SIEMENS

Data sheet

6ES7215-1AG40-0XB0

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



General information	
Product type designation	CPU 1215C DC/DC/DC
Firmware version	V4.1
Engineering with	
 Programming package 	STEP 7 V13 SP1 or higher
Display	
with display	No
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) 	5 V
 permissible range, upper limit (DC) 	250 V

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 Output current 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. Power loss, typ. 12 W Memory • integrated • expandable No Load memory • integrated • integrated 4 Mbyte • Pluse in (SIMATIC Memory Cord), max • with SIMATIC memory card
Inrush current, max. 12 A; at 28.8 V DC Output current 1 600 mA; Max. 5 V DC for SM and CM Encoder supply 24 V encoder supply 24 V encoder supply L+ minus 4 V DC min. Power loss Power loss, typ. Power loss, typ. 12 W Memory Vork memory • integrated 125 kbyte • expandable No Load memory 4 Mbyte
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 • integrated 125 kbyte • expandable No Load memory 4 Mbyte
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. Power loss, typ. 12 W Memory • integrated • expandable No Load memory • integrated • integrated 4 Mbyte
Encoder supply 24 V encoder supply • 24 V L+ minus 4 V DC min. Power loss Power loss, typ. 12 W Memory • integrated 125 kbyte • expandable No Load memory • integrated • integrated 4 Mbyte
24 V encoder supply • 24 V • 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
• 24 V L+ minus 4 V DC min. Power loss 12 W Power loss, typ. 12 W Memory 12 W Work memory 125 kbyte • integrated 125 kbyte No No Load memory 4 Mbyte
Power loss Power loss, typ. 12 W Memory Work memory • integrated 125 kbyte • expandable No Load memory • integrated 4 Mbyte
Power loss, typ. 12 W Memory Memory Work memory 125 kbyte • integrated 125 kbyte • expandable No Load memory 4 Mbyte
Memory Work memory • integrated • expandable Load memory • integrated • integrated
Work memory • integrated 125 kbyte • expandable No Load memory 4 Mbyte
• integrated 125 kbyte • expandable No Load memory 4 Mbyte
expandable No Load memory integrated 4 Mbyte
Load memory • integrated 4 Mbyte
• integrated 4 Mbyte
Plug in (SIMATIC Memory Cord) may with SIMATIC memory cord
Plug-in (SIMATIC Memory Card), max. with SIMATIC memory card
Backup
present Yes; maintenance-free
• without battery Yes
CPU processing times
for bit operations, typ.0.085 μs; / instruction
for word operations, typ. 1.5 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 in total (incl. times, counters, 10 kbyte
flags), max.
Flag
Number, max. 8 kbyte; Size of bit memory address area
Local data
• per priority class, max. 16 kbyte; Priority class 1 (program cycle): 16 KB, priority class 2 to 26: 6 KB

Process image	
 Inputs, adjustable 	1 kbyte
• Outputs, adjustable	1 kbyte
Hardware configuration	
Number of modules per system, max.	3 comm. modules, 1 signal board, 8 signal modules
Time of day	
Clock	
 Hardware clock (real-time) 	Yes
Backup time	480 h; Typical
 Deviation per day, max. 	+/- 60 s/month at 25 °C
Digital inputs	
Number of digital inputs	14; Integrated
 of which inputs usable for technological 	6; HSC (High Speed Counting)
functions	
integrated channels (DI)	14
Source/sink input	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	14
Input voltage	
Rated value (DC)	24 V
● for signal "0"	5 V DC at 1 mA
● for signal "1"	15 V DC at 2.5 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms,
	selectable in groups of four
— at "0" to "1", min.	0.2 ms
— at "0" to "1", max.	12.8 ms
for interrupt inputs	
— parameterizable	Yes
for counter/technological functions	
— parameterizable	Single phase : 3 at 100 kHz & 3 at 30 kHz, differential: 3 at 80 kHz & 3 at 30 kHz
Cable length	
● shielded, max.	500 m; 50 m for technological functions
• unshielded, max.	300 m; For technological functions: No
Digital outputs	
Number of digital outputs	10
 of which high-speed outputs 	4; 100 kHz Pulse Train Output
integrated channels (DO)	10

Number of analog outputs 2 integrated channels (AO) 2; 0 to 20 mA Output ranges, current - • 0 to 20 mA Yes Analog value generation - Integration and conversion time/resolution per channel - • Resolution with overrange (bit including sign), max. 10 bit • Integration time, parameterizable Yes • Conversion time (per channel) 625 µs	Switching capacity of the outputs	
• "0" to "1", max.1 µs• "1" to "0", max.5 µsCable length50 m• shielded, max.500 m• unshielded, max.150 mAnalog inputs2Integrated channels (AI)2Input ranges2• VoltageYesInput ranges (rated values), voltages2• 0 to +10 VYes• linkleded, max.100 m; twisted and shieldedAnalog inputs2• VoltageYes• Input ranges (rated values), voltages100 m; twisted and shielded• O to +10 VYes• Input resistance (0 to 10 V)2100k ohmsCable length2• shielded, max.100 m; twisted and shieldedOutput ranges, current2• O to 20 mA2• O to 20 mAYesNumber of analog outputs2• O to 20 mAYes• O to 20 mAYesIntegrated namels (AO)2.0 to 20 mAOutput ranges, current10 bit• O to 20 mAYes• O to 20 mAYes• Conversion time (per channel)10 bit• Resolution with overrange (bit including sign), max.10 bit• Integration and conversion time/resolution per channelYes• Conversion time (per channel)Yes• Conversion time (per channel)Yes• LinderaceYes• 2. wire sensorYes• 2. wire sensorYes• 2. wire sensorYes• 2. wire sensorYes<	• with resistive load, max.	0.5 A
• ''' 'o '''', 'max.5 µsCable length500 m• unshielded, max.500 m• unshielded, max.500 mAnalog inputs2• unshielded, max.2Integrated channels (Al)2Integrated channels (Al)2• VoltageVes• Voltage (rated values), voltages100 m; twisted and shielded• O to +10 VYes• o to +10 VYes• o to +10 V200 m/• shielded, max.100 m; twisted and shielded• shielded, max.100 m; twisted and shielded• shielded, max.100 m; twisted and shielded• O to 20 mA2; 0 to 20 mAOutput ranges, currentYes• O to 20 mAYes• O to 20 mA100 m; twisted and shielded• O to 20 mAYes• O to 20 mAYes• Catole generation10 bit• fregration and conversion time/resolution per channelYes• o to 20 mA625 µsEncoder2• Analog value generationYes• Analog value generationYes• o to 20 mA625 µsEncoders10 bit• o tore sins time (per channel)Yes• Diversion time (per channel)Yes• Diversion time (per channel)Yes• LiteraceFehrenetInterface typePROFINETPhysicsEthernetIsolatedYesAutomogotiationYesAutomogotiationYesAutomogotiation <td< td=""><td>Output delay with resistive load</td><td></td></td<>	Output delay with resistive load	
Cable length 500 m • shielded, max. 500 m • unshielded, max. 150 m Number of analog inputs 2 Number of analog inputs 2 Input ranges 2 • Voltage Yes Input ranges (rated values), voltages 7 • 0 to + 10 V Yes • 0 to + 10 V Yes • 10 to + 10 V Yes • 0 to + 10 V Yes • 10 to + 10 V Yes Output ranges, current 2 • 0 to 20 mA Yes • 0 to 20 mA Yes • 10 tegration and conversion time/resolution per channel 10 bit • Resolution with overrange (bit including sign), max. 10 bit • 1 tegration and conversion time/resolution per channel 25 µs Encouter Yes	• "0" to "1", max.	1 µs
• shielded, max.500 m• unshielded, max.150 mAnalog inputs2Number of analog inputs2Integrated channels (AI)2Input ranges2• VoltageYesInput ranges (rated values), voltages2• 0 to +10 V2100k ohmsCable length2• shielded, max.100 m; twisted and shieldedAnalog outputs2Cable length2• shielded, max.100 m; twisted and shieldedAnalog outputs2Number of analog outputs2Number of analog outputs2Numges, current2• 0 to 20 mAYesAnalog value generation10 bitIntegration and conversion time/resolution per channel10 bit• Resolution with overrange (bit including sign), max.10 bit• Integration time, parameterizableYes• Conversion time (per channel)25 µsEncoder10 bitProfectable encodersYes• 2-wire sensorYesInterface typePROFINETPhysicsEthernetIsolatedYesautomatic detection of transmission rateYesAutorcossingYesAutorcossingYesAutorcossingYesAutorcossingYesAutorcossingYesAutorcossingYesAutorcostingYesAutorcostingYesAutorcostingYesAutorcostingYes <td>• "1" to "0", max.</td> <td>5 µs</td>	• "1" to "0", max.	5 µs
• unbileded, max. 150 m Analog inputs 2 Number of analog inputs 2 integrated channels (AI) 2 Input ranges Yes • Voltage Yes • Voltage (rated values), voltages 100 m; twisted and shielded • 0 to +10 V Yes • Input ranges (rated values), voltages 2 • 0 to +10 V Yes • Input ranges (rated values), voltages 2 • 0 to +10 V Yes • Input ranges (rated values), voltages 2 • O to +10 V Yes • Input ranges, curent 2 • 0 to 20 mA Yes • 0 to 20 mA Yes Analog value generation 10 bit Integrate on and conversion time/resolution per channel 625 µs • Conversion time, parameterizable Yes • Conversion time, parameterizable Yes • 2 wire sensor Yes • 2 wire sensor Yes • 2 wire sensor Yes • 1 uterface PROFINET Phys	Cable length	
Analog inputs Analog inputs Analog inputs Integrated channels (AI) Input ranges Ves Input ranges (rated values), voltages Ves Input ranges (rated values), voltages (Input ranges (rated values), voltages (Input ranges (rated values), voltages (Input ranges (rated values), voltages Integrated channels (AO) Input ranges, current Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Percoder Integration and conversion time/resolution per channel Interface Ves Interface Interfa	• shielded, max.	500 m
Number of analog inputs 2 integrated channels (AI) 2 Input ranges Yes • Voltage Yes Input ranges (rated values), voltages Yes • 0 to +10 V Yes • Input resistance (0 to 10 V) ≥100k ohms Cable length • shielded, max. 100 m; twisted and shielded Analog outputs 2 Number of analog outputs 2 • 0 to 20 mA 200 mA Output ranges, current - • 0 to 20 mA Yes Analog value generation - Integration and conversion time/resolution per channel - • Resolution with overrange (bit including sign), max. 10 bit • Integration time, parameterizable Yes • Conversion time (per channel) 625 µs Encoder - Consectable encoders - • 2-wire sensor Yes Interface type PROFINET Physics Ethernet Isolatd Yes automatic detect	 unshielded, max. 	150 m
Number of analog inputs 2 integrated channels (AI) 2 Input ranges Yes • Voltage Yes Input ranges (rated values), voltages Yes • 0 to +10 V Yes • Input resistance (0 to 10 V) ≥100k ohms Cable length • shielded, max. 100 m; twisted and shielded Analog outputs 2 Number of analog outputs 2 • 0 to 20 mA 200 mA Output ranges, current - • 0 to 20 mA Yes Analog value generation - Integration and conversion time/resolution per channel - • Resolution with overrange (bit including sign), max. 10 bit • Integration time, parameterizable Yes • Conversion time (per channel) 625 µs Encoder - Consectable encoders - • 2-wire sensor Yes Interface type PROFINET Physics Ethernet Isolatd Yes automatic detect		
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• Voltage Yes Input ranges (rated values), voltages Yes • 0 to +10 V Stok ohms • Input resistance (0 to 10 V) ≥100k ohms Cable length 100 m; twisted and shielded • shielded, max. 100 m; twisted and shielded Analog outputs 2 Number of analog outputs 2 Number of analog outputs 2 Output ranges, current 0 to 20 mA • 0 to 20 mA Yes Analog value generation Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. 10 bit • Integration time, parameterizable Yes • Conversion time (per channel) 625 µs Encoder Stok of the met Connectable encoders Yes • 2-wire sensor Yes solated Yes automatic detection of transmission rate Yes Autorossing Yes Autorossing Yes Autorossing Yes		2
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• 0 to +10 VYes• Input resistance (0 to 10 V)≥100k ohmsCable length• shielded, max.100 m; twisted and shieldedAnalog outputs2Number of analog outputs2; 0 to 20 mAOutput ranges, current2; 0 to 20 mA• 0 to 20 mAYesAnalog value generationIntegration and conversion time/resolution per channel10 bit• Resolution with overrange (bit including sign), max.10 bit• Integration time, parameterizableYes• Conversion time (per channel)625 µsEncoderConcetable encodersYes• 2-wire sensorYesInterface typePROFINETPhysicsEthernetIsolatedYesAutonegotiationYesAu	-	Yes
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Cable length 100 m; twisted and shielded • shielded, max. 100 m; twisted and shielded Analog outputs 2 Number of analog outputs 2 integrated channels (AO) 2; 0 to 20 mA Output ranges, current 0 to 20 mA • 0 to 20 mA Yes Analog value generation Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. 10 bit • Integration time, parameterizable Yes • Conversion time (per channel) 625 µs Encoder Connectable encoders • 2-wire sensor Yes Interface Free Interface type PROFINET Physics Ethernet Isolated Yes automatic detection of transmission rate Yes Autorossing Yes Autorossing Yes	• 0 to +10 V	
• shielded, max. 100 m; tvisted and shielded Analog outputs 2 Number of analog outputs 2; 0 to 20 mA integrated channels (AO) 2; 0 to 20 mA Output ranges, current - • 0 to 20 mA Yes Analog value generation - Integration and conversion time/resolution per channel - • Resolution with overrange (bit including sign), 10 bit max. - 10 bit • Integration time, parameterizable Yes • Conversion time (per channel) 625 μs Encoder - connectable encoders - • 2-wire sensor Yes Interface - Physics Ethermet Isolated Yes automatic detection of transmission rate Yes Autorossing Yes Autorossing Yes	 Input resistance (0 to 10 V) 	≥100k ohms
Analog outputs 2 Number of analog outputs 2; 0 to 20 mA Output ranges, current 2; 0 to 20 mA • 0 to 20 mA Yes Analog value generation Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. 10 bit • Integration time, parameterizable Yes • Conversion time (per channel) 625 μs Encoder Yes Interface type PROFINET Physics Ethernet Isolated Yes automatic detection of transmission rate Yes Autoregotiation Yes Autoregotiation Yes Ethernet Yes	Cable length	
Number of analog outputs 2 integrated channels (AO) 2; 0 to 20 mA Output ranges, current 2 • 0 to 20 mA Yes Analog value generation 1 Integration and conversion time/resolution per channel • 0 bit • Resolution with overrange (bit including sign), max. 10 bit • Integration time, parameterizable Yes • Conversion time (per channel) 625 µs Encoder Connectable encoders Yes • 2-wire sensor Yes 1. Interface Interface type PROFINET Physics Ethernet Isolated Yes automatic detection of transmission rate Yes Autorogotiation Yes Autorossing Yes	• shielded, max.	100 m; twisted and shielded
integrated channels (AO) 2; 0 to 20 mA Output ranges, current Yes • 0 to 20 mA Yes Analog value generation Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. 10 bit • Integration time, parameterizable Yes • Conversion time (per channel) 625 μs Encoder Ves • 2-wire sensor Yes Interface type PROFINET Physics Ethernet Isolated Yes automatic detection of transmission rate Yes Autorossing Yes Functionality Yes	Analog outputs	
Output ranges, current Yes • 0 to 20 mA Yes Analog value generation Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. 10 bit • Integration time, parameterizable Yes • Conversion time (per channel) 625 µs Encoder 625 µs Encoders Yes • 2-wire sensor Yes Interface type PROFINET Physics Ethernet Isolated Yes automatic detection of transmission rate Yes Autorogotiation Yes Autorossing Yes Functionality Yes	Number of analog outputs	2
• 0 to 20 mAYesAnalog value generationIntegration and conversion time/resolution per channel• Resolution with overrange (bit including sign), max.10 bit• Resolution with overrange (bit including sign), max.10 bit• Integration time, parameterizable • Conversion time (per channel)Yes625 μs625 μsEncoderYesInterface• 2-wire sensorYes1. InterfacePROFINETPhysicsEthernetIsolatedYesautomatic detection of transmission rateYesAutorogotiationYesAutorossingYesFunctionalityYes	integrated channels (AO)	2; 0 to 20 mA
Analog value generation Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. 10 bit • Integration time, parameterizable Yes • Conversion time (per channel) 625 µs Encoder Connectable encoders • 2-wire sensor Yes Interface PROFINET Physics Ethernet Isolated Yes automatic detection of transmission rate Yes Autorogotiation Yes Functionality Yes	Output ranges, current	
Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. 10 bit • Integration time, parameterizable Yes • Conversion time (per channel) 625 µs Encoder Ves • 2-wire sensor Yes 1. Interface Ves Interface type PROFINET Physics Ethernet Isolated Yes Autonegotiation Yes Autorossing Yes	• 0 to 20 mA	Yes
• Resolution with overrange (bit including sign), max.10 bit• Integration time, parameterizable • Conversion time (per channel)Yes625 μs• Conversion time (per channel)625 μs• Conversion time (per channel)Yes• 2-wire sensorYes• 2-wire sensorYes• 1-Interface PhysicsPROFINETPhysicsEthernetIsolated automatic detection of transmission rate AutoregotiationYesAutoregotiation FunctionalityYes	Analog value generation	
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• Integration time, parameterizable • Conversion time (per channel)Yes 625 μsEncoderConnectable encoders• 2-wire sensorYes• 1.InterfaceInterface typePROFINETPhysicsEthernetIsolatedYesautomatic detection of transmission rateYesAutoregotiationYesAutorossingYesFunctionalityYes	 Resolution with overrange (bit including sign), 	10 bit
• Conversion time (per channel) 625 µs Encoder Connectable encoders • 2-wire sensor Yes 1. Interface Interface type PROFINET Physics Ethernet Isolated Yes automatic detection of transmission rate Yes Autoregotiation Yes Autocrossing Yes	max.	
Encoder Connectable encoders • 2-wire sensor 1.Interface Interface type Physics Isolated Isolated automatic detection of transmission rate Autonegotiation Autocrossing Functionality Yes	 Integration time, parameterizable 	Yes
Connectable encoders Yes • 2-wire sensor Yes 1. Interface PROFINET Interface type PROFINET Physics Ethernet Isolated Yes automatic detection of transmission rate Yes Autonegotiation Yes Autocrossing Yes Functionality Yes	 Conversion time (per channel) 	625 µs
• 2-wire sensorYes1. InterfaceInterface typePROFINETPhysicsEthernetIsolatedYesautomatic detection of transmission rateYesAutonegotiationYesAutocrossingYesFunctionalityYes	Encoder	
Interface PROFINET Physics Ethernet Isolated Yes automatic detection of transmission rate Yes Autonegotiation Yes Autocrossing Yes Functionality Yes	Connectable encoders	
Interface typePROFINETPhysicsEthernetIsolatedYesautomatic detection of transmission rateYesAutonegotiationYesAutocrossingYesFunctionalityYes	• 2-wire sensor	Yes
PhysicsEthernetIsolatedYesautomatic detection of transmission rateYesAutonegotiationYesAutocrossingYesFunctionalityYes	1. Interface	
IsolatedYesautomatic detection of transmission rateYesAutonegotiationYesAutocrossingYesFunctionalityYes	Interface type	PROFINET
automatic detection of transmission rate Yes Autonegotiation Yes Autocrossing Yes Functionality Yes	Physics	Ethernet
Autonegotiation Yes Autocrossing Yes Functionality Yes	Isolated	Yes
Autocrossing Yes Functionality Yes	automatic detection of transmission rate	Yes
Functionality	Autonegotiation	Yes
	Autocrossing	Yes
PROFINET IO Controller Yes	Functionality	
	PROFINET IO Controller	Yes

PROFINET IO Device	Yes
 Open IE communication 	Yes
Web server	Yes
PROFINET IO Controller	
 Transmission rate, max. 	100 Mbit/s
Services	
— Number of connectable IO Devices, max.	16
PROFINET IO Device	
Services	
— Shared device	Yes
 — Number of IO Controllers with shared 	2
device, max.	
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIBUS	Yes; CM 1243-5 required
AS-Interface	Yes
Protocols (Ethernet)	
• TCP/IP	Yes
Further protocols	
MODBUS	Yes
Communication functions	
S7 communication	
• supported	Yes
• as server	Yes
• as client	Yes
Open IE communication	
• TCP/IP	Yes
 ISO-on-TCP (RFC1006) 	Yes
• UDP	Yes
Web server	
• supported	Yes
 User-defined websites 	Yes
Number of connections	
• overall	16; dynamically
Test commissioning functions	
Status/control	
Status/control variable	Yes
Variables	Inputs/outputs, memory bits, DBs, distributed I/Os, timers,
	counters
Forcing	
• Forcing	Yes

Diagnostic buffer	
● present	Yes
Traces	
 Number of configurable Traces 	2; Up to 512 KB of data per trace are possible
Integrated Functions	
Number of counters	6
Counting frequency (counter) max.	100 kHz
Frequency meter	Yes
controlled positioning	Yes
Number of position-controlled positioning axes, max.	8
Number of positioning axes via pulse-direction interface	4; With integrated outputs
PID controller	Yes
Number of alarm inputs	4
Number of pulse outputs	4
Limit frequency (pulse)	100 kHz
Potential separation	
Potential separation digital inputs	
 Potential separation digital inputs 	No
 between the channels, in groups of 	1
Potential separation digital outputs	
 between the channels 	No
• between the channels, in groups of	1
EMC	
Interference immunity against discharge of static electric	city
 Interference immunity against discharge of static electricity acc. to IEC 61000-4-2 	Yes
— Test voltage at air discharge	8 kV
— Test voltage at contact discharge	6 kV
Interference immunity to cable-borne interference	
 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	
 on the supply lines acc. to IEC 61000-4-5 	Yes
Interference immunity against conducted variable distur	bance 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	
Degree of protection acc. to EN 60529	
• IP20	Yes
tandards, approvals, certificates	
CE mark	Yes
UL approval	Yes
cULus	Yes
FM approval	Yes
RCM (formerly C-TICK)	Yes
Marine approval	
 Marine approval 	Yes
mbient 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 o 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	
• Storage/transport, min.	660 hPa
 Storage/transport, max. 	1 080 hPa
 permissible operating height 	-1000 to 2000 m
Relative humidity	
 permissible range (without condensation) at 25 °C 	95 %
Vibrations	
Vibrations	2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail
 Operation, tested according to IEC 60068-2-6 	Yes
Shock test	
• tested according to IEC 60068-2-27	Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (pea value), duration 11 ms
Extended ambient conditions	

Pollutant concentrations

- SO2 at RH < 60% without condensation

S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free

Configuration	
Configuration software	
• STEP 7	Yes
Programming	
Programming language	
— LAD	Yes
— FBD	Yes
— SCL	Yes
Cycle time monitoring	
• adjustable	Yes
Dimensions	
Width	130 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	500 g
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