Data sheet 6AG1217-1AG40-5XB0

Siemens EcoTech



SIMATIC S7-1200, CPU 1217C, CPU 1217C DC/DC/DC based on 6ES7217-1AG40-0XB0 with conformal coating -40...+60 °C . compact CPU, 2 PROFINET port onboard I/O: 10 DI 24 V DC; 4 DI RS-422/485; 6 DO 24 V DC; 0.5 A; 4 DO RS-422/485; 2 AI 0-10 V DC, 2 AO 0-20 mA power supply: DC 20.4-28.8V DC, program/data memory 150 KB 20.4-28.8V DC, program/data memory 150 KB



Figure similar

General information	
Product type designation	CPU 1217C DC/DC/DC
based on	6ES7217-1AG40-0XB0
Engineering with	SECTED THE IS WARD
STEP 7 TIA Portal configurable/integrated from version	see entry ID: 109746275
Supply voltage	300 Shay 12. 1001 10210
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)	600 mA; CPU only
Current consumption, max.	1 600 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	150 kbyte
Load memory	
• integrated	4 Mbyte
Plug-in (SIMATIC Memory Card), max.	with SIMATIC memory card
Backup	
• present	Yes
maintenance-free	Yes

CRU processing times	without battery	Yes
for bit operations, by. for word operations, by. for word operations, by. for word operations by. for word operations by. Number of blocks (total) Number of digital imputs		
for word operations, typ. for fooding point arthmetic, typ. 2.3 m; / Operation CPU-Shicks: Number of blocks (total) 8. R.Cs., ESp. Counters and times. The maximum number of addressable books ranges from 10 stissis. There is no restriction, the entire working memory can be used • Number, max. Limited only by RAM for code 2.5 m; / Operation 2.6 m; / Operation 2.7 m; / Operation 2.8 m; / Operation 3. Royle; Size of bit memory address area 1.8 kbyte; Size of bit memory address area 1.8 kbyte; Size of bit memory address area 1.8 kbyte; Size of bit memory address area 1.9 const. adjustable • Limited only by RAM for ode 2.6 m; / Operation 1.8 kbyte; Size of bit memory address area 1.8 kbyte; Size of bit memory address area 1.9 const. adjustable • Likeyse, Priority class 1 (program cycle): 18 KB, priority class 2 to 28:6 KB Address area Process image • Logist, adjustable • Likeyse • Likeyse, Priority class, 1 (program cycle): 18 KB, priority class 2 to 28:6 KB Address area Process image • Likeyse, Priority class, 1 (program cycle): 18 KB, priority class 2 to 28:6 KB Address area Process image • Likeyse, Priority class, 1 (program cycle): 18 KB, priority class 2 to 28:6 KB Address area Process image • Likeyse, Priority class, 1 (program cycle): 18 KB, priority class 2 to 28:6 KB Address area 1.8 kbyte; 1.9 kbyte; Size of bit memory address area 1.8 kby		0.08 us: / instruction
for floating point arithmetic, typ. 2		
Number of blocks (total) Dis, FCS, FBs, counters and times. The maximum number of addressable blocks ranges from 1 to 65535. There is no restriction, the entire working memory can be used	•	·
DBs. FCs. FBs. counters and times. The maximum number of addressable blocks ranges from 1 to 16558. There is no restriction, the entire working memory can be used		2.5 μs, / Operation
Number, max. Data reas and their retentioty Retentive deal area (incl. timers, counters, flags), max. Flag Size, max. 18 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 Uulputs, adjustable 1 kbyte Uulputs, adjustable 1 kbyte Hardware configuration Number of modules per system, max. 3 comm. modules, 1 signal board, 8 signal modules Times of city Clock Hardware configuration Number of fligital inputs 144; Integrated Deviation per day, max. 3 comm. modules, 1 signal board, 8 signal modules 1 kbyte Hardware configuration Number of fligital inputs 144; Integrated 480 N; Typical 880 x/month at 25 °C Digital inputs 144; Integrated 68; HSC (High Speed Counting) Yes Number of signal inputs 144; Integrated 184 Nove of signal inputs 185 No		blocks ranges from 1 to 65535. There is no restriction, the entire working
Retentive data area (incl. timers, counters, flags), max. Flag • Size, max. • Size, max. • per priority class, max. • process mage • Inputs, adjustable • Cupturs, adjustable • Process mage • Inputs, adjustable • Cupturs, adjustable • Cu	OB	
Retentive data area (incl. timers, counters, flags), max. Stize, max.	Number, max.	Limited only by RAM for code
Filiag Size, max 8 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 Cutybus, 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 N; Typical Develation per day, max 460 N; Typical Develation per day in the control of	Data areas and their retentivity	
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Outputs, adjustable 1 kbyte	Process image	
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Time of day Clock	Hardware configuration	
Time of day Clock • Hardware clock (real-lime) • Backup time • Deviation per day, max. • Deviation per day, max. • Deviation per day, max. **Digital inputs Number of digital inputs • of which inputs usable for technological functions Source/sink input Number of simultaneously controllable inputs all mountina positions — up to 40 °C, max. Input voltage • Rated value (DC) • for signal "1" • for signal "1" 15 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 — at "0" to "1", min. — at "0" to "1", max. for interrupt inputs — parameterizable for technological functions — parameterizable for technological functions — parameterizable for technological functions — parameterizable for technological functions — parameterizable for technological functions — parameterizable slingle phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz kHz Cable length • shielded, max. • unshielded, max. • unshielded, max. • unshielded, max. • unshielded, max. • unshielded, max. • of digital outputs Number of digital outputs • with resistive load, max. • on lamp load, max. • on lamp load, max. • on lamp load, max. • on lamp load, max. • on lamp load, max. • on lamp load, max. • on lamp load, max.	Number of modules per system, max.	3 comm. modules, 1 signal board, 8 signal modules
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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 — 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 & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 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 10 • of which high-speed outputs 4; 100 kHz Pulse Train Output Limitation of inductive shutdown voltage to L+ (-48 V) Switching capacity of the outputs • with resistive load, max. 0.5 A • on lamp load, max. 5 W		
all mounting positions		165
- up to 40 °C, max. Input voltage • Rated value (DC) • for signal "0" • for signal "1" Input delay (for rated value of input voltage) for standard inputs - parameterizable - at "0" to "1", min at "0" to "1", max. for interrupt inputs - parameterizable - parameterizable Single phase: 3 @ 100 kHz & 3 @ 30 kHz, differential: 3 @ 80 kHz & 3 @ 30 kHz		
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• for signal "0" • for signal "1" Input delay (for rated value of input voltage) for standard inputs		24.1/
• for signal "1" Input delay (for rated value of input voltage) for standard inputs		
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Limitation of inductive shutdown voltage to L+ (-48 V) Switching capacity of the outputs • with resistive load, max. • on lamp load, max. 5 W		
Switching capacity of the outputs ■ with resistive load, max. ■ on lamp load, max. 5 W		
 with resistive load, max. on lamp load, max. 5 W 		L+ (-48 V)
• on lamp load, max. 5 W	·	
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Output voilage	Output voltage	

• for signal **O**, max		
Comput current I or or signed 1" minded value of or signed 1" minded value of or signed 1" minded value The signed value value value value The signed value value value value The public outputs O the public outputs O the public outputs O the public outputs Number of relay outputs O the public outputs Number of relay outputs O the public outputs Number of analog inputs Number of analog inputs O to 100 The value v	● for signal "0", max.	0.1 V; with 10 kOhm load
Or of signal "1" rated value of or fight of "2" reduct duren, max Output desky with resistive load "1" to "1" max. "1" to "0" max. Systems Switching frequency of the pulse outputs with resistive load, max. 100 kHz Risky outputs O Cable length - shielded, max untribided, max untribided, max untribided, max untribided, max untribided, max untribided, max vious of analog inputs Numbor of analog inputs Numbor of analog inputs Ves Input resistance (0 to 10 V) - ves - oto 10 to 10 V - input resistance (0 to 10 V) - ves - oto 10 to 10 V - ves - oto 10 to 10 V - ves - oto 20 ves - oto 20 ves - oto 30	● for signal "1", min.	20 V
Or signal "O' residual current, max Output dislays with resistive load	Output current	
Couput disay with resistive load	for signal "1" rated value	0.5 A
• "1" to "7", max. • "1" to "7", max. • "6 μs Switching frequency • of the pubs outputs, with resistive load, max. • 100 M½ Relay outputs • Number of relay outputs • Number of relay outputs • Number of relay outputs • Soo m • shielded, max. • unshielded, max. • unshielded, max. • 150 m Analog legists • Number of analog inputs • Imput reages • Vottage • Yes • Imput reages • Vottage • Imput reages (and values), vottages • Out 10 v Y Yes • Imput reages (and values), vottages • Out 10 v Y Yes • Imput reages, carded values), vottages • Out 10 v O Y Yes • Imput reages, and values, vottages • Out 10 v O Y Yes • Imput reages, and values, vottages • Output reages, and values, vottages • Output reages, and values, vottages • Output reages, carded values, vottages • Pees Values, carded values, vottages • Pees Values, carded values, vottages • Pees Values, vottages • Values, v	for signal "0" residual current, max.	0.1 mA
• "1" to "0", max. * of the pulse outputs, with resistive load, max. * of the pulse outputs, with resistive load, max. * Number of reiny outputs • shalicided, max. • unshelded, max. • unshelded, max. • unshelded, max. • unshelded, max. • votage * Votage * Votage * Ves * Input resistance (0 to 10 V) * Cable length • shalicided, max. • 10 to +1 d V — Input resistance (10 to 10 V) * Cable length • shalicided, max. • 100 m; twisted and shielded * Analog virtues * Otage outputs * Otage outputs	Output delay with resistive load	
• "1" to "0", max. * of the pulse outputs, with resistive load, max. * of the pulse outputs, with resistive load, max. * Number of reiny outputs • shalicided, max. • unshelded, max. • unshelded, max. • unshelded, max. • unshelded, max. • votage * Votage * Votage * Ves * Input resistance (0 to 10 V) * Cable length • shalicided, max. • 10 to +1 d V — Input resistance (10 to 10 V) * Cable length • shalicided, max. • 100 m; twisted and shielded * Analog virtues * Otage outputs * Otage outputs	• "0" to "1", max.	1 µs
Switching frequency of the pulse outputs, with resistive load, max. Relay outputs Number of relay outputs observed on the pulse	• "1" to "0". max.	
e of the pulse outputs, with resistive load, max. Relay outputs Number of relay outputs shelded, max. unshelded, max. unshelded, max. 150 m Analog inputs Number of analog inputs **Voltage		
Relay outputs • Number of relay outputs • sheloed, max • unshielded, max • unshielded, max Analog inputs Voltage Yes		100 kHz
Number of relay outputs shelded, max. unshelded, max. unshelded, max. 150 m Analog inputs Number of analog inputs 100 m, wisted and shielded - 100		
Cable length • shielded, max,		0
* shielded, max.		
Analog injusts Vestage Yes		500 m
Number of analog inputs 2 1 1 1 1 1 1 1 1 1		
Number of analog inputs input ranges Voltage Voltage Ves Input ranges (rated values), voltages Input resistance (0 to 10 V) Cable length Insulated max. Information of analog outputs Ves Number of analog outputs Ves Analog value generation for the inputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration inter, parametrizable Conversion time (per channel) Analog value generation for the inputs Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Integration with overrange (bit including sign), max. In	· .	150 m
Input ranges • Voltage • Voltages • Oto +10 V - Input resistance (0 to 10 V) Cable length • shielded, max. Analog outputs Number of analog outputs • Oto 20 mA Analog value generation for the inputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time/sealution per channel • Resolution with overrange (bit including sign), max. • Integration and conversion time/sealution per channel • Resolution with overrange (bit including sign), max. 10 bit Encoder Connectable encoders • 2 wire sensor Integration and conversion time/sealution per channel • Resolution with overrange (bit including sign), max. 10 bit Encoder Connectable encoders • 2 wire sensor Integration and conversion time/sealution per channel • PROFINET Isolated • 2 wire sensor Integrate type • PROFINET Isolated • Yes Automospitation • Yes Integrated switch • Yes • Integrated switch • PROFINET IO Device • Yes • SIMATIC communication • Yes • SIMATIC communication • Yes • Media redundancy • Web server • Media redundancy • Yes • Media redundancy • Yes • Media redundancy • Yes • PROFINET IO Controller • Transmission rate, max. • Open E communication • Yes • Media redundancy • Yes • Transmission rate, max. • 100 Mbit/s		
Voltage Ves		2
Input ranges (rated values), voltages • 0 to +10 V Yes	·	
- 0 to +10 V	Voltage	Yes
— Input resistance (0 to 10 V) Cable length	Input ranges (rated values), voltages	
e shielded, max. 100 m; twisted and shielded Analog outputs Number of analog outputs • 10 20 mA Analog value generation for the Inputs Integration and conversion time/resolution per channel • Resolution with overange (bit including sign), max. • Integration time, parameterizable • Conversion time (per channel) • Resolution with overange (bit including sign), max. • Integration and conversion time/resolution per channel • Resolution with overange (bit including sign), max. Integration and conversion time/resolution per channel • Resolution with overange (bit including sign), max. Integration and conversion time/resolution per channel • Resolution with overange (bit including sign), max. Integration and conversion time/resolution per channel • Resolution with overange (bit including sign), max. Integration and conversion time/resolution per channel • Resolution with overange (bit including sign), max. 10 bit Encoder Connectable encoders • 2-wire sensor Yes Interface Interface Interface Interface Interface Interface Interface type • PROFINET Solated Yes Autonegolitation Yes Autonegolitation Yes Interface types • PLA 55 (Ethemet) • Yes • Rumber of ports • PROFINET 10 Controller • Yes • Media redundancy • Yes PROFINET 10 Controller • Transmission rate, max. 100 Mbit/s	• 0 to +10 V	Yes
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Integration and conversion time/resolution per channel Resolution with overrange (bit including sign), max. Encoder Connectable encoders 2-wire sensor Yes Interface Interface type Interface type Interface type Interface type Automatic detection of transmission rate Yes Autorossing Yes Interface types RJ 45 (Ethernet) Interface types PROFINET Yes Number of ports Interface types PROFINET IO Controller PROFINET IO Device Yes SIMATIC communication Yes PROFINET IO Controller Web server Media redundancy PROFINET IO Controller Transmission rate, max. Services	Conversion time (per channel)	625 µs
Resolution with overrange (bit including sign), max. Encoder Connectable encoders 2-wire sensor Yes Interface Interface type Interface type Autonegotiation Autocrossing Resolution Resolution PROFINET Interface types Autorossing Resolution Profines PROFINET Profines PROFINET IO Controller PROFINET IO Device PROFINET IO Device SIMATIC communication Pes Profines communication Profines communication Profines communication Profines communication PROFINET IO Controller Profines communication Profines com	Analog value generation for the outputs	
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Connectable encoders • 2-wire sensor Yes 1. Interface Interface type Isolated Sutomatic detection of transmission rate Autonegotiation Autocrossing Yes Autocrossing Yes Interface types • RJ 45 (Ethernet) • Number of ports • integrated switch PROFINET IO Controller • PROFINET IO Device • SIMATIC communication • Wes • Open IE communication • Wes • Media redundancy PROFINET IO Controller • Wes • Media redundancy PROFINET IO Controller • Yes • Media redundancy PROFINET IO Controller • Transmission rate, max. 100 Mbit/s Services	 Resolution with overrange (bit including sign), max. 	10 bit
One of the sensor Yes Interface Interface type PROFINET Isolated Yes automatic detection of transmission rate Yes Autonegotiation Yes Interface types ORA 45 (Ethernet) Yes Number of ports 2 Interface dwitch Yes PROFINET IO Controller Yes PROFINET IO Device Yes SIMATIC communication Yes; Optionally also encrypted Web server Yes Media redundancy Yes PROFINET IO Controller Yes Media redundancy Yes PROFINET IO Controller Yes Media redundancy Yes PROFINET IO Controller Transmission rate, max. 100 Mbit/s Services	Encoder	
Interface type PROFINET Isolated Yes automatic detection of transmission rate Yes Autonegotiation Yes Autocrossing Yes Interface types • RJ 45 (Ethernet) Yes • Number of ports 2 • integrated switch Yes PROFINET IO Controller Yes • SIMATIC communication Yes • Open IE communication Yes; Optionally also encrypted • Web server Yes • Media redundancy Yes PROFINET IO Controller Yes • Media redundancy Yes • PROFINET IO Controller Yes; Optionally also encrypted • Web server Yes • Media redundancy Yes PROFINET IO Controller Yes • Transmission rate, max. Services	Connectable encoders	
Interface type PROFINET Isolated Yes automatic detection of transmission rate Yes Autonegotiation Yes Autocrossing Yes Interface types • RJ 45 (Ethernet) Yes • Number of ports 2 • integrated switch Yes PROFINET IO Controller Yes • SIMATIC communication Yes • Open IE communication Yes; Optionally also encrypted • Web server Yes • Media redundancy Yes PROFINET IO Controller Yes • Media redundancy Yes • PROFINET IO Controller Yes; Optionally also encrypted • Web server Yes • Media redundancy Yes PROFINET IO Controller Yes • Transmission rate, max. Services	2-wire sensor	Yes
Interface type PROFINET Isolated Yes automatic detection of transmission rate Yes Autonegotiation Yes Autocrossing Yes Interface types • RJ 45 (Ethernet) Yes • Number of ports 2 • integrated switch Yes PROFINET IO Controller Yes • PROFINET IO Device Yes • SIMATIC communication Yes • Open IE communication Yes; Optionally also encrypted • Web server Yes • Media redundancy Yes PROFINET IO Controller • Transmission rate, max. 100 Mbit/s Services		
Isolated automatic detection of transmission rate Autonegotiation Yes Autocrossing Yes Interface types • RJ 45 (Ethernet) • Number of ports • 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
automatic detection of transmission rate Autonegotiation Yes Autocrossing Yes 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		
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Interface types RJ 45 (Ethernet) Number of ports Number of ports Integrated switch Yes Protocols PROFINET IO Controller PROFINET IO Device SIMATIC communication Open IE communication Web server Media redundancy Yes PROFINET IO Controller Yes Open IE communication Yes; Optionally also encrypted Yes Media redundancy Yes PROFINET IO Controller Transmission rate, max. 100 Mbit/s Services		
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PROFINET IO Device SIMATIC communication Open IE communication Web server Web server Media redundancy PROFINET IO Controller Transmission rate, max. Services Yes Yes Yes Yes Yes 100 Mbit/s Services	Protocols	
SIMATIC communication Open IE communication Web server Web server Media redundancy PROFINET IO Controller Transmission rate, max. Services Yes 100 Mbit/s	PROFINET IO Controller	Yes
 Open IE communication Web server Media redundancy PROFINET IO Controller Transmission rate, max. Services Yes 100 Mbit/s	PROFINET IO Device	Yes
 Open IE communication Web server Media redundancy PROFINET IO Controller Transmission rate, max. Services Yes 100 Mbit/s	SIMATIC communication	Yes
Web server Media redundancy Yes PROFINET IO Controller Transmission rate, max. 100 Mbit/s Services		
 Media redundancy PROFINET IO Controller Transmission rate, max. Services 		
PROFINET IO Controller • Transmission rate, max. Services 100 Mbit/s		
Transmission rate, max. 100 Mbit/s Services		100
Services		400 Mhit/o
		TOU INIDIUS
— PG/OP communication Yes; encryption with TLS V1.3 pre-selected		V
	— PG/OP communication	Yes; encryption with TLS V1.3 pre-selected

— Isochronous mode	No
— IRT	No
— PROFlenergy	No
 Prioritized startup 	Yes
 Number of IO devices with prioritized startup, max. 	16
 Number of connectable IO Devices, max. 	16
 Number of connectable IO Devices for RT, max. 	16
— of which in line, max.	16
 Activation/deactivation of IO Devices 	Yes
 Number of IO Devices that can be simultaneously 	8
activated/deactivated, max.	
— 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
Number of IO Controllers with shared device, max.	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)	. 55, 5.11 12 10 2 10quilou
TCP/IP	Yes
• DHCP	No
• BNMP	Yes
	Yes
• DCP	
LLDP Redundancy made	Yes
Redundancy mode Media redundancy	
	Voc. on MDD redundancy manager and/or MDD client
— MRP	Yes; as MRP redundancy manager and/or MRP client
— MRPD	No
SIMATIC communication	Van
• S7 routing	Yes
Open IE communication	V
• 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	
• 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
 Number of nodes for user-defined server interfaces, max. 	2 000
Further protocols	
MODBUS	Yes
communication functions / header	
S7 communication	
• supported	Yes
as server	Yes
• as client	Yes
User data per job, max.	See online help (S7 communication, user data size)
Number of connections	Coo of mile help (Cr. communication), about data (120)
• overall	PG Connections: 4 reserved / 4 max; HMI Connections: 12 reserved / 18 max; S7 Connections: 8 reserved / 14 max; Open User Connections: 8 reserved / 14 max; Web Connections: 2 reserved / 30 max; OPC UA Connections: 0 reserved / 10 max; Total Connections: 34 reserved / 64 max
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
Memory size per trace, max.	512 kbyte
Interrupts/diagnostics/status information	
Diagnostics indication LED	
RUN/STOP LED	Yes
• ERROR LED	Yes
MAINT LED	Yes
Integrated Functions	
Counter	
Number of counters	6
Counting frequency, max.	1 MHz
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
Number of pulse outputs	4 1 MHz
Limit frequency (pulse)	1 MHz
Potential separation	
Potential separation digital inputs	No
Potential separation digital inputs Inchange the change in groups of	No
between the channels, in groups of Potential congration digital outputs	1
Potential separation digital outputs	Voc
Potential separation digital outputs between the channels.	Yes
 between the channels 	No
• hetween the channels in groups of	No 1
• between the channels, in groups of	No 1
EMC	
Interference immunity against discharge of static electricity • Interference immunity against discharge of static	
Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity acc. to IEC 61000-4-2	1 Yes
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	Yes 8 kV
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	1 Yes
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	Yes 8 kV
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 Interference immunity to cable-borne interference Interference immunity on supply lines acc. to IEC 61000-	1 Yes 8 kV 6 kV

4-4	
Interference immunity against voltage surge • Interference immunity on supply lines acc. to IEC 61000-	Yes
4-5	165
Interference immunity against conducted variable disturbance indu	ced 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	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	Ciamana FaaTaah
Siemens Eco Profile (SEP) CE mark	Siemens EcoTech Yes
Ecological footprint	165
environmental product declaration	Yes; type II acc. to ISO 14021
Global warming potential	
global warming potential, (total) [CO2 eq]	143 kg
— global warming potential, (during production) [CO2 eq]	22 kg
— global warming potential, (during operation) [CO2 eq]	123 kg
— global warming potential, (after end of life cycle)[CO2 eq]	-1.48 kg
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.	60 °C; = Tmax; Tmax > 55 °C number of simultaneously switched-on digital inputs 5, current sinking/current sourcing (no adjacent points) and 4 differential inputs with horizontal mounting position; Tmax > 55 °C number of simultaneously switched-on digital inputs 3, current sinking (no adjacent points) and 4 differential outputs with horizontal mounting position
• vertical installation, min.	-40 °C; = Tmin; Startup @ -25 °C
vertical installation, max.	50 °C; = Tmax
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.	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 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),
Resistance	duration 11 ms
Coolants and lubricants	
Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems	
 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 according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!

to mechanically active substances according to EN	Yes; Class 3S4 incl. sand, dust.	The supplied connector	covers must remain on
60721-3-3	the unused interfaces during op		
Use on ships/at sea			
 to biologically active substances according to EN 60721-3-6 	Yes; Class 6B2 mold, fungal and dry rot spores (excluding fauna)		
 to chemically active substances according to EN 60721-3-6 	Yes; Class 6C3 (RH < 75 %) inc degree 3); *	cl. salt spray acc. to EN 6	0068-2-52 (severity
 to mechanically active substances according to EN 60721-3-6 	Yes; Class 6S3 incl. sand, dust;	· *	
Usage in industrial process technology			
 Against chemically active substances acc. to EN 60654-4 	Yes; Class 3 (excluding trichlore	ethylene)	
 Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 	Yes; Level GX group A/B (excluconcentrations up to the limits of LC3 (salt spray) and level LB3 (of EN 60721-3-3 class 3C	
Remark		,	
 Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 	* The supplied plug covers mus during operation!	t remain in place over the	e unused interfaces
Pollutant concentrations			
SO2 at RH < 60% without condensation	S02: < 0.5 ppm; H2S: < 0.1 ppn	n: RH < 60 % condensati	on-free
Conformal coating	502. 0.3 ррні, 1120. 10.1 ррн	,	
Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high reliability		
	Ves: Type 1 protection		
Protection against fouling acc. to EN 60664-3 Military testing according to MILL 46059C. Amondment 7.	Yes; Type 1 protection Yes; Discoloration of coating po	socible during coming life	
Military testing according to MIL-I-46058C, Amendment 7 Out life at large and Parformance of Florida Householder			
 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	100		
·	Yes		
User program protection/password protection Convergence:	Yes		
Copy protection Real protection			
Block protection	Yes		
Access protection	v		
protection of confidential configuration data	Yes		
Protection level: Write protection	Yes		
 Protection level: Read/write protection 	Yes		
Protection level: Complete protection	Yes		
User administration	Yes; device-wide		
Number of users	42		
 Number of groups 	14		
Number of roles	20		
programming / cycle time monitoring / header			
adjustable	Yes		
Dimensions			
Width	150 mm		
Height	100 mm		
Depth	75 mm		
Veights			
Weight, approx.	530 g		
Classifications		Version	Classification
Classifications		VARSIAN	Classification
Classifications			
Classifications	eClass	14	27-24-22-07
Classifications	eClass eClass		27-24-22-07 27-24-22-07
Classifications		14	
Classifications	eClass eClass	14 12 9.1	27-24-22-07 27-24-22-07
Classifications	eClass	14 12	27-24-22-07

eClass	7.1	27-24-22-07
eClass	6	27-24-22-07
ETIM	10	EC000236
ETIM	9	EC000236
ETIM	8	EC000236
ETIM	7	EC000236

Approvals / Certificates

General Product Approval

Environment





China RoHS







last modified:

7/30/2025