputsYes• Detente channels, in groups of1• Detente channels, in groups of1• Detente channelsNo• between the channels, in groups of1• Deterte channels, in groups of1• Deterte channels, in groups of1• Deterte channels, in groups of8 kV• Interference immunity against discharge8 kV• Test voltage at air discharge8 kV• Test voltage at contact discharge6 kV	PID controller	Yes
Limit frequency (pulse)       100 kHz         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       1         • Potential separation digital outputs       Yes         • between the channels, in groups of       1         • Diterference immunity against discharge of static electricity acc. to IEC 61000-4-2       Yes         • Interference immunity against discharge of static electricity acc. to IEC 61000-4-2       8 kV         • Test voltage at air discharge       8 kV         • Test voltage at contact discharge       6 kV	Number of alarm inputs	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       No         • Potential separation digital outputs       Yes         • between the channels       No         • between the channels, in groups of       1         • Diterference immunity against discharge of static electricity       1         • Interference immunity against discharge of static electricity acc. to IEC 61000-4-2       Yes         • Interference immunity against discharge       8 kV         • Test voltage at air discharge       8 kV         • Test voltage at contact discharge       6 kV	Number of pulse outputs	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       No         • 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 acc. to IEC 61000-4-2       Yes         - Test voltage at air discharge       8 kV         - Test voltage at contact discharge       6 kV	Limit frequency (pulse)	100 kHz
• Potential separation digital inputsNo• between the channels, in groups of1• Potential separation digital outputsYes• Potential separation digital outputsNo• between the channelsNo• between the channels, in groups of1• between the channels, in groups ofYes• Interference immunity against discharge of static electricity acc. to IEC 61000-4-2Yes- Test voltage at air discharge8 kV- Test voltage at contact discharge6 kV	Potential separation	
between the channels, in groups of 1 Potential separation digital outputs     Potential separation digital outputs Yes     between the channels     between the channels, in groups of 1 EMC EMC Interference immunity against discharge of static electricity acc. to IEC 61000-4-2         — Test voltage at air discharge         — Test voltage at contact discharge         — Test voltage at contact discharge		
Potential separation digital outputs       Yes         • Potential separation digital outputs       No         • between the channels       No         • between the channels, in groups of       1         EMC         Interference immunity against discharge of static electricity acc. to IEC 61000-4-2         • Interference immunity against discharge of static electricity acc. to IEC 61000-4-2       Yes         • Test voltage at air discharge       8 kV         • Test voltage at contact discharge       6 kV		No
• Potential separation digital outputsYes• between the channelsNo• between the channels, in groups of1EMCInterference immunity against discharge of static electricity acc. to IEC 61000-4-2• Interference immunity against discharge of static electricity acc. to IEC 61000-4-2Yes— Test voltage at air discharge8 kV— Test voltage at contact discharge6 kV		1
<ul> <li>between the channels</li> <li>between the channels, in groups of</li> <li>1</li> <li>EMC</li> <li>Interference immunity against discharge of static electricity</li> <li>Interference immunity against discharge of static electricity acc. to IEC 61000-4-2</li> <li>Test voltage at air discharge</li> <li>8 kV</li> <li>Test voltage at contact discharge</li> <li>6 kV</li> </ul>	Potential separation digital outputs	
• 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       Yes         - Test voltage at air discharge       8 kV         - Test voltage at contact discharge       6 kV	<ul> <li>Potential separation digital outputs</li> </ul>	Yes
EMC         Interference immunity against discharge of static electricity         • Interference immunity against discharge of static electricity         • Interference immunity against discharge of static electricity         - Test voltage at air discharge         8 kV         - Test voltage at contact discharge         6 kV	<ul> <li>between the channels</li> </ul>	No
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	• between the channels, in groups of	1
<ul> <li>Interference immunity against discharge of static electricity acc. to IEC 61000-4-2</li> <li>Test voltage at air discharge</li> <li>KV</li> <li>Test voltage at contact discharge</li> <li>KV</li> </ul>	EMC	
static electricity acc. to IEC 61000-4-2       — Test voltage at air discharge       8 kV       — Test voltage at contact discharge       6 kV	Interference immunity against discharge of static electricity	
— Test voltage at contact discharge 6 kV		Yes
	— Test voltage at air discharge	8 kV
Interference immunity to cable-borne interference	— Test voltage at contact discharge	6 kV

<ul> <li>Interference immunity on supply lines acc. to IEC 61000-4-4</li> </ul>	Yes
<ul> <li>Interference immunity on signal cables acc. to IEC 61000-4-4</li> </ul>	Yes
Interference immunity against voltage surge	
<ul> <li>Interference immunity on supply lines acc. to IEC 61000-4-5</li> </ul>	Yes
Interference immunity against conducted variable distur	bance induced by high-frequency fields
<ul> <li>Interference immunity against high-frequency radiation acc. to IEC 61000-4-6</li> </ul>	Yes
Emission of radio interference acc. to EN 55 011	
<ul> <li>Limit class A, for use in industrial areas</li> </ul>	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
<ul> <li>horizontal installation, min.</li> </ul>	-20 °C
<ul> <li>horizontal installation, max.</li> </ul>	60 °C
<ul> <li>vertical installation, min.</li> </ul>	-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

<ul> <li>Storage/transport, min.</li> </ul>	660 hPa
Storage/transport, max.	1 080 hPa
Altitude during operation relating to sea level	
Installation altitude, min.	-1 000 m
	2 000 m
Installation altitude, max.	2 000 111
Relative humidity	95 %; no condensation
Operation, max.     Vibrations	
Vibration resistance during operation acc. to     IEC 60068-2-6	2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail
	Yes
Operation, tested according to IEC 60068-2-6      Shock testing	
<ul> <li>Shock testing</li> <li>tested according to IEC 60068-2-27</li> </ul>	Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms
Pollutant concentrations	
<ul> <li>SO2 at RH &lt; 60% without condensation</li> </ul>	S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free
Configuration	
Programming	
Programming language	
— LAD	Yes
— FBD	Yes
— SCL	Yes
Know-how protection	
<ul> <li>User program protection/password protection</li> </ul>	Yes
Copy protection	Yes
Block protection	Yes
Access protection	
<ul> <li>Protection level: Write protection</li> </ul>	Yes
<ul> <li>Protection level: Read/write protection</li> </ul>	Yes
<ul> <li>Protection level: Complete protection</li> </ul>	Yes
Cycle time monitoring	
● adjustable	Yes
Dimensions	
Width	110 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	415 g
last modified:	05/09/2020