SIEMENS

Data sheet

6AG1214-1AG40-2XB0



SIPLUS S7-1200 CPU 1214C DC/DC/DC based on 6ES7214-1AG40-0XB0 with conformal coating, -40...+70 °C, start up -25 °C, signal board: 0, compact CPU, DC/DC/DC, onboard I/O: 14 DI 24 V DC 10 DQ 24 V DC 2 AI 0-10 V DC, power supply: DC 20.4-28.8 V DC, program/data memory 100 KB

Fi	gur	es	im	lar
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General information	
Product type designation	CPU 1214C DC/DC/DC
Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	see entry ID: 109746275
Supply voltage	
Rated value (DC)	
• 24 V DC	Yes
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Load voltage L+	
 Rated value (DC) 	24 V
 permissible range, lower limit (DC) 	20.4 V
 permissible range, upper limit (DC) 	28.8 V
Input current	
Current consumption (rated value)	500 mA; CPU only
Current consumption, max.	1 500 mA; CPU with all expansion modules
Inrush current, max.	12 A; at 28.8 V DC
l²t	0.5 A ² ·s
Output current	
for backplane bus (5 V DC), max.	1 600 mA; Max. 5 V DC for SM and CM
Encoder supply	
24 V encoder supply	
• 24 V	L+ minus 4 V DC min.
Power loss	
Power loss, typ.	12 W
Memory	
Work memory	
 integrated 	100 kbyte
expandable	No
Load memory	
• integrated	4 Mbyte
 Plug-in (SIMATIC Memory Card), max. 	with SIMATIC memory card
Backup	
• present	Yes
 maintenance-free 	Yes
 without battery 	Yes
CPU processing times	

for hit opprations, typ	
for bit operations, typ. for word operations, typ.	0.085 μs; / instruction 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
OB	
• Number, max.	Limited only by RAM for code
Data areas and their retentivity	4011.4
Retentive data area (incl. timers, counters, flags), max. Flag	10 kbyte
• Size, max.	8 kbyte; Size of bit memory address area
Local data	o koyle, 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
p -	KB
Address area	
Process image	
Inputs, adjustable	1 kbyte
Outputs, adjustable	1 kbyte
Hardware configuration	
Number of modules per system, max.	3 communication modules, no signal board can be used, 8 signal modules
Time of day	
Clock	
Hardware clock (real-time)	Yes
Backup time	480 h; Typical
Deviation per day, max.	60 s/month at 25 °C
Digital inputs	
Number of digital inputs	14; Integrated
of which inputs usable for technological functions	6; HSC (High Speed Counting)
Source/sink input Number of simultaneously controllable inputs	Yes
all mounting positions	
— up to 40 °C, max.	14
Input voltage	
Rated value (DC)	24 V
• for signal "0"	5 V DC at 1 mA
• for signal "1"	15 V DC at 2.5 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable
— at "0" to "1", min.	in groups of four 0.2 ms
— at "0" to "1", max.	0.2 ms 12.8 ms
for interrupt inputs	
— parameterizable	Yes
for technological functions	
— parameterizable	Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3
Only In the set	@ 30 kHz
Cable length	E00 m; E0 m for technological fractions
 shielded, max. unshielded, max. 	500 m; 50 m for technological functions 300 m; for technological functions: No
Digital outputs	10
Number of digital outputs	10 4: 100 kHz Pulse Train Output
 of which high-speed outputs Limitation of inductive shutdown voltage to 	4; 100 kHz Pulse Train Output L+ (-48 V)
Switching capacity of the outputs	
with resistive load, max.	0.5 A
 on lamp load, max. 	5 W
Output voltage	
• for signal "0", max.	0.1 V; with 10 kOhm load
• for signal "1", min.	20 V

Output current	
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.	5 μs
Switching frequency	
 of the pulse outputs, with resistive load, max. 	100 kHz
Relay outputs	
 Number of relay outputs 	0
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
— Input resistance (0 to 10 V)	≥100k ohms
Cable length	
• shielded, max.	100 m; twisted and shielded
Analog outputs	
Number of analog outputs	0
Analog value generation for the inputs	
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
1. Interface	
Interface type	PROFINET
Interface type Isolated	PROFINET Yes
Isolated	Yes
Isolated automatic detection of transmission rate	Yes Yes
Isolated automatic detection of transmission rate Autonegotiation	Yes Yes Yes
Isolated automatic detection of transmission rate Autonegotiation Autocrossing	Yes Yes Yes
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types	Yes Yes Yes
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet)	Yes Yes Yes Yes
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols	Yes Yes Yes Yes 1 No
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller	Yes Yes Yes Yes 1 No Yes
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device	Yes Yes Yes Yes 1 No Yes Yes
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Controller • SIMATIC communication	Yes Yes Yes Yes 1 No Yes Yes Yes
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication	Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes Yes; Optionally also encrypted
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server	Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes Yes; Optionally also encrypted Yes
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy	Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes Yes; Optionally also encrypted
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes; Optionally also encrypted Yes No
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max.	Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes Yes; Optionally also encrypted Yes
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services	Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes; Optionally also encrypted Yes No
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services — PG/OP communication	Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes; Optionally also encrypted Yes No 100 Mbit/s
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services • — PG/OP communication • — Isochronous mode	Yes Yes Yes Yes Yes 1 No Yes Yes Yes; Optionally also encrypted Yes; No 100 Mbit/s
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services - PG/OP communication - Isochronous mode - IRT	Yes Yes Yes Yes Yes 1 No Yes Yes Yes; Optionally also encrypted Yes No Yes No
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services - PG/OP communication - Isochronous mode - IRT - PROFInergy	Yes Yes Yes Yes Yes Yes 1 No Yes Yes; Optionally also encrypted Yes No Yes No
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services	Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes; Optionally also encrypted Yes No Yes No
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services - PG/OP communication - Isochronous mode - IRT - PROFIenergy	Yes Yes Yes Yes Yes Yes 1 No Yes Yes; Optionally also encrypted Yes No Yes No
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services • PG/OP communication • Isochronous mode • IRT • PROFIenergy • Prioritized startup • Number of IO devices with prioritized startup,	Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes; Optionally also encrypted Yes No Yes No
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services • PG/OP communication • Isochronous mode • IRT • PROFIenergy • Prioritized startup • Number of IO devices with prioritized startup, max.	Yes Yes Yes Yes Yes Yes Yes Yes Yes; Optionally also encrypted Yes No 100 Mbit/s Yes No 100 Mbit/s
Isolated automatic detection of transmission rate Autonegotiation Autocrossing Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch Protocols • PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Open IE communication • Web server • Media redundancy PROFINET IO Controller • Transmission rate, max. Services - PG/OP communication - Isochronous mode - IRT - PROFIenergy - Prioritized startup - Number of IO devices with prioritized startup, max. - Number of connectable IO Devices, max.	Yes Yes Yes Yes 1 No Yes Yes Yes Yes Yes; Optionally also encrypted Yes No 100 Mbit/s Yes No 100 Mbit/s 110 Mbit/s 110 Mbit/s

 Activation/deactivation 	of	10	Devices	

- Number of IO Devices that can be

simultaneously activated/deactivated, max.

- Updating time

PROFINET IO Device

Yes

8

The minimum value of the update time also depends on the communication component set for PROFINET IO, on the number of IO devices and the quantity of configured user data.

PROFINET IO Device	
Services	
— PG/OP communication	Yes
— Isochronous mode	No
— IRT	No
— PROFlenergy	Yes
— Shared device	Yes
 — Number of IO Controllers with shared device, 	2
max.	2
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIsafe	No
PROFIBUS	Yes; CM 1243-5 (master) or CM 1242-5 (slave) required
AS-Interface	Yes; CM 1243-2 required
Protocols (Ethernet)	
• TCP/IP	Yes
• DHCP	No
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
Redundancy mode	
Media redundancy	Na
- MRP	No
— MRPD	No
SIMATIC communication	
S7 routing	Yes
Open IE communication	
• TCP/IP	Yes
— Data length, max.	8 kbyte
• ISO-on-TCP (RFC1006)	Yes
— Data length, max.	8 kbyte
• UDP	Yes
— Data length, max.	1 472 byte
Web server	
	Yes
supported	
User-defined websites	Yes
OPC UA	
Runtime license required	Yes; "Basic" license required
OPC UA Server	Yes; Data access (read, write, subscribe), runtime license required
 Application authentication 	Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256
— User authentication	"anonymous" or by user name & password
 — Number of sessions, max. 	5
- Number of accessible variables, max.	1 000
— Number of subscriptions per session, max.	5
— Sampling interval, min.	100 ms
— Publishing interval, min.	200 ms
— Number of monitored items, recommended	500
max.	500
— Number of server interfaces, max.	2
 Number of server interfaces, max. Number of nodes for user-defined server 	2 1 000
— Number of nodes for user-defined server interfaces, max.	1000
Further protocols	Van
MODBUS	Yes
communication functions / header	
S7 communication	
supported	Yes
• as server	Yes
• as client	Yes

• Overall Declaration (Ref Col Controllation). Cell Color Controlling Color Communication (Cell Color Controlling Color Controlling Color Co	• User data per job, max.	See online help (S7 communication, user data size)
• overall Barnectors for com user communication radius or passive: TSEND C, TEXU, CT CON, TDSCON, TSEND C, SEND CPU/CPU connections (Clent or Sever) for CET/PUT data, 6 communication Text commissioning functions Statuscontrol workshow in the GET/PUT or open user communication Statuscontrol workshow Statuscontrol Statuscontro Statuscontrol Statuscontrol Statuscon		See online help (S7 continunication, user data size)
Statuscontrol Yes • Statuscontrol variable Yes • Forcing Yes • Forcing Yes • Diagnostic buffer Yes • Present Yes • Number of configurable Traces 2 • Number of configurable Status Information Present • RENOR RED Yes • Number of postion-controlled postioning axes, max 8 Number of arm inputa 4 Number of postion-controlled postioning axes Yes • Potential separation digital posts • • Potential separation 100 kHz Potential separation digital posts No • Enveren the channels, in groups of 1 • Potential separation d		TSEND_C, TRCV_C, TCON, TDISCON, TSÈND and TRCV, 8 CPU/CPU connections (Client or Server) for GET/PUT data, 6 connections for dynamic assignment to GET/PUT or open user
• Structure Yes • Variables Input/stoubub., memory bits, DBs, distributed I/Os, timers, counters • Forcing Yes • Forcing Yes • present Yes • Number of configurable Traces 2 • Momory size per trace, max. 512 kbyte • RUNSTOP LED Yes • FROR RED Yes • FROR RED Yes • RUNSTOP LED Yes • FROR RED Yes • FROR RED Yes • RENOR RED Yes • RENOR RED Yes • RENOR RED Yes • RENOR RED Yes • Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 4 Number of position-controlled position infrace Yes • Potential separation digital inputs 4 • Dotential separation digital inputs No • Potential separation digital inputs No • Potential separation digital inputs No • Potential separation digital inputs No • Dotential separation digital inputs Yes • Potential separation digital inputs No • Dotential separation digital inputs • Potential separation digital in	Test commissioning functions	
Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters Forcing Yes Diagnostic buffer Yes - present Yes Number of configurable Traces 2 - Momory size per trace, max. 512 kbyte Interpreteid/appointers/status/status/strace/max. 512 kbyte Diagnostics indication LED Yes - RUNSTOP LED Yes Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 8 Number of algostioning axes via pulse-direction interface Yes - Potential separation digital inputs 100 kHz - Potential separation digital inputs Yes - Potential separation digital outputs Yes - Potential separation digital outputs Yes - Test voltage at an discharge of stattc electricit	Status/control	
Forcing Yes Diapostic buffer Yes Proceed Yes Intraces 2 Memory size per trace, max. 512 kbyte Interruptok/lingmostics/status information Diaposts: buffer Diaposts: buffer 2 RENOR LED Yes • RUNSTOP LED Yes • MAINT LED Yes Integrated Functions Yes Frequency measurement Yes Prototioning axes via pulse-direction interface 4: With integrated outputs PID controller 4 Number of postioning axes via pulse-direction interface Yes PID controller Yes Number of pulse outputs 4 Number of pulse outputs 4 Potential separation 1 Potential separation digital inputs 1 • Deterview the channels, in groups of 1 • Interference immunity vagaist	 Status/control variable 	Yes
• present Yes Dagrastic kuffer • • present Yes • Number of configurable Traces 2 • Memory size per trace, max. 512 kbyte Dagrastic kufferio 512 kbyte Diagrastic kufferio 512 kbyte Diagrastic kufferio 512 kbyte Diagrastic kufferio 512 kbyte Diagrastic kufferio 512 kbyte • RENOR RED Yes • Integrated Functions Yes • Frequency measurement Yes • Proteining axes via pulse-direction interface 4, With integrated outputs • Dicontroller Yes Number of positioning axes via pulse-direction interface 4, With integrated outputs • Potential segaration digital inputs 4 • Detention Yes • Dottention is segaration digital inputs No • Detention is segaration digital inputs No • Detention is segaration digital outputs Yes • Detention is segaration digital outputs Yes • Detention is segaration digital outputs Yes •	Variables	Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
Diagnostic furger Yes * resent Yes * races 2 • Momory size per trace, max. 512 kbyte Interpretex/diagnostics/status information Diagnostic indication LED • RUNNSTOP LED Yes • FRROR LED Yes • MAINT LED Yes Integrated Functions Yes Frequency measurement Yes Production gaves via pulse-direction interface 4: With integrated outputs PiD controller Yes Number of positioning axes via pulse-direction interface 4: With integrated outputs PiD controller Yes Number of pulse outputs 4 Number of pulse outputs 4 Unit requency measurement Yes Potential separation 1 Potential separation digital inputs 1 • Detereme the channels, in groups of 1 • Detereme the channels, in groups of 1 • Detereme the channels, in groups of 1 • Detereme immunity against discharge of static directricity Yes • Interference immunity		
orgenent Yes Traces 2 • Number of configurable Traces 2 • Memory size per trace, max. 512 kbyte Diagnostics indication LED - • RUNRSTOP LED Yes • RUNRSTOP LED Yes • MAINT LED Yes • Integrated Functions - Frequency measurement Yes onthold positioning axes via pulse-direction interface 4. With integrated outputs Plic controlled positioning axes, via pulse-direction interface 4. With integrated outputs Plic controlled positioning axes via pulse-direction interface 4. With integrated outputs Plic controlled positioning axes via pulse-direction interface 4. With integrated outputs Plic controlled positioning axes via pulse-direction interface 4. With integrated outputs Plic controlled position digital inputs 4. Number of pulse outputs 4. • Potential separation digital inputs No • Detwent the channels, in groups of 1 • Detwent the channels, in groups of 1 Potential separation digital outputs Yes • betwe		Yes
Traces 2 • Number of configurable Traces max. 2 • Memory size per trace, max. 512 kbyte InterruptidIagnostics/status information Diagnostics indication LED • RUNISTOP LED Yes • RANT LED Yes • Controlled positioning axes in markan 8 Ontrolled positioning axes in a set of configurable direction interface 4. Number of position-controlled positioning axes, max. 8 Number of position-gaxes is upulse-direction interface 4. Number of alarm inputs 4 Potential separation digital inputs No • Potential separation digital inputs No • between the channels, in groups of 1 • Detential separation digital outputs Yes • between the channels, in groups of 1 • Detential separation digital outputs Yes • between the channels, in groups of 1 Interference immunity against	-	
Number of configurable Traces Memory size per trace, max. S12 kbyte Momory size per trace, max. S	·	Yes
Herrupsize part prace, max. 512 kbyte Interpretaidingnostic/status information Interpretaidingnostic/status information Obliganciatic information Yes • RUNSTOP LED Yes • MAINT Controlled positioning axes via puise-direction interface 4, With integrated outputs • Producerty measurement Yes • Number of positioning axes via puise-direction interface 4, With integrated outputs • Producting exparation digital inputs 4 • Number of puise outputs 4 • Potential separation digital inputs No • Potential separation digital outputs Yes • Potential separation digital outputs Yes • Potential separation digital outputs No • between the channels, in groups of 1 • Detertial separation digital outputs Yes • between the channels, in groups of static electricity 1 • Interference immunity against discharge 8 kV <td></td> <td>0</td>		0
Interrupts/diagnostics/status information Diagnostics/status information Diagnostics/status information Diagnostics/status information Provide the control of the set	0	
Diagnostics indication LED Yes • ERROR LED Yes MAINT LED Yes Integrated Functions Frequery measurement Yes controlled position-controlled positioning axes, max. Number of poils outputs Potential separation digital inputs Potential separation digital inputs Potential separation digital outputs No between the channels, in groups of Interference immunity against discharge of static electricity Interference immunity on supply lines acc. to IEC fi000.4.2 Test voltage at air discharge		ST2 ROVIE
• RUNSTOP LED Yes • ERROR LED Yes • MAINT LED Yes Frequency measurement Yes controlled positioning Yes Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 4 Number of position-controlled positioning axes, max. 100 kHz Potential separation digital inputs No • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels, in groups of		
• ERROR LED Yes MAINT LED Yes Integrated Functions Yes Frequency measurement Yes controlled position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 4 Number of position-controlled positioning axes, max. 4 Number of position-controlled positioning axes, max. 4 Number of puise outputs 4 Limit frequency (pulse) 100 KHz Potential separation digital inputs No • Potential separation digital inputs No • Potential separation digital outputs Yes • Dotential separation digital outputs Yes • between the channels No • Dotential separation digital outputs Yes • Interference immunity against discharge 8 kV - Test voltage at contact discharge 6 kV Interference immunity on supply lines acc. to IEC Yes • Interference immunity on supply lines acc. to IEC Yes	5	Vec
• MAINT LED Yes Integrated Functions Frequency measurement Yes Controlled positioning axes, max. 8 Number of positioning axes via pulse-direction interface 4, With integrated outputs PID controller Yes Number of alarm inputs 4 Potential separation digital inputs 1 Potential separation digital outputs Yes • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels No • between the channels No • between the channels No • laterference immunity against discharge of static electricity Yes • laterference immunity against discharge 8 kV - Test voltage at ari discharge 8 kV		
Integrated Functions Frequency measurement Yes Controlled position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 8 Number of position-controlled positioning axes, max. 4. With integrated outputs PID controller 4. Number of alarm inputs 4 Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs No • Potential separation digital inputs No • Detential separation digital outputs Yes • Potential separation digital outputs Yes • Detential separation digital outputs Yes • Detential separation digital outputs Yes • Detential separation digital outputs Yes • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels, ing roups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity 1 Interference immunity on supply lines acc.		
Frequency measurement Yes controlled positioning Yes Number of position-controlled positioning axes, max. 8 Number of positioning axes via pulse-direction interface 4; With integrated outputs PID controller Yes Number of alarm inputs 4 Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs No Potential separation digital outputs Ves between the channels No between the channels No<!--</td--><td></td><td></td>		
controlled positioning Yes Number of positioning axes, max. 8 Number of positioning axes, inpulse-direction interface 4: With integrated outputs Pittin integrated outputs 4. Number of alerm inputs 4 Number of alerm inputs 4 Number of alerm inputs 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs No • Potential separation digital outputs 1 • Potential separation digital outputs Yes • between the channels, in groups of 1 • Interference immunity against discharge of static electricity • Interference immunity against discharge • Interference immunity against discharge 8 kV • Interference immunity on supply lines acc. to IEC Yes • Interference immunity on supply lines acc. to IEC Yes • Interference immunity against voltage surge Yes • Interference immunity against woltage surge Yes		Yes
Number of position-controlled positioning axes, max. 8 Number of positioning axes via pulse-direction interface 4; With integrated outputs PID controller Yes Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs • Potential separation digital inputs • Potential separation digital outputs • • Potential separation digital outputs • • Potential separation digital outputs • • Potential separation digital outputs • • Potential separation digital outputs • • Potential separation digital outputs • • Potential separation digital outputs Yes • Detail separation digital outputs Yes • Detail separation digital outputs Yes • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity on supply lines acc. to IEC 61000-4-2 * • Test voltage at air discharge 8 kV • Test voltage at air discharge 6 kV Interference immunity on supply lines acc. to IEC 61000-4-4 Yes • Interference immunity on supply lines acc. to IEC 61000-4-5 Yes Interference immunity on supply lines acc. to IEC 6100		
Number of positioning axes via pulse-direction interface 4; With integrated outputs PID controller Yes Number of pulse outputs 4 Number of pulse outputs 4 Linit frequency (pulse) 100 kHz Potential separation digital inputs No • Potential separation digital inputs No • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels, in groups of 1 Potential separation digital outputs Yes • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge 8 kV - Test voltage at contact discharge 6 kV Interference immunity to supply lines acc. to IEC 61000-4-2 Yes • Interference immunity on supply lines acc. to IEC 61000-4-4 Yes • Interference immunity against voltage surge Interference immunity against onducted variable disturbance induced by high-frequency fields • Interference immunity against torducted variable disturbance induced by high-frequency fields Yes • Interference immunity against onducted variable disturbance induced by high-frequency fields<		
PID controller Yes Number of alarm inputs 4 Number of pulse outputs 4 Limit frequency (pulse) 100 kHz Potential separation digital inputs Potential separation digital inputs No • Potential separation digital outputs 1 • Potential separation digital outputs Yes • Detervial separation digital outputs Yes • Interference immunity against discharge of static electricity Interference immunity on supply lines acc. to IEC 61000-4-2 • Interference immunity on supply lines acc. to IEC 61000-4-2 Yes • Interference immunity against voltage surge Yes • Interference immunity against conducted variable disturbance Induced by high-frequency fields • Interference im		
Number of pulse outputs 4 Limit frequency (pulse) 100 KHz Potential separation 100 KHz Potential separation digital inputs No Potential separation digital inputs Potential separation digital outputs Potential separation digital outputs		
Limit frequency (pulse) 100 kHz Potential separation digital inputs • Potential separation digital inputs No • Detential separation digital outputs No • Detential separation digital outputs Yes • Detential separation digital outputs Yes • Deterveen the channels, in groups of 1 • Deterveen the channels, in groups of 1 • Deteween the channels, in groups of 1 • Deteween the channels, in groups of 1 • Deteween the channels, in groups of 1 • Detween the channels No • between the channels No • Detween the channels No • Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity • Interference immunity against discharge 8 kV - Test voltage at air discharge 6 kV Interference immunity on supply lines acc. to IEC 61000-4.2 Yes • Interference immunity against voltage surge Yes • Interference immunity against voltage surge Yes • Interference immunity against conducted variable disturbance induced by high-frequency fields • Interference im	Number of alarm inputs	4
Potential separation Potential separation digital inputs • Potential separation digital inputs • Detween the channels, in groups of • Potential separation digital outputs • Potential separation digital outputs • Detween the channels, in groups of • Detween the channels • between the channels • between the channels • between the channels • between the channels in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge 6 kV Interference immunity to cable-borne interference • Interference immunity on supply lines acc. to IEC 61000-4-2 • Test voltage at contact discharge 6 kV Interference immunity on supply lines acc. to IEC 61000-4-4 • Interference immunity on supply lines acc. to IEC 61000-4-4 • Interference immunity against voltage surge • Interference immunity against outcuted variable disturbance induced by high-frequency fields • Interference immunity against conducted variable disturbance 6 klow 1 Interference immunity against onducted variable disturbance 6 klow	Number of pulse outputs	4
Potential separation digital inputs No • Potential separation digital inputs No • Detential separation digital outputs 1 Potential separation digital outputs Yes • Potential separation digital outputs Yes • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity acc. to IEC 61000-4-2 Yes — Test voltage at air discharge 8 kV — Test voltage at air discharge 6 kV Interference immunity on supply lines acc. to IEC 61000-4-4 Yes • Interference immunity on supply lines acc. to IEC 61000-4-4 Yes • Interference immunity on supply lines acc. to IEC 61000-4-4 Yes • Interference immunity on supply lines acc. to IEC 61000-4-4 Yes • Interference immunity on supply lines acc. to IEC 61000-4-5 Yes • Interference immunity against toitage surge Interference immunity against toitage surge • Interference immunity against toid-frequency radiation acc. to IEC 61000-4-4 Yes Emission of radio interference ac. to EN 55 011 Yes; Group 1 • Limit class A, for use in industrial areas Yes; Group 1	Limit frequency (pulse)	100 kHz
• Potential separation digital inputs No • between the channels, in groups of 1 Potential separation digital outputs Yes • Potential separation digital outputs Yes • between the channels No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Yes • electricity acc. to IEC 61000-4-2 Yes - Test voltage at air discharge 8 kV - Test voltage at air discharge 6 kV Interference immunity on supply lines acc. to IEC 61000-4-2 Yes • Interference immunity on supply lines acc. to IEC 61000-4-4 Yes • 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 Yes • Interference immunity against conducted variable disturbance Induced by high-frequency fields • Interference immunity against high-frequency radiation acc. to IEC 61000-4-5 Yes • Interference immunity against high-frequency radiation acc. to IEC 61000-4-5 Yes • Interference immunity against	Potential separation	
• between the channels, in groups of 1 Potential separation digital outputs Yes • Potential separation digital outputs Yes • between the channels No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Yes - Test voltage at air discharge 8 kV - Test voltage at or discharge 6 kV Interference immunity on supply lines acc. to IEC Yes • Interference immunity on signal cables acc. to IEC Yes • Interference immunity against voltage surge Yes • Interference immunity on supply lines acc. to IEC Yes • Interference immunity against voltage surge Yes • Interference immunity against voltage surge Yes • Interference immunity against high-frequency redistion acc. to IEC Yes • Interference immunity against high-frequency redistion acc. to IEC 61000-4-6 Yes Interference immunity against high-frequency redistion acc. to IEC 61000-4-6 Yes Interference immunity against high-frequency redistion acc. to IEC 61000-4-6 Yes Emission of radio interference ac. to EN 55 011	Potential separation digital inputs	
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• Potential separation digital outputs Yes • between the channels No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Yes • electricity acc. to IEC 61000-4-2 8 kV - Test voltage at air discharge 8 kV - Test voltage at contact discharge 6 kV Interference immunity to cable-borne interference Yes • 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 Yes • Interference immunity against voltage surge Yes • Interference immunity against high-frequency relation acc. to IEC 61000-4-6 Yes • Interference immunity against bigh-frequency relation acc. to IEC 61000-4-6 Yes • Interference immunity against high-frequency relation acc. to IEC 61000-4-6 Yes • Interference immunity against high-frequency relation acc. to IEC 61000-4-6 Yes • Interference immunity against high-frequency Yes • Interference immunity against high-frequency Yes • Inte	 between the channels, in groups of 	1
• between the channels No • between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • 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 6 kV 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 Yes • Interference immunity against voltage surge Yes • Interference immunity against conducted variable disturbance induced by high-frequency fields Yes • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Yes • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Yes • Interference immunity against high-frequency Yes Yes • Interference immunity against conducted variable disturbance Induced by high-frequency fields • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Yes; Group 1 • Limit class A, for use in industrial areas Yes; When appropriate measur	Potential separation digital outputs	
• between the channels, in groups of 1 EMC Interference immunity against discharge of static electricity • 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 Yes • 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 on signal cables acc. to IEC 61000-4-4 Yes • Interference immunity against voltage surge Yes • Interference immunity against conducted variable disturbance induced by high-frequency fields • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Yes • Interference immunity against conducted variable disturbance induced by high-frequency fields • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Yes Emission of radio interference acc. to EN 55 011 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 industrial areas Yes; When appropriate measures are used to ensure		
EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity acc. to IEC 61000-4-2 Yes - Test voltage at air discharge 8 kV - Test voltage at air discharge 6 kV Interference immunity to cable-borne interference 6 kV 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 Yes • Interference immunity against outlage surge Yes • Interference immunity against conducted variable disturbance induced by high-frequency fields Yes • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Yes Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Yes; Group 1 • 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 IP20		
Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity acc. to IEC 61000-4-2 Test voltage at air discharge KV Test voltage at air discharge KV Interference immunity to cable-borne interference Interference immunity on supply lines acc. to IEC 61000-4-4 Interference immunity on supply lines acc. to IEC 61000-4-4 Interference immunity against voltage surge Interference immunity against voltage surge Interference immunity against toge surge Interference immunity against toge surge Interference immunity against conducted variable disturbance induced by high-frequency fields Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Yes Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Emission of radio interference acc. to EN 55 011 Limit class A, for use in industrial areas Limit class B, for use in residential areas Ves; When appropriate measures are used to ensure compliance with the limits for Class B according to EN 55011 Degree and class of protection IP degree of protection IP20 IP20<		1
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electricity acc. to IEC 6100-4-2 — 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 • Interference immunity on signal cables acc. to IEC 61000-4-4 • Interference immunity on signal cables acc. to IEC 61000-4-4 • Interference immunity against voltage surge • Interference immunity against conducted variable disturbance induced by high-frequency fields • Interference immunity against conducted variable disturbance induced by high-frequency fields • Interference immunity against conducted variable disturbance induced by high-frequency fields • Interference immunity against conducted variable disturbance induced by high-frequency fields • Interference acc. to EN 55 011 • Limit class A, for use in industrial areas • Limit class B, for use in residential areas • Limit class B, for use in residential areas • Limit class G protection IP degree of protection IP 20		Ver
— Test voltage at contact discharge 6 kV Interference immunity to cable-borne interference • Interference immunity on supply lines acc. to IEC 61000-4-4 Yes • Interference immunity on signal cables acc. to IEC 61000-4-4 Yes • Interference immunity against voltage surge Yes • Interference immunity against voltage surge Yes • Interference immunity against voltage surge Yes • Interference immunity against conducted variable disturbance induced by high-frequency fields Yes • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Yes Emission of radio interference acc. to EN 55 011 Yes; Group 1 • 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 IP20	electricity acc. to IEC 61000-4-2	
Interference immunity to cable-borne interference • Interference immunity on supply lines acc. to IEC 61000-4-4 • Interference immunity on signal cables acc. to IEC 61000-4-4 • Interference immunity against voltage surge • Interference immunity on supply lines acc. to IEC 61000-4-4 Interference immunity against voltage surge • Interference immunity against conducted variable disturbance • Interference immunity against conducted variable disturbance • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Emission of radio interference acc. to EN 55 011 • Limit class A, for use in industrial areas • Limit class B, for use in residential areas • Limit class of protection IP degree of protection		
Interference immunity on supply lines acc. to IEC 61000-4-4 Interference immunity on signal cables acc. to IEC 61000-4-4 Interference immunity against voltage surge Interference immunity on supply lines acc. to IEC 61000-4-5 Interference immunity against conducted variable disturbance induced by high-frequency fields Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Emission of radio interference acc. to EN 55 011 Itimit class A, for use in industrial areas Ves; 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 IP degree of protection	5 S	
61000-4-4 • Interference immunity on signal cables acc. to IEC Yes 61000-4-4 Interference immunity against voltage surge • Interference immunity on supply lines acc. to IEC Yes • Interference immunity against conducted variable disturbance induced by high-frequency fields • Interference immunity against conducted variable disturbance induced by high-frequency fields • Interference immunity against high-frequency • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Yes 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 IP20	•	Yes
61000-4-4 Interference immunity against voltage surge • Interference immunity on supply lines acc. to IEC 61000-4-5 Yes Interference immunity against conducted variable disturbance induced by high-frequency fields Yes • Interference immunity against conducted variable disturbance induced by high-frequency fields Yes • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Yes Emission of radio interference acc. to EN 55 011 Yes; Group 1 • Limit class A, for use in industrial 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 IP20	61000-4-4	
• Interference immunity on supply lines acc. to IEC 61000-4-5 Yes Interference immunity against conducted variable disturbance induced by high-frequency fields • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Emission of radio interference acc. to EN 55 011 Yes; Group 1 • Limit class A, for use in industrial 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 IP degree of protection	, ,	
61000-4-5 Interference immunity against conducted variable disturbance induced by high-frequency fields • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Yes Emission of radio interference acc. to EN 55 011 • Limit class A, for use in industrial areas • Limit class B, for use in residential areas Yes; Group 1 • Limit class of protection Yes; When appropriate measures are used to ensure compliance with the limits for Class B according to EN 55011	Interference immunity against voltage surge	
• 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 • Limit class B, for use in residential 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 IP20	5 11 5	Yes
radiation acc. to IEC 61000-4-6 Image: Constraint of the second seco		
Limit class A, for use in industrial areas Limit class B, for use in residential areas Yes; Group 1 Yes; When appropriate measures are used to ensure compliance with the limits for Class B according to EN 55011 Degree and class of protection IP degree of protection IP20	radiation acc. to IEC 61000-4-6	Yes
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 IP degree of protection IP20		
IP degree of protection IP20		
IP degree of protection IP20	Limit class B, for use in residential areas	
	Degree and class of protection	
Ambient conditions	IP degree of protection	IP20
	Ambient conditions	

Free fall	
 Fall height, max. 	0.3 m; five times, in product package
Ambient temperature during operation	
● min. ● max.	-40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C 70 °C; = Tmax; Tmax > +55 °C number of simultaneously switched-on digital inputs 7, digital outputs 5, analog inputs 2 (no adjacent points) with horizontal mounting position; Tmax > +60 °C number of simultaneously switched-on digital inputs 7, digital outputs 5, analog inputs 1 (no adjacent points) with horizontal mounting position
At cold restart, min.	-25 °C
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Altitude during operation relating to sea level • Installation altitude above sea level, max.	5 000 m
Ambient air temperature-barometric pressure- altitude	Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m)
Relative humidity	
With condensation, tested in accordance with IEC 60068-2-38, max. Vibrations	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Vibration resistance during operation acc. to IEC	2 g (m/s ²) wall mounting, 1 g (m/s ²) DIN rail
60068-2-6	
 Operation, tested according to IEC 60068-2-6 	Yes
Shock testing	
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
Resistance	
Coolants and lubricants — Resistant to commercially available coolants	Yes; Incl. diesel and oil droplets in the air
and lubricants	res, incl. dieser and on dropiets in the air
Use in stationary industrial systems — to biologically active substances according to	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of
 It biologically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-3 	fauna); Class 3B2 mole, rungus and dry for spores (with the exception of fauna); Class 3B3 on request Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
— to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
 — to chemically active substances according to EN 60721-3-6 — to mechanically active substances according to 	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes; Class 6S3 incl. sand, dust; *
EN 60721-3-6	
Usage in industrial process technology	
 Against chemically active substances acc. to EN 60654-4 	Yes; Class 3 (excluding trichlorethylene)
 Environmental conditions for process, measuring and control systems acc. to ANSI/ISA- 71.04 	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
Remark	
 — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 	* The supplied plug covers must remain in place over the unused interfaces during operation!
Conformal coating	
 Coatings for printed circuit board assemblies acc. to EN 61086 	Yes; Class 2 for high reliability
 Protection against fouling acc. to EN 60664-3 Military testing according to MIL-I-46058C, Amendment 7 	Yes; Type 1 protection Yes; Discoloration of coating possible during service life
 Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A 	Yes; Conformal coating, Class A
configuration / header	
configuration / programming / header Programming language	

— LAD	Yes
— FBD	Yes
— SCL	Yes
Know-how protection	
 User program protection/password protection 	Yes
 Copy protection 	Yes
 Block protection 	Yes
Access protection	
 Protection level: Write protection 	Yes
 Protection level: Read/write protection 	Yes
 Protection level: Complete protection 	Yes
programming / cycle time monitoring / header	
adjustable	Yes
Dimensions	
Width	110 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	415 g
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