# SIEMENS

## Data sheet

## 6ES7217-1AG40-0XB0

SIMATIC S7-1200, CPU 1217C, compact CPU, DC/DC/DC, 2 PROFINET ports onboard I/O: 10 DI 24 V DC; 4 DI RS422/485; 6 DO 24 V DC; 0.5A; 4 DO RS422/485; 2 AI 0-10 V DC, 2 AO 0-20 mA Power supply: DC 20.4-28.8V DC, Program/data memory 150 KB



General information	
Product type designation	CPU 1217C DC/DC/DC
Firmware version	V4.5
Engineering with	
<ul> <li>Programming package</li> </ul>	STEP 7 V17 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)	600 mA; CPU only
Current consumption, max.	1 600 mA; CPU with all expansion modules
Inrush current, max.	12 A; at 28.8 V DC
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.
Power loss	
Power loss, typ.	12 W
Memory	
Work memory	
<ul> <li>integrated</li> </ul>	150 kbyte
expandable	No
Load memory	
<ul> <li>integrated</li> </ul>	4 Mbyte
<ul> <li>Plug-in (SIMATIC Memory Card), max.</li> </ul>	with SIMATIC memory card
Backup	
• present	Yes
<ul> <li>maintenance-free</li> </ul>	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; / Operation
CPU-blocks	2.0 p3,7 Operation
Number of blocks (total)	DBs, FCs, FBs, counters and timers. The maximum number of addressable blocks ranges from 1 to 65535. There is no restriction, the entire working memory can be used
OB	
Number, max.	Limited only by RAM for code
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max. Flag	14 kbyte
• Size, max.	8 kbyte; Size of bit memory address area
Local data	
• per priority class, max.	16 kbyte; Priority class 1 (program cycle): 16 KB, priority class 2 to 26: 6 KB
Address area	
Process image	
<ul> <li>Inputs, adjustable</li> </ul>	1 kbyte
<ul> <li>Outputs, adjustable</li> </ul>	1 kbyte
Hardware configuration	
Number of modules per system, max.	3 comm. modules, 1 signal board, 8 signal modules
Time of day	
Clock	
<ul> <li>Hardware clock (real-time)</li> </ul>	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	2474
Rated value (DC)	
<ul><li>for signal "0"</li><li>for signal "1"</li></ul>	5 V DC at 1 mA
Input delay (for rated value of input voltage)	15 V DC at 2.5 mA
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 A 400 kills Bules Tasis Outsut
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
<ul> <li>with resistive load, max.</li> <li>on lamp load, max.</li> </ul>	5 W
• on lamp load, max. 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
<b>U</b>	

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	100 kHz
of the pulse outputs, with resistive load, max.	
Relay outputs     • Number of relay outputs	0
Cable length	0
• shielded, max.	500 m
• unshielded, max.	150 m
	150 m
Analog inputs	
Number of analog inputs	2
Input ranges	Vee
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	2 TOOK OTTITIS
• 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), max.</li> </ul>	10 bit
<ul> <li>Integration time, parameterizable</li> </ul>	Yes
Conversion time (per channel)	625 µs
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
<ul> <li>Resolution with overrange (bit including sign), max.</li> </ul>	10 bit
Encoder	
Connectable encoders	
	Yes
Connectable encoders	Yes
Connectable encoders • 2-wire sensor 1. Interface	
Connectable encoders  • 2-wire sensor  1. Interface Interface type	PROFINET
Connectable encoders  • 2-wire sensor  1. Interface Interface type Isolated	PROFINET Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate	PROFINET Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation	PROFINET Yes Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing	PROFINET Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types	PROFINET Yes Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet)	PROFINET Yes Yes Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports	PROFINET Yes Yes Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet)	PROFINET Yes Yes Yes Yes 2
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch	PROFINET Yes Yes Yes Yes 2
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols	PROFINET Yes Yes Yes Yes Yes 2 Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller	PROFINET Yes Yes Yes Yes 2 Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device	PROFINET Yes Yes Yes Yes 2 Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication	PROFINET Yes Yes Yes Yes 2 Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication	PROFINET Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server	PROFINET Yes Yes Yes Yes Yes Yes Yes Yes Yes; Optionally also encrypted Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy	PROFINET Yes Yes Yes Yes Yes Yes Yes Yes Yes; Optionally also encrypted Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller	PROFINET Yes Yes Yes Yes Yes Yes Yes Yes Yes; Optionally also encrypted Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max.	PROFINET Yes Yes Yes Yes Yes Yes Yes Yes Yes; Optionally also encrypted Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services	PROFINET Yes Yes Yes Yes Yes 2 Yes Yes Yes Yes Yes; Optionally also encrypted Yes Yes Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services — PG/OP communication	PROFINET Yes Yes Yes Yes Yes 2 Yes Yes Yes Yes Yes; Optionally also encrypted Yes Yes; Optionally also encrypted Yes Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services - PG/OP communication - Isochronous mode	PROFINET Yes Yes Yes Yes Yes Yes Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services - PG/OP communication - Isochronous mode - IRT	PROFINET Yes Yes Yes Yes Yes Yes Yes Yes
Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services - PG/OP communication - Isochronous mode - IRT - PROFInergy	PROFINET Yes Yes Yes Yes Yes Yes Yes Yes

<ul> <li>— Number of connectable IO Devices, max.</li> </ul>	16
<ul> <li>— Number of connectable IO Devices for RT,</li> </ul>	16
max.	
- of which in line, max.	16
— Activation/deactivation of IO Devices	Yes
— Number of IO Devices that can be	8
simultaneously activated/deactivated, max.	
— 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	
<ul> <li>PG/OP communication</li> </ul>	Yes; encryption with TLS V1.3 pre-selected
— Isochronous mode	No
— IRT	No
	Yes
— PROFlenergy	
— Shared device	Yes
<ul> <li>— Number of IO Controllers with shared device,</li> </ul>	2
max.	
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIsafe	No
PROFIBUS	Yes; CM 1243-5 (master) or CM 1242-5 (slave) required
OPC UA	Yes; OPC UA Server
AS-Interface	Yes; CM 1243-2 required
Protocols (Ethernet)	
• TCP/IP	Yes
• DHCP	No
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
	105
Redundancy mode	
Media redundancy	
— MRP	Yes; as MRP redundancy manager and/or MRP client
— MRPD	No
SIMATIC communication	
S7 routing	Yes
Open IE communication	
• TCP/IP	Yes
— Data length, max.	8 kbyte
-	Yes
• ISO-on-TCP (RFC1006)	
— Data length, max.	8 kbyte
• UDP	Yes
— Data length, max.	1 472 byte
Web server	
<ul> <li>supported</li> </ul>	Yes
<ul> <li>supported</li> <li>User-defined websites</li> </ul>	Yes Yes
User-defined websites	
User-defined websites     OPC UA	Yes
User-defined websites     OPC UA         • Runtime license required	Yes Yes; "Basic" license required
User-defined websites     OPC UA	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license
User-defined websites     OPC UA         Runtime license required         OPC UA Server	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required
User-defined websites     OPC UA         • Runtime license required	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15,
User-defined websites     OPC UA         Runtime license required         OPC UA Server         — Application authentication	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256
User-defined websites OPC UA     Runtime license required     OPC UA Server    Application authentication    User authentication	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 "anonymous" or by user name & password
User-defined websites OPC UA     Runtime license required     OPC UA Server     — Application authentication     — User authentication     — Number of sessions, max.	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 "anonymous" or by user name & password 10
User-defined websites OPC UA     Runtime license required     OPC UA Server    Application authentication    User authentication	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 "anonymous" or by user name & password
User-defined websites OPC UA     Runtime license required     OPC UA Server     — Application authentication     — User authentication     — Number of sessions, max.	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 "anonymous" or by user name & password 10
User-defined websites OPC UA     Runtime license required     OPC UA Server     — Application authentication     — User authentication     — Number of sessions, max.     — Number of subscriptions per session, max.     — Sampling interval, min.	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 "anonymous" or by user name & password 10 5
User-defined websites OPC UA     Runtime license required     OPC UA Server     — Application authentication     — User authentication     — User authentication     — Number of sessions, max.     — Number of subscriptions per session, max.     — Sampling interval, min.     — Publishing interval, min.	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 "anonymous" or by user name & password 10 5 100 ms
User-defined websites OPC UA     Runtime license required     OPC UA Server     — Application authentication     — User authentication     — User authentication     — Number of sessions, max.     — Number of subscriptions per session, max.     — Sampling interval, min.     — Publishing interval, min.     — Number of server methods, max.	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 "anonymous" or by user name & password 10 5 100 ms 200 ms 20
User-defined websites OPC UA     Runtime license required     OPC UA Server     — Application authentication     — User authentication     — User authentication     — Number of sessions, max.     — Number of subscriptions per session, max.     — Sampling interval, min.     — Publishing interval, min.     — Number of server methods, max.     — Number of monitored items, recommended	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 "anonymous" or by user name & password 10 5 100 ms 200 ms
<ul> <li>User-defined websites</li> <li>OPC UA</li> <li>Runtime license required</li> <li>OPC UA Server <ul> <li>Application authentication</li> <li>User authentication</li> <li>User authentication</li> <li>Number of sessions, max.</li> <li>Number of subscriptions per session, max.</li> <li>Sampling interval, min.</li> <li>Publishing interval, min.</li> <li>Number of server methods, max.</li> <li>Number of monitored items, recommended max.</li> </ul> </li> </ul>	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 "anonymous" or by user name & password 10 5 100 ms 200 ms 20 1 000
User-defined websites OPC UA     Runtime license required     OPC UA Server     — Application authentication     — User authentication     — User authentication     — Number of sessions, max.     — Number of subscriptions per session, max.     — Sampling interval, min.     — Publishing interval, min.     — Number of server methods, max.     — Number of monitored items, recommended max.     — Number of server interfaces, max.	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 "anonymous" or by user name & password 10 5 100 ms 200 ms 20 1 000
<ul> <li>User-defined websites</li> <li>OPC UA</li> <li>Runtime license required</li> <li>OPC UA Server <ul> <li>Application authentication</li> <li>User authentication</li> <li>User authentication</li> <li>Number of sessions, max.</li> <li>Number of subscriptions per session, max.</li> <li>Sampling interval, min.</li> <li>Publishing interval, min.</li> <li>Number of server methods, max.</li> <li>Number of monitored items, recommended max.</li> <li>Number of server interfaces, max.</li> <li>Number of nodes for user-defined server</li> </ul> </li> </ul>	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 "anonymous" or by user name & password 10 5 100 ms 200 ms 20 1 000
<ul> <li>User-defined websites</li> <li>OPC UA</li> <li>Runtime license required</li> <li>OPC UA Server <ul> <li>Application authentication</li> <li>User authentication</li> <li>Number of sessions, max.</li> <li>Number of subscriptions per session, max.</li> <li>Sampling interval, min.</li> <li>Publishing interval, min.</li> <li>Number of server methods, max.</li> <li>Number of monitored items, recommended max.</li> <li>Number of server interfaces, max.</li> </ul> </li> </ul>	Yes Yes; "Basic" license required Yes; data access (read, write, subscribe), method call, runtime license required Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256 "anonymous" or by user name & password 10 5 100 ms 200 ms 20 1 000

MODBUS	Yes
communication functions / header	
S7 communication	
supported	Yes
• as server	Yes
• as client	Yes
User data per job, max.	See online help (S7 communication, user data size)
Number of connections	
• overall	PG Connections: 4 reserved / 4 max; HMI Connections: 12 reserved /
	18 max; S7 Connections: 8 reserved / 14 max; Open User Connections: 8 reserved / 14 max; Web Connections: 2 reserved / 30 max; OPC UA Connections: 0 reserved / 10 max; Total Connections: 34 reserved / 64 max
Test commissioning functions	
Status/control	
<ul> <li>Status/control variable</li> </ul>	Yes
Variables	Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
Forcing	
Forcing	Yes
Diagnostic buffer	
• present	Yes
Traces	
<ul> <li>Number of configurable Traces</li> </ul>	2
<ul> <li>Memory size per trace, max.</li> </ul>	512 kbyte
Interrupts/diagnostics/status information	
Diagnostics indication LED	
RUN/STOP LED	Yes
• ERROR LED	Yes
MAINT LED	Yes
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 alarm inputs	4
Number of pulse outputs	4
Limit frequency (pulse)	1 MHz
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>between the channels</li> </ul>	No
<ul> <li>between the channels, in groups of</li> </ul>	1
EMC	
Interference immunity against discharge of static electricity	Yes
<ul> <li>Interference immunity against discharge of static electricity acc. to IEC 61000-4-2</li> </ul>	
— Test voltage at air discharge	8 kV
— Test voltage at contact discharge	6 kV
Interference immunity to cable-borne interference	
Interference immunity on supply lines acc. to IEC     61000-4-4	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 disturbance	e induced by high-frequency fields
<ul> <li>Interference immunity against high-frequency</li> </ul>	Yes
radiation acc. to IEC 61000-4-6 Emission of radio interference acc. to EN 55 011	
Emission of radio interference acc. to EN 55 011	

#### • Limit class A, for use in industrial areas

• Limit class B, for use in residential areas

### Yes; Group 1

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           IP degree of protection         IP 20           Standards, approvals, certificates         Yes           CC mark         Yes           CALus         Yes           CALus         Yes           CALus         Yes           CALus         Yes           CALus         Yes           CALus         Yes           Markent conditions         Yes           Fire fail         - 010           - Fail height, max         0.3 m; five times, in product package           Ambient conditions         - 20 °C           - max.         60 °C; Number of simultaneously activated inputs or outputs 7 or 5 (no adjacent pais) at 60 °C Charactal and a 15 °C in a discretal installation, min.         - 20 °C           - horizontal installation, min.         - 20 °C         - 20 °C           - wincical installation, min.         - 20 °C         - 20 °C           - wincical installation, min.         - 20 °C         - 20 °C           - wincical installation, min.         - 20 °C         - 20 °C           - wincical installation, min.         - 20 °C         - 20 °C           - Operation, max.         1060 hPa         - 20 °C           - Storagetramaport, min.         <		the limits for Class B according to EN 55011
Standards.psprovals.cartificates           CE mark.         Yes           UL approval.         Yes           UL approval.         Yes           UL approval.         Yes           CK approval.         Yes           RCM (domenty C-TICK)         Yes           KC approval.         Yes           Anbient conditions         Yes           Anbient conditions         Conditions           File fail         -614 height, max.           • max.         0.3 m; five times, in product package           Anbient conditions         -20 °C           • max.         0° °C; Numero of simultaneously activated inputs or outputs 7 or 5 (no arigicent points) at 00 °C vertical - 50 °C vertical - 20 °C           • horizontal installation, max.         -20 °C           • vertical installation, max.         60 °C           • horizontal installation, max.         20 °C           • vertical installation, max.         20 °C           • vertical installation, max.         40 °C           • neas.         70 °C           • Approval         40 °C           • operation, min.         40 °C           • Operation, max.         1080 hPa           • Storage/tamsport, min.         600 hPa           • Storage/tamsport, m	Degree and class of protection	
CE mark     Yes       UL approval     Yes       CM formery C-TICK)     Yes       FM approval     Yes       FM approval     Yes       Marine approval     Yes       Marine approval     Yes       Ambient emperature during operation     Or (Number of simultaneously activated inputs or outputs 7 or 5 (no adjacent points) at 60 °C horizontal not 50 °C vertical, 14 or 10 at 55 °C horizontal installation, min.       - Their and the situation of the situation of the situation of 50 °C vertical, 14 or 10 at 55 °C horizontal installation, max.     60 °C, Number of simultaneously activated inputs or outputs 7 or 5 (no adjacent points) at 60 °C horizontal installation, max.       - horizontal installation, max.     60 °C       • horizontal installation, max.     60 °C       • wertical installation, max.     70 °C       • max.     70 °C       Ambient temperature during storage/transportation     •min.       • min.     -40 °C       • min.     -40 °C       • min.     -40 °C       • max.     70 °C       Ambient temperature during storage/transportation     •min.       • Operation, max.     100 N Pa       • Storage/transport, min.     -1000 m       • Installation attructing to asa level     •       • Installation attructing storage/transport.     500 °C More storage/transport.       • Operation, max. <td< td=""><td>IP degree of protection</td><td>IP20</td></td<>	IP degree of protection	IP20
UL approval     Yes       cULus     Yes       FM approval     Yes       FM approval     Yes       RCM (cromery C-TICK)     Yes       Maria approval     Yes       Ambient conditions     Yes       Frief all     -       - Frief height, max.     0.3 m, five times, in product package       Ambient temperature during operation     -       - min.     -01 °C.       - max.     60 °C. Number of simultaneously activated inputs or outputs 7 or 5 (no argingen probability 610°C. Protocohl or 50 °C vertical, 14 or 10 at 55 °C.       - horizontal installation, min.     -20 °C.       - horizontal installation, max.     60 °C.       - horizontal installation, max.     60 °C.       - wertical installation, max.     60 °C.       - wertical installation, max.     60 °C.       - wertical installation, max.     70 °C.       - wertical installation, max.     100 Pra       - min.     -40 °C.       - min.     -40 °C.       - installation attitude, max.     1000 Pra       - Storage/Famport, max.     1000 Pra       - Storage/Famport, max.     1000 Pra       - Storage/Famport, max.     1000 Pra       - Installation attitude, max.     50 Storage       - Operation, max.     1000 Pra       - Installation	Standards, approvals, certificates	
cULus     Yes       FM approval     Yes       FCM (formerly C-TICK)     Yes       KG approval     Yes       Anthient conditions     Yes       Free fail     -       Fail height, max     0.3 m; five times, in product package       Ambient temperature during operation     -       • min.     -20 °C       • min.     -20 °C       • min.     -20 °C       • horizontal installation, min.     -20 °C       • horizontal installation, min.     -20 °C       • writcal installation, max.     60 °C       • writcal installation, max.     60 °C       • writcal installation, max.     50 °C       • writcal installation, min.     -40 °C       • writcal installation, min.     -40 °C       • writcal installation, min.     -10 °C       • Operation, min.     -10 °C       • Operation, min.     -10 °C       • Operation, min.     -100 °C       • Operation, min.     -100 °C       • StorageFarasport, min.     600 °Pa       • StorageFarasport, min.     -1000 m       • Installation altitude, max.     500 °C <td< td=""><td>CE mark</td><td>Yes</td></td<>	CE mark	Yes
cUluis     Yes       FM approval     Yes       RCM (formerly C-TICK)     Yes       RCM (formerly C-TICK)     Yes       Ambient conditions     Yes       Frier fail     0.3 m; five times, in product package       Ambient temperature during operation     0.3 m; five times, in product package       Ambient temperature during operation     -20 °C       • min.     -20 °C       • horizontal installation, min.     -20 °C       • horizontal installation, max.     60 °C       • vertical installation, max.     50 °C       • vertical installation, min.     -20 °C       • vertical installation, max.     50 °C       • vertical installation, min.     -20 °C       • vertical installation, max.     50 °C       • Operation, max.     100 °C       • Operation, max.     100 °C       • Operation, max.     100 °C       • Operation, max.     1000 °C       • Installation althude, min.     -1 000 m       • Installation althude, min.     -1 000 m       • Installation althude, min.     -1 000 m       • Installation althu	UL approval	Yes
FM approval       Yes         RCM (formery C+TCK)       Yes         Martine approval       Yes         Ambient conditions       Yes         File fall       -         - Fall height, max.       0.3 m; five times, in product package         Ambient conditions       -         - min.       -         - min.       60 °C; Number of simultaneously activated inputs or outputs 7 or 5 (no adjuster points) at 00 °C ventical.         - horizontal installation, max.       60 °C;         - wortical installation, max.       60 °C         - wortical installation, max.       70 °C         Ambient emperature during storage/transportation       -         - min.       -0 °C         - Operation, max.       1060 hPa         - Storage/transport, max.       1060 hPa         - Storage/transport, max.       1060 hPa         - Installation althude, max.       5000 m; Retrictions for installation althude is 2 000 m; see manual         Retaive humoity       -         - operation, max.       95 %; no condensation		Yes
RCM (concer) Q-TIC(k)       Yes         Marine approval       Yes         Ambient expenditions       Ves         Free fail       0.3 m; five times, in product package         Ambient emperature during operation       -20 °C         • 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.         • horizontal installation, min.       -20 °C         • horizontal installation, max.       60 °C         • vertical installation, max.       60 °C         • vertical installation, max.       50 °C         • Ambient temperature during slorage/transportation       -20 °C         • max.       70 °C         • wertical installation, max.       50 °C         • vertical installation, max.       50 °C         • Operation, max.       70 °C         • Operation, min.       -40 °C         • Operation, min.       50 °C         • Operation, min.       1080 PPa         • Storage/transport, min.       50 °C         • Storage/transport, max.       1080 PPa         • Installation attrute, max.       5 000 m; Restrictions for installation attrutes > 2 000 m, see manual         • Relative humation       5 000 m; Restrictions for install	FM approval	Yes
KC approval       Yes         Ambient conditions       Yes         Ambient conditions       9         File fall       0.3 m; five times, in product package         Ambient temperature during operation       01°C         emin.       60°C; Number of simultaneously activated inputs or outputs 7 or 5 (no package provided installation, max.         editorial installation, min.       60°C         • horizontal installation, max.       60°C         • vertical installation, max.       60°C         • vertical installation, max.       60°C         • vertical installation, max.       50°C         * Operation, max.       70°C         * Ambreat conduming storage/transportation       ************************************		
Mathies approval     Yes       Ambient conditions		
Ambient conditions           Fire fail              • Fail height, max.             0.3 m; five times, in product package            Ambient temperature during operation          • min.            • min.          -20 °C             60 °C; Number of simultaneously activated inputs or outputs 7 or 5 (no             adjacent points) action of 50 °C vertical.             + do °C             horizontal installation, max.            • horizontal installation, max.          60 °C            • vertical installation, max.          60 °C            • vertical installation, max.          60 °C            • vertical installation, max.          60 °C            • orizontal installation, max.          60 °C            • vertical installation, max.          60 °C            • origent installation, max.          70 °C            • Operation, min.          -40 °C            • Operation, max.          1080 NPa            • Operation, max.          1080 NPa            • Installation altitude, mnx.          5000 m; Restrictions for installation altitudes > 2 000 m, see manual            • Installation altitude, max.          95 %; no condensation            • Operation, tested acordning to IEC 60068-2-6          Yes		Yes
Free fail <ul> <li>Pail height, max.</li> <li>Q.3 m; five times, in product package</li> </ul> Ambient temperature during operation              -20 °C <ul> <li>Go 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 installation, min.</li>             use of the control installation, max.             vertical installation, max.               vertical installation, max.             vertical installation, max.             vertical installation, max.               vertical installation, max.             vertical installation, max.               vertical installation, max.             vertical installation, max.               vertical installation altitude, max.               vertical coording to IEC 600682-6               veretain r</ul>		
• Fall height, max.     0.3 m; five times, in product package  Ambient temperature during operation     • min,     • and     • max.     60 °C; Number of simultaneously activated inputs or outputs 7 or 5 (no     adjacent points) after 06 °C horizontal or 50 °C vertical, 14 or 10 at 55 °C     horizontal installation, min,     • a0 °C     • vertical installation, max.     60 °C     vertical installation, max.     50 °C  Ambient temperature during operation     • min,     • a0 °C     • vertical installation, max.     50 °C  Ambient temperature during storage/transportation     • min,     • a0 °C     • vertical installation, max.     50 °C  Ambient temperature during storage/transportation     • min,     • a0 °C     • vertical installation, max.     50 °C  Ambient temperature during storage/transportation     • min,     • a0 °C     • vertical installation, max.     50 °C  Ambient temperature during storage/transportation     • min,     • a0 °C     • vertical installation, max.     50 °C  Ambient temperature during storage/transportation     • min,     • a0 °C     • vertical installation, max.     50 °C  Ambient temperature during storage/transport.     • Operation, max.     1080 hPa     • Storage/transport, max.     1080 hPa     • Storage/transport, max.     1080 hPa     • Installation altitude, min.     • Versition resistance during operation coc. to IEC     60082-26     • Operation, max     95 %: no condensation  Vibrations      • Ubration resistance during operation acc. to IEC     60082-27     Yes: IEC 60089-2-26     Yes  Politiant concentrations     • Storage/transport, Plass     • Storage/transport, Plass     • Storage/transport, Plass     • Storage/transport, Plass     • Operation, tested according to IEC 60068-2-6     Yes  Politiant concentrations     • Storage/transport, Plass     • Vore itom / Plass     • Vore itom / Plass     • Vore itom / Plass     • Protection		
Ambient temperature during operation       -20 °C         • min.       -20 °C         • max.       -20 °C         • horizontal installation, min.       -20 °C         • horizontal installation, min.       -20 °C         • horizontal installation, min.       -20 °C         • horizontal installation, max.       -20 °C         • vortical installation, max.       -20 °C         • Operation, max.       -20 °C         • Operation, min.       -40 °C         • Operation, min.       1080 PPa         • Storage/transport, max.       1080 PPa         • Installation altitude, max.       5 000 m; Restrictions for installation altitudes > 2 000 m, see manual         Relative hunditigit       -         • Operation, rest       -         • Operation, rested according to IEC 60068-2-6       Yes         Shotock testing       -		0.3 m; five times, in product package
• min.         -20 ° C           • max.         60 ° C; Number of simultaneously activated inputs 7 or 5 (no adjacent points) at 60 ° C horizontal or 50 ° C vertical, 14 or 10 at 55 ° C horizontal or 50 ° C vertical installation, max.           • horizontal installation, min.         -20 ° C           • vertical installation, max.         60 ° C           • vertical installation, max.         60 ° C           • vertical installation, max.         50 ° C           • vertical installation, max.         50 ° C           Ambert temperature during storage/transportation         -40 ° C           • min.         -20 ° C           • Operation, min.         -40 ° C           • Operation, max.         1080 PPa           • Operation, max.         1080 PPa           • Storage/transport, max.         1080 PPa           • Installation altitude, min.         -1000 m           • Installation altitude, min.         -1000 m           • Installation altitude, min.         -1000 m           • Installation altitude, max.         50 ° %; no condensation           • Ubrations estance during operation acc, to IEC         20 (m/s²) wall mounting. 1 g (m/s²) DIN rail           • Operation, max.         95 %; no condensation           • Ubrations estance during operation acc, to IEC         2 g (m/s²) wall mounting. 1 g (m/s²) DIN rail		
• max.       60 °C; Number of simultaneously activated in puts or outputs 7 or 5 (mo adjacent points) at 60 °C horizontal or 50 °C vertical, 14 or 10 at 55 °C horizontal installation, min.         • horizontal installation, max.       60 °C         • vertical installation, max.       20 °C         • vertical installation, max.       50 °C         • vertical installation, max.       50 °C         • vertical installation, max.       70 °C         • vertical installation, max.       70 °C         • vertical installation, max.       70 °C         • operation, max.       70 °C         • operation, max.       1080 hPa         • Operation, max.       1080 hPa         • Storage/transport, min.       600 hPa         • Storage/transport, min.       600 hPa         • Storage/transport, min.       600 hPa         • Installation altitude, max.       5000 m; Restrictions for installation altitudes >2 000 m, see manual         Relative humidity       -         • operation, taske daccording to IEC 60068-2.6       2 g (m/s*) wall mounting, 1 g (m/s*) DIN rail         60068-2.6       95 %; no condensation         • Operation, taske daccording to IEC 60068-2.7       Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms         Politicant for paramining instalistican prefection       Yes		-20 °C
adjacent points) at 60 °C borizontal in 50 °C vertical, 14 or 10 at 55 °C horizontal in 50 °C vertical installation, min20 °C · · · vertical installation, min20 °C · · · vertical installation, min20 °C · · · · · · · · · · · · · · · · · ·		
<ul> <li>horizontal installation, min.</li> <li>-20 °C</li> <li>evicial installation, max.</li> <li>60 °C</li> <li>evicial installation, max.</li> <li>20 °C</li> <li>evicial installation, max.</li> <li>50 °C</li> <li>Ambient temperature during storage/transportation</li> <li>inin.</li> <li>40 °C</li> <li>rnax.</li> <li>70 °C</li> <li>Arr pressure acc. to IEC 60068-2-13</li> <li>Operation, min.</li> <li>Operation, max.</li> <li>1080 hPa</li> <li>Storage/transport, min.</li> <li>60 °C Pa</li> <li>Storage/transport, min.</li> <li>Storage/transport, max.</li> <li>1080 hPa</li> <li>Storage/transport, max.</li> <li>1080 hPa</li> <li>Storage/transport, max.</li> <li>1080 hPa</li> <li>Storage/transport, max.</li> <li>95 %; no condensation</li> <li>vibration resistance during operation resisting to sea level</li> <li>Installation altitude, max.</li> <li>95 %; no condensation</li> <li>Vibration</li> <li>Vibration resistance during operation acc. to IEC 60068-2-6</li> <li>Yes</li> <li>Stock testing</li> <li>Vibration resistance during to IEC 60068-2-6</li> <li>Yes</li> <li>Stock testing</li> <li>Stock protection</li> <li>Ye</li></ul>	-	adjacent points) at 60 °C horizontal or 50 °C vertical, 14 or 10 at 55 °C
• horizontal installation, max.     60 °C       • vertical installation, max.     50 °C       Ambient temperature during storage/transportation     -40 °C       • min.     -40 °C       • nax.     70 °C       Arbient temperature during storage/transportation     -40 °C       • nax.     70 °C       Arbient temperature during storage/transport.     70 °C       • Operation, max.     1080 hPa       • Operation, max.     1080 hPa       • Storage/transport, max.     1080 hPa       • Storage/transport, max.     1080 hPa       • Installation altitude, min.     -1 000 m       • Installation altitude, max.     5 000 m; Restrictions for installation altitudes > 2 000 m, see manual       Relative humidity     -       • Operation, max.     95 %; no condensation       Vibration resistance during operation acc. to IEC     2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail       • Operation, tested according to IEC 60068-2-6     Yes       Shock testing     -     2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail       • Operation, preserver acc. to IEC     2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail       • So2 at RH < 60% without condensation		
• vertical installation, min.     -20 °C       • vertical installation, max.     50 °C       Ambient temperature during storage/transportation     -40 °C       • min.     -40 °C       • max.     70 °C       Art pressure acc. to IEC 60068-2-13     -       • Operation, min.     795 Pla       • Operation, min.     795 Pla       • Operation, max.     1080 Pla       • Storage/transport, max.     1080 Pla       • Installation altitude, min.     -1000 m       • Installation altitude, min.     -5 000 m; Restrictions for installation altitudes > 2 000 m, see manual       Relative humidity     -9 °C       • Operation, max.     95 %; no condensation       • Ubration resistance during operation acc. to IEC 60068-2-6     Yes       • Operation, tested according to IEC 60068-2-6     Yes       • Operation, tested according to IEC 60068-2-7     Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms       • Operation, hested according to IEC 60068-2-7     Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms       • Slock testing     -     -       • So2 at RH < 60% without condensation	-	
• vertical installation, max.     50 °C       Ambient temperature during storage/transportation     -40 °C       • max.     70 °C       Air pressure acc. to IEC 60068-2-13     -0 Operation, max.       • Operation, max.     1080 hPa       • Storage/transport, max.     1080 hPa       • Storage/transport, max.     1080 hPa       • Storage/transport, max.     1080 hPa       • Installation altitude, min.     -1 000 m       • Installation altitude, min.     5 000 m; Restrictions for installation altitudes > 2 000 m, see manual       Relative humidity     -       • Operation, max.     95 %; no condensation       Vibrations     2 g (m/s <sup>3</sup> ) wall mounting, 1 g (m/s <sup>3</sup> ) DIN rail       • Operation, tested according to IEC 60068-2-6     Yes       Shock testing     -       • lested according to IEC 60068-2-7     Yes; IEC 68, Parl 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms       Pollutant concentrations     -       - LAD     Yes       - FBD     Yes       - FBD     Yes       - Row-how protection     Yes       - Rob, orotection [ves: Vithe protection     Yes       - Rob, orotection     Yes       - FBD     Yes       - FBD     Yes       - Biock protection     Yes       - Rocks protection	*	
Ambient temperature during storage/transportation       -40 °C         • min.       -40 °C         • max.       70 °C         Air pressure acc. to IEC 60068-2-13       795 hPa         • Operation, min.       795 hPa         • Operation, max.       1080 hPa         • Storage/transport, max.       1080 hPa         • Storage/transport, max.       1080 hPa         • Installation altitude, min.       -1 000 m         • Installation altitude, max.       5 000 m; Restrictions for installation altitudes > 2 000 m, see manual         Relative humidity       95 %; no condensation         Vibration       10EC 60068-2-6         • Operation, max.       95 %; no condensation         Vibrations       2 g (m/s <sup>4</sup> ) wall mounting, 1 g (m/s <sup>4</sup> ) DIN rail         • Operation, tested according to IEC 60068-2-6       Yes         Shock testing       • lested according to IEC 60068-2-7       Yes         • black daccording to IEC 60068-2-7       Yes         Shock testing       • sola according to IEC 60068-2-7       Yes         • Sola at R< 60% without condensation	-	
<ul> <li>min40 °C</li> <li>max. 70 °C</li> <li>max. 70 °C</li> <li>Air pressure acc. to IEC 60068-2-13</li> <li>Operation, min. 795 hPa</li> <li>Operation, max. 1080 hPa</li> <li>Storage/transport, min. 660 hPa</li> <li>Storage/transport, max. 1080 hPa</li> <li>Altitude during operation relating to sea level</li> <li>Installation altitude, min1000 m</li> <li>Installation altitude, max. 5000 m, Restrictions for installation altitudes &gt; 2 000 m, see manual</li> <li>Relative humidity</li> <li>Operation, max. 95 %; no condensation</li> <li>Vibration</li> <li>Vibration resistance during operation acc. to IEC 60068-2-6</li> <li>Ves</li> <li>Vibration steled according to IEC 60068-2-6</li> <li>Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms</li> <li>Sto2 at RH &lt; 60% without condensation</li> <li>So2 at RH &lt; 60% without condensation</li> <li>So2 at RH &lt; 60% without condensation</li> <li>So2 &lt; 0.5 ppm; H2S: &lt; 0.1 ppm; RH &lt; 60% condensation-free</li> <li>configuration / header</li> <li>Programming language</li> <li>- IAD</li> <li>- FBD</li> <li>- SCL</li> <li>Yes</li> <li>- FBD</li> <li>- SCL</li> <li>- FBD</li> <li>- FBD</li></ul>	·	50 °C
• max.       70 °C         Air pressure acc. to IEC 60088-2-13       •         • Operation, min.       795 hPa         • Operation, max.       1080 hPa         • Storage/transport, max.       1080 hPa         • Storage/transport, max.       1080 hPa         • Installation altitude, min.       -1000 m         • Installation altitude, max.       5000 m, Restrictions for installation altitudes > 2000 m, see manual         Relative humidity       •         • Operation, max.       95 %; no condensation         Vibration resistance during operation acc. to IEC 80068-2-6       Yes         • Vibration resistance during operation acc. to IEC 80068-2-6       Yes         • Operation, tested according to IEC 60068-2-7       Yes [EC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms         Pollutant concentrations       502: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free		40.80
Air pressure acc: to ICC 60068-2-13       795 hPa         • Operation, min.       795 hPa         • Operation, max.       10 80 hPa         • Storage/transport, min.       660 hPa         • Installation altitude, max.       10 80 hPa         Altitude during operation relating to sea level       •         • Installation altitude, max.       5 000 m; Restrictions for installation altitudes > 2 000 m, see manual         Relative humidity       • Operation, max.       95 %; no condensation         • Vibrations       •         • Vibration resistance during operation acc. to IEC       2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail         • Operation, tested according to IEC 60068-2-6       Yes         Shock testing       •         • elstel according to IEC 60068-2-27       Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms         Pollutant concentrations       •         • SO2 at RH < 60% without condensation		
<ul> <li>Operation, min.</li> <li>Operation, max.</li> <li>Operation, max.</li> <li>Storage/transport, min.</li> <li>660 hPa</li> <li>Storage/transport, max.</li> <li>1080 hPa</li> <li>Mittude during operation relating to sea level</li> <li>Installation altitude, min.</li> <li>Installation altitude, max.</li> <li>5000 m; Restrictions for installation altitudes &gt; 2 000 m, see manual</li> <li>Relative humidity</li> <li>Operation, max.</li> <li>95 %; no condensation</li> <li>Vibration resistance during operation acc. to IEC c0088-2-6</li> <li>Yes</li> <li>Operation, tested according to IEC 60068-2-6</li> <li>Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms</li> <li>Pollutant concentrations</li> <li>SO2 at RH &lt; 60% without condensation</li> <li>SO2: &lt; 0.5 ppm; H2S: &lt; 0.1 ppm; RH &lt; 60% condensation-free</li> <li>configuration / programming / header</li> <li>Programming language</li> <li>I AD</li> <li>Yes</li> <li>Yes</li> <li>Stock protection</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Protection level: Write protection</li> <li>Yes</li> <li>Protection level: Complete protection</li> <li>Yes</li> <li>Protection level: Write protection</li> <li>Yes</li> <li>Protection level: Complete protection</li> <li>Yes</li> </ul>		
Operation, max.     1 080 hPa     660 hPa     660 hPa     1080 hPa     1000 m     1000 m		705 hDa
<ul> <li>Storage/transport, min.</li> <li>Storage/transport, max.</li> <li>1080 hPa</li> <li>Altitude during operation relating to sea level</li> <li>Installation altitude, min.</li> <li>1000 m</li> <li>Installation altitude, max.</li> <li>5000 m; Restrictions for installation altitudes &gt; 2 000 m, see manual</li> <li>Relative humidity</li> <li>Operation, max.</li> <li>95 %; no condensation</li> <li>Vibrations</li> <li>Vibration resistance during operation acc. to IEC</li> <li>60068-2-6</li> <li>Yes</li> <li>Operation, tested according to IEC 60068-2-6</li> <li>Yes</li> <li>Shock testing</li> <li>Versition for installation altitude condensation</li> <li>Stock testing</li> <li>Ves: IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms</li> <li>Pollutant concentrations</li> <li>So2: &lt; 0.5 ppm; H2S: &lt; 0.1 ppm; RH &lt; 60% condensation-free</li> <li>Configuration / header</li> <li>Configuration / header</li> <li>Programming language</li> <li>- LAD</li> <li>Yes</li> <li>- SCL</li> <li>- SCL</li></ul>	•	
Storage/transport, max.       1 080 hPa         Attitude during operation relating to sea level <ul> <li>Installation altitude, min.</li> <li>1 000 m</li> <li>Installation altitude, max.</li> <li>5 000 m; Restrictions for installation altitudes &gt; 2 000 m, see manual</li> </ul> Relative humidity <ul> <li>Operation, max.</li> <li>95 %; no condensation</li> <li>Vibration resistance during operation acc. to IEC 60068-2-6</li> <li>Operation, tested according to IEC 60068-2-6</li> <li>Yes</li> </ul> <ul> <li>Itested according to IEC 60068-2-6</li> <li>Yes</li> </ul> <ul> <li>Operation, tested according to IEC 60068-2-6</li> <li>Yes</li> </ul> <ul> <li>Shock testing</li> <li>Itested according to IEC 60068-2-7</li> <li>Yes, IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms</li> </ul> <ul> <li>Pollutant concentrations</li> <li>SO2 at RH &lt; 60% without condensation</li> <li>SO2: &lt; 0.5 ppm; H2S: &lt; 0.1 ppm; RH &lt; 60% condensation-free</li> <li>configuration / programming / header</li> <li>Programming language</li> <li> <ul> <li>LAD</li> <li>Yes</li> <li>Sol</li> <li>Sol</li> <li>Yes</li> <li>Sol</li> <li>Yes</li> <li>Sol protection</li> <li>Yes</li> <li>Biock protection</li> <li>Yes</li>             &lt;</ul></li></ul>		
Altitude during operation relating to sea level       -1 000 m         • Installation altitude, min.       -1 000 m         • Installation altitude, max.       5 000 m; Restrictions for installation altitudes > 2 000 m, see manual         Relative humidity       -         • Operation, max.       95 %; no condensation         • Vibration resistance during operation acc. to IEC 60068-2-6       2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail         • Operation, tested according to IEC 60068-2-6       Yes         Shock testing       -         • tested according to IEC 60068-2-27       Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms         Pollutant concentrations       -         • SO2 at RH < 60% without condensation		
<ul> <li>Installation altitude, min.</li> <li>Installation altitude, max.</li> <li>5 000 m; Restrictions for installation altitudes &gt; 2 000 m, see manual</li> <li>Relative humidity</li> <li>Operation, max.</li> <li>95 %; no condensation</li> <li>Vibrations</li> <li>Vibration resistance during operation acc. to IEC</li> <li>60068-2-6</li> <li>Operation, tested according to IEC 60068-2-6</li> <li>Yes</li> <li>Shock testing</li> <li>Itested according to IEC 60068-2-7</li> <li>Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms</li> <li>Pollutant concentrations</li> <li>SO2 at RH &lt; 60% without condensation</li> <li>SO2: &lt; 0.5 ppm; H2S: &lt; 0.1 ppm; RH &lt; 60% condensation-free</li> <li>configuration / programming / header</li> <li>Programming language</li> <li>- LAD</li> <li>FBD</li> <li>Yes</li> <li>Know-how protection</li> <li>Ves</li> <li>Lock protection</li> <li>Yes</li> <li>Block protection</li> <li>Yes</li> <li>Block protection</li> <li>Yes</li> <li>Protection level: Write protection</li> <li>Yes</li> <li>Protection level: Write protection</li> <li>Protection level: Write protection</li> <li>Protection level: Comfiguration data</li> <li>Protection level: Comfiguration data</li> <li>Protection level: Complete protection</li> <l< td=""><td></td><td></td></l<></ul>		
• Installation altitude, max.       5 000 m; Restrictions for installation altitudes > 2 000 m, see manual         Relative humidity       • Operation, max.       95 %; no condensation         Vibrations       • Vibration resistance during operation acc. to IEC 60068-2-6       2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail         • Operation, tested according to IEC 60068-2-6       Yes         Shock testing       • Ves         • tested according to IEC 60068-2-7       Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms         Pollutant concentrations       • Ves         • SO2 at RH < 60% without condensation		-1 000 m
Relative humidity       95 %; no condensation         Vibrations       95 %; no condensation         Vibration resistance during operation acc. to IEC 60068-2-6       2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail         • Operation, tested according to IEC 60068-2-6       Yes         Shock testing		
Operation, max.     95 %; no condensation     Vibrations     Vibration resistance during operation acc. to IEC     60068-2-6     Operation, tested according to IEC 60068-2-6     Yes     Shock testing     tested according to IEC 60068-2-27     Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak     value), duration 11 ms     Pollutant concentrations     SO2 at RH < 60% without condensation     SO2 at RH < 60% without condensation     SO2: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free     configuration / header     rogramming / header     Programming language         - LAD         Yes     - FBD         Yes     Sock to protection     Ves         Sock protection     Ves         Socetion     Yes     Socetion     Yes     Socetion     Yes     Protection level: Write protection     Yes     Protection level: Write protection     Yes     Protection level: Read/write protection     Yes     Protection level: Read/write protection     Yes     Protection level: Complete protection     Yes     Protection level: Read/write protection     Yes     Protection level: Complete protection     Yes     Protection level: Complete protection     Yes     Protection level: Complete protection     Yes		5 000 m, Restrictions for installation attitudes > 2 000 m, see manual
Vibrations         • Vibration resistance during operation acc. to IEC 60068-2-6       2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail 60068-2-6         • Operation, tested according to IEC 60068-2-6       Yes         Shock testing       • tested according to IEC 60068-2-27       Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms         Pollutant concentrations       • SO2 at RH < 60% without condensation		95 %: no condensation
• Vibration resistance during operation acc. to IEC       2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail         • Operation, tested according to IEC 60068-2-6       Yes         Shock testing       Yes         • tested according to IEC 60068-2-27       Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms         Pollutant concentrations          • SO2 at RH < 60% without condensation		
60068-2-6     Ves       • Operation, tested according to IEC 60068-2-6     Yes       Shock testing     • tested according to IEC 60068-2-27     Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms       Pollutant concentrations     • SO2 at RH < 60% without condensation		$2 \alpha (m/s^2)$ wall mounting $1 \alpha (m/s^2)$ DIM roll
Shock testing         • tested according to IEC 60068-2-27       Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms         Pollutant concentrations	0 1	
Shock testing         • tested according to IEC 60068-2-27       Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms         Pollutant concentrations		Yes
• tested according to IEC 60068-2-27       Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms         Pollutant concentrations       • SO2 at RH < 60% without condensation		
value), duration 11 ms         Pollutant concentrations         • SO2 at RH < 60% without condensation		
• SO2 at RH < 60% without condensation	-	
onfiguration / header         Programming / header         Programming language       Yes		
configuration / programming / header         Programming language        LAD       Yes        FBD       Yes        SCL       Yes         Know-how protection       Yes         • User program protection/password protection       Yes         • Copy protection       Yes         • Block protection       Yes         • Block protection       Yes         • Protection of confidential configuration data       Yes         • Protection level: Write protection       Yes         • Protection level: Read/write protection       Yes         • Protection level: Complete protection       Yes		S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free
configuration / programming / header         Programming language        LAD       Yes        FBD       Yes        SCL       Yes         Know-how protection       Yes         • User program protection/password protection       Yes         • Copy protection       Yes         • Block protection       Yes         • Block protection       Yes         • Protection of confidential configuration data       Yes         • Protection level: Write protection       Yes         • Protection level: Read/write protection       Yes         • Protection level: Complete protection       Yes	configuration / header	
Programming language       Yes         - LAD       Yes         - FBD       Yes         - SCL       Yes         Know-how protection       Yes         • User program protection/password protection       Yes         • Copy protection       Yes         • Block protection       Yes         • Block protection       Yes         • Protection of confidential configuration data       Yes         • Protection level: Write protection       Yes         • Protection level: Write protection       Yes         • Protection level: Complete protection       Yes		
- LADYes- FBDYes- SCLYesMow-how protectionYes• User program protection/password protectionYes• Copy protectionYes• Block protectionYes• Block protectionYes• protection of confidential configuration dataYes• Protection level: Write protectionYes• Protection level: Write protectionYes• Protection level: Complete protectionYes• ProtectionYes• ProtectionYes• ProtectionYes• ProtectionYes• ProtectionYes• ProtectionYes• ProtectionYes<		
SCL       Yes         Know-how protection       Yes         • User program protection/password protection       Yes         • Copy protection       Yes         • Block protection       Yes         • Block protection       Yes         • Drotection of confidential configuration data       Yes         • Protection level: Write protection       Yes         • Protection level: Write protection       Yes         • Protection level: Complete protection       Yes		Yes
Know-how protection         • User program protection/password protection         • Copy protection         • Copy protection         • Block protection         • Block protection         • Protection of confidential configuration data         • Protection level: Write protection         • Protection level: Write protection         • Protection level: Read/write protection         • Protection level: Complete protection         • Protection level + Complete protection         • Protection         • Protection         • Protection         • Protection         • Protection         • Protection <td>— FBD</td> <td>Yes</td>	— FBD	Yes
• User program protection/password protection       Yes         • Copy protection       Yes         • Block protection       Yes         Access protection       Yes         • protection of confidential configuration data       Yes         • Protection level: Write protection       Yes         • Protection level: Write protection       Yes         • Protection level: Complete protection       Yes	— SCL	Yes
Copy protection Yes     Block protection Yes     Access protection     protection of confidential configuration data Yes     Protection level: Write protection Yes     Protection level: Read/write protection Yes     Protection level: Complete protection Yes     programming / cycle time monitoring / header	Know-how protection	
Block protection Yes Access protection     protection of confidential configuration data Yes     Protection level: Write protection Yes     Protection level: Read/write protection Yes     Protection level: Complete protection Yes programming / cycle time monitoring / header	User program protection/password protection	Yes
Access protection         • protection of confidential configuration data       Yes         • Protection level: Write protection       Yes         • Protection level: Read/write protection       Yes         • Protection level: Complete protection       Yes         • programming / cycle time monitoring / header       Yes		Yes
protection of confidential configuration data Yes     Protection level: Write protection Yes     Protection level: Read/write protection Yes     Protection level: Complete protection Yes     programming / cycle time monitoring / header	Block protection	Yes
Protection level: Write protection Yes     Protection level: Read/write protection Yes     Protection level: Complete protection Yes     programming / cycle time monitoring / header		
Protection level: Read/write protection Yes     Protection level: Complete protection Yes programming / cycle time monitoring / header	<ul> <li>protection of confidential configuration data</li> </ul>	Yes
Protection level: Complete protection Yes  programming / cycle time monitoring / header		Yes
programming / cycle time monitoring / header		Yes
		Yes
• adjustable Yes		
	● adjustable	Yes

Dimensions	
Width	150 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	530 g
last modified:	7/19/2022 🖸