## **SIEMENS**

## Data sheet

## 6ES7211-1BE40-0XB0



SIMATIC S7-1200, CPU 1211C, COMPACT CPU, AC/DC/RELAY, ONBOARD I/O: 6 DI 24V DC; 4 DO RELAY 2A; 2 AI 0 - 10V DC, POWER SUPPLY: AC 85 - 264 V AC AT 47 - 63 HZ, PROGRAM/DATA MEMORY: 30 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		
<ul> <li>permissible frequency range, lower limit</li> </ul>	47 Hz	
• permissible frequency range, upper limit	63 Hz	
Input current		
Current consumption (rated value)	60 mA at 120 V AC; 30 mA at 240 V AC	
Current consumption, max.	180 mA at 120 V AC; 90 mA at 240 V AC	
Inrush current, max.	20 A; at 264 V	
Output current		
Current output to backplane bus (DC 5 V), max.	750 mA	
Power losses		
Power loss, typ.	10 W	
Memory		

Type of memory	EEPROM
Work memory	
Integrated	50 kbyte
• expandable	No
Load memory	
Integrated	1 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.	2.5 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	
Number, max.	4 kbyte; Size of bit memory address area
Process image	
Inputs, adjustable	1 kbyte
Outputs, adjustable	1 kbyte
Hardware configuration	
Number of modules per system, max.	3 communication modules, 1 signal board
Time of day	
Clock	
Hardware clock (real-time clock)	Yes
<ul><li>Deviation per day, max.</li></ul>	+/- 60 s/month at 25 °C
Backup time	480 h; Typical
Digital inputs	
Number of digital inputs	6; Integrated
<ul> <li>of which, inputs usable for technological functions</li> </ul>	3; HSC (High Speed Counting)
integrated channels (DI)	6
m/p-reading	Yes

Rated value (DC)     for signal "0"     for signal "1"     input current     for signal *1", typ.     input delay (for rated value of input voltage)     for standard inputs         — Parameterizable         — at "0" to "1", min.         — Parameterizable         Yes     for counter/technological functions         — Parameterizable         for counter/technological functions         — Parameterizable         for counter/technological functions         — Parameterizable	Number of simultaneously controllable inputs	
Input voltage  Rated value (DC)  of or signal "1"  of or signal "1"  of or signal "1", typ.  of or standard inputs  — Parameterizable  — at "0" to "1", max.  of interrupt inputs  — Parameterizable  Yes  or counter/technological functions  — Parameterizable  Yes; Single phase: 3 at 100 kHz & 3 at 30 kHz, differential: 3 at 80	all mounting positions	
Rated value (DC)     for signal "0"     for signal "1"     input current     for signal *1", typ.     input delay (for rated value of input voltage)     for standard inputs         — Parameterizable         — at "0" to "1", min.         — Parameterizable         Yes     for counter/technological functions         — Parameterizable         for counter/technological functions         — Parameterizable         for counter/technological functions         — Parameterizable	— up to 40 °C, max.	6
• for signal "0" • for signal "1" • for signal "1" • 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.  for interrupt inputs — Parameterizable  Parameterizable  For counter/technological functions  — Parameterizable  For counter/technological functions  — Parameterizable  • shielded, max. • Unshielded, max. • Unshielded, max.  • Unshielded, max.	Input voltage	
• for signal "1" Input current • 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. For interrupt inputs — Parameterizable for counter/technological functions — Parameterizable  • Shielded, max. • Unshielded, max. • Unshielded, max. • Unshielded, max. • Very tigital outputs  Number of digital outputs • with resistive load, max. • on lamp load, max. • on lamp load, max. • "1" to "1", max. • 10 ms; max. • "1" on "1", max. • 10 ms; max. • "1" to "0", max.  Switching requency • of the pulse outputs, with resistive load, max.  Number of relay outputs, with resistive load, max. • Number of relay outputs, integrated • Number of relay outputs, integrated • Number of relay outputs, max. • Shoutputs • Number of relay outputs • Number of relay outputs • Number of relay outputs	Rated value (DC)	24 V
Input current  • for signal "1", typ.	• for signal "0"	5 V DC at 1 mA
• for signal "1", typ. 1 mA  Input delay (for rated value of input voltage) for standard inputs  - Parameterizable	• for signal "1"	15 VDC at 2.5 mA
Input delay (for rated value of input voltage)  for standard inputs	Input current	
for standard inputs	● for signal "1", typ.	1 mA
- 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 0.2 ms - 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 & 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  igital outputs  4; Relays integrated channels (DO) 4 short-circuit protection No; to be provided externally  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 • "0" to "1", max. 10 ms; max. • "1" to "0", max. 10 ms; max.  Switching frequency • of the pulse outputs, with resistive load, max. 14 bz Relay outputs  • Number of relay outputs, integrated 4 • Number of relay outputs, integrated 4 • Number of relay outputs 4 • Number of perating cycles, max. 500 m  shelded, max. 500 m	Input delay (for rated value of input voltage)	
selectable in groups of four	for standard inputs	
- at "0" to "1", max.  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.  • Unshielded, max.  100 m; For technological functions: No  sigital outputs  Number of digital outputs  • with resistive load, max.  • on lamp load, max.  • on lamp load, max.  • "1" to "0", max.  • "1" to "0", max.  • "1" to "0", max.  • of the pulse outputs, with resistive load, max.  • "1" to "0", max.  • Number of relay outputs, with resistive load, max.  • Number of relay outputs, integrated  • Number of operating cycles, max.  • Number of operating cycles, max.  • Sou mechanically 10 million, at rated load voltage 100,000  Cable length  • shielded, max.	— Parameterizable	
for interrupt inputs  — Parameterizable for counter/technological functions  — Parameterizable  • Single phase: 3 at 100 kHz & 3 at 30 kHz, differential: 3 at 80 kHz & 3 at 30 kHz  • Shielded, max. • Unshielded, max. • Unshielded, max.  • Unshielded, max.  • Unshielded, max.  • Unshielded, max.  • Unshielded, max.  • Unshielded, max.  • Unshielded, max.  • Unshielded, max.  • Unshielded, max.  • Unshielded, max.  • In the provided externally  Switching capacity of the outputs  • with resistive load, max.  • on lamp load, max.  • on lamp load, max.  • "1" to "0", max.  • "1" to "0", max.  • "1" to "0", max.  Switching frequency  • of the pulse outputs, with resistive load, max.  • of the pulse outputs, with resistive load, max.  • Number of relay outputs  • Number of relay outputs  • Number of relay outputs  • Number of perating cycles, max.  Cable length  • shielded, max.  500 m	— at "0" to "1", min.	0.2 ms
- Parameterizable for counter/technological functions - Parameterizable	— at "0" to "1", max.	12.8 ms
- Parameterizable for counter/technological functions - Parameterizable	for interrupt inputs	
Parameterizable  Yes; Single phase : 3 at 100 kHz & 3 at 30 kHz, differential: 3 at 80 kHz & 3 at 30 kHz  Eable length  ● shielded, max.  500 m; 50 m for technological functions: No  igital outputs  Number of digital outputs  integrated channels (DO)  short-circuit protection  Switching capacity of the outputs  ● with resistive load, max.  ● on lamp load, max.  ● on lamp load, max.  ● "1" to "0", max.  10 ms; max.  ■ "1" to "0", max.  Switching frequency  ● of the pulse outputs, with resistive load, max.  ■ Number of relay outputs, integrated  ● Number of relay outputs, max.  ● Number of operating cycles, max.  Eable outputs  ● Number of operating cycles, max.  Source  Source  For the chnological functions: No  A; Relays  4  For technological functions: No  A; Relays  A; Relays  A;	— Parameterizable	Yes
Parameterizable  Yes; Single phase : 3 at 100 kHz & 3 at 30 kHz, differential: 3 at 80 kHz & 3 at 30 kHz  Eable length  ● shielded, max.  500 m; 50 m for technological functions: No  igital outputs  Number of digital outputs  integrated channels (DO)  short-circuit protection  Switching capacity of the outputs  ● with resistive load, max.  ● on lamp load, max.  ● on lamp load, max.  ● "1" to "0", max.  10 ms; max.  ■ "1" to "0", max.  Switching frequency  ● of the pulse outputs, with resistive load, max.  ■ Number of relay outputs, integrated  ● Number of relay outputs, max.  ● Number of operating cycles, max.  Eable outputs  ● Number of operating cycles, max.  Source  Source  For the chnological functions: No  A; Relays  4  For technological functions: No  A; Relays  A; Relays  A;	for counter/technological functions	
shielded, max.     Unshielded, max.     300 m; 50 m for technological functions     300 m; For technological functions: No  sigital outputs  Number of digital outputs  4; 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.  • "1" to "0", 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 operating cycles, max.  Cable length  • shielded, max.		
Unshielded, max.  300 m; For technological functions: No  igital outputs  Number of digital outputs  4; 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.  10 ms; max.  "1" to "0", max.  witching frequency  of the pulse outputs, with resistive load, max.  Number of relay outputs  Number of relay outputs  Number of operating cycles, max.  Suitching frequency  Number of operating cycles, max.  Number of operating cycles, max.  Soon mechanically 10 million, at rated load voltage 100,000  Cable length  shielded, max.	Cable length	
Number of digital outputs  A; 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.  10 ms; 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.  mechanically 10 million, at rated load voltage 100,000  Cable length short-circuit protection A; Relays	• 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.  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.  mechanically 10 million, at rated load voltage 100,000  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.  o	Digital outputs	
Switching capacity of the outputs  with resistive load, max. on lamp load, max. on lamp load, max. on "1", max. on "1" to "0", max. of the pulse outputs, with resistive load, max.  It max. of the pulse outputs, with resistive load, max.  No; to be provided externally  2 A  2 A  30 W with DC, 200 W with AC  Output delay with resistive load  on "0" to "1", max. on "1" to "0", max.  It max. of the pulse outputs, with resistive load, max.  It has a second of the pulse outputs, with resistive load, max.  It has a second of the pulse outputs, integrated on Number of relay outputs, integrated on Number of operating cycles, max.  we chanically 10 million, at rated load voltage 100,000  Cable length on shielded, max.	Number of digital outputs	4; Relays
Switching capacity of the outputs  with resistive load, max. on lamp load, max.  10 ms; max.  "1" to "0", max.  "1" to "0", max.  witching frequency of the pulse outputs, with resistive load, max.  Number of relay outputs Number of relay outputs Number of operating cycles, max.  Cable length shielded, max.	integrated channels (DO)	4
<ul> <li>with resistive load, max.</li> <li>on lamp load, max.</li> <li>Output delay with resistive load</li> <li>"0" to "1", max.</li> <li>"1" to "0", max.</li> <li>"1" to "0", max.</li> <li>Switching frequency</li> <li>of the pulse outputs, with resistive load, max.</li> <li>Number of relay outputs, integrated</li> <li>Number of relay outputs</li> <li>Number of operating cycles, max.</li> </ul> Cable length <ul> <li>with DC, 200 W with AC</li> </ul> 10 ms; max. <ul> <li>14 Tz</li> </ul> 1 Hz Relay outputs <ul> <li>Number of relay outputs, integrated</li> <li>Number of operating cycles, max.</li> </ul> Cable length <ul> <li>shielded, max.</li> </ul> 500 m 500 m	short-circuit protection	No; to be provided externally
on lamp load, max.      on lamp load, max.  Output delay with resistive load      """ to """, max.      """ to "0", max.  Switching frequency      of the pulse outputs, with resistive load, max.  I Hz  Relay outputs  Number of relay outputs, integrated  Number of relay outputs  Number of operating cycles, max.  Cable length  shielded, max.  30 W with DC, 200 W with AC  10 ms; max.  11 Hz  Hz  Relay outputs  4  Number of relay outputs, integrated  4  Rechanically 10 million, at rated load voltage 100,000	Switching capacity of the outputs	
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, integrated  • Number of relay outputs  • Number of operating cycles, max.  Cable length  • shielded, max.  500 m	<ul><li>with resistive load, max.</li></ul>	2 A
<ul> <li>"0" to "1", max.</li> <li>"1" to "0", max.</li> <li>Switching frequency</li> <li>of the pulse outputs, with resistive load, max.</li> <li>1 Hz</li> <li>Relay outputs</li> <li>Number of relay outputs, integrated</li> <li>Number of relay outputs</li> <li>Number of operating cycles, max.</li> <li>Cable length</li> <li>shielded, max.</li> </ul>	● on lamp load, max.	30 W with DC, 200 W with AC
<ul> <li>"1" to "0", max.</li> <li>Switching frequency</li> <li>of the pulse outputs, with resistive load, max.</li> <li>1 Hz</li> <li>Relay outputs</li> <li>Number of relay outputs, integrated</li> <li>Number of relay outputs</li> <li>Number of operating cycles, max.</li> <li>Cable length</li> <li>shielded, max.</li> </ul>	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.  Cable length  • shielded, max.  1 Hz  4  4  4  500 m	• "0" to "1", max.	10 ms; max.
<ul> <li>of the pulse outputs, with resistive load, max.</li> <li>Relay outputs</li> <li>Number of relay outputs, integrated</li> <li>Number of relay outputs</li> <li>Number of operating cycles, max.</li> <li>Cable length</li> <li>shielded, max.</li> </ul> 1 Hz 4 4 mechanically 10 million, at rated load voltage 100,000 500 m	• "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	
<ul> <li>Number of relay outputs, integrated</li> <li>Number of relay outputs</li> <li>Number of operating cycles, max.</li> <li>Cable length</li> <li>shielded, max.</li> </ul>	• of the pulse outputs, with resistive load, max.	1 Hz
<ul> <li>Number of relay outputs</li> <li>Number of operating cycles, max.</li> <li>Cable length</li> <li>shielded, max.</li> </ul>	Relay outputs	
<ul> <li>Number of operating cycles, max.</li> <li>Cable length</li> <li>shielded, max.</li> <li>500 m</li> </ul>	Number of relay outputs, integrated	4
Cable length  ● shielded, max.  500 m	<ul> <li>Number of relay outputs</li> </ul>	4
• shielded, max. 500 m	<ul> <li>Number of operating cycles, max.</li> </ul>	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
<ul><li>Input resistance (0 to 10 V)</li></ul>	≥100k ohms
Cable length	
• shielded, max.	100 m; twisted and shielded
Analog value creation	
Integration and conversion time/resolution per channel	
<ul> <li>Resolution with overrange (bit including sign), max.</li> </ul>	10 bit
<ul> <li>Integration time, parameterizable</li> </ul>	Yes
<ul> <li>Conversion time (per channel)</li> </ul>	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	
<ul><li>Transmission rate, max.</li></ul>	100 Mbit/s
<ul> <li>Number of connectable IO devices, max.</li> </ul>	16
Prioritized startup	
— Number of IO Devices, max.	16
PROFINET IO Device	
Services	
— Shared device	Yes
<ul> <li>Number of IO controllers with shared device, max.</li> </ul>	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
<del>-</del> - (	
Test commissioning functions Status/control	
Status/control variable	Yes
	Inputs/outputs, memory bits, DBs, distributed I/Os, timers,
<ul> <li>Variables</li> </ul>	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	3
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
<ul> <li>between the channels, in groups of</li> </ul>	1
Galvanic isolation digital outputs	
Galvanic isolation digital outputs	Relays
• between the channels	No
• between the channels, in groups of	1
Permissible potential difference	

EMC	
Interference immunity against discharge of static electric	city
<ul> <li>Interference immunity against discharge of static electricity acc. to IEC 61000-4-2</li> </ul>	Yes
Test voltage at air discharge	8 kV
Test voltage at contact discharge	6 kV
Interference immunity to cable-borne interference	
<ul> <li>Interference immunity on supply lines acc. to IEC 61000-4-4</li> </ul>	Yes
<ul> <li>Interference immunity on signal lines acc. to IEC 61000-4-4</li> </ul>	Yes
Surge immunity	
• on the supply lines acc. to IEC 61000-4-5	Yes
Immunity against conducted interference induced by high	h-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 to EN 60529	
Degree or protection to EN 00029	
● IP20	Yes
	Yes
• IP20	Yes Yes
● IP20  Standards, approvals, certificates  CE mark  UL approval	
• IP20  Standards, approvals, certificates  CE mark  UL approval  cULus	Yes Yes Yes
● IP20  Standards, approvals, certificates  CE mark  UL approval  cULus  RCM (formerly C-TICK)	Yes Yes Yes Yes Yes
● IP20  Standards, approvals, certificates  CE mark  UL approval  cULus  RCM (formerly C-TICK)  FM approval	Yes Yes Yes
◆ IP20  Standards, approvals, certificates  CE mark  UL approval  cULus  RCM (formerly C-TICK)  FM approval  Marine approval	Yes Yes Yes Yes Yes Yes
● IP20  Standards, approvals, certificates  CE mark  UL approval  cULus  RCM (formerly C-TICK)  FM approval	Yes Yes Yes Yes Yes
◆ IP20  Standards, approvals, certificates  CE mark  UL approval  cULus  RCM (formerly C-TICK)  FM approval  Marine approval	Yes Yes Yes Yes Yes Yes
• IP20  Standards, approvals, certificates  CE mark  UL approval  cULus  RCM (formerly C-TICK)  FM approval  Marine approval  • Marine approval	Yes Yes Yes Yes Yes Yes
● IP20  Standards, approvals, certificates  CE mark  UL approval  cULus  RCM (formerly C-TICK)  FM approval  Marine approval  ● Marine approval  Ambient conditions	Yes Yes Yes Yes Yes Yes
● IP20  Standards, approvals, certificates  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 Yes
● IP20  Standards, approvals, certificates  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 Yes
● IP20  Standards, approvals, certificates  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 Yes O.3 m; five times, in dispatch package
● IP20  Standards, approvals, certificates  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 Yes  O.3 m; five times, in dispatch package
● IP20  Standards, approvals, certificates  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.  ● max.	Yes Yes Yes Yes Yes Yes  Yes  O.3 m; five times, in dispatch package  -20 °C 60 °C
Standards, approvals, certificates  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.  • max.  • horizontal installation, min.	Yes Yes Yes Yes Yes Yes  Yes  O.3 m; five times, in dispatch package  -20 °C 60 °C -20 °C
● IP20  Standards, approvals, certificates  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.  ● max.  ● horizontal installation, min.  ● horizontal installation, max.	Yes Yes Yes Yes Yes Yes  Yes  O.3 m; five times, in dispatch package  -20 °C 60 °C -20 °C 60 °C

• 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
<ul> <li>Permissible operating height</li> </ul>	-1000 to 2000 m
Relative humidity	
Operation, max.	95 %; no condensation
<ul> <li>Permissible range (without condensation) at 25</li> <li>°C</li> </ul>	95 %
Vibrations	
Vibrations	2G wall mounting, 1G DIN rail
<ul> <li>Operation, checked according to IEC 60068-2-</li> </ul>	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	90 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	420 g
last modified:	12.03.2015