# **SIEMENS**

### Data sheet

## 6ES7215-1AG40-0XB0

SIMATIC S7-1200, CPU 1215C, COMPACT CPU, DC/DC/DC, 2 PROFINET PORT, ONBOARD I/O: 14 DI 24V DC; 10 DO 24V DC 0.5A 2 AI 0-10V DC, 2 AO 0-20MA DC, POWER SUPPLY: DC 20.4 -28.8 V DC, PROGRAM/DATA MEMORY: 125 KB



General information		
Product type designation	CPU 1215C DC/DC/DC	
Firmware version	V4.2	
Engineering with		
Programming package	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+		
Rated value (DC)	24 V	
<ul> <li>permissible range, lower limit (DC)</li> </ul>	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 A²·s
Output current for backplane bus (5 V DC), max.	1.600 mA: May 5 V.DC for SM and CM
ior 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	
	125 kbyte
• integrated	No
• expandable  Load memory	INO
	4 Mbyte
• integrated	
Plug-in (SIMATIC Memory Card), max.	with SIMATIC memory card
Backup	V
• present	Yes
maintenance-free	Yes
<ul><li>without battery</li></ul>	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
ОВ	
• Number, max.	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	
• 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	480 h; Typical
• Deviation per day, max.	+/- 60 s/month at 25 °C
Digital inputs	
Number of digital inputs	14; Integrated
of which inputs usable for technological	6; HSC (High Speed Counting)
functions	c,c (g epoca coag)
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
• 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
ot 11011 to 11411 min	0.2 ms
— at "0" to "1", min. — at "0" to "1", max.	12.8 ms
	12.0 110
for interrupt inputs	Yes
— parameterizable	165
for counter/technological functions	Cingle phases 2 @ 100 kHz 8 2 @ 20 kHz differentials 2 @ 90
— 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
• of which high-speed outputs	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

• on lamp load, max.	5 W
Output voltage	
• for signal "0", max.	0.1 V; with 10 kOhm load
• for signal "1", min.	20 V
Output current	
• 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
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
<ul><li>Input resistance (0 to 10 V)</li></ul>	≥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	
<ul> <li>Resolution with overrange (bit including sign),</li> </ul>	10 bit
max.	
Integration time, parameterizable	Yes
<ul> <li>Conversion time (per channel)</li> </ul>	625 μs
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	401:4
<ul> <li>Resolution with overrange (bit including sign), max.</li> </ul>	10 bit
Encoder	
Connectable encoders	

• 2-wire sensor	Yes
Interface	
nterface type	PROFINET
Physics	Ethernet

Physics	Ethernet
Isolated	Yes
automatic detection of transmission rate	Yes
Autonegotiation	Yes
Autocrossing	Yes

#### Interface types 2 • Number of ports

• integrated switch Yes

## Functionality

Yes • PROFINET IO Controller Yes • PROFINET IO Device Yes • SIMATIC communication • Open IE communication Yes

Yes • Web server

Yes; as MRP client Media redundancy

### **PROFINET IO Controller**

100 Mbit/s • Transmission rate, max.

#### Services

Yes - PG/OP communication Yes - S7 routing No - Isochronous mode Yes - Open IE communication No — IRT

- MRP Yes; as MRP client

No - MRPD - PROFlenergy - Prioritized startup

- Number of IO devices with prioritized startup, max.

- Number of connectable IO Devices, max.

- Number of connectable IO Devices for RT, max.

- of which in line, max.

- Activation/deactivation of IO Devices

- Number of IO Devices that can be simultaneously activated/deactivated, max.

- Updating time

No

Yes 16

16

16

16

Yes 8

> 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.

Services	PROFINET IO Device		
— S7 routing Yes  — Isochronous mode No  — Open IE communication Yes  — IRT No  — IRT No  — IRT No  — MRP Yes; as MRP client  — MRPD No  — PROFlenergy Yes  — Shared device Yes  — Number of IO Controllers with shared  device, max.  Protocols  Supports protocol for PROFINET IO Yes; CM 1243-5 required  AS-Interface Yes; CM 1243-2 required  PROFIBUS Yes  — One IE Communication  — TCP/IP Yes  — LLDP Yes  — Data length, max. 8 kbyte  — UDP — Data length, max. 8 kbyte  — UDP — Data length, max. 1472 byte   Further protocols  — MODBUS Yes   Communication  — **Communication  — **Symmetric functions  — S7 communication  — **Symmetric functions  — **Symmetric function	Services		
Isochronous mode	— PG/OP communication	Yes	
Open IE communication	— S7 routing	Yes	
- IRT	— Isochronous mode	No	
— MRP         Yes; as MRP client           — MRPD         No           — PROFlenergy         Yes           — Shared device         Yes           — Number of IO Controllers with shared device, max.         2           Protocols           Supports protocol for PROFINET IO         Yes           PROFIBUS         Yes; CM 1243-5 required           AS-Interface         Yes; CM 1243-2 required           Protocols (Ethernet)         Yes           • TCP/IP         Yes           • DHCP         No           • SNMP         Yes           • DCP         Yes           • LLDP         Yes           Open IE communication         * TCP/IP           — Data length, max.         8 kbyte           • ISO-on-TCP (RFC1006)         Yes           — Data length, max.         1 472 byte           Further protocols         * MODBUS           • MODBUS         Yes           Communication functions         S7 communication           • supported         Yes           • as server         Yes           • as server         Yes           • supported         Yes           • as client         Yes	<ul> <li>Open IE communication</li> </ul>	Yes	
— MRPD         No           — PROFlenergy         Yes           — Shared device         Yes           — Number of IO Controllers with shared device, max.         2           Protocols           Supports protocol for PROFINET IO           Yes         Yes           PROFIBUS         Yes; CM 1243-5 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           — Data length, max.         8 kbyte           • ISO-on-TCP (RFC1006)         Yes           — Data length, max.         1 472 byte           Further protocols           • MODBUS         Yes           Communication functions           S7 communication         Yes           • as server         Yes           • as client         Yes           • user data per job, max.         See online help (S7 communication, user data size)           Open IE communication         Yes	— IRT	No	
— PROFlenergy — Shared device — Number of IO Controllers with shared device, max.  Protocols  Supports protocol for PROFINET IO PROFIBUS AS-Interface Protocols (Ethernet)  • TCP/IP • DHCP • DHCP • DCP • LLDP  Open IE communication • TCP/IP — Data length, max. • UDP — Data length, max. • UDP — Data length, max. • Word of the shared of t	— MRP	Yes; as MRP client	
— Shared device — Number of IO Controllers with shared device, max.  Protocols  Supports protocol for PROFINET IO PROFIBUS AS-Interface Yes; CM 1243-5 required Protocols (Ethernet)  • TCP/IP • DHCP • DHCP • SNMP • DCP • LLDP  Open IE communication • TCP/IP — Data length, max. • ISO-on-TCP (RFC1006) — Data length, max. • UDP — Data length, max. • UDP — Data length, max. • Ves  Communication functions  S7 communication  • Yes • as client • User data per job, max.  Open IE communication, user data size)  Open IE communication • TCP/IP	— MRPD	No	
Number of IO Controllers with shared device, max.  Protocols  Supports protocol for PROFINET IO PROFIBUS AS-Interface Protocols (Ethernet)  • TCP/IP • DHCP • DHCP • DCP • LLDP • LLDP  Data length, max. • ISO-on-TCP (RFC1006) Data length, max. • UDP Data length, max. • Why the supported • MODBUS  ST communication  • Tyes  Yes  Communication • Yes  Communication • Yes  Open IE communication  • Yes  Communication • Yes  Communication • Yes  Open IE communication • Sylpopted • as server • as client • User data per job, max.  Open IE communication • TCP/IP  Data communication TCP/IP  No Yes Yes As Communication TCP/IP  No Yes As Communication TCP/IP  As Communication TCP/IP  As Communication TCP/IP  As Communication TCP/IP As Communication TCP/IP As	— PROFlenergy	Yes	
device, max.  Protocols  Supports protocol for PROFINET IO Yes PROFIBUS Yes; CM 1243-5 required AS-Interface Yes; CM 1243-2 required  Protocols (Ethernet)  • TCP/IP Yes • DHCP No • SNMP Yes • DCP • LLDP Yes  Open IE communication  • TCP/IP — Data length, max. 8 kbyte • ISO-on-TCP (RFC1006) Yes • UDP — Data length, max. 1 472 byte  Further protocols • MODBUS  Communication  • supported • as server • as client • User data per job, max. See online help (S7 communication, user data size)  Open IE communication • TCP/IP  Ves  See online help (S7 communication, user data size)  Open IE communication • TCP/IP  Ves	— Shared device	Yes	
Protocols Supports protocol for PROFINET IO PROFIBUS AS-Interface Yes; CM 1243-5 required Protocols (Ethernet)  TCP/IP DHCP DHCP No SIMP PCP LLDP POPEL E Communication TCP/IP Data length, max. UDP Data length, max. UDP Data length, max. UDP Total length, max. UDP UDP Total length, max. UDP	<ul> <li>Number of IO Controllers with shared</li> </ul>	2	
Supports protocol for PROFINET IO PROFIBUS Yes; CM 1243-5 required AS-Interface Yes; CM 1243-2 required Protocols (Ethernet)  • TCP/IP • DHCP • DHCP • DHCP • DCP • SNMP • DCP • LLDP Open IE communication • TCP/IP — Data length, max. • ISC-on-TCP (RFC1006) — Data length, max. • UDP — Data length, max. • UDP — Data length, max. • Yes  Communication functions  S7 communication • supported • as server • as client • User data per job, max.  Open IE communication • TCP/IP  • See online help (S7 communication, user data size)  Open IE communication • TCP/IP  Yes	device, max.		
PROFIBUS   Yes; CM 1243-5 required	Protocols		
AS-Interface   Yes; CM 1243-2 required	Supports protocol for PROFINET IO	Yes	
Protocols (Ethernet)		Yes; CM 1243-5 required	
		Yes; CM 1243-2 required	
SNMP DCP CP LLDP Yes  Open IE communication  TCP/IP Data length, max. Skbyte Skbyte UDP Data length, max. UDP Data length, max. Yes  Turther protocols MODBUS  Communication S7 communication S7 communication S7 communication S7 communication S8 communication Yes S9 communication S9 communicatio	• TCP/IP		
DCP     LLDP     Yes  Open IE communication      TCP/IP     Data length, max.     ISO-on-TCP (RFC1006)     Data length, max.     UDP     Data length, max.     1 472 byte  Further protocols     MODBUS  Communication functions  S7 communication     supported     as server     as client     Ves     see online help (S7 communication, user data size)  Open IE communication      TCP/IP  Yes	• DHCP		
● LLDP  Open IE communication  ● TCP/IP  — Data length, max.  ● ISO-on-TCP (RFC1006)  — Data length, max.  ● UDP  — Data length, max.  ● UDP  — Data length, max.  1 472 byte  Further protocols  ● MODBUS  Yes  Communication functions  \$7 communication  ● supported  ● as server  ● as client  ● User data per job, max.  Open IE communication  ● TCP/IP  Yes	• SNMP		
Open IE communication  TCP/IP Data length, max. Sk byte ISO-on-TCP (RFC1006) Data length, max. Sk byte  UDP Data length, max. T472 byte  Further protocols MODBUS  Communication functions S7 communication S7 communication S7 communication User data per job, max. See online help (S7 communication, user data size)  Open IE communication  TCP/IP  Yes	• DCP		
TCP/IP  Data length, max.  ISO-on-TCP (RFC1006) Data length, max.  UDP Data length, max.  I 472 byte  Further protocols  MODBUS  Communication functions  S7 communication  supported as server as sclient User data per job, max.  See online help (S7 communication, user data size)  Open IE communication  Yes  Yes  Yes  See online help (S7 communication, user data size)  Open IE communication  Yes  Yes		Yes	
Data length, max.  ■ ISO-on-TCP (RFC1006)  Data length, max.  ■ UDP  Data length, max.  ■ UDP  Data length, max.  ■ MODBUS   Teurther protocols  ■ MODBUS   **Communication functions  **S7 communication  ■ supported  ■ as server  ■ as server  ■ as client  ■ User data per job, max.   **Open IE communication  **Yes  **Yes  **Yes  **Yes  **See online help (S7 communication, user data size)  **Open IE communication  **Yes  *			
ISO-on-TCP (RFC1006)  — Data length, max.  Identify the protocols  In MODBUS  Further protocols  In MODBUS  Yes  Communication functions  S7 communication  Identify the protocols  Identify the protocols  Yes  Communication functions  S7 communication  Identify the protocols  Yes  Communication functions  Yes  Identify the protocols  Yes  Yes  Identify the protocols  Yes  Yes  Identify the protocols  Yes  Yes  Yes  Yes	• TCP/IP		
— Data length, max.  • UDP  — Data length, max.  1 472 byte  Further protocols  • MODBUS  Yes  Communication functions  \$7 communication  • supported  • as server  • as client  • User data per job, max.  Open IE communication  • TCP/IP  Yes	— Data length, max.		
UDP — Data length, max.  Further protocols  MODBUS  Yes  Communication functions  S7 communication  supported sas server as server as client  User data per job, max.  Open IE communication  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	• ISO-on-TCP (RFC1006)		
— Data length, max.  Further protocols  • MODBUS  Yes  Communication functions  S7 communication  • supported  • as server  • as client  • User data per job, max.  Open IE communication  • TCP/IP  Yes	— Data length, max.	8 kbyte	
Further protocols  • MODBUS  Yes  Communication functions  S7 communication  • supported  • as server  • as client  • User data per job, max.  Open IE communication  • TCP/IP  Yes	• UDP		
<ul> <li>MODBUS</li> <li>Yes</li> <li>Communication functions</li> <li>S7 communication</li> <li>supported</li> <li>as server</li> <li>as client</li> <li>User data per job, max.</li> <li>Open IE communication</li> <li>TCP/IP</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul>		1 472 byte	
Communication functions  S7 communication  • supported • as server • as client • User data per job, max.  Open IE communication  • TCP/IP  Yes  Yes  See online help (S7 communication, user data size)	Further protocols		
S7 communication  • supported • as server • as client • User data per job, max.  Open IE communication • TCP/IP  Yes  Yes  See online help (S7 communication, user data size)  Yes	• MODBUS	Yes	
<ul> <li>supported</li> <li>as server</li> <li>as client</li> <li>User data per job, max.</li> <li>Open IE communication</li> <li>TCP/IP</li> <li>Yes</li> <li>Yes</li> <li>See online help (S7 communication, user data size)</li> </ul>	Communication functions		
<ul> <li>as server</li> <li>as client</li> <li>User data per job, max.</li> <li>Open IE communication</li> <li>TCP/IP</li> <li>Yes</li> <li>See online help (S7 communication, user data size)</li> <li>Yes</li> </ul>	S7 communication		
<ul> <li>as client</li> <li>User data per job, max.</li> <li>Open IE communication</li> <li>TCP/IP</li> <li>Yes</li> <li>Yes</li> </ul>	• supported		
<ul> <li>User data per job, max.</li> <li>Open IE communication</li> <li>TCP/IP</li> <li>Yes</li> </ul>	• as server		
Open IE communication  ◆ TCP/IP  Yes	• as client		
• TCP/IP Yes		See online help (S7 communication, user data size)	
	Open IE communication		
• UDP Yes			
	• UDP	Yes	

Web server	
	Yes
• supported	
User-defined websites	Yes
Number of connections	
• overall	16; dynamically
Test commissioning functions	
Status/control	
Status/control variable	Yes
Variables	Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
Forcing	
Forcing	Yes
Diagnostic buffer	
• present	Yes
Traces	
Number of configurable Traces	2
Memory size per trace, max.	512 kbyte
Interrupto/diagnostics/status information	
Interrupts/diagnostics/status information  Diagnostics indication LED	
• RUN/STOP LED	Yes
• ERROR LED	Yes
	Yes
• MAINT LED	165
Integrated Functions	
Number of counters	6
Counting frequency (counter) max.	100 kHz
Frequency meter	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	Voo
	Yes
Number of pulse outputs	4
Number of pulse outputs	
Limit frequency (pulse)	100 kHz
Potential separation	
Potential separation digital inputs	
Potential separation digital inputs	No
<ul> <li>between the channels, in groups of</li> </ul>	1
Potential separation digital outputs	
Potential separation digital outputs	Yes

<ul><li>betw</li></ul>	een the c	hannels, ir	aroups	of
------------------------	-----------	-------------	--------	----

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EMC	
Interference immunity against discharge of static electric	icity
<ul> <li>Interference immunity against discharge of static electricity acc. to IEC 61000-4-2</li> </ul>	Yes
<ul> <li>Test voltage at air discharge</li> </ul>	8 kV
<ul> <li>Test voltage at contact discharge</li> </ul>	6 kV
Interference immunity to cable-borne interference	
<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	
• on the supply lines acc. to IEC 61000-4-5	Yes
Interference immunity against conducted variable distur	rbance 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	
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	
Degree of protection acc. to EN 60529	
• IP20	Yes
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
Tionzontal installation, min.	-20 C

vertical installation, max. 50 °C  Ambient temperature during storage/transportation      imin. 40 °C     imax. 70 °C  Air pressure acc. to IEC 60068-2-13      Operation, min. 795 hPa     Operation, max. 1080 hPa     Storage/transport, min. 660 hPa     Storage/transport, max. 1080 hPa     Storage/transport, max. 1080 hPa     Permissible operating height 1000 to 2000 m  Relative humidity     Operation, max. 95 %; no condensation  Vibrations  Vibrations  Vibrations  Vibrations  Vibrations  Very search of the shock 15 g (peak value), duration 11 ms  Extended ambient conditions  Pollutant concentrations  Pollutant concentrations  Porgramming  Programming  Programming Ianguage  — LAD — FBD — SCL  Ves  Know-how protection  Ves  Know-how protection  Ves  Ves  Nes  Protection level: Write protection Protection level: Complete protection Ves  Ves  Protection level: Complete protection Protection level: Complete protection Protection level: Complete protection Ves  Ves  Dimensions	vertical installation, min.	-20 °C
Ambient temperature during storage/transportation  • min. • max.  Air pressure acc. to IEC 60088-2-13  • Operation, min. • Operation, min. • Storage/transport, min. • Storage/transport, max. • permissible operating height • Operations • Vibrations • Vibrations • Vibrations • Operation, tested according to IEC 60088-2-6  Shock test • tested according to IEC 60088-2-7  • Standed ambient conditions  Extended ambient conditions  Pollutant concentrations  — SO2 at RH < 60% without condensation  Configuration  Programming language — LAD — FBD — SCL — FBD — SCL  Know-how protection • User program protection/password protection • Copy protection • Protection level: Write protection • Protection level: Write protection • Protection level: Write protection • Protection level: Complete protection • Adjustable  Pinnensions  Width  130 mm		50 °C
	·	
Air pressure acc. to IEC 60068-2-13  Operation, min. Operation, min. Operation, min. Operation, max. 1 080 hPa Storage/transport, max. 1 080 hPa Operation, max. 1 080 hPa Operation, max. Operation, max. Storage/transport, max. Operation, tested according to IEC 60068-2-6 Shock test Operation, tested according to IEC 60068-2-7 Ves: IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms  Extended ambient conditions Pollutant concentrations — SO2 at RH < 60% without condensation  Configuration Programming Programming Programming Programming Programming language — LAD — FBD — SCL Ves  Know-how protection Ouser program protection/password protection User program protection User program protection/password protection Ouser protection Operation Protection level: Write protection Operation Protection level: Read/write protection Operation Opera	• min.	-40 °C
Operation, min. Operation, max. Operation, max. Storage/transport, min. Operation, max. Storage/transport, min. Operation, max. Operation, tested according to IEC 60068-2-8 Vibrations Operation, tested according to IEC 60068-2-8 Shock test Operation, tested according to IEC 60068-2-7 Ves; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms  Extended ambient conditions Pollutant concentrations Operation, Ves without condensation Operation Programming Programming language  LAD FBD SCL Ves Know-how protection User program protection/password protection User program protection/password protection Operation Protection level: Write protection Protection level: Write protection Protection level: Read/write protection Protection level: Complete protection Operation Operation Ves Optimemonitoring Operation O	• max.	70 °C
Operation, max. Operation, tested according to IEC 60068-2-6 Shock test Operation, tested according to IEC 60068-2-7 Ves. Shock test Operation, tested according to IEC 60068-2-7 Ves. Shock test Operation, tested according to IEC 60068-2-7 Ves. Shock test Operation, tested according to IEC 60068-2-7 Ves. Shock test Operation, tested according to IEC 60068-2-7 Ves. Shock test Operation, tested according to IEC 60068-2-8 Ves. Operation to Investment of the shock 15 g (peak value), duration 11 ms  Extended ambient conditions Operation 12 ms Operation 1	Air pressure acc. to IEC 60068-2-13	
Storage/transport, min. Storage/transport, max. permissible operating height 1080 hPa 1080 hP	Operation, min.	795 hPa
Storage/transport, max.  permissible operating height  Relative humidity  Operation, max.  95 %; no condensation  Vibrations  Operation, tested according to IEC 60068-2-6  Shock test  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  Extended ambient conditions  Pollutant concentrations  — SO2 at RH < 60% without condensation  S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free  Configuration  Programming  Programming language  — LAD — FBD — SCL Yes  Know-how protection  • User program protection/password protection • User program protection/password protection • Copy protection • Block protection • Protection level: Read/write protection • Protection level: Read/write protection • Protection level: Complete protection	<ul><li>Operation, max.</li></ul>	1 080 hPa
permissible operating height	• Storage/transport, min.	660 hPa
Relative humidity  Operation, max.  95 %; no condensation  Vibrations  Vibrations  Vibrations  Vibrations  Vibrations  Vibrations  Vibrations  Vibrations  Ves  Shock test  Ves  Shock test  Ves; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms  Extended ambient conditions  Pollutant concentrations  — SO2 at RH < 60% without condensation  S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free  Configuration  Programming  Programming language  — LAD — FBD — SCL Yes  Know-how protection  User program protection/password protection Ves  Slock protection Ves  Access protection  Protection level: Write protection Protection level: Read/write protection Protection level: Complete protection Protection level: Complete protection Ves  Cycle time monitoring adjustable  Ves  Dimensions  Width  130 mm	• Storage/transport, max.	1 080 hPa
Operation, max.  Vibrations  Vibrations  Vibrations  Vibrations  Vibrations  Vibrations  Vibrations  Vibrations  Version Condensation  Ves  Shock test  Ves  Shock test  Ves; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms  Extended ambient conditions  Pollutant concentrations  —SO2 at RH < 60% without condensation  S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free  Configuration  Programming  Programming language  —LAD —FBD —SCL Yes  Know-how protection  User program protection/password protection Ves Slock protection  Ves Access protection  Protection level: Write protection Protection level: Read/write protection Protection level: Complete protection Protection level: Complete protection Ves Cycle time monitoring adjustable  Ves  Dimensions  Width  130 mm	<ul> <li>permissible operating height</li> </ul>	-1000 to 2000 m
Vibrations  • Vibrations • Operation, tested according to IEC 60068-2-6  Shock test • tested according to IEC 60068-2-27  Ves; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms  Extended ambient conditions  Pollutant concentrations  — SO2 at RH < 60% without condensation  Programming  Programming language  — LAD — FBD — SCL  Know-how protection  • User program protection/password protection • User program protection/password protection • Block protection • Protection level: Write protection • Protection level: Write protection • Protection level: Complete protection	Relative humidity	
Vibrations Operation, tested according to IEC 60068-2-6  Shock test  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  Extended ambient conditions  Pollutant concentrations — SO2 at RH < 60% without condensation  Programming  Programming  Programming language — LAD — FBD — SCL  Know-how protection  User program protection/password protection  Block protection  Protection level: Write protection Protection level: Complete protection Protection l	Operation, max.	95 %; no condensation
Operation, tested according to IEC 60068-2-6  Shock test  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  Extended ambient conditions  Pollutant concentrations  — SO2 at RH < 60% without condensation  S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free  Configuration  Programming  Programming language  — LAD — FBD — SCL  Know-how protection  • User program protection/password protection • Copy protection • User program protection/ Yes  Block protection  • Protection level: Write protection • Protection level: Read/write protection • Protection level: Complete protection • Protection level: Complete protection  Ves  Cycle time monitoring • adjustable  Pinnensions  Width  130 mm	Vibrations	
Shock test  • tested according to IEC 60068-2-27  • 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  Extended ambient conditions  Pollutant concentrations  — SO2 at RH < 60% without condensation  Programming  Programming  Programming language  — LAD — FBD — Yes — SCL  Know-how protection  • User program protection/password protection • Block protection • Block protection • Protection level: Write protection  • Protection level: Write protection  • Protection level: Complete protection	<ul><li>Vibrations</li></ul>	2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail
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  Extended ambient conditions  Pollutant concentrations — SO2 at RH < 60% without condensation  Programming  Programming  Programming language — LAD — FBD — SCL  Know-how protection      User program protection/password protection     Slocy protection     Block protection  Protection level: Write protection Protection level: Write protection Protection level: Complete protection level: Complete protection level: Complete protection level: Complete protection level:	<ul> <li>Operation, tested according to IEC 60068-2-6</li> </ul>	Yes
value), duration 11 ms  Extended ambient conditions  Pollutant concentrations — SO2 at RH < 60% without condensation  S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free  Configuration  Programming  Programming language — LAD — FBD — SCL — Yes — SCL — Yes  Know-how protection  • User program protection/password protection • Copy protection • Block protection • Block protection • Protection level: Write protection • Protection level: Read/write protection • Protection level: Read/write protection • Protection level: Complete protection • Protection level: Complete protection • Access protection • Protection level: Complete protection	Shock test	
Pollutant concentrations  — SO2 at RH < 60% without condensation  S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free  Configuration  Programming  Programming language  — LAD — FBD — SCL — Yes  Know-how protection  • User program protection/password protection • Copy protection • Block protection  Protection level: Write protection  Protection level: Read/write protection  Protection level: Complete protection  Yes  Access protection  Protection level: Complete protection  Yes  Protection level: Complete protection  Yes  Protection level: Tead/write protection  Yes  Protection level: Tead/write protection  Yes  Cycle time monitoring  • adjustable  Pimensions  Width	• tested according to IEC 60068-2-27	
— SO2 at RH < 60% without condensation  S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free  Configuration  Programming  Programming language  — LAD — FBD — SCL — Yes  Know-how protection  • User program protection/password protection • Copy protection • Block protection • Block protection  • Protection level: Write protection • Protection level: Read/write protection • Protection level: Complete protection • Protection level: Omplete protection	Extended ambient conditions	
Configuration Programming  Programming language  — LAD Yes — FBD Yes — SCL Yes  Know-how protection  • User program protection/password protection Yes • Copy protection Yes • Block protection  • Protection level: Write protection Yes • Protection level: Read/write protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes  Cycle time monitoring • adjustable Yes  Dimensions  Width 130 mm	Pollutant concentrations	
Programming 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 level: Write protection Yes • Protection level: Read/write protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes • Protection level: Tomplete protection Yes  Cycle time monitoring • adjustable Yes  Dimensions  Width 130 mm	— SO2 at RH < 60% without condensation	S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free
Programming language  — LAD — FBD — Yes — SCL Yes  Know-how protection  • User program protection/password protection • Copy protection • Block protection • Block protection • Protection level: Write protection • Protection level: Read/write protection • Protection level: Complete protection • Protection level: Complete protection • Protection level: Tead/write protection	Configuration	
LAD Yes FBD Yes SCL Yes  Know-how protection  • User program protection/password protection Yes • Copy protection Yes • Block protection Yes  Access protection  • Protection level: Write protection Yes • Protection level: Read/write protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes • Protection level: Tead/write protection Yes • Protection level: Tead/write protection Yes  Cycle time monitoring • adjustable Yes  Dimensions  Width 130 mm	Programming	
— FBD Yes — SCL Yes  Know-how protection  • User program protection/password protection Yes • Copy protection Yes • Block protection Yes  Access protection  • Protection level: Write protection Yes • Protection level: Read/write protection Yes • Protection level: Complete protection Yes • Protection level: Complete protection Yes  Cycle time monitoring • adjustable Yes  Dimensions  Width 130 mm	Programming language	
— SCL  Know-how protection  • User program protection/password protection  • Copy protection  • Block protection  • Protection level: Write protection  • Protection level: Read/write protection  • Protection level: Read/write protection  • Protection level: Complete protection  • Protection level: Tomplete protection  • Adjustable	— LAD	Yes
Know-how protection  User program protection/password protection Copy protection Block protection Block protection Protection Protection level: Write protection Protection level: Read/write protection Protection level: Complete protection Protection level: Complete protection Protection level: Templete protection Protection level: Tem	— FBD	Yes
User program protection/password protection Copy protection Block protection Block protection Protection Protection level: Write protection Protection level: Read/write protection Protection level: Complete protection Protection level: Complete protection Protection level: Tomplete protection Pro	— SCL	Yes
Copy protection Block protection Yes  Access protection  Protection level: Write protection Protection level: Read/write protection Protection level: Complete protection Protection level: Complete protection Yes Cycle time monitoring adjustable Yes  Dimensions Width  130 mm	Know-how protection	
Block protection  Protection level: Write protection  Protection level: Read/write protection  Protection level: Read/write protection  Protection level: Complete protection  Yes  Protection level: Complete protection  Yes  Cycle time monitoring  adjustable  Yes  Dimensions  Width  130 mm	<ul> <li>User program protection/password protection</li> </ul>	Yes
Access protection  Protection level: Write protection Protection level: Read/write protection Protection level: Complete protection Protection level: Complete protection Yes Cycle time monitoring adjustable Yes  Dimensions Width 130 mm	<ul><li>Copy protection</li></ul>	Yes
<ul> <li>Protection level: Write protection</li> <li>Protection level: Read/write protection</li> <li>Protection level: Complete protection</li> <li>Protection level: Complete protection</li> <li>Cycle time monitoring</li> <li>adjustable</li> <li>Yes</li> <li>Dimensions</li> <li>Width</li> <li>130 mm</li> </ul>	Block protection	Yes
Protection level: Read/write protection Protection level: Complete protection Yes  Cycle time monitoring  adjustable  Yes  Dimensions  Width  130 mm	Access protection	
Protection level: Complete protection  Yes  Cycle time monitoring  adjustable  Yes  Dimensions  Width  130 mm	<ul><li>Protection level: Write protection</li></ul>	Yes
Cycle time monitoring  • adjustable  Yes  Dimensions  Width  130 mm	<ul> <li>Protection level: Read/write protection</li> </ul>	Yes
adjustable     Yes  Dimensions  Width     130 mm		Yes
Dimensions Width 130 mm		
Width 130 mm	adjustable	Yes
Height 100 mm	Dimensions	

Depth	75 mm	
Weights		
Weight, approx.	500 g	
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