## **SIEMENS**

## Data sheet

## 6ES7212-1AE40-0XB0

SIMATIC S7-1200, CPU 1212C, compact CPU, DC/DC/DC, onboard I/O: 8 DI 24 V DC; 6 DO 24 V DC; 2 AI 0-10 V DC, Power supply: DC 20.4-28.8V DC, Program/data memory 75 KB



General information	
Product type designation	CPU 1212C DC/DC/DC
Engineering with	
<ul> <li>Programming package</li> </ul>	STEP 7 V13 SP1 or higher
Supply voltage	
Rated value (DC)	
• 24 V DC	Yes
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Load voltage L+	
<ul> <li>Rated value (DC)</li> </ul>	24 V
<ul> <li>permissible range, lower limit (DC)</li> </ul>	20.4 V
• permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	400 mA; Typical
Inrush current, max.	12 A; at 28.8 V DC
Output current	

for backplane bus (5 V DC), max.	1 000 mA; Max. 5 V DC for SM and CM
Encoder supply	
24 V encoder supply	
• 24 V	Permissible range: 20.4V to 28.8V
Power loss	
Power loss, typ.	9 W
Memory	
Work memory	50.11.1
• integrated	50 kbyte
• expandable	No
Load memory	
• integrated	1 Mbyte
<ul> <li>Plug-in (SIMATIC Memory Card), max.</li> </ul>	2 Gbyte; with SIMATIC memory card
Backup	
● present	Yes; maintenance-free
• without battery	Yes
CPU processing times	
for bit operations, typ.	0.085 μs; / Operation
for word operations, typ.	1.7 μs; / Operation
for floating point arithmetic, typ.	2.3 µs; / Operation
CPU-blocks	
Number of blocks (total)	DBs, FCs, FBs, counters and timers. The maximum number of
	addressable blocks ranges from 1 to 65535. There is no
	restriction, the entire working memory can be used
OB	
• Number, max.	Limited only by RAM for code
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags),	10 kbyte
max.	
Flag	
• Number, max.	4 kbyte; Size of bit memory address area
Address area	
I/O address area	
Inputs	1 024 byte
Outputs	1 024 byte
Process image	
<ul> <li>Inputs, adjustable</li> </ul>	1 kbyte
Outputs, adjustable	1 kbyte
Hardware configuration	
Number of modules per system, max.	3 comm. modules, 1 signal board, 2 signal modules

Time of day	
Clock	
<ul> <li>Hardware clock (real-time)</li> </ul>	Yes
Backup time	480 h; Typical
• Deviation per day, max.	±60 s/month at 25 °C
Digital inputs	
Number of digital inputs	8; Integrated
<ul> <li>of which inputs usable for technological functions</li> </ul>	6; HSC (High Speed Counting)
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	8
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 current	
● for signal "1", typ.	1 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	0.1 / 0.2 / 0.4 / 0.8 / 1.6 / 3.2 / 6.4 / 10.0 / 12.8 / 20.0 μs; 0.05 / 0.1 / 0.2 / 0.4 / 0.8 / 1.6 / 3.2 / 6.4 / 10.0 / 12.8 / 20.0 ms
— at "0" to "1", min.	0.1 µs
— at "0" to "1", max.	20 ms
for interrupt inputs	
— parameterizable	Yes
for counter/technological functions	
— parameterizable	Single phase: 3 @ 100 kHz & 1 @ 30 kHz, differential: 3 @ 80 kHz & 1 @ 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	6
<ul> <li>of which high-speed outputs</li> </ul>	4; 100 kHz Pulse Train Output
Short-circuit protection	No; to be provided externally
Limitation of inductive shutdown voltage to	L+ (-48 V)
Switching capacity of the outputs	
<ul> <li>with resistive load, max.</li> </ul>	0.5 A
<ul> <li>on lamp load, max.</li> </ul>	5 W

● for signal "0", max.	0.1 V; with 10 kOhm load
	20 V
• for signal "1", min.	20 V
Output current	0.5.4
• for signal "1" rated value	0.5 A
• for signal "0" residual current, max.	0.1 mA
Output delay with resistive load	
● "0" to "1", max.	1 µs
• "1" to "0", max.	3 µs
Cable length	
• shielded, max.	500 m
• unshielded, max.	150 m
Analog inputs	
Number of analog inputs	2
Input ranges	
Voltage	Yes
Input ranges (rated values), voltages	
• 0 to +10 V	Yes
<ul> <li>Input resistance (0 to 10 V)</li> </ul>	≥100k ohms
Cable length	
● shielded, max.	100 m; twisted and shielded
Analog outputs	
Number of analog outputs	0
Cable length	
● shielded, max.	100 m; shielded, twisted pair
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
<ul> <li>Resolution with overrange (bit including sign),</li> </ul>	10 bit
max.	
<ul> <li>Integration time, parameterizable</li> </ul>	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
Autonegotiation	Yes
Autocrossing	Yes

• PROFINET IO Controller     Yes       • PROFINET IO Controller     Yes       PROFINET IO Controller     Services       - Number of IO devices with prioritized     16       startup, max.     16       Protocols     Yes       Supports protocol for PROFINET IO     Yes       PROFIBUS     Yes (M 1243-5 required       AS Interface     Yes       Protocols (Ethernel)     Yes       • TCP/IP     Yes       Open IE communication     Yes       • ISO-on-TCP (RFC1006)     Yes       Further protocols     Yes       • MODBUS     Yes       Communication functions     Yes       * supported     Yes       • Supports protocols     Yes       • as server     Yes       • as server     Yes       • as server     Yes       • supported     Yes       • Supports functions     Yes       Status/control     Yes       • Satus/control variable     Yes       • Forcing     Yes       • Forcing     Yes       Diagnostic buffer     Yes       • Forcing     Yes       • Forcing     Yes       • Forcing     Yes       • Forcing     Yes       Diagnostic buffer     <	Functionality	
PROFINET IO Controller           Services         -           -         Number of IO devices with prioritized startup, max.         16           Protocols         -           Supports protocol for PROFINET IO         Yes           PROFINET         Yes           Protocols (Ethernet)         -           - TCP/IP         Yes           Protocols (Ethernet)         -           - TCP/IP         Yes           Open IE communication         -           - Startisco Yes         -           Further protocols         -           - MODBUS         Yes           Communication functions         -           S7 communication         -           - as server         -           - as server         Yes           - as server         -           - supported         Yes           - Status/control variable         Yes           Forcing         Yes           - Forcing         Yes           Diagnostic buffer         -           - presont         Yes           Diagnostic buffer         2: Up to 512 KB of data per trace are possible           Integrated Functions         -           Integrat	PROFINET IO Controller	Yes
Services       16         Number of IO devices with prioritized startup, max.       16         Protocols       Yes         Supports protocol for PROFINET IO       Yes         PROFIBUS       Yes; CM 1243-5 required         AS-Interface       Yes         Protocols (Ethernet)       Yes         • TCP/IP       Yes         Open IE communication       Yes         • ISO-on-TCP (RFC1006)       Yes         Further protocols       Yes         • Supportd       Yes         Ormmunication functions       Yes         S7 communication       Yes         • supportd       Yes         • as server       Yes         • as clent       Yes         • supported       Yes         • sa clent       Yes         • Status/control       Yes         Forcing       Yes         Forcing       Yes         Diagnostic buffer       Yes         • present       Yes         Traces       2, Up to 512 KB of data per trace are possible         Integrated Functions       6         Counting frequency (counter) max.       100 KHz         Controlid positioning       Yes	PROFINET IO Device	Yes
Number of IO devices with prioritized startup, max.     16       Protocols     Supports protocol for PROFINET IO     Yes       PROFIBUS     Yes; CM 1243-5 required     AS-Interface       PROFIBUS     Yes; CM 1243-5 required     AS-Interface       Protocols (Ethernet)     Yes     Yes       OPEN IE communication     Yes     Yes       OPEN IE communication     Yes     Yes       Orgen IE communication     Yes     Yes       Solont If Unctions     Yes     Yes       Solont II     Yes     Yes       • as server     Yes     Yes       • as client     Yes     Yes       • supported     Yes     Yes       • supported     Yes     Yes       • supported     Yes     Yes       • Status/Control     Yes     Yes       • Status/Control     Yes     Yes       Protocing     Yes     Yes       Diagnostic buffer     Yes     Yes       • present     Yes	PROFINET IO Controller	
startup, max.         Piotocols         Supports protocol for PROFINET IO       Yes         PROFIBUS       Yes, CM 1243-5 required         AS-Interface       Yes         Protocols (Ethernet)	Services	
Supports protocol for PROFINET IO     Yes       PROFIBUS     Yes; CM 1243-5 required       AS-Interface     Yes       Protocols (Ethernet)		16
PROFIBUS         Yes; CM 1243-5 required           AS-Interface         Yes           Protocols (Ethernet)         Yes           • TOP/IP         Yes           Open IE communication         *           • ISO-on-TCP (RFC1006)         Yes           Further protocols         *           • MODBUS         Yes           Communication functions         Yes           S7 communication         Yes           • supported         Yes           • as server         Yes           • as client         Yes           • supported         Yes           • as client         Yes           • supported         Yes           • supported         Yes           • Status/control variable         Yes           • Status/control variable         Yes           • Status/control variable         Yes           • Forcing         Yes           • Inseent         Yes           • Procesent         Yes           • Number of configurable Traces         2; Up to 512 KB of data per trace are possible           Integrated Functions         6           Counting frequency (counter) max.         100 KHz           controled positioning	Protocols	
AS-Interface     Yes       Protocols (Ethernet)     *       • TCP/IP     Yes       Open IE communication     *       • ISO-on-TCP (RFC1006)     Yes       Further protocols     *       • MODBUS     Yes       Communication functions     *       S7 communication     *       • supported     Yes       • as server     Yes       • as client     Yes       • supported     Yes       • as client     Yes       • supported     Yes       • supported     Yes       • supported     Yes       • supported     Yes       • Status/control     Yes       • Status/control variable     Yes       • Status/control variable     Yes       • Status/control variable     Yes       • Status/control variable     Yes       Porcing     Yes       • Number of configurable Traces     2; Up to 512 KB of data per trace are possible       Integrated Functions     100 kHz       Controlled positioning     Yes       PID controller     Yes       PID controller     Yes       Number of alarm inputs     4	Supports protocol for PROFINET IO	Yes
Protocols (Ethernet)       Yes         Open IE communication       Yes         • ISO-on-TCP (RFC1006)       Yes         Further protocols       Yes         • MODBUS       Yes         Communication functions       Yes         S7 communication functions       Yes         supported       Yes         • as server       Yes         • as server       Yes         • as client       Yes         Web server       Yes         • supported       Yes         Status/control       Yes         Status/control variable       Yes         Forcing       Yes         Diagnostic buffer       Yes         • present       Yes         • Number of configurable Traces       2: Up to 512 KB of data per trace are possible         Integrated Functions       6         Controlled positioning       Yes         PID controller       Yes         Number of alarm inputs       4         Number of alarm inputs       4	PROFIBUS	Yes; CM 1243-5 required
• TCP/IP     Yes       Open IE communication     Yes       • ISO-on-TCP (RFC1006)     Yes       Further protocols     Yes       • MODBUS     Yes       Communication functions     Yes       S7 communication     Yes       • supported     Yes       • as server     Yes       • as server     Yes       • as dient     Yes       Web server     Yes       • supported     Yes       Test commissioning functions     Yes       Status/control variable     Yes       • Status/control variable     Yes       Forcing     Yes       Diagnostic buffer     Yes       • number of configurable Traces     2; Up to 512 KB of data per trace are possible       Integrated Functions     6       Counting frequency (counter) max.     100 kHz       controlled positioning     Yes       PID controller     Yes	AS-Interface	Yes
Open IE communication         • ISO-on-TCP (RFC1006)       Yes         Further protocols       Yes         • MODBUS       Yes         Communication functions       Yes         S7 communication       Yes         • supported       Yes         • as server       Yes         • as client       Yes         Web server       Yes         • supported       Yes         Status/control       Yes         • Status/control variable       Yes         Forcing       Yes         Porcing       Yes         Diagnostic buffer       Yes         • Number of configurable Traces       2; Up to 512 KB of data per trace are possible         Integrated Functions       6         Counting frequency (counter) max.       100 kHz         controller positioning       Yes         PID controller       Yes         Number of alarm inputs       4         Number of pulse outputs       4	Protocols (Ethernet)	
• ISO-on-TCP (RFC1006)       Yes         Further protocols       Yes         • MODBUS       Yes         Communication       Yes         • Supported       Yes         • as server       Yes         • as client       Yes         • web server       Yes         • supported       Yes         • as client       Yes         • supported       Yes         Test commissioning functions       Status/control         • Status/control       Yes         • Status/control variable       Yes         Forcing       Yes         Diagnostic buffer       Yes         • present       Yes         Traces       2; Up to 512 KB of data per trace are possible         Integrated Functions       6         Counting frequency (counter) max.       100 kHz         Controlled positioning       Yes         PID controller       Yes         PID controller       Yes         Number of alarm inputs       4         Number of pulse outputs	• TCP/IP	Yes
Further protocols       Yes         Communication functions       Yes         S7 communication       Yes         • supported       Yes         • as server       Yes         • as client       Yes         Web server       Yes         • supported       Yes         Test commissioning functions       Yes         Status/control       Yes         • Status/control       Yes         • Status/control variable       Yes         • Status/control       Yes         Diagnostic buffer       Yes         • present       Yes         Traces       2; Up to 512 KB of data per trace are possible         Integrated Functions       6         Counting frequency (counter) max.       100 kHz         controlled positioning       Yes         PID controller       Yes         Number of alarm inputs       4         Number of pulse outputs       4	Open IE communication	
• MODBUS       Yes         Communication functions         \$7 communication         • supported       Yes         • as server       Yes         • as client       Yes         Web server       Yes         • supported       Yes         Test commissioning functions       Yes         Status/control       Yes         • Status/control       Yes         Forcing       Yes         Diagnostic buffer       Yes         • present       Yes         Integrated Functions       2; Up to 512 KB of data per trace are possible         Integrated Functions       6         Counting frequency (counter) max.       100 kHz         controlled positioning       Yes         PID controller       Yes         PID controller       Yes         Number of alarm inputs       4         Number of pulse outputs       4	• ISO-on-TCP (RFC1006)	Yes
Communication functions       S7 communication       • supported     Yes       • as server     Yes       • as client     Yes       Web server     Yes       • supported     Yes       Test commissioning functions     Yes       Status/control     Yes       • Status/control variable     Yes       Forcing     Yes       Diagnostic buffer     Yes       • Number of configurable Traces     2; Up to 512 KB of data per trace are possible       Integrated Functions     6       Counting frequency (counter) max.     100 kHz       controlled positioning     Yes       PID controller     Yes       Number of alarm inputs     4       Number of pulse outputs     4	Further protocols	
S7 communication       Yes         • supported       Yes         • as server       Yes         • as client       Yes         Web server       Yes         • supported       Yes         Test commissioning functions       Yes         Status/control       Yes         • Status/control variable       Yes         Forcing       Yes         Diagnostic buffer       Yes         • present       Yes         Traces       2; Up to 512 KB of data per trace are possible         Integrated Functions       100 kHz         Counting frequency (counter) max.       100 kHz         controlled positioning       Yes         PID controller       Yes         Number of alarm inputs       4         Number of pulse outputs       4	MODBUS	Yes
S7 communication       Yes         • supported       Yes         • as server       Yes         • as client       Yes         Web server       Yes         • supported       Yes         Test commissioning functions       Yes         Status/control       Yes         • Status/control variable       Yes         Forcing       Yes         Diagnostic buffer       Yes         • present       Yes         Traces       2; Up to 512 KB of data per trace are possible         Integrated Functions       100 kHz         Counting frequency (counter) max.       100 kHz         controlled positioning       Yes         PID controller       Yes         Number of alarm inputs       4         Number of pulse outputs       4	Communication for all and	
• supportedYes• as serverYes• as clientYesWeb serverYes• supportedYesTest commissioning functionsYesStatus/controlYes• Status/control variableYes• Status/control variableYesPorcingYesDiagnostic bufferYes• presentYesTraces2; Up to 512 KB of data per trace are possibleIntegrated Functions100 kHzCounting frequency (counter) max.100 kHzcontrollerYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4		
Corport e as serverYes• as serverYesWeb serverYes• supportedYesTest commissioning functionsStatus/control variable• Status/control variableYes• ForcingYesDiagnostic bufferYes• presentYesTraces2; Up to 512 KB of data per trace are possibleIntegrated Functions100 kHzCounting frequency (counter) max.100 kHzcontrolled positioningYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4		Yes
ActionYes• as clientYesWeb serverYes• supportedYesTest commissioning functionsStatus/control• Status/control variableYes• Status/control variableYesPorcingYesDiagnostic bufferYes• presentYesTraces2; Up to 512 KB of data per trace are possibleIntegrated FunctionsNumber of configurable Traces6Counting frequency (counter) max.100 kHzcontrolled positioningYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4		
Web server       Yes         • supported       Yes         Test commissioning functions       Status/control         Status/control variable       Yes         • Status/control variable       Yes         Forcing       Yes         Diagnostic buffer       Yes         • present       Yes         Traces       2; Up to 512 KB of data per trace are possible         Integrated Functions       6         Counting frequency (counter) max.       100 kHz         controller       Yes         PID controller       Yes         Number of alarm inputs       4         Number of pulse outputs       4		
• supportedYesTest commissioning functionsStatus/controlYes• Status/control variableYes• Status/control variableYes• ForcingYesDiagnostic bufferYes• presentYes• number of configurable Traces2; Up to 512 KB of data per trace are possibleIntegrated Functions6Counting frequency (counter) max.100 kHzControllerYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4		165
Test commissioning functions       Status/control       • Status/control variable     Yes       Forcing     Yes       Diagnostic buffer     •       • present     Yes       Traces     2; Up to 512 KB of data per trace are possible       Integrated Functions     100 kHz       Number of counters     6       Counting frequency (counter) max.     100 kHz       controller     Yes       PID controller     Yes       Number of alarm inputs     4       Number of pulse outputs     4		Vac
Status/control         • Status/control variable       Yes         Forcing       Yes         • Forcing       Yes         Diagnostic buffer       Yes         • present       Yes         Traces       2; Up to 512 KB of data per trace are possible         Integrated Functions       6         Counting frequency (counter) max.       100 kHz         controlled positioning       Yes         PID controller       Yes         Number of alarm inputs       4         Number of pulse outputs       4	• supported	165
• Status/control variableYesForcingYes• ForcingYesDiagnostic bufferYes• presentYesTraces2; Up to 512 KB of data per trace are possible• Number of configurable Traces2; Up to 512 KB of data per trace are possibleIntegrated Functions6Counting frequency (counter) max.100 kHzcontrolled positioningYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4		
ForcingYesDiagnostic bufferYes• presentYesTraces2; Up to 512 KB of data per trace are possibleIntegrated Functions6Counting frequency (counter) max.100 kHzcontrolled positioningYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4	Status/control	
• ForcingYesDiagnostic buffer• presentYesTraces• Number of configurable Traces2; Up to 512 KB of data per trace are possibleIntegrated FunctionsNumber of counters6Counting frequency (counter) max.100 kHzcontrolled positioningYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4	<ul> <li>Status/control variable</li> </ul>	Yes
Diagnostic buffer       • present     Yes       Traces     2; Up to 512 KB of data per trace are possible       • Number of configurable Traces     2; Up to 512 KB of data per trace are possible       Integrated Functions     6       Number of counters     6       Counting frequency (counter) max.     100 kHz       controlled positioning     Yes       PID controller     Yes       Number of alarm inputs     4       Number of pulse outputs     4	Forcing	
• presentYesTraces2; Up to 512 KB of data per trace are possible• Number of configurable Traces2; Up to 512 KB of data per trace are possibleIntegrated Functions6Counting frequency (counter) max.100 kHzcontrolled positioningYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4	Forcing	Yes
Traces• Number of configurable Traces2; Up to 512 KB of data per trace are possibleIntegrated FunctionsNumber of counters6Counting frequency (counter) max.100 kHzcontrolled positioningYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4	Diagnostic buffer	
• Number of configurable Traces2; Up to 512 KB of data per trace are possibleIntegrated FunctionsNumber of counters6Counting frequency (counter) max.100 kHzcontrolled positioningYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4	• present	Yes
Integrated FunctionsNumber of counters6Counting frequency (counter) max.100 kHzcontrolled positioningYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4	Traces	
Number of counters6Counting frequency (counter) max.100 kHzcontrolled positioningYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4	<ul> <li>Number of configurable Traces</li> </ul>	2; Up to 512 KB of data per trace are possible
Number of counters6Counting frequency (counter) max.100 kHzcontrolled positioningYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4	Integrated Functions	
controlled positioningYesPID controllerYesNumber of alarm inputs4Number of pulse outputs4		6
PID controller     Yes       Number of alarm inputs     4       Number of pulse outputs     4	Counting frequency (counter) max.	100 kHz
Number of alarm inputs     4       Number of pulse outputs     4	controlled positioning	Yes
Number of pulse outputs     4	PID controller	Yes
	Number of alarm inputs	4
Limit frequency (pulse) 100 kHz	Number of pulse outputs	4
	Limit frequency (pulse)	100 kHz

Potential separation	
Potential separation digital inputs	
<ul> <li>Potential separation digital inputs</li> </ul>	500V AC for 1 minute
<ul> <li>between the channels, in groups of</li> </ul>	1
Potential separation digital outputs	
<ul> <li>Potential separation digital outputs</li> </ul>	500V AC for 1 minute
<ul> <li>between the channels, in groups of</li> </ul>	1
Permissible potential difference	
between different circuits	500 V DC between 24 V DC and 5 V DC
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 cables acc. to IEC 61000-4-4</li> </ul>	Yes
Interference immunity against voltage surge	
<ul> <li>on the supply lines acc. to IEC 61000-4-5</li> </ul>	Yes
Interference immunity against conducted variable distur	bance 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	
<ul> <li>Limit class A, for use in industrial areas</li> </ul>	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	Yes
Ambient conditions	
Free fall	

• Fall height, max.	0.3 m; five times, in product package
Ambient temperature during operation	
• min.	-20 °C
• max.	60 °C; Number of simultaneously activated inputs or outputs 4 or 3 (no adjacent points) at 60 °C horizontal or 50 °C vertical, 8 or 6 at 55 °C horizontal or 45 °C vertical
<ul> <li>horizontal installation, min.</li> </ul>	-20 °C
<ul> <li>horizontal installation, max.</li> </ul>	60 °C
<ul> <li>vertical installation, min.</li> </ul>	-20 °C
<ul> <li>vertical installation, max.</li> </ul>	50 °C
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Air pressure acc. to IEC 60068-2-13	
Operation, min.	795 hPa
<ul> <li>Operation, max.</li> </ul>	1 080 hPa
<ul> <li>Storage/transport, min.</li> </ul>	660 hPa
<ul> <li>Storage/transport, max.</li> </ul>	1 080 hPa
Relative humidity	
<ul> <li>Operation, max.</li> </ul>	95 %; no condensation
Vibrations	
<ul> <li>Operation, tested according to IEC 60068-2-6</li> </ul>	Yes
Pollutant concentrations	
<ul> <li>SO2 at RH &lt; 60% without condensation</li> </ul>	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	
• adjustable	Yes
Dimensions	
Width	90 mm
Height	100 mm
Depth	75 mm

last modified:

12/22/2017