SIEMENS

Data sheet

6AG1212-1HE40-2XB0



SIPLUS S7-1200 CPU 1212C DC/DC/relay based on 6ES7212-1HE40-0XB0 with conformal coating, -40...+70 °C, start up -25 °C, signal board: 0, compact CPU, DC/DC/relay, onboard I/O: 8 DI 24 V DC; 6 DQ relay 2 A; 2 AI 0-10 V DC, power supply: DC 20.4-28.8 V DC, program/data memory 75 KB

Figure similar

Product type designation Engineering with STEP 7 TIA Portal configurable/integrated from version Supply voltage Rated value (DC) 24 V DC Permissible range, upper limit (DC) Permissible range, lower limit (DC) Permissible range, lower limit (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, lower limit (DC	General information	
STEP 7 TIA Portal configurable/integrated from version Supply voltage Rated value (DC) • 24 V DC permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Load voltage L+ • Rated value (DC) • permissible range, upper limit (DC) permissible range, upper limit (DC) • permissible range, lower limit (DC) • permissible range, lower limit (DC) • permissible range, lower limit (DC) • permissible range, upper limit (DC) • permissible range, lower limit (DC) • permissible range, lower limit (DC) • permissible range, lower limit (DC) • permissible range, upper limit (DC) • 250 V Input curront Current consumption (rated value) Current consumption, max. 1 200 mA; Typical Current consumption, max. 1 200 mA; CPU with all expansion modules Inrush current, max. Output current for backplane bus (5 V DC), max. 1 000 mA; Max. 5 V DC for SM and CM Encoder supply • 24 V expender supply • 1 Mbyte • Plug-in (SIMATIC Memory Card), max. Backup • present • without battery for bid operations, typ. for bid operations, typ. for bid operations, typ. for floating point arithmetic, typ. 2.3 us; / instruction for floating point arithmetic, typ.	Product type designation	CPU 1212C DC/DC/relay
Rated value (DC) • 24 V DC permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Load voltage L+ • Rated value (DC) • permissible range, lower limit (DC) permissible range, lower limit (DC) permissible range, lower limit (DC) • permissible range, lower limit (DC) • permissible range, upper limit (DC) • permiss	Engineering with	
Rated value (DC) • 24 V DC permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Load voltage L+ • Rated value (DC) • permissible range, lower limit (DC) • permissible range, upper limit (DC) • 250 V Imput current Current consumption (rated value) 400 mA; Typical Current consumption, max. 1 200 mA; CPU with all expansion modules Inrush current, max. 1 20 mA; CPU with all expansion modules Inrush current for backplane bus (5 V DC), max. 1 000 mA; Max. 5 V DC for SM and CM Encoder supply 24 V encoder supply • 24 V bc min. Power loss Power loss, typ. 9 W Memory • integrated 75 kbyte Load memory • integrated • Plug-in (SIMATIC Memory Card), max. Backup • present • without battery Yes CPU processing times for bit operations, typ. for Bot toperations, typ. 1.7 µs; / instruction for word operations, typ. for floating point arithmetic, typ. 2.3 µs; / instruction	 STEP 7 TIA Portal configurable/integrated from version 	see entry ID: 109746275
permissible range, lower limit (DC)	Supply voltage	
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) 5V • permissible range, upper limit (DC) 250 V Input current Current consumption (rated value) 400 mA; Typical Current consumption, max. 1 200 mA; CPU with all expansion modules Inrush current, max. 12 A; at 28.8 V Output current for backplane bus (5 V DC), max. 1 000 mA; Max. 5 V DC for SM and CM Encoder supply • 24 V L+ minus 4 V DC min. Power loss Power loss, typ. 9 W Memory Work memory • integrated 75 kbyte Load memory • integrated 1 Mbyte • Plug-in (SIMATIC Memory Card), max. with SIMATIC memory card Backup • present • without battery Yes CPU processing times for bit operations, typ. for floating point arithmetic, typ. 1.7 µs; / instruction for word operations, typ. for floating point arithmetic, typ. 2.3 µs; / instruction for floating point arithmetic, typ. 2.3 µs; / instruction for floating point arithmetic, typ. 2.3 µs; / instruction	Rated value (DC)	
permissible range, upper limit (DC) Reverse polarity protection Load voltage L+ Reverse polarity protection Yes Load voltage L+ Rated value (DC) permissible range, lower limit (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) So V Input current Current consumption (rated value) Current consumption, max. 1 200 mA; Typical Current consumption, max. 1 200 mA; CPU with all expansion modules Inrush current, max. Output current for backplane bus (5 V DC), max. 1 000 mA; Max. 5 V DC for SM and CM Encoder supply 24 V encoder supply 24 V encoder supply 24 V encoder supply Power loss Power loss, typ. 9 W Memory Work memory integrated 7 5 kbyte Load memory integrated 1 Mbyte Plug-in (SIMATIC Memory Card), max. with SIMATIC memory card Backup present present yes: maintenance-free without battery Yes CPU processing times for bit operations, typ. 0.085 µs; / instruction for word operations, typ. 1 7 µs; / instruction for word operations, typ. 1 7 µs; / instruction for floating point arithmetic, typ. 2.3 µs; / instruction	• 24 V DC	Yes
Reverse polarity protection Load voltage L+ • Rated value (DC) • permissible range, lower limit (DC) • permissible range, upper limit (DC) Current consumption (rated value) Current consumption, max. 1 200 mA, Typical Current consumption, max. 1 2 A; at 28.8 V Output current for backplane bus (5 V DC), max. 1 000 mA; Max. 5 V DC for SM and CM Encoder supply 24 V encoder supply • 24 V	permissible range, lower limit (DC)	20.4 V
Load voltage L+ Rated value (DC) Permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Input current Current consumption (rated value) Current consumption, max. 1 200 mA; Typical Current consumption, max. 1 20 mA; CPU with all expansion modules Inrush current, max. 1 2 A; at 28.8 V Output current for backplane bus (5 V DC), max. 1 000 mA; Max. 5 V DC for SM and CM Encoder supply 24 V	permissible range, upper limit (DC)	28.8 V
Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) 250 V purt current	Reverse polarity protection	Yes
• permissible range, lower limit (DC) • permissible range, upper limit (DC) 250 ∨ Input current Current consumption (rated value) Current consumption, max. 1 200 mA; CPU with all expansion modules Inrush current, max. 1 2 A; at 28.8 ∨ Output current for backplane bus (5 ∨ DC), max. 1 000 mA; Max. 5 ∨ DC for SM and CM Encoder supply 24 ∨ encoder supply • 24 ∨ L+ minus 4 ∨ DC min. Power loss Power loss, typ. 9 W Memory Work memory • integrated Plug-in (SIMATIC Memory Card), max. Backup • present • present • present • without battery CPU processing times for bit operations, typ. 0 0.085 μs; / instruction for floating point arithmetic, typ. 2.3 μs; / instruction for floating point arithmetic, typ. 2.3 μs; / instruction	Load voltage L+	
permissible range, upper limit (DC) put current Current consumption (rated value) 400 mA; Typical Current consumption, max. 1 200 mA; CPU with all expansion modules Inrush current, max. 12 A; at 28.8 V Output current for backplane bus (5 V DC), max. 1 000 mA; Max. 5 V DC for SM and CM Encoder supply 24 V encoder supply • 24 V L+ minus 4 V DC min. Power loss Power loss, typ. 9 W Memory Work memory • integrated 1 Mbyte • Plug-in (SIMATIC Memory Card), max. with SIMATIC memory card Backup • present • without battery CPU processing times for bid operations, typ. 0.085 µs; / instruction for word operations, typ. 1.7 µs; / instruction for floating point arithmetic, typ. 2.3 µs; / instruction	 Rated value (DC) 	24 V
Input current Current consumption (rated value) Current consumption, max. 1 200 mA; CPU with all expansion modules Inrush current, max. 1 2 A; at 28.8 V Output current for backplane bus (5 V DC), max. Encoder supply 24 V encoder supply 24 V encoder supply Power loss Power loss, typ. Wefmony Work memory integrated Load memory integrated Plug-in (SIMATIC Memory Card), max. Backup present present present yes (CPU with all expansion modules 1 200 mA; CPU with all expansion modules 1 000 mA; Max. 5 V DC for SM and CM Encoder supply L+ minus 4 V DC min. 9 W Memory Work memory integrated 75 kbyte Load memory integrated Plug-in (SIMATIC Memory Card), max. With SIMATIC memory card Backup present present present yes; maintenance-free without battery CPU processing times for bit operations, typ. 1.7 µs; / instruction for word operations, typ. for floating point arithmetic, typ. 2.3 µs; / instruction	 permissible range, lower limit (DC) 	5 V
Current consumption (rated value) Current consumption, max. 1 200 mA; Typical 1 200 mA; CPU with all expansion modules Inrush current, max. 1 2 A; at 28.8 V Output current for backplane bus (5 V DC), max. 1 000 mA; Max. 5 V DC for SM and CM Encoder supply 2 4 V encoder supply • 24 V L+ minus 4 V DC min. Power loss Power loss, typ. 9 W Memory Work memory • integrated 1 Mbyte • Plug-in (SIMATIC Memory Card), max. Backup • present • without battery Yes CPU processing times for bit operations, typ. 0.085 µs; / instruction for floating point arithmetic, typ. 1 17 µs; / instruction 1 instruction	permissible range, upper limit (DC)	250 V
Current consumption, max. Inrush current, max. 12 A; at 28.8 V Output current for backplane bus (5 V DC), max. 1 000 mA; Max. 5 V DC for SM and CM Encoder supply 24 V encoder supply • 24 V L+ minus 4 V DC min. Power loss Power loss, typ. 9 W Memory Work memory • integrated 1 Mbyte • Plug-in (SIMATIC Memory Card), max. Backup • present • without battery for bit operations, typ. 0.085 µs; / instruction for word operations, typ. 1.7 µs; / instruction for floating point arithmetic, typ. 2.3 µs; / instruction for floating point arithmetic, typ. 2.3 µs; / instruction	Input current	
Inrush current, max. Output current for backplane bus (5 V DC), max. 1 000 mA; Max. 5 V DC for SM and CM Encoder supply 24 V encoder supply • 24 V	Current consumption (rated value)	400 mA; Typical
for backplane bus (5 V DC), max. I 000 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. 9 W Memory Work memory • integrated • Plug-in (SIMATIC Memory Card), max. Backup • present • without battery Yes; maintenance-free • without battery For bit operations, typ. 0.085 µs; / instruction for floating point arithmetic, typ. 1 000 mA; Max. 5 V DC for SM and CM 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Memory 1 Mbyx Max. 5 V DC for SM and CM 1 Mbyx Memory 1 Mbyx Memory 1 Mbyx Max. 5 V DC for SM and CM 2 Without SM and CM 1 Mbyx Memory 1 Mbyx Max. 5 V DC for SM and CM 2 Without SM and CM 2 Max. 5 V DC for SM and CM 2 No Max. 5 V DC for SM	Current consumption, max.	1 200 mA; CPU with all expansion modules
for backplane bus (5 V DC), max. 1 000 mA; Max. 5 V DC for SM and CM Encoder supply 24 V encoder supply • 24 V L+ minus 4 V DC min. Power loss Power loss, typ. 9 W Memory Work memory • integrated 1 Mbyte • Plug-in (SIMATIC Memory Card), max. Backup • present • without battery Yes; maintenance-free • without battery For bit operations, typ. 0.085 µs; / instruction for floating point arithmetic, typ. 2.3 µs; / instruction	Inrush current, max.	12 A; at 28.8 V
Encoder supply 24 V encoder supply 24 V L+ minus 4 V DC min. Power loss Power loss, typ. 9 W Memory Work memory integrated 75 kbyte Load memory integrated 1 Mbyte Plug-in (SIMATIC Memory Card), max. with SIMATIC memory card Backup present Yes; maintenance-free without battery Yes CPU processing times for bit operations, typ. 0.085 µs; / instruction for word operations, typ. 1.7 µs; / instruction for floating point arithmetic, typ. 2.3 µs; / instruction	Output current	
24 V L+ minus 4 V DC min. Power loss Power loss, typ. 9 W Memory Work memory • integrated 75 kbyte Load memory • integrated 1 Mbyte • Plug-in (SIMATIC Memory Card), max. with SIMATIC memory card Backup • present Yes; maintenance-free • without battery Yes CPU processing times for bit operations, typ. 0.085 µs; / instruction for floating point arithmetic, typ. 2.3 µs; / instruction	for backplane bus (5 V DC), max.	1 000 mA; Max. 5 V DC for SM and CM
● 24 V L+ minus 4 V DC min. Power loss Power loss, typ. 9 W Memory Work memory ● integrated 75 kbyte Load memory ● integrated 1 Mbyte ● Plug-in (SIMATIC Memory Card), max. with SIMATIC memory card Backup ● present Yes; maintenance-free ● without battery Yes CPU processing times for bit operations, typ. 0.085 μs; / instruction for word operations, typ. 1.7 μs; / instruction for floating point arithmetic, typ. 2.3 μs; / instruction	Encoder supply	
Power loss, typ. Power loss, typ. Memory Work memory integrated integrate	24 V encoder supply	
Power loss, typ. 9 W Memory Work memory integrated 75 kbyte Load memory integrated 1 Mbyte Plug-in (SIMATIC Memory Card), max. with SIMATIC memory card Backup present Yes; maintenance-free without battery Yes CPU processing times for bit operations, typ. 0.085 µs; / instruction for word operations, typ. 1.7 µs; / instruction for floating point arithmetic, typ. 2.3 µs; / instruction	• 24 V	L+ minus 4 V DC min.
Memory Work memory	Power loss	
Work memory ● integrated 75 kbyte Load memory ● integrated 1 Mbyte ● Plug-in (SIMATIC Memory Card), max. with SIMATIC memory card Backup ● present Yes; maintenance-free ● without battery Yes CPU processing times for bit operations, typ. 0.085 μs; / instruction for word operations, typ. 1.7 μs; / instruction for floating point arithmetic, typ. 2.3 μs; / instruction	Power loss, typ.	9 W
 integrated integrated integrated Plug-in (SIMATIC Memory Card), max. Backup present with SIMATIC memory card Backup Operations, typ. for bit operations, typ. for floating point arithmetic, typ. 1.7 µs; / instruction for struction 2.3 µs; / instruction 	Memory	
Load memory integrated Plug-in (SIMATIC Memory Card), max. Backup present without battery CPU processing times for bit operations, typ. for word operations, typ. for floating point arithmetic, typ. 1 Mbyte With SIMATIC memory card Yes; maintenance-free Yes; maintenance-free Yes 1.7 µs; / instruction 1.7 µs; / instruction 2.3 µs; / instruction	Work memory	
 integrated Plug-in (SIMATIC Memory Card), max. with SIMATIC memory card Backup present without battery Yes; maintenance-free without battery CPU processing times for bit operations, typ. for word operations, typ. 1.7 µs; / instruction for floating point arithmetic, typ. 2.3 µs; / instruction 	integrated	75 kbyte
 Plug-in (SIMATIC Memory Card), max. Backup present with SIMATIC memory card Plug-in (SIMATIC Memory Card), max. yes; maintenance-free without battery Yes CPU processing times for bit operations, typ. for word operations, typ. for word operations, typ. 1.7 µs; / instruction for floating point arithmetic, typ. 2.3 µs; / instruction 	Load memory	
Backup	• integrated	1 Mbyte
Present Without battery Yes; maintenance-free Yes CPU processing times for bit operations, typ. 0.085 μs; / instruction for word operations, typ. 1.7 μs; / instruction for floating point arithmetic, typ. 2.3 μs; / instruction	Plug-in (SIMATIC Memory Card), max.	with SIMATIC memory card
without battery CPU processing times for bit operations, typ. for word operations, typ. 1.7 μs; / instruction for floating point arithmetic, typ. 2.3 μs; / instruction	Backup	
CPU processing times for bit operations, typ. for word operations, typ. 1.7 μs; / instruction for floating point arithmetic, typ. 2.3 μs; / instruction	• present	Yes; maintenance-free
for bit operations, typ. $0.085 \mu s; / instruction$ for word operations, typ. $1.7 \mu s; / instruction$ for floating point arithmetic, typ. $2.3 \mu s; / instruction$	without battery	Yes
for word operations, typ. 1.7 μs; / instruction for floating point arithmetic, typ. 2.3 μs; / instruction	CPU processing times	
for floating point arithmetic, typ. 2.3 µs; / instruction	for bit operations, typ.	0.085 μs; / instruction
	for word operations, typ.	1.7 µs; / instruction
CPU-blocks	**	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
ОВ	
 Number, max. 	Limited only by RAM for code
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	10 kbyte
Flag	
• Size, max.	4 kbyte; Size of bit memory address area
Local data	
 per priority class, max. 	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 com. modules, no signal board can be used, 2 signal modules
Time of day	o com. modulos, no signal board can be deca, 2 signal modulos
Clock	
	Yes
Hardware clock (real-time) Packup time	
Backup time Deviation pay day, may	480 h; Typical
Deviation per day, max.	60 s/month at 25 °C
Digital inputs	
Number of digital inputs	8; Integrated
of which inputs usable for technological functions	4; HSC (High Speed Counting)
Source/sink input	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	8
Input voltage	
Rated value (DC)	24 V
• for signal "0"	5 V DC at 1 mA
● for signal "1"	15 V DC at 2.5 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	0.2 μs, 0.4 μs, 0.8 μs, 1.6 μs, 3.2 μs, 6.4 μs and 12.8 μs, selectable in 4 groups
— at "0" to "1", min.	0.2 ms
— at "0" to "1", max.	12.8 ms
for interrupt inputs	
— parameterizable	Yes
for technological functions	
— parameterizable	Single phase: 3 @ 100 kHz & 1 @ 30 kHz, differential: 3 @ 80 kHz & 1 @ 30
	kHz
Cable length	
• shielded, max.	500 m; 50 m for technological functions
• unshielded, max.	300 m; for technological functions: No
Digital outputs	
Number of digital outputs	6; Relays
Switching capacity of the outputs	
with resistive load, max.	2 A
• on lamp load, max.	30 W with DC, 200 W with AC
Output delay with resistive load	
• "0" to "1", max.	10 ms; max.
• "1" to "0", max.	10 ms; max.
· · · · · · · · · · · · · · · · · · ·	
Switching frequency	
Switching frequency	1 Hz
of the pulse outputs, with resistive load, max.	1 Hz
of the pulse outputs, with resistive load, max. Relay outputs	
of the pulse outputs, with resistive load, max. Relay outputs Number of relay outputs	6
 of the pulse outputs, with resistive load, max. Relay outputs Number of relay outputs Number of operating cycles, max. 	
of the pulse outputs, with resistive load, max. Relay outputs Number of relay outputs	6

• 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	7
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
Isolated	Yes
automatic detection of transmission rate	Yes
Autonegotiation	Yes
Autorossing	Yes
Interface types	165
* *	Yes
RJ 45 (Ethernet) Protocols	res
PROFINET IO Controller	Yes
PROFINET IO Controller PROFINET IO Device	Yes
Open IE communication Web corner	Yes
Web server PROFINET IO Controller	Yes
	400 Mh;t/a
Transmission rate, max. Can ileas	100 Mbit/s
Services	40
— Number of connectable IO Devices, max.	16
PROFINET IO Device	
Services	V
— Shared device	Yes
Number of IO Controllers with shared device, max.	2
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIBUR	No
PROFIBUS	Yes; CM 1243-5 required
AS-Interface	Yes
Protocols (Ethernet)	
• TCP/IP	Yes
Open IE communication	
• TCP/IP	Yes
• ISO-on-TCP (RFC1006)	Yes
• UDP	Yes
Web server	
• supported	Yes
User-defined websites	Yes
Further protocols	
• MODBUS	Yes
communication functions / header	
S7 communication	
• supported	Yes

	V
• as server	Yes
as client	Yes
Number of connections	
overall	16; dynamically
Test commissioning functions	
Status/control	
Status/control variable	Yes
Variables	Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
Forcing	
Forcing	Yes
Diagnostic buffer	
• present	Yes
Traces	
Number of configurable Traces	2; Up to 512 KB of data per trace are possible
Integrated Functions	
Frequency measurement	Yes
controlled positioning	Yes
Number of position-controlled positioning axes, max.	8
PID controller	Yes
Number of alarm inputs	4
Potential separation	
Potential separation digital inputs	
 Potential separation digital inputs 	500V AC for 1 minute
between the channels, in groups of	1
Potential separation digital outputs	
 Potential separation digital outputs 	Relays
between the channels	No
between the channels, in groups of	2
EMC	
Interference immunity against discharge of static electricity	
Interference immunity against discharge of static	Yes
electricity acc. to IEC 61000-4-2	0.147
— Test voltage at air discharge	8 kV
— Test voltage at contact discharge	6 kV
Interference immunity to cable-borne interference	Voo
 Interference immunity on supply lines acc. to IEC 61000- 4-4 	Yes
 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- 	Yes
4-5	and by high frames of fields
Interference immunity against conducted variable disturbance indu	
 Interference immunity against high-frequency radiation acc. to IEC 61000-4-6 	Yes
Emission of radio interference acc. to EN 55 011	
Limit class A, for use in industrial areas	Yes; Group 1
Limit class B, for use in residential areas	Yes; When appropriate measures are used to ensure compliance with the limits
- Limit siess 2, for doo in roomstitud arous	for Class B according to EN 55011
Degree and class of protection	
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.	-40 °C; = Tmin; Startup @ -25 °C
• max.	70 °C; = Tmax; Tmax > +55 °C number of simultaneously switched-on digital
	inputs 4, digital outputs 3, analog inputs 2 (no adjacent points) with horizontal
	mounting position; Tmax > +60 °C number of simultaneously switched-on digital inputs 3, digital outputs 2, analog inputs 0 (no adjacent points) with
	horizontal mounting position
 vertical installation, min. 	-40 °C; = Tmin; Startup @ -25 °C
 vertical installation, max. 	50 °C; = Tmax

At and an atom on	05.00
At cold restart, min. Ambient temperature during storage/transportation.	-25 °C
Ambient temperature during storage/transportation • min.	-40 °C
• max.	70 °C
Altitude during operation relating to sea level	70 C
Installation altitude above sea level, max.	2 000 m
Ambient air temperature-barometric pressure-altitude	Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax
7 / Williams Call Composition of State Composition	- 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); above 2 000 m max. 132 V AC
Relative humidity	
 With condensation, tested in accordance with IEC 60068- 2-38, max. 	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Vibrations	
 Vibration resistance during operation acc. to IEC 60068- 2-6 	2 g (m/s²) wall mounting, 1 g (m/s²) DIN rail
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	Very lead discrete and all described to the
Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems	Very Olera 200 mald formula the control of the cont
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Vest Class 3S4 incl. cond. dust. *
to mechanically active substances according to EN 60721-3-3 Lea on phire/et according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	Vac. Class CD2 model and fringel angree (avaluating farms). Class CD2 an
— 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	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
Usage in industrial process technology	Vary Olace 2 (available a triple and belong)
 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 	Yes; Type 1 protection
Military testing according to MIL-I-46058C, Amendment 7	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
programming / cycle time monitoring / header	Vec
adjustable Dimensions	Yes
Width	90 mm
Height	100 mm
Depth	75 mm
Debiii	7 J HIIII

Weights	
Weight, approx.	385 g
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