## **SIEMENS**

## Data sheet

## 6ES7215-1BG40-0XB0

SIMATIC S7-1200, CPU 1215C, COMPACT CPU, AC/DC/RELAY, 2 PROFINET PORT, ONBOARD I/O: 14 DI 24V DC; 10 DO RELAY 2A, 2 AI 0-10V DC, 2 AO 0-20MA DC, POWER SUPPLY: AC 85 -264 V AC AT 47 - 63 HZ, PROGRAM/DATA MEMORY: 125 KB



Product type designation	
General information	
Firmware version	V4.1
Engineering with	
Programming package	STEP 7 V13 SP1 or higher
Display	
with display	No
Supply voltage	
Rated value (AC)	
• 120 V AC	Yes
• 230 V AC	Yes
permissible range, lower limit (AC)	85 V
permissible range, upper limit (AC)	265 V
Line frequency	
• permissible range, lower limit	47 Hz
• permissible range, upper limit	63 Hz
Input current	

Current consumption (rated value)	100 mA at 120 V AC; 50 mA at 240 V AC
Current consumption, max.	300 mA at 120 V AC; 150 mA at 240 V AC
Inrush current, max.	20 A; at 264 V
Encoder supply	
24 V encoder supply	
• 24 V	20.4 to 28.8V
Power loss	
Power loss, typ.	12 W
Memory	
Work memory	
• integrated	125 kbyte
• expandable	No
Load memory	
Integrated	4 Mbyte
<ul> <li>Plug-in (SIMATIC Memory Card), max.</li> </ul>	with SIMATIC memory card
Backup	
• present	Yes; maintenance-free
• without battery	Yes
CPU processing times	
for bit operations, typ.	0.085 μs; / instruction
for word operations, typ.	1.7 μs; / instruction
for floating point arithmetic, typ.	2.3 µs; / instruction
CPU-blocks	
Number of blocks (total)	DBs, FCs, FBs, counters and timers. The maximum number of addressable blocks ranges from 1 to 65535. There is no restriction, the entire working memory can be used
ОВ	
• Number, max.	Limited only by RAM for code
Data areas and their retentivity	
retentive data area in total (incl. times, counters, flags), max.	10 kbyte
Flag	
	8 kbyte; Size of bit memory address area
Number, max.  Local data	o Royte, Size of bit memory address area
• 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

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 clock)	Yes
Backup time	480 h; Typical
Deviation per day, max.	+/- 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)
integrated channels (DI)	14
m/p-reading	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 VDC at 2.5 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes; 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	Yes; 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; Relays
integrated channels (DO)	10
Switching capacity of the outputs	
• with resistive load, max.	2 A
• on lamp load, max.	30 W with DC, 200 W with AC
Output delay with resistive load	

*"1" to "0", max.  Switching frequency  • of the pulse outputs, with resistive load, max.  Relay outputs  • Number of relay outputs  • Number of operating cycles, max.  Cable length  • sheleded, max.  • unshielded, max.  **Number of analog inputs  Integrated channels (AI)  Input ranges  • Voltage  • Voltage  • Voltage  • 10 to 10 V  • Input ranges (rated values), voltages  • 0 to 4 10 V  • Input resistance (0 to 10 V)  Cable length  • shielded, max.  100 m: twisted and shielded  Analog outputs  • shielded, max.  100 m: twisted and shielded  Analog outputs  • shielded, max.  100 m: twisted and shielded  Analog outputs  • output ranges, current  • 0 to 20 mA  Ves  Analog value generation  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  • Integration time, parameterizable  • Conversion time (per channel)  Encoder  Connectable encoders  • 2-wire sensor  Yes  Interface  Inte	• "0" to "1", max.	10 ms; max.
Switching frequency  • of the pulse outputs, with resistive load, max.  Relay outputs  • Number of relay outputs  • Number of operating cycles, max.  Cable length  • shielded, max.  • unshielded, max.  • unshielded, max.  150 m   Analog inputs  Number of analog inputs  • Voltage  • Voltage  Input ranges (rated values), voltages  • 0 to +10 V  • Input resistance (0 to 10 V)  Cable length  • shielded, max.  100 m; twisted and shielded  Analog outputs  Number of analog outputs  • Input regressed channels (AO)  Cable length  • shielded, max.  Analog outputs  Number of analog outputs  • Stied outputs  Number of analog outputs  • Stied outputs  Number of analog outputs  • Integrated channels (AO)  Output ranges, current  • 0 to 20 mA  Analog value generation  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  • Integration time, parameterizable  • Conversion time (per channel)  Encoder  • Conversion time (per channel)  Final Connectable encoders  • 2-wire sensor  Yes  Interface  Interfa		
of the pulse outputs, with resistive load, max.  Relay outputs     Number of relay outputs     Number of operating cycles, max.  Number of operating cycles, max.      on the shielded, max.     on the shielded, max.      on the shiel		
Relay outputs  • Number of relay outputs • Number of operating cycles, max.  Cable length • shielded, max. • unshielded, max.  • unshielded, max.  Analog inputs  Number of analog inputs  2 integrated channels (AI)  Input ranges • Voltage  • Voltage  • 10 to +10 V  • Input resistance (0 to 10 V)  Cable length • shielded, max.  100 m; twisted and shielded  Analog outputs  Number of analog outputs  10 to 20 to 10 V  Cable length • shielded, max.  100 m; twisted and shielded  Analog outputs  Number of analog outputs  Integrated channels (AO)  Output ranges, current • 0 to 20 mA  Analog outputs  Analog inputs  Analog inputs  Pes  Conversion time (resolution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Conversion time (per channel)  Encoder  Encoder  Encoder  Encoder  Connectable encoders • 2-wire sensor  Yes  1. Interface  Interfac		1 Hz
Number of relay outputs Number of operating cycles, max.    Solo m	·	
Number of operating cycles, max.  Cable length  • shielded, max. • unshielded, max.  • unshielded, max.  150 m   Analog inputs  Number of analog inputs  • Voltage  • Voltage  • Voltage  • Voltage  • Input ranges (rated values), voltages  • 0 to +10 V  • Input rassistance (0 to 10 V)  Cable length  • shielded, max.  100 m; twisted and shielded  Analog outputs  Number of analog outputs  • shielded, max.  100 m; twisted and shielded  Analog outputs  Number of analog outputs  2 integrated channels (AO)  2; 0 to 20 mA  Output ranges, current  • 0 to 20 mA  Analog value generation  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  • Integration time, parameterizable  • Conversion time (per channel)  Encoder  Connectable encoders  • 2-wire sensor  Yes  1. Interface  Interface  Interface  Tyes  automatic detection of transmission rate  Yes  automatic detection of transmission rate  Yes		10
Cable length  • shielded, max.  • unshielded, max.  Soo m  • unshielded, max.  Soo m  Analog inputs  Number of analog inputs  Integrated channels (AI)  Input ranges  • Voltage  • Votage  • Votage  • Votage  • Input ranges (rated values), voltages  • 0 to +10 V  • Input rasistance (0 to 10 V)  Cable length  • shielded, max.  100 m; twisted and shielded  Analog outputs  Number of analog outputs  2 integrated channels (AO)  Cutput ranges, current  • 0 to 20 mA  Analog value generation  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  • Integration time, parameterizable  • Conversion time (per channel)  Encoder  Connectable encoders  • 2-wire sensor  Yes  Interface  Interface  Interface  Interface  Interface  Ethernet  Isolated  Yes  automatic detection of transmission rate  Yes		
• shielded, max. • unshielded, max. 150 m  Analog inputs Number of analog inputs 2 integrated channels (AI) 2; 0 to 10V Input ranges • ∨ Voltage Input ranges (rated values), voltages • 0 to +10 V • Input resistance (0 to 10 V)  Cable length • shielded, max.  100 m; twisted and shielded  Analog outputs Number of analog outputs integrated channels (AO) 2; 0 to 20 mA  Ves  Analog value generation Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Conversion time (per channel)  Encoder  Connectable encoders • 2-wire sensor  Yes  Intefrace Interface Interface Interface type PROFINET Physics Isolated Yes  automatic detection of transmission rate Yes		modiamodily to million, actated load voltage 100,000
• unshielded, max.  Analog inputs  Number of analog inputs  2 integrated channels (AI)  2; 0 to 10V  Input ranges  • Voltage Input ranges (rated values), voltages  • 0 to +10 V  • Input resistance (0 to 10 V)  Cable length • shielded, max.  100 m; twisted and shielded  Analog outputs  Number of analog outputs  Number of analog outputs  100 m; twisted and shielded  Analog outputs  Analog value generation  Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.  • Integration time, parameterizable yes • Conversion time (per channel)  Encoder  Connectable encoders • 2-wire sensor  Yes  1. Interface Interface type PROFINET Physics Isolated Yes  automatic detection of transmission rate Yes		500 m
Analog inputs Number of analog inputs integrated channels (AI) Input ranges  • Voltage Input ranges (rated values), voltages  • 0 to +10 V  • Input resistance (0 to 10 V) Cable length • shielded, max.  100 m; twisted and shielded  Analog outputs Number of analog outputs 2 integrated channels (AO) 2; 0 to 20 mA  Output ranges, current • 0 to 20 mA  Analog value generation Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Conversion time (per channel)  Encoder  Connectable encoders • 2-wire sensor  Yes  Interface Interface type Physics Isolated Isolated Isolated Intersolution of transmission rate  Yes  Ethernet Isolated Yes  Ethernet Isolated Yes  Ethernet Isolated Yes		
Number of analog inputs  integrated channels (AI)  input ranges  • Voltage  Input ranges (rated values), voltages  • 0 to +10 V  • Input resistance (0 to 10 V)  Cable length  • shielded, max.  100 m; twisted and shielded  Analog outputs  Number of analog outputs  2 integrated channels (AO)  Output ranges, current  • 0 to 20 mA  Analog value generation  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  • Integration time, parameterizable  • Conversion time (per channel)  Encoder  Connectable encoders  • 2-wire sensor  Yes  1. Interface  Interface type  PROFINET  Physics  Isolated  Yes  automatic detection of transmission rate  Yes  Ethernet  Isolated  Yes  automatic detection of transmission rate	unshleided, max.	130 III
integrated channels (AI)  Input ranges  • Voltage  Input ranges (rated values), voltages  • 0 to +10 V  • Input resistance (0 to 10 V)  Cable length  • shielded, max.  100 m; twisted and shielded  Analog outputs  Number of analog outputs  integrated channels (AO)  Output ranges, current  • 0 to 20 mA  Analog value generation  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  • Integration time, parameterizable  • Conversion time (per channel)  Encoder  Connectable encoders  • 2-wire sensor  Yes  Interface  Interface  Interface  Interface  Interface type  PROFINET  Physics  Ethernet  Isolated  Yes  automatic detection of transmission rate  Yes	Analog inputs	
Input ranges	Number of analog inputs	2
• Voltage	integrated channels (AI)	2; 0 to 10V
Input ranges (rated values), voltages  ● 0 to +10 V  • Input resistance (0 to 10 V)  Cable length  • shielded, max.  100 m; twisted and shielded  Analog outputs  Number of analog outputs  2 integrated channels (AO)  Output ranges, current  • 0 to 20 mA  Analog value generation  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  • Integration time, parameterizable Yes  • Conversion time (per channel)  Encoder  Connectable encoders  • 2-wire sensor  Yes  1. Interface  Interface type  PROFINET  Physics  Ethernet  Isolated  automatic detection of transmission rate  Yes	Input ranges	
• 0 to +10 V • Input resistance (0 to 10 V) 2 100k ohms  Cable length • shielded, max. 100 m; twisted and shielded  Analog outputs Number of analog outputs 2 integrated channels (AO) 2; 0 to 20 mA  Output ranges, current • 0 to 20 mA  Analog value generation Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable Yes • Conversion time (per channel)  Encoder  Connectable encoders • 2-wire sensor  Yes  1. Interface Interface type PROFINET Physics Ethernet Isolated automatic detection of transmission rate Yes  automatic detection of transmission rate  Yes	<ul><li>Voltage</li></ul>	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 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.  • Integration time, parameterizable Yes  • Conversion time (per channel) 625 µs  Encoder  Connectable encoders  • 2-wire sensor Yes  1. Interface Interface type PROFINET Physics Ethernet Isolated automatic detection of transmission rate Yes  automatic detection of transmission rate  100 m; twisted and shielded  2  The shielded  • Shielded	Input ranges (rated values), voltages	
Cable length  • shielded, max.  100 m; twisted and shielded  Analog outputs  Number of analog outputs  2 integrated channels (AO)  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.  • Integration time, parameterizable  • Conversion time (per channel)  Encoder  Connectable encoders  • 2-wire sensor  Yes  1. Interface  Interface type  PROFINET  Physics  Ethernet  Isolated  automatic detection of transmission rate  100 m; twisted and shielded  2 to 100 m; twisted and shielded  100 m; twisted and shielded  2 to 200 mA  100 m; twisted and shielded  Analog value and shielded  Pes  1. Interface type  PROFINET  Physics  Ethernet  Isolated  Yes  automatic detection of transmission rate	• 0 to +10 V	Yes
• shielded, max.  Analog outputs  Number of analog outputs  2 integrated channels (AO)  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.  • Integration time, parameterizable  • Conversion time (per channel)  Encoder  Connectable encoders  • 2-wire sensor  Yes  1. Interface  Interface type  PROFINET  Physics  Ethernet  Isolated  automatic detection of transmission rate  1. Output with visited and shielded  2. Output with visited and shielded  1. Output with visited and shielded  2. Output with visited and shielded  3. Output with visited and shielded  4. Output with visited and shielded  5. Output with visited and shielded  4. Output with visited and shielded  5. Output with visited and shielded  6. Output with visited and	<ul> <li>Input resistance (0 to 10 V)</li> </ul>	≥100k ohms
Analog outputs  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.  • Integration time, parameterizable • Conversion time (per channel)  Encoder  Connectable encoders  • 2-wire sensor  Yes  1. Interface Interface type PROFINET Physics Ethernet Isolated automatic detection of transmission rate  Yes	Cable length	
Number of analog outputs  integrated channels (AO)  Output ranges, current  o 0 to 20 mA  Yes  Analog value generation  Integration and conversion time/resolution per channel  Resolution with overrange (bit including sign), max.  Integration time, parameterizable  Conversion time (per channel)  Final Encoder  Connectable encoders  2-wire sensor  Yes  1. Interface  Interface type  PROFINET  Physics  Ethernet  Isolated  Yes  automatic detection of transmission rate  Yes	• shielded, max.	100 m; twisted and shielded
Number of analog outputs  integrated channels (AO)  Output ranges, current  o 0 to 20 mA  Yes  Analog value generation  Integration and conversion time/resolution per channel  Resolution with overrange (bit including sign), max.  Integration time, parameterizable  Conversion time (per channel)  Final Encoder  Connectable encoders  2-wire sensor  Yes  1. Interface  Interface type  PROFINET  Physics  Ethernet  Isolated  Yes  automatic detection of transmission rate  Yes	Analananta	
integrated channels (AO)  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.  • Integration time, parameterizable Yes  • Conversion time (per channel)  Encoder  Connectable encoders  • 2-wire sensor  Yes  1. Interface  Interface type  PROFINET  Physics  Ethernet  Isolated  Yes  automatic detection of transmission rate  Yes		2
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.  • Integration time, parameterizable  • Conversion time (per channel)  Encoder  Connectable encoders  • 2-wire sensor  Yes  1. Interface Interface type PROFINET Physics Ethernet Isolated automatic detection of transmission rate Yes		
O to 20 mA     Yes  Analog value generation  Integration and conversion time/resolution per channel		2, 0 to 20 HIA
Analog value generation  Integration and conversion time/resolution per channel  • Resolution with overrange (bit including sign), max.  • Integration time, parameterizable Yes  • Conversion time (per channel) 625 µs  Encoder  Connectable encoders  • 2-wire sensor Yes  1. Interface Interface type PROFINET Physics Ethernet Isolated Yes automatic detection of transmission rate Yes		Yes
Integration and conversion time/resolution per channel  Resolution with overrange (bit including sign), max.  Integration time, parameterizable Yes Conversion time (per channel)  Encoder  Connectable encoders  2-wire sensor  Yes  Interface Interface type Physics Ethernet Isolated automatic detection of transmission rate  10 bit 10 bit 10 bit 10 bit 11 bit 12 bit 12 bit 13 bit 14 bit 14 bit 15 bit 16 bit 17 bit 18 bit 18 bit 18 bit 18 bit 18 bit 18 bit 19 bit 10 bit 1	0 to 20 m/A	1.60
<ul> <li>Resolution with overrange (bit including sign), max.</li> <li>Integration time, parameterizable Yes</li> <li>Conversion time (per channel)</li> <li>Encoder</li> <li>Connectable encoders</li> <li>2-wire sensor</li> <li>Yes</li> <li>1. Interface</li> <li>Interface type</li> <li>Physics</li> <li>Ethernet</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Yes</li> </ul>		
max.  • Integration time, parameterizable • Conversion time (per channel)  Encoder  Connectable encoders • 2-wire sensor  1. Interface Interface type PROFINET Physics Ethernet Isolated automatic detection of transmission rate  Yes	Integration and conversion time/resolution per channel	
<ul> <li>Integration time, parameterizable</li> <li>Conversion time (per channel)</li> <li>Encoder</li> <li>Connectable encoders</li> <li>2-wire sensor</li> <li>Yes</li> <li>1. Interface</li> <li>Interface type</li> <li>Physics</li> <li>Ethernet</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Yes</li> </ul>	<ul> <li>Resolution with overrange (bit including sign),</li> </ul>	10 bit
Conversion time (per channel)      Encoder     Connectable encoders	max.	
Encoder  Connectable encoders  • 2-wire sensor  Yes  1. Interface Interface type PROFINET Physics Ethernet Isolated Yes  automatic detection of transmission rate  Yes	<ul> <li>Integration time, parameterizable</li> </ul>	
Connectable encoders  • 2-wire sensor  1. Interface Interface type PROFINET Physics Ethernet Isolated Yes  automatic detection of transmission rate Yes	<ul> <li>Conversion time (per channel)</li> </ul>	625 µs
Connectable encoders  • 2-wire sensor  1. Interface Interface type PROFINET Physics Ethernet Isolated Yes  automatic detection of transmission rate Yes	Encoder	
1. Interface Interface type PROFINET Physics Ethernet Isolated Yes automatic detection of transmission rate Yes		
Interface type PROFINET  Physics Ethernet  Isolated Yes  automatic detection of transmission rate Yes	• 2-wire sensor	Yes
Physics Ethernet  Isolated Yes automatic detection of transmission rate Yes	1. Interface	
Isolated Yes automatic detection of transmission rate Yes	Interface type	PROFINET
automatic detection of transmission rate  Yes	Physics	Ethernet
	Isolated	Yes
Autonegotiation Yes	automatic detection of transmission rate	Yes
	Autonegotiation	Yes

Autocrossing	Yes
Functionality	
PROFINET IO Controller	Yes
PROFINET IO Device	Yes; Also simultaneously with IO-Device functionality
PROFINET IO Controller	,,
Transmission rate, max.	100 Mbit/s
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
<ul> <li>Variables</li> </ul>	Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
Forcing	
<ul><li>Forcing</li></ul>	Yes

Diagnostic buffer	
• present	Yes
Traces	
Number of configurable Traces	2; Up to 512 KB of data per trace are possible
ntegrated 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	Up to 4 with SB 1222
PID controller	Yes
Number of alarm inputs	4
Potential separation	
Potential separation digital inputs	500V AC for 1 minute
Potential separation digital inputs	
• between the channels, in groups of	1
Potential separation digital outputs	
<ul> <li>Potential separation digital outputs</li> </ul>	Relays
<ul><li>between the channels</li></ul>	No
• between the channels, in groups of	2
EMC	
Interference immunity against discharge of static electric	, '
<ul> <li>Interference immunity against discharge of static electricity acc. to IEC 61000-4-2</li> </ul>	Yes
<ul> <li>Test voltage at air discharge</li> </ul>	8 kV
<ul> <li>Test voltage at contact discharge</li> </ul>	6 kV
Interference immunity to cable-borne interference	
• 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	rbance induced by high-frequency fields
<ul> <li>Interference immunity against high-frequency radiation acc. to IEC 61000-4-6</li> </ul>	Yes
Emission of radio interference acc. to EN 55 011	
Limit class A, for use in industrial areas	Yes; Group 1
Limit class B, for use in residential areas	Yes; When appropriate measures are used to ensure compliance
	with the limits for Class B according to EN 55011

Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP20	Yes
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
cULus	Yes
FM approval	Yes
RCM (formerly C-TICK)	Yes
Marine approval	
Marine approval	Yes
Ambient conditions	
Free fall	
<ul><li>Drop height, max. (in packaging)</li></ul>	0.3 m; five times, in dispatch package
Ambient temperature during operation	
• min.	-20 °C
• max.	60 °C; Number of simultaneously activated inputs or outputs 7 or 5 (no adjacent points) at 60 °C horizontal or 50 °C vertical, 14 or
	10 at 55 °C horizontal or 45 °C vertical
<ul> <li>horizontal installation, min.</li> </ul>	-20 °C
• 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	1000 to 2000 III
permissible range (without condensation) at 25	95 %
°C	
Vibrations	
• Vibrations	2G wall mounting, 1G DIN rail
<ul> <li>Operation, tested according to IEC 60068-2-6</li> </ul>	Yes
Shock test	
• tested according to IEC 60068-2-27	Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms
Extended ambient conditions	
Pollutant concentrations	
— SO2 at RH < 60% without condensation	S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free

Configuration	
Programming	
Programming language	
— LAD	Yes
— FBD	Yes
— SCL	Yes
Cycle time monitoring	
• can be set	Yes
Dimensions	
Width	130 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	550 g
last modified:	13.08.2015