SIEMENS

Data sheet

6ES7214-1BG40-0XB0



SIMATIC S7-1200, CPU 1214C, COMPACT CPU, AC/DC/RLY, ONBOARD I/O: 14 DI 24V DC; 10 DO RELAY 2A; 2 AI 0 - 10V DC, POWER SUPPLY: AC 85 - 264 V AC AT 47 - 63 HZ, PROGRAM/DATA MEMORY: 75 KB

General information	
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)	264 V
Line frequency	
 permissible frequency range, lower limit 	47 Hz
 permissible frequency 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
Output current	
Current output to backplane bus (DC 5 V), max.	1 600 mA; Max. 5 V DC for SM and CM
Power losses	
Power loss, typ.	14 W
Memory	

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Integrated expandable No Load memory Integrated Plug-in (SIMATIC Memory Card), max. Backup Present Ves; maintenance-free vithout battery Yes; maintenance-free Yes; mainten	Type of memory	EEPROM
expandable Load memory		
Load memory Integrated Plug-in (SIMATIC Memory Card), max. Backup present present present processing times for bit operations, typ. for word operations, typ. for word operations, typ. CPU-blocks Number of blocks (total) BBs, 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 DB Number, max. Limited only by RAM for code Limited only by RAM for code Data areas and their retentivity retentive data area in total (incl. times, counters, flags), max. Flag Number, max. Process image Inputs, adjustable Unity, adjustable Unity, adjustable Unity, adjustable Flardware 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) Backup time Flaguli inputs Unity inputs Ves Flag Hardware dock (real-time clock) Backup time Flardware of digital inputs Or which, inputs usable for technological functions Integrated channels (DI) 14	Integrated	
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 Hardware clock (real-time clock) Deviation per day, max. Backup time Backup time Hardware clock (real-time clock) 60 s/month at 25 °C 480 h; Typical Number of digital inputs of which, inputs usable for technological functions integrated channels (DI) 14 		
Deviation per day, max. Backup time Digital inputs Number of digital inputs of which, inputs usable for technological functions integrated channels (DI) 60 s/month at 25 °C 480 h; Typical 14; Integrated 6; HSC (High Speed Counting)	Clock	
Backup time 480 h; Typical Digital inputs Number of digital inputs of which, inputs usable for technological functions integrated channels (DI) 480 h; Typical 14; Integrated 6; HSC (High Speed Counting) 14	Hardware clock (real-time clock)	Yes
Digital inputs Number of digital inputs • of which, inputs usable for technological functions integrated channels (DI) 14; Integrated 6; HSC (High Speed Counting)	Deviation per day, max.	60 s/month at 25 °C
Number of digital inputs • of which, inputs usable for technological functions integrated channels (DI) 14; Integrated 6; HSC (High Speed Counting) 14	Backup time	480 h; Typical
 of which, inputs usable for technological functions integrated channels (DI) 6; HSC (High Speed Counting) 14 	Digital inputs	
functions integrated channels (DI) 14	Number of digital inputs	14; Integrated
integrated channels (DI) 14	• of which, inputs usable for technological	6; HSC (High Speed Counting)
	functions	
m/p-reading Yes	integrated channels (DI)	14
	m/p-reading	Yes

all mounting positions	Number of simultaneously controllable inputs	
Final Vallage • Rated value (DC) 24 V 5 V DC at 1 mA 5 V DC at 2.5 mA 15 V	all mounting positions	
	— up to 40 °C, max.	14
• for signal "0" • for signal "1" • for signal "1", typ. I mA Input clearly (for rated value of input voltage) for standard inputs — Parameterizable — at "0" to "1", min. — at "0" to "1", max. — at "0" to "1", max. — Parameterizable — Soo m, 50 m for technological functions — Unshielded, max. — Unshiel	Input voltage	
* for signal "1"	Rated value (DC)	24 V
Input current • for signal "1", typ.	● for signal "0"	5 V DC at 1 mA
• for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs — Parameterizable — at "0" to "1", min. — at "0" to "1", max. — at "0" to "1", max. for interrupt inputs — Parameterizable 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. • Unshielded, max. 500 m; 50 m for technological functions: No Digital outputs Number of digital outputs • with resistive load, max. • on lamp load, max. • on lamp load, max. • 10 ms; max. • "1" to "0", max. Switching frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of the pulse outputs, with resistive load, max. Planta frequency • of t	● for signal "1"	15 VDC at 2.5 mA
Input delay (for rated value of input voltage) for standard inputs - Parameterizable - at "0" to "1", min 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. **Unshielded, max. **Unshielded, max. **O' to "1", max. **O' to "1", max. **O' to "1", max. **O' to be provided externally Switching capacity of the outputs **with resistive load, max. **O' to "0", max.	Input current	
for standard inputs Parameterizable O.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 O.2 ms — at "0" to "1", min. — 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. • Unshielded, max. • Unshielded, max. • Unshielded, max. • Unshielded outputs Number of digital outputs integrated channels (DO) short-circuit protection No; to be provided externally Switching capacity of the outputs • with resistive load, max. • with resistive load, max. • unam load, max. Output delay with resistive load • "0" to "1", max. • "1" to "0", max. 10 ms; max. • "1" to "0", max. Switching frequency • of the pulse outputs, with resistive load, max. 1 Hz Relay outputs • Number of relay outputs, integrated • Number of relay outputs, integrated • Number of relay outputs • Number of operating cycles, max. mechanically 10 million, at rated load voltage 100,000 Cable length • shielded, max.	● for signal "1", typ.	1 mA
- Parameterizable	Input delay (for rated value of input voltage)	
selectable in groups of four - at "0" to "1", min 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. • Unshielded, max. • Unshielded, max. 500 m; 50 m for technological functions No Digital outputs Number of digital outputs 10; Relays integrated channels (DO) short-circuit protection No; to be provided externally Switching capacity of the outputs • with resistive load, max. • on lamp load, max. • on lamp load, max. • on lamp load, max. • "1" to "0", max. Switching frequency • of the pulse outputs, with resistive load, max. 10 ms; max. Switching frequency • of the pulse outputs, with resistive load, max. • Number of relay outputs, integrated • Number of relay outputs • Number of operating cycles, max. 500 m **Total Cable length • shielded, max.	for standard inputs	
The parameterizable and the pa	— Parameterizable	
for interrupt inputs — Parameterizable 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. • Unshielded, max. 500 m; 50 m for technological functions Outputs Number of digital outputs 10; Relays integrated channels (DO) short-circuit protection No; to be provided externally Switching capacity of the outputs • with resistive load, max. • on lamp load, max. • "1" to "1", max. • "1" to "0", max. Switching frequency • of the pulse outputs, with resistive load, max. 10 ms; max. Switching frequency • of the pulse outputs, with resistive load, max. 1 Hz Relay outputs • Number of relay outputs, integrated • Number of relay outputs • Number of operating cycles, max. Cable length • shielded, max. 500 m	— at "0" to "1", min.	0.2 ms
Parameterizable 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. • Unshielded, max. 500 m; 50 m for technological functions 300 m; For technological functions: No Digital outputs Number of digital outputs 10; Relays integrated channels (DO) 10 short-circuit protection No; to be provided externally Switching capacity of the outputs • with resistive load, max. • on lamp load, max. 10 ms; max. • "1" to "0", max. 10 ms; max. • "1" to "0", max. Switching frequency • of the pulse outputs, with resistive load, max. 1 Hz Relay outputs • Number of relay outputs, integrated • Number of relay outputs, max. • Number of operating cycles, max. Cable length • shielded, max.	— at "0" to "1", max.	12.8 ms
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. 500 m; 50 m for technological functions 300 m; For technological functions: No Digital outputs Number of digital outputs 10; Relays integrated channels (DO) short-circuit protection No; to be provided externally Switching capacity of the outputs • with resistive load, max. • on lamp load, max. 30 W with DC, 200 W with AC Output delay with resistive load • "0" to "1", max. • "1" to "0", max. 10 ms; max. Switching frequency • of the pulse outputs, with resistive load, max. 1 Hz Relay outputs • Number of relay outputs, integrated • Number of relay outputs, max. • Number of operating cycles, max. Cable length • shielded, max. 500 m	for interrupt inputs	
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. • Unshielded, max. • Unshielded, max. 500 m; 50 m for technological functions 300 m; For technological functions: No Digital outputs Number of digital outputs integrated channels (DO) short-circuit protection No; to be provided externally Switching capacity of the outputs • with resistive load, max. • on lamp load, max. • on lamp load, max. 10 ms; max. • "1" to "0", max. Switching frequency • of the pulse outputs, with resistive load, max. 1 Hz Relay outputs • Number of relay outputs, integrated • Number of relay outputs, integrated • Number of operating cycles, max. Cable length • shielded, max.	— Parameterizable	Yes
Cable length shielded, max. Unshielded, max. 10; Relays Integrated channels (DO) Short-circuit protection with resistive load, max. 10; Relays on lamp load, max. 2 A on lamp load, max. 10 ms; max. 10 ms; max. 10 ms; max. 2 Mitter "0" to "1", max. 10 ms; max. 2 Witching frequency of the pulse outputs, with resistive load, max. 10 Hz Relay outputs 10 ms; max. 2 Mitter "1" to "0", max. 3 Mitter protection 10 ms; max. 2 Mitter protection 10 ms; max. 10 ms; max. 3 Mitter protection 10 ms; max. 2 Mitter protection 3 Mitter protection 10 ms; max. 3 Mitter protection 10 ms; max. 3 Mitter protection 10 ms; max. 4 Mitter protection 10 ms; max. 5 Mitter protection 10 ms; max. 5 Mitter protection 10 ms; max. 10	for counter/technological functions	
shielded, max. Unshielded, max. Unshielded, max. 10; Relays Integrated channels (DO) Short-circuit protection No; to be provided externally Switching capacity of the outputs with resistive load, max. on lamp load, max. "1" to "0", max. "1" to "0", max. Switching frequency of the pulse outputs, with resistive load, max. Number of relay outputs, integrated No; to be provided externally Switch DC, 200 W with AC Output delay with resistive load "10" to "1", max. "10" ms; max. 10 ms; max. Switching frequency of the pulse outputs, with resistive load, max. 1 Hz Relay outputs Number of relay outputs, integrated Number of relay outputs Number of operating cycles, max. Cable length shielded, max.	— Parameterizable	
Unshielded, max. 300 m; For technological functions: No Digital outputs Number of digital outputs Integrated channels (DO) short-circuit protection No; to be provided externally Switching capacity of the outputs with resistive load, max. on lamp load, max. on lamp load, max. "0" to "1", max. "1" to "0", max. "1" to "0", max. Switching frequency of the pulse outputs, with resistive load, max. 1 Hz Relay outputs Number of relay outputs, integrated Number of perating cycles, max. and the pulse outputs outputs outputs outputs outputs outputs Number of operating cycles, max. Cable length shielded, max.	Cable length	
Number of digital outputs Integrated channels (DO) Short-circuit protection No; to be provided externally Switching capacity of the outputs • with resistive load, max. • on lamp load, max. Output delay with resistive load • "0" to "1", max. • "1" to "0", max. Switching frequency • of the pulse outputs, with resistive load, max. Pumber of relay outputs, integrated • Number of relay outputs • Number of operating cycles, max. Cable length • shielded, max. 10; Relays 10 No; to be provided externally 2 A 30 W with DC, 200 W with AC 10 ms; max. 11 ms; max. 11 Hz 11 Hz 12 Relay outputs 13 Hz 14 Relay outputs 14 Relay outputs 15 Number of relay outputs, integrated 16 Number of poperating cycles, max. 17 mechanically 10 million, at rated load voltage 100,000	• shielded, max.	500 m; 50 m for technological functions
Number of digital outputs integrated channels (DO) short-circuit protection No; to be provided externally Switching capacity of the outputs • with resistive load, max. • on lamp load, max. • on lamp load, max. • "0" to "1", max. • "1" to "0", max. Switching frequency • of the pulse outputs, with resistive load, max. 1 Hz Relay outputs • Number of relay outputs • Number of operating cycles, max. Cable length • shielded, max.	• Unshielded, max.	300 m; For technological functions: No
integrated channels (DO) short-circuit protection No; to be provided externally Switching capacity of the outputs • with resistive load, max. • on lamp load, max. Output delay with resistive load • "0" to "1", max. • "1" to "0", max. Switching frequency • of the pulse outputs, with resistive load, max. 1 Hz Relay outputs • Number of relay outputs • Number of operating cycles, max. mechanically 10 million, at rated load voltage 100,000 Cable length • shielded, max.	Digital outputs	
Short-circuit protection Switching capacity of the outputs • with resistive load, max. • on lamp load, max. • on lamp load, max. • "0" to "1", max. • "1" to "0", max. • of the pulse outputs, with resistive load, max. • Number of relay outputs • Number of operating cycles, max. • Number of operating cycles, max. • shielded, max. Switching frequency • shielded, max. Switching frequency • Shielded, max. Switching frequency • Shielded, max. No; to be provided externally 2 A 30 W with DC, 200 W with AC Output delay with resistive load 10 ms; max. 1 Hz 1 Hz Relay outputs • Number of relay outputs, integrated • Number of operating cycles, max. The provided externally 10 ms; max. 10 ms; max. 1 Hz Relay outputs • Number of relay outputs, integrated • Number of operating cycles, max. The provided externally 10 ms; max. 1 Hz Relay outputs • Number of relay outputs, integrated • Number of operating cycles, max. The provided externally 10 ms; max. 1 Hz Relay outputs • Number of relay outputs, integrated • Number of operating cycles, max. The provided externally 10 ms; max. 1 Hz	Number of digital outputs	10; Relays
Switching capacity of the outputs • with resistive load, max. • on lamp load, max. Output delay with resistive load • "0" to "1", max. • "1" to "0", max. 10 ms; max. 10 ms; max. Switching frequency • of the pulse outputs, with resistive load, max. 1 Hz Relay outputs • Number of relay outputs • Number of operating cycles, max. Cable length • shielded, max. 2 A 2 A 30 W with DC, 200 W with AC 10 ms; max. 11 Hz 10 ms; max. 11 Hz 12 million, at rated load voltage 100,000	integrated channels (DO)	10
 with resistive load, max. on lamp load, max. Output delay with resistive load "0" to "1", max. "1" to "0", max. switching frequency of the pulse outputs, with resistive load, max. Number of relay outputs, integrated Number of relay outputs Number of operating cycles, max. Cable length shielded, max. 	short-circuit protection	No; to be provided externally
 on lamp load, max. Output delay with resistive load """ to """, max. """ to "0", max. 10 ms; max. Switching frequency of the pulse outputs, with resistive load, max. 1 Hz Relay outputs Number of relay outputs, integrated Number of relay outputs Number of operating cycles, max. Cable length shielded, max. 	Switching capacity of the outputs	
Output delay with resistive load • "0" to "1", max. • "1" to "0", max. Switching frequency • of the pulse outputs, with resistive load, max. 1 Hz Relay outputs • Number of relay outputs, integrated • Number of operating cycles, max. Number of operating cycles, max. Cable length • shielded, max.	with resistive load, max.	2 A
 "0" to "1", max. "1" to "0", max. Switching frequency of the pulse outputs, with resistive load, max. Relay outputs Number of relay outputs, integrated Number of relay outputs Number of operating cycles, max. To Number of operating cycles, max. mechanically 10 million, at rated load voltage 100,000 Cable length shielded, max. 	● on lamp load, max.	30 W with DC, 200 W with AC
 "1" to "0", max. Switching frequency of the pulse outputs, with resistive load, max. Relay outputs Number of relay outputs, integrated Number of relay outputs Number of operating cycles, max. Cable length shielded, max. 	Output delay with resistive load	
Switching frequency of the pulse outputs, with resistive load, max. Relay outputs Number of relay outputs, integrated Number of relay outputs Number of operating cycles, max. Number of operating cycles, max. To mechanically 10 million, at rated load voltage 100,000 Cable length shielded, max.	• "0" to "1", max.	10 ms; max.
of the pulse outputs, with resistive load, max. Relay outputs Number of relay outputs, integrated Number of relay outputs Number of operating cycles, max. Cable length shielded, max. 1 Hz 10 mechanically 10 million, at rated load voltage 100,000 The shielded of the pulse outputs 10 Solution of the pulse outputs, with resistive load, max. 1 Hz 10 Solution of relay outputs 10 Solution of the pulse outputs, with resistive load, max. 1 Hz	• "1" to "0", max.	10 ms; max.
Relay outputs • Number of relay outputs, integrated • Number of relay outputs • Number of operating cycles, max. Cable length • shielded, max. Soo m	Switching frequency	
 Number of relay outputs, integrated Number of relay outputs Number of operating cycles, max. Cable length shielded, max. 	• of the pulse outputs, with resistive load, max.	1 Hz
 Number of relay outputs Number of operating cycles, max. Cable length shielded, max. 	Relay outputs	
 Number of operating cycles, max. Cable length shielded, max. 500 m 	Number of relay outputs, integrated	10
Cable length ● shielded, max. 500 m	 Number of relay outputs 	10
• shielded, max. 500 m	 Number of operating cycles, max. 	mechanically 10 million, at rated load voltage 100,000
	Cable length	
• Unshielded, max.	• shielded, max.	500 m
	• Unshielded, max.	150 m

Analog inputs	
Number of analog inputs	2
Integrated channels (AI)	2; 0 to 10 V
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 value creation	
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
1st interface	
Interface type	PROFINET
Physics	Ethernet
Isolated	Yes
Automatic detection of transmission speed	Yes
Autonegotiation	Yes
Autocrossing	Yes
Functionality	
PROFINET IO Device	Yes
PROFINET IO Controller	Yes
PROFINET IO Controller	
Transmission rate, max.	100 Mbit/s
 Number of connectable IO devices, max. 	16
Prioritized startup	
— Number of IO Devices, max.	16
PROFINET IO Device	
Services	
— Shared device	Yes
 Number of IO controllers with shared device, max. 	2
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
Counter frequency (counter) max.	100 kHz
Frequency meter	Yes
controlled positioning	Yes
PID controller	Yes
Number of alarm inputs	4
Galvanic isolation	
Galvanic isolation digital inputs	
Galvanic isolation digital inputs	500V AC for 1 minute
• between the channels, in groups of	1
Galvanic isolation digital outputs	
Galvanic isolation digital outputs	Relays
• between the channels	No
 between the channels, in groups of 	2
Section and enactions, in groupe of	
Permissible potential difference	

EMC	
Interference immunity against discharge of static electri	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 lines acc. to IEC 61000-4-4 	Yes
Surge immunity	
• on the supply lines acc. to IEC 61000-4-5	Yes
Immunity against conducted interference induced by high	gh-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 to EN 60529	
• IP20	Yes
Standards, approvals, certificates	
Standards, approvals, certificates	
Standards, approvals, certificates CE mark	Yes
	Yes Yes
CE mark UL approval cULus	Yes Yes
CE mark UL approval cULus RCM (formerly C-TICK)	Yes Yes Yes
CE mark UL approval cULus RCM (formerly C-TICK) FM approval	Yes Yes
CE mark UL approval cULus RCM (formerly C-TICK) FM approval Marine approval	Yes Yes Yes Yes Yes
CE mark UL approval cULus RCM (formerly C-TICK) FM approval	Yes Yes Yes
CE mark UL approval cULus RCM (formerly C-TICK) FM approval Marine approval	Yes Yes Yes Yes Yes
CE mark UL approval cULus RCM (formerly C-TICK) FM approval Marine approval • Marine approval	Yes Yes Yes Yes Yes
CE mark UL approval cULus RCM (formerly C-TICK) FM approval Marine approval • Marine approval Ambient conditions	Yes Yes Yes Yes Yes
CE mark UL approval cULus RCM (formerly C-TICK) FM approval Marine approval • Marine approval Ambient conditions Free fall	Yes Yes Yes Yes Yes Yes
CE mark UL approval cULus RCM (formerly C-TICK) FM approval Marine approval • Marine approval Ambient conditions Free fall • Drop height, max. (in packaging)	Yes Yes Yes Yes Yes Yes
CE mark UL approval cULus RCM (formerly C-TICK) FM approval Marine approval • Marine approval Ambient conditions Free fall • Drop height, max. (in packaging) Ambient temperature in operation	Yes Yes Yes Yes Yes Yes O.3 m; five times, in dispatch package
CE mark UL approval cULus RCM (formerly C-TICK) FM approval Marine approval • Marine approval Ambient conditions Free fall • Drop height, max. (in packaging) Ambient temperature in operation • Min.	Yes Yes Yes Yes Yes Yes O.3 m; five times, in dispatch package -20 °C 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
CE mark UL approval cULus RCM (formerly C-TICK) FM approval Marine approval Marine approval Marine approval Ambient conditions Free fall Drop height, max. (in packaging) Ambient temperature in operation Min. max.	Yes Yes Yes Yes Yes Yes O.3 m; five times, in dispatch package -20 °C 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

• vertical installation, max.	50 °C
Storage/transport temperature	
• 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	
Operation, max.	95 %; no condensation
• Permissible range (without condensation) at 25	95 %
°C	
Vibrations	
Vibrations	2G wall mounting, 1G DIN rail
 Operation, checked according to IEC 60068-2- 	Yes
Shock test	
• checked 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
programming	
Programming language	
— LAD	Yes
— FBD	Yes
— SCL	Yes
Cycle time monitoring	
• can be set	Yes
Dimensions	
Width	110 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	455 g
	40.00.0045

last modified:

12.03.2015