Data sheet

6ES7215-1AG40-0XB0



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

General information	
Product type designation	CPU 1215C DC/DC/DC
Firmware version	V4.5
Engineering with	
 Programming package 	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+	
Rated value (DC)	24 V
 permissible range, lower limit (DC) 	20.4 V
 permissible range, upper limit (DC) 	28.8 V
Input current	
Current consumption (rated value)	500 mA; CPU only
Current consumption, max.	1 500 mA; CPU with all expansion modules
Inrush current, max.	12 A; at 28.8 V DC
l²t	0.5 A ² ·s
Output current	
for backplane bus (5 V DC), max.	1 600 mA; Max. 5 V DC for SM and CM
Encoder supply	
24 V encoder supply	
• 24 V	L+ minus 4 V DC min.
Power loss	
Power loss, typ.	12 W
Memory	
Work memory	
integrated	125 kbyte
expandable	No
Load memory	
integrated	4 Mbyte
 Plug-in (SIMATIC Memory Card), max. 	with SIMATIC memory card
Backup	
• present	Yes
 maintenance-free 	Yes
without battery	Yes

CPU processing times	
for bit operations, typ.	0.08 μs; / instruction
for word operations, typ.	1.7 μs; / instruction
for floating point arithmetic, typ.	2.3 µs; / instruction
CPU-blocks	
Number of blocks (total)	DBs, FCs, FBs, counters and timers. The maximum number of addressable blocks ranges from 1 to 65535. There is no restriction, the entire working memory can be used
OB	
Number, max.	Limited only by RAM for code
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	14 kbyte
Flag	
• Size, max.	8 kbyte; Size of bit memory address area
Local data	
• per priority class, max.	16 kbyte; Priority class 1 (program cycle): 16 KB, priority class 2 to 26: 6 KB
Address area	
Process image	
 Inputs, adjustable 	1 kbyte
 Outputs, adjustable 	1 kbyte
Hardware configuration	
Number of modules per system, max.	3 comm. modules, 1 signal board, 8 signal modules
Time of day	
Clock	
Hardware clock (real-time)	Yes
Backup time	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 functions	6; HSC (High Speed Counting)
Source/sink input	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	14
Input voltage	
Rated value (DC)	24 V
• for signal "0"	5 V DC at 1 mA
• 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
A HON A MATERIAL TO	in groups of four
— at "0" to "1", min.	0.2 ms
— at "0" to "1", max.	12.8 ms
for interrupt inputs	N.
— parameterizable	Yes
for technological functions	0. 1 1 0.0 40011. 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
— parameterizable	Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz
Cable length	FOO my FO or factor backers in 15 or 15
• 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	0.5.4
with resistive load, max.	0.5 A
on lamp load, max.	5 W

Output voltage	
Output voltage	0.4. V. with 40 kOhm load
• for signal "0", max.	0.1 V; with 10 kOhm load
• for signal "1", min.	20 V
Output current	0.5.4
• for signal "1" rated value	0.5 A
for signal "0" residual current, max.	0.1 mA
Output delay with resistive load	
• "0" to "1", max.	1 µs
• "1" to "0", max.	5 μs
Switching frequency	
of the pulse outputs, with resistive load, max.	100 kHz
Relay outputs	
Number of relay outputs	0
Cable length	
shielded, max.	500 m
• unshielded, max.	150 m
Analog inputs	
Number of analog inputs	2
Input ranges	
Voltage	Yes
Input ranges (rated values), voltages	
• 0 to +10 V	Yes
— Input resistance (0 to 10 V)	≥100k ohms
Cable length	
• shielded, max.	100 m; twisted and shielded
Analog outputs	
Number of analog outputs	2
Output ranges, current	
• 0 to 20 mA	Yes
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
Resolution with overrange (bit including sign), max.	10 bit
 Integration time, parameterizable 	Yes
-	1 5
Conversion time (per channel)	625.00
Conversion time (per channel)	625 μs
Analog value generation for the outputs	625 μs
Analog value generation for the outputs Integration and conversion time/resolution per channel	
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.	625 μs 10 bit
Analog value generation for the outputs Integration and conversion time/resolution per channel	
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders	
Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Encoder	
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders	10 bit
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor	10 bit
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface	10 bit Yes
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type	10 bit Yes PROFINET
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated	10 bit Yes PROFINET Yes
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate	10 bit Yes PROFINET Yes Yes
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation	10 bit Yes PROFINET Yes Yes Yes
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing	10 bit Yes PROFINET Yes Yes Yes
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types	10 bit Yes PROFINET Yes Yes Yes Yes Yes
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet)	10 bit Yes PROFINET Yes Yes Yes Yes Yes
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports	Yes PROFINET Yes Yes Yes Yes Yes Yes Yes
Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Encoder Connectable encoders 2-wire sensor Interface Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types RJ 45 (Ethernet) Number of ports integrated switch	Yes PROFINET Yes Yes Yes Yes Yes Yes Yes
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols	Yes PROFINET Yes
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device	Yes PROFINET Yes Yes Yes Yes Yes Yes Yes Yes Yes 2 Yes
Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. Encoder Connectable encoders • 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication	Yes PROFINET Yes
Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Encoder Connectable encoders 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types RJ 45 (Ethernet) Number of ports integrated switch Protocols PROFINET IO Controller PROFINET IO Device SIMATIC communication Open IE communication	Yes PROFINET Yes Yes Yes Yes Yes Yes Yes Ye
Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Encoder Connectable encoders 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types RJ 45 (Ethernet) Number of ports integrated switch Protocols PROFINET IO Controller PROFINET IO Device SIMATIC communication Open IE communication Web server	PROFINET Yes
Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Encoder Connectable encoders 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types RJ 45 (Ethernet) Number of ports integrated switch Protocols PROFINET IO Controller PROFINET IO Device SIMATIC communication Open IE communication Web server Media redundancy	Yes PROFINET Yes Yes Yes Yes Yes Yes Yes Ye
Analog value generation for the outputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Encoder Connectable encoders 2-wire sensor 1. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types RJ 45 (Ethernet) Number of ports integrated switch Protocols PROFINET IO Controller PROFINET IO Device SIMATIC communication Open IE communication Web server	PROFINET Yes

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Services	Voc. openintian with TLC V/4 2 are calcuted
— PG/OP communication	Yes; encryption with TLS V1.3 pre-selected
— Isochronous mode	No
— IRT	No
— PROFlenergy	No
— Prioritized startup	Yes
 Number of IO devices with prioritized startup, max. 	16
 Number of connectable IO Devices, max. 	16
 Number of connectable IO Devices for RT, 	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	across and the quantity of comingation door data.
Services	
— PG/OP communication	Yes; encryption with TLS V1.3 pre-selected
— Isochronous mode	No
— IRT	No
— PROFlenergy	Yes
— Shared device	Yes
Number of IO Controllers with shared device,	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)	100, 011 1210 210941104
• TCP/IP	Yes
• DHCP	No
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
Redundancy mode	165
Media redundancy	
— MRP	Yes; as MRP redundancy manager and/or MRP client
— MRPD	No
SIMATIC communication	110
• S7 routing	Yes
Open IE communication	169
TCP/IP	Yes
— Data length, max.	8 kbyte
ISO-on-TCP (RFC1006) Deta longth, may	Yes 8 kbyto
— Data length, max.	8 kbyte
UDP Data longth, max	Yes
— Data length, max.	1 472 byte
Web server	Von
supported User defined websites	Yes
User-defined websites	Yes
OPC UA	Voc. "Pagio" license required
Runtime license required ODC HA Server	Yes; "Basic" license required
OPC UA Server	Yes; data access (read, write, subscribe), method call, runtime license required
 Application authentication 	Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256
 User authentication 	"anonymous" or by user name & password
	anonymous or by assiring a passivora

Number of selsorions per session, max. 10		
- Sampling interval, min Publishing interval, min Number of server methods, max Number of server methods, max Number of server interfaces, max Number of connections - server - sa client - sa server - sa server - sa client - sa server - sa client - sa server - sa server - sa server - sa server - sa client - sa server - sa serv	Number of sessions, max.	10
- Publishing interval, min. 200 ms - Number of server methods, max. 20 - Number of server methods, max. 1000 - Number of monitored items, max. 20 - Number of honoitored items, max. 20 - Number of note the provided items of the provided i	·	
- Number of server interfaces, max - Number of server interfaces - Secondary of the server of		
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Number of notes for user-defined server interfaces, max Number of notes for user-defined server interfaces, max. **MCDRUS** **MCDRUS** **MCDRUS** **MCDRUS** **MCDRUS** **MCDRUS** **MCDRUS** **MCDRUS** **MCDRUS** **Yes **Communication functions / header **Sy communication functions / header **Sy communication functions / header **Sy communication functions / header **Sessions / Yes **as client	•	
Number of nodes for user-defined server interfaces, max. Further protocols • MODBUS • MODBUS **ST communication functions / header **ST communication • supported • as server • as server • as selient • User data per job, max. **Number of connections: • overall **PG Connections: 4 reserved / 4 max; HMI Connections: 12 reserved / 1 fl max, ST Connections: 8 reserved / 1 max; HMI Connections: 12 reserved / 1 fl max, ST Connections: 9 reserved / 1 max; Wester Connections	•	
Interfaces, max. Further protocols *MODBUS *MODBUS *MODBUS *MODBUS *MODBUS *Yes *Communication functions / header *S communication *upported *yes *as server *as client *User data per job, max. *Number of connections *Overall *PG Connections: 4 reserved / 4 max; HMI Connections: 12 reserved / 18 max, ST Connections: 8 reserved / 14 max; CPC UA Comnections: 7 reserved / 10 max; Total Connections: 2 reserved / 10 max; Total Connections: 3 reserved / 10 max; Total Connections: 12 reserved / 10 max; Total Connections: 3 reserved / 10 max; Total Connections: 12 reserved /		
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MODBUS ST communication • supported • as server • as client • User data per job, max. See online help (S7 communication, user data size) Number of connections • overall •	·	
S7 communication • supported • as server • as client • 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 Sistus/control • Status/control • Status/control variable • Variables • Variables • Variables • Porcing • Forcing • Forcing • Forcing • Forcing • Forcing • Remony size per trace, max Interrupts/diagnosties/status information Diagnostics indication LED • RINNSTOP LED • REMOR L		Yes
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• Forcing Yes Diagnostic buffer • present Yes Traces • Number of configurable Traces 2 • Memory size per trace, max. 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. Number of positioning axes via pulse-direction interface PID controller PID controller Number of alarm inputs 4 Number of plasm inputs 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs • Potential separation digital inputs • Detential separation digital outputs • Potential separation digital outputs • Detween the channels, in groups of 1 Potential reference immunity against discharge of static electricity • Interference immunity against discharge of static electricity	Variables	Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
Diagnostic buffer • present Yes Traces • Number of configurable Traces 2 • Memory size per trace, max. 512 kbyte Interrupts/diagnostics/status information Diagnostics indication LED • RUN/STOP LED Yes • MAINT LED Yes • MAINT LED Yes Integrated Functions Frequency measurement Yes controlled positioning Aves, max. 8 Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes via pulse-direction interface 4; With integrated outputs PID controller PUD controller Ves Number of position axes via pulse-direction interface 4; With integrated outputs PUD controller Ves Number of pulse outputs 4 Limit frequency (pulse) Potential separation Potential separation digital inputs • Potential separation digital inputs • Potential separation digital outputs • Potential separation digital outputs • Detween the channels, in groups of 1 Potential separation digital outputs • Detween the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity against discharge of static electricity against discharge of static electricity	Forcing	
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MAINT LED Yes	RUN/STOP LED	Yes
Integrated Functions Frequency measurement Controlled positioning Yes Number of position-controlled positioning axes, max. Number of positioning axes via pulse-direction interface PID controller Yes Number of alarm inputs 4 Number of pulse outputs 4 Limit frequency (pulse) Potential separation Potential separation digital inputs Potential separation digital inputs Potential separation digital outputs Potential separation digital output	• ERROR LED	Yes
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Number of positioning axes via pulse-direction interface PID controller Yes Number of alarm inputs 4 Number of pulse outputs Limit frequency (pulse) Potential separation Potential separation digital inputs Potential separation digital inputs Potential separation digital inputs Potential separation digital inputs Potential separation digital outputs Potential separation digita	controlled positioning	Yes
PID controller Number of alarm inputs A Number of pulse outputs Limit frequency (pulse) Potential separation Potential separation digital inputs Potential separation digital inputs Potential separation digital inputs Potential separation digital outputs Potential separation digital inputs Potential separatio	Number of position-controlled positioning axes, max.	8
Number of alarm inputs Number of pulse outputs Limit frequency (pulse) Potential separation Potential separation digital inputs Potential separation digital inputs Potential separation digital inputs Potential separation digital outputs Potential separation digital inputs Potential separation digital inputs Potential separation digital inputs Potential separation digital outputs Potential separation digital outputs Potential separation digital outputs Potential separation digital inputs Potentia	Number of positioning axes via pulse-direction interface	4; With integrated outputs
Number of pulse outputs Limit frequency (pulse) Potential separation Potential separation digital inputs Potential separation digital inputs Potential separation digital inputs Potential separation digital inputs Potential separation digital outputs Potential separation digital inputs P	PID controller	Yes
Limit frequency (pulse) Potential separation Potential separation digital inputs • Potential separation digital inputs • between the channels, in groups of Potential separation digital outputs • Potential separation digital outputs • Potential separation digital outputs • between the channels • between the channels • between the channels • between the channels of the c	Number of alarm inputs	4
Potential separation Potential separation digital inputs • Potential separation digital inputs • between the channels, in groups of Potential separation digital outputs • Potential separation digital outputs • Potential separation digital outputs • between the channels • between the channels • between the channels, in groups of EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity acc. to IEC 61000-4-2	Number of pulse outputs	4
Potential separation digital inputs • Potential separation digital inputs • between the channels, in groups of Potential separation digital outputs • Potential separation digital outputs • Potential separation digital outputs • between the channels • between the channels • between the channels, in groups of Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity acc. to IEC 61000-4-2	Limit frequency (pulse)	100 kHz
Potential separation digital inputs between the channels, in groups of Potential separation digital outputs Potential separation digital inputs Potential separation digital outputs No Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Potential separation digital outputs Potential separation digital outputs Potential separation digital outputs No Interference immunity against discharge of static electricity Potential separation digital outputs	Potential separation	
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Potential separation digital outputs between the channels between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity electricity acc. to IEC 61000-4-2	between the channels, in groups of	1
between the channels between the channels, in groups of Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity electricity acc. to IEC 61000-4-2	Potential separation digital outputs	
between the channels, in groups of EMC Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity acc. to IEC 61000-4-2 Yes	 Potential separation digital outputs 	Yes
Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Yes electricity acc. to IEC 61000-4-2	 between the channels 	No
Interference immunity against discharge of static electricity ● Interference immunity against discharge of static electricity acc. to IEC 61000-4-2 Yes	 between the channels, in groups of 	1
Interference immunity against discharge of static electricity acc. to IEC 61000-4-2	EMC	
Interference immunity against discharge of static electricity acc. to IEC 61000-4-2	Interference immunity against discharge of static electricity	
— Test voltage at air discharge 8 kV	Interference immunity against discharge of static	Yes
	Test voltage at air discharge	8 kV

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Test voltage at contact discharge	6 kV
Interference immunity to cable-borne interference	V
 Interference immunity on supply lines acc. to IEC 61000-4-4 	Yes
 Interference immunity on signal cables acc. to IEC 61000-4-4 	Yes
Interference immunity against voltage surge	
 Interference immunity on supply lines acc. to IEC 61000-4-5 	Yes
Interference immunity against conducted variable disturbance	ce induced by high-frequency fields
 Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 	Yes
Emission of radio interference acc. to EN 55 011	
Limit class A, for use in industrial areas	Yes; Group 1
Limit class B, for use in residential areas	Yes; When appropriate measures are used to ensure compliance with the limits for Class B according to EN 55011
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
cULus	Yes
FM approval	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
Marine approval	Yes
Ambient conditions	
Free fall	
Fall height, max.	0.3 m; five times, in product package
Ambient temperature during operation	
• min.	-20 °C
• max.	60 °C; Number of simultaneously activated inputs or outputs 7 or 5 (no adjacent points) at 60 °C horizontal or 50 °C vertical, 14 or 10 at 55 °C horizontal or 45 °C vertical
 horizontal installation, min. 	-20 °C
 horizontal installation, max. 	60 °C
 vertical installation, min. 	-20 °C
vertical installation, max.	50 °C
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Air pressure acc. to IEC 60068-2-13	
Operation, min.	795 hPa
Operation, max.	1 080 hPa
Storage/transport, min.	660 hPa
	1 080 hPa
Storage/transport, max. Altitude during expertise relating to see level.	I UOU IIFA
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
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	
• tested according to IEC 60068-2-27	Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms
Pollutant concentrations	
 SO2 at RH < 60% without condensation 	S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free
configuration / header	
configuration / programming / header	
Configuration / programming / neader	

Programming language		
— LAD	Yes	
— FBD	Yes	
— SCL	Yes	
Know-how protection		
 User program protection/password protection 	Yes	
Copy protection	Yes	
Block protection	Yes	
Access protection		
 protection of confidential configuration data 	Yes	
 Protection level: Write protection 	Yes	
 Protection level: Read/write protection 	Yes	
Protection level: Complete protection	Yes	
programming / cycle time monitoring / header		
 adjustable 	Yes	
Dimensions		
Width	130 mm	
Height	100 mm	
Depth	75 mm	
Weights		
Weight, approx.	500 g	

4/12/2021

last modified: