## SIEMENS

## Data sheet

## 6ES7214-1AG40-0XB0



SIMATIC S7-1200, CPU 1214C, compact CPU, DC/DC/DC, onboard I/O: 14 DI 24 V DC; 10 DO 24 V DC; 2 AI 0-10 V DC, power supply: DC 20.4-28.8 V DC, program/data memory 150 KB

Figure simila	ar
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General information	
Product type designation	CPU 1214C DC/DC/DC
Firmware version	V4.6
Engineering with	
Programming package	STEP 7 V18 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
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
l²t	0.5 A <sup>2</sup> .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	150 kbyte
Load memory	
integrated	4 Mbyte
<ul> <li>Plug-in (SIMATIC Memory Card), max.</li> </ul>	with SIMATIC memory card
Backup	
• present	Yes
maintenance-free	Yes
without battery	Yes
CPU processing times	
for bit operations, typ.	0.08 μs; / instruction

for word operations, typ.	1.7 µs; / instruction
for floating point arithmetic, typ.	2.3 µs; / instruction
CPU-blocks	
Number of blocks (total)	DBs, FCs, FBs, counters and timers. The maximum number of addressable blocks ranges from 1 to 65535. There is no restriction, the entire working memory can be used
OB	
• Number, max.	Limited only by RAM for code
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	14 kbyte
Flag	
• Size, max.	8 kbyte; Size of bit memory address area
Local data	
<ul> <li>per priority class, max.</li> </ul>	16 kbyte; Priority class 1 (program cycle): 16 KB, priority class 2 to 26: 6 KB
Address area	
Process image	
Inputs, adjustable	1 kbyte
• Outputs, adjustable	1 kbyte
Hardware configuration	
Number of modules per system, max.	3 comm. modules, 1 signal board, 8 signal modules
Time of day	
Clock	
Hardware clock (real-time)	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	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	14
Input voltage	
Rated value (DC)	24 V
• for signal "0"	5 V DC at 1 mA
• for signal "1"	15 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 in groups of four
— parameterizable — at "0" to "1", min.	groups of four 0.2 ms
<ul> <li>parameterizable</li> <li>at "0" to "1", min.</li> <li>at "0" to "1", max.</li> </ul>	groups of four
<ul> <li>parameterizable</li> <li>at "0" to "1", min.</li> <li>at "0" to "1", max.</li> </ul> for interrupt inputs	groups of four 0.2 ms 12.8 ms
<ul> <li>parameterizable</li> <li>at "0" to "1", min.</li> <li>at "0" to "1", max.</li> <li>for interrupt inputs</li> <li>parameterizable</li> </ul>	groups of four 0.2 ms
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<ul> <li>parameterizable</li> <li>at "0" to "1", min.</li> <li>at "0" to "1", max.</li> <li>for interrupt inputs</li> <li>parameterizable</li> <li>for technological functions</li> <li>parameterizable</li> </ul>	groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz
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<ul> <li>parameterizable</li> <li>at "0" to "1", min.</li> <li>at "0" to "1", max.</li> <li>for interrupt inputs</li> <li>parameterizable</li> <li>for technological functions</li> <li>parameterizable</li> </ul> Cable length <ul> <li>shielded, max.</li> <li>unshielded, max.</li> </ul> Digital outputs Number of digital outputs <ul> <li>of which high-speed outputs</li> </ul>	groups of four 0.2 ms 12.8 ms Yes Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz KHz 500 m; 50 m for technological functions 300 m; for technological functions: No 10 4; 100 kHz Pulse Train Output
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<ul> <li>for signal "1" rated value</li> </ul>	0.5 A
<ul> <li>for signal "0" residual current, max.</li> </ul>	0.1 mA
Output delay with resistive load	
• "0" to "1", max.	1 µs
• "1" to "0", max.	5 µs
Switching frequency	
<ul> <li>of the pulse outputs, with resistive load, max.</li> </ul>	100 kHz
Relay outputs	
Number of relay outputs	0
Cable length	
<ul> <li>shielded, max.</li> </ul>	500 m
• unshielded, max.	150 m
Analog inputs	
	2
Number of analog inputs	2
Input ranges	Mar
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	
<ul> <li>Resolution with overrange (bit including sign), max.</li> </ul>	10 bit
<ul> <li>Integration time, parameterizable</li> </ul>	Yes
Conversion time (per channel)	625 µs
Encoder	
Connectable encoders	
Connectable encoders  • 2-wire sensor	Yes
• 2-wire sensor	Yes
• 2-wire sensor 1. Interface	
2-wire sensor      I. Interface  Interface type	PROFINET
2-wire sensor      1. Interface      Interface type      Isolated	PROFINET Yes
• 2-wire sensor      1. Interface Interface type Isolated automatic detection of transmission rate	PROFINET Yes Yes
2-wire sensor      1. Interface      Interface type      Isolated      automatic detection of transmission rate      Autonegotiation	PROFINET Yes Yes Yes
• 2-wire sensor      1. Interface      Interface type      Isolated      automatic detection of transmission rate      Autonegotiation      Autocrossing	PROFINET Yes Yes
• 2-wire sensor      1. Interface      Interface type      Isolated      automatic detection of transmission rate      Autonegotiation      Autocrossing      Interface types	PROFINET Yes Yes Yes Yes
• 2-wire sensor      1. Interface      Interface type      Isolated      automatic detection of transmission rate      Autonegotiation      Autocrossing      Interface types      • RJ 45 (Ethernet)	PROFINET Yes Yes Yes Yes
• 2-wire sensor      1. Interface      Interface type      Isolated      automatic detection of transmission rate      Autonegotiation      Autocrossing      Interface types      • RJ 45 (Ethernet)      • Number of ports	PROFINET Yes Yes Yes Yes 1
• 2-wire sensor      1. Interface      Interface type      Isolated      automatic detection of transmission rate      Autonegotiation      Autocrossing Interface types      • RJ 45 (Ethernet)      • Number of ports      • integrated switch	PROFINET Yes Yes Yes Yes
• 2-wire sensor      I. Interface      Interface type      Isolated      automatic detection of transmission rate      Autonegotiation      Autocrossing      Interface types      • RJ 45 (Ethernet)      • Number of ports      • integrated switch      Protocols	PROFINET Yes Yes Yes Yes 1 No
• 2-wire sensor      1. Interface      Interface type      Isolated      automatic detection of transmission rate      Autonegotiation      Autocrossing      Interface types      • RJ 45 (Ethernet)      • Number of ports      • integrated switch      Protocols      • PROFINET IO Controller	PROFINET Yes Yes Yes Yes 1 No
• 2-wire sensor      I. Interface      Interface type      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	PROFINET Yes Yes Yes Yes 1 No Yes Yes
• 2-wire sensor      1. Interface      Interface type      Isolated      automatic detection of transmission rate      Autonegotiation      Autocrossing      Interface types      • RJ 45 (Ethernet)      • Number of ports      • integrated switch      Protocols      • PROFINET IO Controller	PROFINET Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes
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• 2-wire sensor      1. Interface      Interface type      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	PROFINET Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes
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• 2-wire sensor      Interface      Interface type      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	PROFINET Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes Yes Yes; Optionally also encrypted Yes
• 2-wire sensor      1. Interface      Interface type      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 Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes Yes Yes; Optionally also encrypted Yes
• 2-wire sensor      1. Interface      Interface type      Isolated      automatic detection of transmission rate      Autonegotiation      Autocrossing      Interface types      • RJ 45 (Ethernet)      • Number of ports      • integrated switch      Protocols      • PROFINET IO Controller      • SIMATIC communication      • Open IE communication      • Web server      • Media redundancy      PROFINET IO Controller	PROFINET Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
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2-wire sensor      Interface      Interface type      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          Web server          Media redundancy      PROFINET IO Controller          Transmission rate, max.      Services	PROFINET Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes Yes; Optionally also encrypted Yes No
<ul> <li>2-wire sensor</li> <li>1. Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>PROFINET IO Controller</li> <li>PROFINET IO Device</li> <li>SIMATIC communication</li> <li>Open IE communication</li> <li>Web server</li> <li>Media redundancy</li> <li>PROFINET IO Controller</li> <li>Transmission rate, max.</li> <li>Services</li> <li>— PG/OP communication</li> </ul>	PROFINET Yes Yes Yes Yes Yes 1 No Yes Yes Yes Yes; Optionally also encrypted Yes No 100 Mbit/s Yes; encryption with TLS V1.3 pre-selected
<ul> <li>2-wire sensor</li> <li>1. Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>PROFINET IO Controller</li> <li>PROFINET IO Device</li> <li>SIMATIC communication</li> <li>Open IE communication</li> <li>Web server</li> <li>Media redundancy</li> <li>PROFINET IO Controller</li> <li>Transmission rate, max.</li> <li>Services</li> <li>— PG/OP communication</li> <li>— Isochronous mode</li> <li>— IRT</li> </ul>	PROFINET Yes Yes Yes Yes Yes Yes Yes Yes
<ul> <li>2-wire sensor</li> <li>1. Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>PROFINET IO Controller</li> <li>PROFINET IO Device</li> <li>SIMATIC communication</li> <li>Open IE communication</li> <li>Web server</li> <li>Media redundancy</li> <li>PROFINET IO Controller</li> <li>Transmission rate, max.</li> <li>Services</li> <li>PG/OP communication</li> <li>Isochronous mode</li> <li>IRT</li> <li>PROFIenergy</li> </ul>	PROFINET Yes Yes Yes Yes Yes Yes Yes Yes
<ul> <li>2-wire sensor</li> <li>1. Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>PROFINET IO Controller</li> <li>PROFINET IO Device</li> <li>SIMATIC communication</li> <li>Open IE communication</li> <li>Web server</li> <li>Media redundancy</li> <li>PROFINET IO Controller</li> <li>Transmission rate, max.</li> <li>Services</li> <li>— PG/OP communication</li> <li>— Isochronous mode</li> <li>— IRT</li> <li>— PROFIenergy</li> <li>— Prioritized startup</li> </ul>	PROFINET         Yes         No         100 Mbit/s         Yes; encryption with TLS V1.3 pre-selected         No         No         No         No         No         No         No         Yes
<ul> <li>2-wire sensor</li> <li>Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>PROFINET IO Controller</li> <li>PROFINET IO Device</li> <li>SIMATIC communication</li> <li>Open IE communication</li> <li>Web server</li> <li>Media redundancy</li> <li>PROFINET IO Controller</li> <li>Transmission rate, max.</li> <li>Services</li> <li>— PG/OP communication</li> <li>— Isochronous mode</li> <li>— IRT</li> <li>— PROFIenergy</li> <li>— Prioritized startup</li> <li>— Number of IO devices with prioritized startup, max.</li> </ul>	PROFINET   Yes   No   Yes; Optionally also encrypted   Yes   No   Yes; encryption with TLS V1.3 pre-selected   No   No  <
2-wire sensor      Interface      Interface type      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          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 IO devices with prioritized startup, max.          — Number of IO devices with prioritized startup, max.          — Number of IO devices with prioritized startup, max.          — Number of connectable IO Devices, max.	PROFINET           Yes           Yoo           100 Mbit/s           Yes; encryption with TLS V1.3 pre-selected           No           Yes           16           16
<ul> <li>2-wire sensor</li> <li>Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>PROFINET IO Controller</li> <li>PROFINET IO Device</li> <li>SIMATIC communication</li> <li>Open IE communication</li> <li>Web server</li> <li>Media redundancy</li> <li>PROFINET IO Controller</li> <li>Transmission rate, max.</li> <li>Services</li> <li>— PG/OP communication</li> <li>— Isochronous mode</li> <li>— IRT</li> <li>— PROFIenergy</li> <li>— Prioritized startup</li> <li>— Number of IO devices with prioritized startup, max.</li> </ul>	PROFINET         Yes         100 Mbit/s         Yes; encryption with TLS V1.3 pre-selected         No         Yes         16

Activation/deastivation of IQ Devices	Yes
Activation/deactivation of IO Devices	
<ul> <li>Number of IO Devices that can be simultaneously activated/deactivated, max.</li> </ul>	8
— Updating time	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; encryption with TLS V1.3 pre-selected
— Isochronous mode	No
— IRT	No
- PROFlenergy	Yes
— Shared device	Yes
<ul> <li>— Number of IO Controllers with shared device, max.</li> </ul>	2
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIsafe	No
PROFIBUS	Yes; CM 1243-5 (master) or CM 1242-5 (slave) required
OPC UA	Yes; OPC UA Server
AS-Interface	Yes; CM 1243-2 required
Protocols (Ethernet)	
TCP/IP	Yes
• DHCP	No
• SNMP	Yes
• DCP	Yes
LLDP     Redundancy mode	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
<ul> <li>ISO-on-TCP (RFC1006)</li> </ul>	Yes
— Data length, max.	8 kbyte
• UDP	Yes
— Data length, max.	1 472 byte
Web server	
supported	Yes
User-defined websites	Yes
OPC UA	
Runtime license required	Yes; "Basic" license required
OPC UA Server	Yes; data access (read, write, subscribe), method call, runtime license required
— Application authentication	Available security policies: None, Basic128Rsa15, Basic256Rsa15, Basic256Sha256
— User authentication	"anonymous" or by user name & password
— Number of sessions, max.	10
- Number of subscriptions per session, max.	5
— Sampling interval, min.	100 ms
— Publishing interval, min.	200 ms
— Number of server methods, max.	20
- Number of monitored items, recommended max.	1 000
— Number of server interfaces, max.	2
<ul> <li>Number of nodes for user-defined server interfaces,</li> </ul>	2 000
max.	
Further protocols	
	Yes
• MODBUS	165
MODBUS communication functions / header	

solies         Yes           Second biology         Second biology           Number of commentions         Personnet of the mark of the Second biology           Personnet of the mark of the Second biology         Personnet of the mark of the Second biology           Second biology         Personnet of the mark of the Second biology           Second biology         Yes		Vee
Auniter of contractions         See and map inpipe, max.         See and map inpipe, max.           Number of contractions         Proceedings of Contractions of Annue (MI) Contractions of Preasure) (A Prank (Departmentions): See and (Departmentions	• as server	Yes
Number of connections         PC Connections: A reaserved / 4 max. PMM Connections: 12 reserved / 4 max. VMM Conne		
• overall         PG Connections: A reaseword / 4 max; PM UC connections: B reaseword / 16 max; VM IC connections: B reaseword /		See online help (57 communication, user data size)
Status/control variable         Yes           • Variables         Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters           • Forning         Yes           Dargeostic buffer         •           • (roring)         Yes           Dargeostic buffer         •           • (roring)         Yes           Dargeostic buffer         •           • (Wimber of configurable Traces         2           • (Mumber of configurable Traces         52 kby/e           • (MANT LED         Yes           • (EROP RLED         Yes           • Counting Requeres, max.         100 kHz           • Frequency measurement         Yes           • Counting Requeres, max.         8           • Counting Requeres, max.         4           • Number of positic registration         Yes           • Counting Requeres, max.         4           • Counting Requeres, max.         4           • Counting Requeres, max.         4           • Counting Requeres, max.         100 kHz           • Frequenci Aposticoning area uputas		S7 Connections: 8 reserved / 14 max; Open User Connections: 8 reserved / 14 max; Web Connections: 2 reserved / 30 max; OPC UA Connections: 0 reserved
• Struicelice     Yes       • Forcing     Yes       • Forcing     Yes       • Struicelice     Yes       • Summer of configurate Fraces     2       • Memory size per trace, max.     512 bayle       • Memory size per trace, max.     512 bayle       • Memory size per trace, max.     512 bayle       • RUNSTOP LED     Yes       • RUNSTOP CONTRACE	Test commissioning functions	
Availables         Inputsoutputs, memory bits, DBa, distributed I/Os, timers, counters           Forcing         Yes           Disgonasis buffer         -           - present         Yes           Number of configurable Traces         2           - Mumory size per trace, max.         512 kityte           Number of configurable Traces         2           - Mumory size per trace, max.         512 kityte           Number of configurable Traces         2           - Mumory size per trace, max.         512 kityte           Number of configurable Traces         2           - REROR RED         Yes           - REROR RED         Yes           - Number of counters         6           - Counter         9           - Counter         Yes           - Number of position controlled positioning axes, max.         8           Number of position controlled positioning axes, max.         100 kit/a           - Potential separation digital inputs         1           - Potential separatin digital inputs         1	Status/control	
Forcing         Yes           • Porting         Yes           • present         Yes           • Number of configurable Traces         2           • Memory size per trace, max.         512 khyte           • Memory size per trace, max.         512 khyte           • Memory size per trace, max.         512 khyte           • RUNSTOP LED         Yes           • RUNSTOP COUNTER         0           • RUNTED         Yes           • RUNTED or pationing axes in max.         8           Number of pationing axes in max.         8           Numbe	<ul> <li>Status/control variable</li> </ul>	Yes
Frecing	Variables	Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
Diagnostic buffer         Yes           • present         Yes           • Number of configurable Traces         2           • Memory size per trace, max.         512 kbyte           Diagnostic side configurable Traces         2           • RUNSTOP LED         Yes           • RUNSTOP LED         Yes           • RUNSTOP LED         Yes           • MAINT LED         Yes           • Number of counters         6           • Counting frequency, max.         100 kHz           • Prequency measurement.         Yes           • Number of counters         6           • Counting frequency, max.         100 kHz           • Prequency measurement.         Yes           • Number of controller controlled positioning axes, max.         8           Number of position controlled positioning axes, max.         8           Number of position controlled positioning axes, max.         8           Protontoller         Yes           • Potontoller         Yes           • Potontoller         Yes           • Potontoller         Yes           • Number of poles outputs         4           • Potontoller         Yes           • Potontoller         No           • P	Forcing	
	Forcing	Yes
Traces         2           Mumber of configurable Traces         2           Memory size per trace, max.         512 kbyte           Diagnostics indicators information         512 kbyte           RUNNSTOP LED         Yes           • RUNNSTOP LED         Yes           • RUNNSTOP LED         Yes           • MAINT LED         Yes           • Mumber of counters         6           • Counting frequency, max.         100 kHz           Frequency measurement         Yes           • Number of positioning axes, max.         8           Number of positioning axes, max.         8           Number of positioning axes, max.         8           Number of positioning axes via puise-direction interface         4: Wth integrated outputs           PID controller         Yes           Number of atem inputs         4           Number of positioning axes in a puise-direction interface         4: Wth integrated outputs           Plo controller         Yes           Number of atem inputs         4           Number of puise outputs         4           • Potential separation digital inputs         No           • Detertient bechannels, in groups of         1           Potential separation digital inputs         No <td>Diagnostic buffer</td> <td></td>	Diagnostic buffer	
Number of configurable Traces 2     Memory size per trace, max.     S12 kby/e      Muniter Size size size size size size size size s	• present	Yes
<ul> <li>Memory size per trace, max.</li> <li>S12 kbyte</li> <li>Interrupt dilagnostic schattars information</li> <li>RUWSTOP LED</li> <li>RUWSTOP LED</li> <li>Yes</li> <li>ERROR LED</li> <li>Yes</li> <li>MAINT LED</li> <li>Yes</li> <li>Counter</li> <li>Number of counters</li> <li>6</li> <li>Counting frequency, max.</li> <li>100 kHz</li> <li>Prequency measurement</li> <li>Yes</li> <li>Number of positioning axes, max.</li> <li>8</li> <li>Number of positioning axes, max.</li> <li>8</li> <li>Number of positioning axes in pulse direction interface</li> <li>4. With integrated outputs</li> <li>Piotential separation digital inputs</li> <li>Advance</li> <li>Potential separation digital outputs</li> <li>Potential separation digital outputs</li> <li>Potential separation digital outputs</li> <li>Potential separation digital outputs</li> <li>No</li> <li>between the channels, in groups of</li> <li>Interference immunity against discharge of static electricity</li> <li>Interference immunity against discharge of static electricity</li> <li>Interference immunity on supply lines acc. to IEC 61000-42</li> <li>Yes</li> <li>Interference immunity against discharge of static electricity</li> <li>Interference immunity against conducted static discharge</li> <li>Kv</li> <li>Interference immunity against conducted static discharge</li> <li>Kv</li> <li>Interference immunity on supply lines acc. to IEC 61000-42</li> <li>Interference immunity against conducted static discharge</li> <li>Kv is</li> <li>Interference immunity against conducted statalic discharge</li> <li>Kv is</li> <li>Interference im</li></ul>	Traces	
Interrupts/dispositics/status information Diegostics indication LED  RUNSTOP LED RUNSTOP L	<ul> <li>Number of configurable Traces</li> </ul>	2
Diagnostics indication LED     Yes          • ERROR LED       Yes       • MAINT LED       Yes       Integrated Functions       Counter         Counter       6         • Counting frequency, max.       100 kHz         Frequency measurement       Yes         Number of positioning axes via pulse-direction interface       4: With Integrated outputs         Pric controller       Yes         Number of positioning axes via pulse-direction interface       4: With Integrated outputs         Pric controller       Yes         Number of positioning axes via pulse-direction interface       4: With Integrated outputs         Pric controller       Yes         Number of pulse outputs       4         Limit frequency (fulse)       100 kHz         Potential separation digital inputs       4         • Potential separation digital inputs       No         • Detential separation digital outputs       Yes         • Detential separation digital outputs		512 kbyte
• RUNSTOP LED     Yes       • ERROR LED     Yes       • MAINT LED     Yes       Integrated Functions     6       Counter     6       • Counting frequency, max.     100 kHz       Frequency measurement     Yes       Outher of position-controlled positioning axes, max.     8       Number of 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.     8       Number of position-controlled positioning axes, max.     4       Number of pulse outputs     4       Limit frequency (pulse)     100 kHz       Potential separation digital inputs     4       • Potential separation digital inputs     No       • Potential separation digital inputs     No       • Detential separation digital outputs     Yes       • Potential separation digital outputs     Yes       • Detential digital outputs     Yes       • Detential separation digital outputs     Yes       • Detential separation digital inputs     No       • Detential separation digital inputs     No       • Detential separation digital inputs     No       • Detential separation digital inputs     Yes	Interrupts/diagnostics/status information	
ERROR LED     Yes MINT LED     Yes MINT LED     Yes MINT LED     Yes Counter Counter     Number of counters     6     Counting frequency, max.     100 kHz Frequency measurement     Yes Controlled positioning axes, max.     8 Mumber of positioning axes via pulse direction interface     4: With integrated outputs     Protontial separation     Potential separation digital inputs     Potential separation digital inputs     Potential separation digital outputs     Potential separation     Potential separation digital outputs     Potential separation     Potential separation     Potential separation     Potential separation digital outputs     Potential separation	Diagnostics indication LED	
• MAINT LED         Yes           Integrated Functions            Counter         6           • Counting frequency, max.         100 kHz           Prequency measurement.         Yes           controlled positioning axes, max.         8           Number of 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.         8           Number of position-controlled positioning axes, max.         4           Number of position-controlled positioning axes, max.         10 kHz           Potential separation digital position to the position digital position to the positionity axes of a table distribute to thanonels is positionity axes	RUN/STOP LED	Yes
Integrated Functions           Courter         6           • Number of counters         6           • Counting frequency, max.         100 kHz           Frequency measurement         Yes           controlled positioning axes 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 alarm inputs         4           Number of pulse outputs         4           Limit frequency (pulse)         100 kHz           Potential separation digital inputs         4           • Potential separation digital inputs         No           • Detential separation digital outputs         Yes           • Interference immunity against discharge of s	• ERROR LED	Yes
Counter     6       • Number of counters     6       • Counting frequency, max.     100 kHz       Frequency measurement     Yes       outrolled 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 pulse outputs     4       Limit frequency (pulse)     100 kHz       Potential separation digital inputs     4       • Potential separation digital inputs     No       • Detential separation digital inputs     No       • Potential separation digital inputs     Yes       • Potential separation digital inputs     No       • Dotential separation digital outputs     Yes       • Dotential separation digital couputs     Yes       • Dotential separation digital couputs     Yes       • Dotential separation digital couputs     Yes       • Detween the channels     No       • Detween the channels     No       • Detween the channels     No       •		Yes
• Number of counters     6       • Counting frequency, max.     100 kHz       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 pulse outputs     4       10th frequency (pulse)     100 kHz       Potential separation digital inputs     4       Potential separation digital inputs     1       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, in groups of     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     Yes       • interference immunity against discharge of static electricity     Yes       • Interference immunity against discharge     8 kV       • Interference immunity on supply lines acc. to IEC 61000-4     Yes       • Interference immunity a	Integrated Functions	
• Counting frequency, max.     100 kHz       Frequency measurement     Yes       controlled positioning     Yes       Number of position-controlled positioning axes, max.     8       Number of position-controlled positioning axes, max.     4       Number of alarm inputs     4       Number of alarm inputs     4       Limit frequency (pulse)     100 kHz       Potential separation digital inputs     4       • Potential separation digital inputs     No       • Potential separation digital outputs     Yes       • Potential separation digital outputs     Yes       • Detential separation digital outputs     Yes       • between the channels     No       • between the channels     No       • between the channels     Yes       • between the channels     No       • later ference immunity against discharge	Counter	
Frequency measurement     Yes       controlled positioning     Yes       Number of positioning axes via pulse-direction interface     4; With integrated outputs       PID controller     Yes       Number of passioning 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     4       • Potential separation digital inputs     1       • Potential separation digital outputs     Yes       • Detween the channels, in groups of     1       EtWC     Interference immunity against discharge of static electricity       • Interference immunity against discharge     8 kV       - Test voltage at contact discharge     8 kV       - Test voltage at contact discharge     6 kV       Interference immunity on supply lines acc. to IEC 61000-44     Yes       • Interference immunity on supply lines acc. to IEC 61000-45     Yes       • Interference immunity against voltage surge     9 kiV       Interference immunity against voltage surge     Yes       • Interference immunity against voltage surge <t< td=""><td>Number of counters</td><td>6</td></t<>	Number of counters	6
controlled positioning     Yes       Number of positioning axes, max.     8       Number of positioning axes, via pulse-direction interface     4; With integrated outputs       PID controller     Yes       Number of pulse outputs     4       Unter of pulse outputs     4       Limit frequency (pulse)     100 kHz       Potential separation digital inputs     4       • Potential separation digital inputs     No       • between the channels, in groups of     1       Potential separation digital outputs     Yes       • Deteme the channels, in groups of     1       Potential separation digital outputs     Yes       • between the channels     No       • between the channels     No       • between the channels     Yes       • between the channels     No       • between the channels     Yes       • between the channels     No       • between the channels     Yes       • heterference immunity against discharge of static electricity     Yes       • Interference immunity against discharge     8 kV       - Test voltage at air discharge     6 kV       Interference immunity on supply lines acc. to IEC 61000-44     Yes       • heterference immunity on supply lines acc. to IEC 61000-45     Yes       • heterference immunity on supply lines acc. to IEC	Counting frequency, max.	100 kHz
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       Potential separation digital inputs         • Potential separation digital outputs       Yes         • Potential separation digital outputs       Yes         • Potential separation digital outputs       Yes         • Detential separation digital outputs       Yes         • Test voltage at contact discharge of static electricity       Interference immunity against discharge of static electricity	Frequency measurement	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         Limit frequency (pulse)       100 kHz         Potential separation digital inputs       No <ul> <li>Potential separation digital inputs</li> <li>No</li> <li>ebetween the channels, in groups of</li> <li>1</li> <li>Potential separation digital outputs</li> <li>Yes</li> <li>ebetween the channels</li> <li>no groups of</li> <li>between the channels, in groups of</li> <li>between the channels, in groups of</li> <li>therference immunity against discharge of static electricity</li> <li>interference immunity act. ol ICE 61000-42</li> <li>Therference immunity on supply lines acc. to IEC 61000-44</li> <li>interference immunity on supply lines acc. to IEC 61000-44</li> <li>interference immunity on supply lines acc. to IEC 61000-44</li> <li>interference immunity on supply lines acc. to IEC 61000-45</li> <li>Interference immunity on supply lines acc. to IEC 61000-45</li> <li>Interference immunity on supply lines acc. to IEC 61000-45</li> <li>Interference immunity against tigh-frequency radiation acc. to IEC 61000-45</li> <li>Interference immunity against tigh-frequency radiation acc. to IEC 61000-45</li> <li>Interference immunity against tigh-frequency radiation acc. to IEC 61000-45</li> <li>Interference immunity against tigh-frequency radiation acc. to IEC 61000-45</li> <li>Interference immunity against tigh-frequency radiation acc. to IEC 61000-45</li> <li>Interference immunity against tigh-frequency radiation ac</li></ul>	controlled positioning	Yes
PID controller     Yes       Number of alarm inputs     4       Number of pulse outputs     4       Limit frequency (pulse)     100 kHz       Potential separation digital inputs     No <ul> <li>Potential separation digital inputs</li> <li>Potential separation digital inputs</li> <li>Potential separation digital outputs</li> <li>Potential separation digital outputs</li></ul>	· · · · · · · · · · · · · · · · · · ·	8
Number of alarm inputs       4         Number of pulse outputs       4         Linit frequency (pulse)       100 kHz         Potential separation       100 kHz         Potential separation digital inputs       No <ul> <li>Potential separation digital outputs</li> <li>Potential separation digital outputs</li> <li>Potential separation digital outputs</li> <li>Potential separation digital outputs</li> <li>Yes</li> <li>between the channels</li> <li>between the channels</li> <li>no</li> <li>between the channels</li> <li>No</li> <li>between the channels</li> <li>reference immunity against discharge of static electricity</li> <li>Interference immunity against discharge of static electricity</li> <li>Interference immunity to cable-borne interference</li> <li>Interference immunity to supply lines acc. to IEC 61000- 4-4</li> <li>Interference immunity on supply lines acc. to IEC 61000- 4-4</li> <li>Interference immunity on supply lines acc. to IEC 61000- 4-4</li> <li>Interference immunity on supply lines acc. to IEC 61000- 4-5</li> <li>Interference immunity on supply lines acc. to IEC 61000- 4-5</li> <li>Interference immunity on supply lines acc. to IEC 61000- 4-5</li> <li>Interference immunity on supply lines acc. to IEC 61000- 4-5</li> <li>Interference immunity against high-frequency radiation acc. to IEC 61000-4-6</li> <li>Interference immunity against high-frequency radiation acc. to IEC 61000-4</li></ul>	Number of positioning axes via pulse-direction interface	4; With integrated outputs
Number of pulse outputs     4       Limit frequency (pulse)     100 kHz       Potential separation digital inputs     100 kHz       Potential separation digital inputs     No       • Potential separation digital outputs     1       • Potential separation digital outputs     Yes       • Detween the channels, in groups of     1       Potential separation digital outputs     Yes       • Detween the channels, in groups of     1       EMC     Interference immunity against discharge of static electricity       • Interference immunity against discharge     8 kV       - Test voltage at air discharge     6 kV       Interference immunity to sube-borne interference     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 on supply lines acc. to IEC 61000- 4.5     Yes       • Interference immunity on supply lines acc. to IEC 61000- 4.5     Yes       • 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 high-frequency radiation acc. to IEC 61000-4.6     Yes	PID controller	Yes
Limit frequency (pulse)       100 kHz         Potential separation       Potential separation digital inputs         • 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, in groups of       1         EMC       Interference immunity against discharge of static electricity         • Interference immunity against discharge of static       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 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 61000-4-4-5       Yes         • Interference immunity on supply lines acc. to IEC 61000-4-5       Yes         • Interference immunity against collage surge       Interference immunity against collage surge         • Interference immunity against discharge of testic electricitice       Yes         • Interference immunity against collage surge       Ye	Number of alarm inputs	4
Potential separation         Potential separation digital inputs         • Potential separation digital inputs         • Potential separation digital inputs         • Potential separation digital outputs         • Detween the channels, in groups of         • between the channels         • between the channels         • between the channels, in groups of         • Interference immunity against discharge of static electricity         • Interference immunity against discharge of static electricity         • Interference immunity against discharge         • Test voltage at air discharge         • Interference immunity on supply lines acc. to IEC 61000- 4.4         • Interference immunity on supply lines acc. to IEC 61000- 4.4         • 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 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         •	Number of pulse outputs	4
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       No         • between the channels, in groups of       1         EMC       Interference immunity against discharge of static electricity         • Interference immunity against discharge       8 kV         Test voltage at air discharge       8 kV         Test voltage at contact discharge       6 kV         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 supply lines acc. to IEC 61000-       4.5         Interference immunity against voltage surge       •         • Interference immunity on supply lines acc. to IEC 61000-       4.5         Interference immunity on supply lines acc. to IEC 61000-       4.5         Interference immunity against voltage surge       •		100 kHz
Potential separation digital inputs     No     between the channels, in groups of     1  Potential separation digital outputs     No     between the channels     No     between the channels     No     Interference immunity against discharge of static     electricity acc. to IEC 61000-4-2     Pres voltage at contact discharge     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 high-frequency radiation     Yes     Interference immunity against high-frequency radiation     acc. to IEC 61000-4-6     Emission of radio interference acc. to EN 50 011	Potential separation	
between the channels, in groups of     1  Potential separation digital outputs     No     between the channels     No     Interference immunity against discharge of static electricity     Interference immunity against discharge     Pest voltage at an discharge     Pest voltage at contact dis		
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       8 kV         - Test voltage at air discharge       8 kV         - Test voltage at contact discharge       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 on signal cables acc. to IEC 61000- 4-5       Yes         Interference immunity on signal cables acc. to IEC 61000- 4-5       Yes         • Interference immunity on signal cables acc. to IEC 61000- 4-5       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		
Potential separation digital outputs     Yes     between the channels     No     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     ores to lEC 61000-4-2     - Test voltage at air discharge     ores voltage at contact discharge     ores voltage at contact disc		1
between the channels     between the channels, in groups of     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     Test voltage at air discharge     Test voltage at contact discharge     6 kV 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 supply lines acc. to IEC 61000-     4-5 Interference immunity on supply lines acc. to IEC 61000-     4-5 Interference immunity against voltage surge     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		
• between the channels, in groups of       1         EMC       Interference immunity against discharge of static electricity         • Interference immunity against discharge of static electricity       Yes         • Interference immunity against 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 on signal cables acc. to IEC 61000- 4-5       Yes         Interference immunity against voltage surge       Yes         • Interference immunity on supply lines acc. to IEC 61000- 4-5       Yes         Interference immunity against voltage surge       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		
EMC         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       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 on signal cables acc. to IEC 61000- 4-5       Yes         Interference immunity against voltage surge       •         • Interference immunity on supply lines acc. to IEC 61000- 4-5       Yes         Interference immunity against voltage surge       •         • 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         • Interference immunity against high-frequency radiation acc. to IEC 61000-4-6       Yes		
Interference immunity against discharge of static electricity         • Interference immunity against discharge of static electricity ac. to IEC 61000-4-2         — 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 on signal cables acc. to IEC 61000- 4-4       Yes         Interference immunity against voltage surge       Yes         • Interference immunity on supply lines acc. to IEC 61000- 4-5       Yes         Interference immunity against voltage surge       Yes         • 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 high-frequency radiation acc. to IEC 61000-4-6       Yes         Emission of radio interference acc. to EN 55 011       Yes		1
• 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 on signal cables acc. to IEC 61000- 4-4         Yes           • Interference immunity on supply lines acc. to IEC 61000- 4-4         Yes           • 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         • 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         Yes		
electricity acc. to IEC 61000-4-2 — 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 against voltage surge • Interference immunity on supply lines acc. to IEC 61000- 4-5 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 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		
— 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 on supply lines acc. to IEC 61000- 4-5       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	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- 4-5         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		
<ul> <li>Interference immunity on supply lines acc. to IEC 61000- 4-4</li> <li>Interference immunity on signal cables acc. to IEC 61000- 4-4</li> <li>Interference immunity against voltage surge</li> <li>Interference immunity on supply lines acc. to IEC 61000- 4-5</li> <li>Interference immunity against conducted variable disturbance induced by high-frequency fields</li> <li>Interference immunity against high-frequency radiation acc. to IEC 61000-4-6</li> <li>Emission of radio interference acc. to EN 55 011</li> </ul>		6 kV
4-4       • Interference immunity on signal cables acc. to IEC 61000-       Yes         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         • 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		
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 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	4-4	
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  Yes	4-4	Yes
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		
Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 Emission of radio interference acc. to EN 55 011		Yes
acc. to IEC 61000-4-6 Emission of radio interference acc. to EN 55 011	Interference immunity against conducted variable disturbance indu	ced by high-frequency fields
		Yes
Limit class A, for use in industrial areas     Yes: Group 1	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	
IP degree of protection	IP20
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
cULus	Yes
FM approval	Yes
RCM (formerly C-TICK)	Yes
KC approval	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 7 or 5 (no adjacent points) at 60 °C horizontal or 50 °C vertical, 14 or 10 at 55 °C horizontal or 45 °C vertical
<ul> <li>horizontal installation, min.</li> </ul>	-20 °C
<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
Operation, max.	1 080 hPa
Storage/transport, min.	660 hPa
Storage/transport, max.	1 080 hPa
Altitude during operation relating to sea level	
Installation altitude, min.	-1 000 m
<ul> <li>Installation altitude, max.</li> </ul>	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Relative humidity	
Operation, max.	95 %; no condensation
Vibrations	
<ul> <li>Vibration resistance during operation acc. to IEC 60068- 2-6</li> </ul>	2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail
Operation, tested according to IEC 60068-2-6 Shock testing	Yes
• 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
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 / header	
configuration / programming / header	
Programming language	
— LAD	Yes
— FBD	Yes
— SCL	Yes
Know-how protection	
<ul> <li>User program protection/password protection</li> </ul>	Yes
Copy protection	Yes
Block protection	Yes
Access protection	
<ul> <li>protection of confidential configuration data</li> </ul>	Yes
Protection level: Write protection	Yes
<ul> <li>Protection level: Read/write protection</li> </ul>	Yes
Protection level: Complete protection	Yes
programming / cycle time monitoring / header	

• adjustable	Yes	
Dimensions		
Width	110 mm	
Height	100 mm	
Height Depth	75 mm	
Weights		
Weight, approx.	415 g	

last modified:

3/12/2024 🖸