SIEMENS

Data sheet

6ES7216-2AD23-0XB0

SIMATIC S7-200, CPU 226 COMPACT UNIT, DC POWER SUPPLY 24 DI DC/16 DO DC, 16/24 KB CODE/10 KB DATA, 2 PPI/FREEPORT PORTS



Figure similar

Supply voltage	
Rated value (DC)	
• 24 V DC	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	
Inrush current, max.	10 A; at 28.8 V
from supply voltage L+, max.	1 050 mA; 150 mA to 1 050 mA output current for expansion
	modules (5 V DC) 1 000 mA

Encoder supply 24 V encoder supply • 24 V • Short-circuit protection • Output current, max. Encoder supply Yes; permissible range: 15.4 to 28.8 V Yes; electronic at 400 mA

Memory	
Number of memory modules (optional)	1; pluggable memory module, content identical with integral EEPROM; can additionally store recipes, data logs and other files
Work memory	
integrated (for program)	24 kbyte; 16 KB with active run-time edit
integrated (for data)	10 kbyte
Backup	
● present	Yes; Program: Entire program maintenance-free on integral EEPROM, programmable via CPU; data: Entire DB 1 loaded from PG/PC maintenance-free on integral EEPROM, current values of DB 1 in RAM, retentive memory bits, timers, counters, etc. maintenance-free via high-performance capacitor; optional battery for long-term buffering
Battery	
Backup battery	
Backup time, max.	100 h; (min. 70 h at 40 °C); 200 days (typ.) with optional battery module
CPU processing times	
for bit operations, max.	0.22 μs
Counters, timers and their retentivity	
S7 counter	
Number	256
Retentivity	
— adjustable	Yes; via high-performance capacitor or battery
— lower limit	1
— upper limit	256
Counting range	
— lower limit	0
— upper limit	32 767
S7 times	
Number	256
Retentivity	
— adjustable	Yes; via high-performance capacitor or battery
— upper limit	64
Time range	
— lower limit	1 ms
— upper limit	54 min; 4 timers: 1 ms to 30 s; 16 timers: 10 ms to 5 min; 236 timers: 100 ms to 54 min
Data areas and their retentivity	
Flag	
Number, max.	32 byte
 Retentivity available 	Yes; M 0.0 to M 31.7

+ of which retentive without battery Hardware configuration Number of expansion units, max. 7; Only expansion modules of the S7-22x series can be used. Due to the limited output current, the use of expansion modules may be limited. connectable programming devices/PCs SIMATIC PG/PC, standard PC Expansion modules • Analog inputs/outputs, max. • Digital inputs/outputs, max. • As-Interface inputs/outputs, max. • As-Interface inputs/outputs, max. • As-Interface inputs/outputs, max. • As-Interface inputs/outputs, max. Digital inputs Number of digital inputs Source/sink input Yes; optionally, per group Input voltage • Rated value (DC) • for signal "1" min. 15 V Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", max. for interrupt inputs — parameterizable — parameterizable — parameterizable — parameterizable — parameterizable • shelicled, max. • unshelded, max. • unshelded, max. • unshelded, max. Digital outputs Number of digital outputs For the residency of the outputs • with resistive load, max. • on lamp load, max. Output voltage 112	of which retentive with battery	0 to 255, via high-performance capacitor or battery, adjustable
Hardware configuration Number of expansion units, max. 7; Only expansion modules of the S7-22x series can be used. Due to the limited output current, the use of expansion modules may be limited. Connectable programming devices/PCs Expansion modules • Analog inputs/outputs, max. Digital inputs/outputs, max. *AS-Interface inputs/outputs, max. *AS-Interface inputs/outputs, max. *AS-Interface inputs/outputs, max. *AS-Interface inputs/outputs, max. *Digital inputs **Digital inputs **Digital inputs **Digital inputs **Digital inputs **Digital inputs **Prescription of digital outputs **Prescription outputs **Prescription outputs **Prescription outputs **Prescription outputs **Prescription outputs **Prescriptio		0 to 112 in EEPROM, adjustable
Number of expansion units, max. 7; Only expansion modules of the S7-22x series can be used. Due to the limited output current, the use of expansion modules may be limited. connectable programming devices/PCs Expansion modules • Analog inputs/outputs, max. • As-Interface A/B slaves (CP 243-2) Digital inputs 24	·	
to the limited output current, the use of expansion modules may be limited. connectable programming devices/PCs Expansion modules • Analog inputs/outputs, max. • Alalog inputs/outputs, max. • Digital inputs/outputs, max. • AS-Interface inputs/outputs, max. • AS-Interface inputs/outputs, max. • AS-Interface inputs/outputs, max. • AS-Interface inputs/outputs, max. Digital inputs 24 Source/sink input Input voltage • Rated value (DC) • for signal "1" Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", max. for interrupt inputs — parameterizable • Shot-circuit protection No; to be provided externally Limitation of inductive shutdown voltage to Switching capacity of the outputs • with resistive load, max. • on lamp load, max.	<u> </u>	7. Only avancies modules of the C7 22v enrice can be used Due
Expansion modules • Analog inputs/outputs, max. • Digital inputs/outputs, max. • AS-Interface inputs/outputs, max. • C2; AS-Interface A/B slaves (CP 243-2) Digital inputs Number of digital inputs 24 Yes; optionally, per group Input voltage • Rated value (DC) • for signal "0" • O to 5 V • for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", min. — at "0" to "1", max. For interrupt inputs — parameterizable Yes; I 0.0 to I 0.3 for counter/technological functions — parameterizable • Shielded, max. • unshielded, max. • unshielded, max. • S00 m; Standard input: 500 m, high-speed counters: 50 m 300 m; not for high-speed signals Digital outputs Number of digital outputs Number of digital outputs Short-circuit protection No; to be provided externally Limitation of inductive shutdown voltage to Switching capacity of the outputs • with resistive load, max. • on lamp load, max. • on lamp load, max. • on lamp load, max.	number of expansion units, max.	to the limited output current, the use of expansion modules may
Analog inputs/outputs, max. Digital inputs/outputs, max. AS-Interface inputs/outputs, max. Digital inputs Number of digital inputs 24 Source/sink input Yes; optionally, per group Input voltage Rated value (DC) for signal "0" of ro signal "1" prot current for signal "1", vp. 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 Aram (12.8 ms) for counter/technological functions — parameterizable Ashielded, max. Source/sink input Yes; (E.0.0 to E.1.5) 30 kHz Cable length Source/sink input 16. Transistor No; to be provided externally Limitation of inductive shutdown voltage to With resistive load, max. on lamp load, max. O.75 A Switching capacity of the outputs with resistive load, max. outputs 148: max. 128 inputs and 120 outputs (CPU+EM) 148: max. 128 inputs and 120 outputs and 140 outputs (CPU+EM) 148: max. 128 inputs and 120 outputs and 140 outputs (CPU+EM) 148: max. 128 inputs and 120 outputs and 120 outputs (CPU+EM) 148: max. 128 inputs and 120 outputs and 120 outputs (CPU+EM) 148: max. 128 inputs and 120 outputs and 120 outputs (CPU+EM) 148: max. 128 inputs and 120 outputs and 120 outputs (CPU+EM) 148: max. 128 inputs and 120 outputs and 140 inputs (CPU+EM) 148: max. 128 inputs and 120 outputs (CPU+EM) 148	connectable programming devices/PCs	SIMATIC PG/PC, standard PC
Outputs (EM) Outputs (EM) AS-Interface inputs/outputs, max. AS-Interface inputs/outputs, max. OE; AS-Interface A/B slaves (CP 243-2) Digital inputs Number of digital inputs Source/sink input Input voltage Rated value (DC) of or signal "0" of or signal "1" input current of or signal "1", typ. 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 — yes; I 0.0 to I 0.3 for counter/technological functions — parameterizable Ves; (E 0.0 to E 1.5) 30 kHz Cable length oshielded, max. ounshielded, max. ounshielded, max. for interrupt inputs Outputs Number of digital outputs Number of digital outputs Number of digital outputs Nor, to be provided externally Limitation of inductive shutdown voltage to Switching capacity of the outputs with resistive load, max. outputs outputs Number of wigital outputs with resistive load, max. O.75 A on lamp load, max. O.75 A on lamp load, max.	Expansion modules	
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Digital inputs 24	 Digital inputs/outputs, max. 	148; max. 128 inputs and 120 outputs (CPU+EM)
Number of digital inputs Source/sink input Yes; optionally, per group Patted value (DC) For signal "0" For signal "1" Number of digital inputs Possible in the signal "1" For signal "1", typ. Source/sink For signal "1", typ. Source/sink For signal "1", typ. Source/sink For signal "1" For signal "1" For signal "1", typ. Source/sink For signal "1" For signal "1" For signal "1", typ. Source/sink For signal "1" For signal "0" For signal "1" For signal "0" For signal "1" For signal "0" For signal "1" For signal "1" For signal "1" For signal "0" For signal "1" For signal "1" For signal "1" For signal "0" For signal "1" For signal "1" For signal "1" For signal "0" For signal "1" For signal "1" For signal "1" For signal "0" For signal "1" For signal "1	 AS-Interface inputs/outputs, max. 	62; AS-Interface A/B slaves (CP 243-2)
Number of digital inputs Source/sink input Yes; optionally, per group Patted value (DC) For signal "0" For signal "1" Number of digital inputs Possible in the signal "1" For signal "1", typ. Source/sink For signal "1", typ. Source/sink For signal "1", typ. Source/sink For signal "1" For signal "1" For signal "1", typ. Source/sink For signal "1" For signal "1" For signal "1", typ. Source/sink For signal "1" For signal "0" For signal "1" For signal "0" For signal "1" For signal "0" For signal "1" For signal "1" For signal "1" For signal "0" For signal "1" For signal "1" For signal "1" For signal "0" For signal "1" For signal "1" For signal "1" For signal "0" For signal "1" For signal "1" For signal "1" For signal "0" For signal "1" For signal "1	Digital inputs	
Input voltage Rated value (DC) for signal "0" for signal "1" Input current for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs parameterizable		24
Rated value (DC) for signal "0" for signal "1" Input current for signal "1", typ. 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 yes; I 0.0 to I 0.3 for counter/technological functions parameterizable shielded, max. ounshielded, max. unshielded, max. foom; Standard input: 500 m, high-speed counters: 50 m 300 m; not for high-speed signals Digital outputs Number of digital outputs I mit at ion of inductive shutdown voltage to with resistive load, max. outputs outputs with resistive load, max. outputs outputs outputs with resistive load, max. outputs output	Source/sink input	Yes; optionally, per group
• for signal "0" • for signal "1" Input current • for signal "1", typ. Input delay (for rated value of input voltage) for standard inputs — parameterizable — at "0" to "1", min. — at "0" to "1", max. 12.8 ms for interrupt inputs — parameterizable — yes; I 0.0 to I 0.3 for counter/technological functions — parameterizable • shielded, max. • unshielded, max. Digital outputs Number of digital outputs No; to be provided externally Limitation of inductive shutdown voltage to • with resistive load, max. • unamp load, max. • unamp load, max. • unamp load, max. • on lamp load, max. 0 to 5 V min. 15 V min. 16 V min. 15 V min. 16	Input voltage	
• for signal "1" min. 15 V Input current • for signal "1", typ. 2.5 mA Input delay (for rated value of input voltage) for standard inputs — parameterizable Yes; all — at "0" to "1", min. 0.2 ms — at "0" to "1", max. 12.8 ms for interrupt inputs — parameterizable Yes; I 0.0 to I 0.3 for counter/technological functions — parameterizable Yes; (E 0.0 to E 1.5) 30 kHz Cable length • shielded, max. 500 m; Standard input: 500 m, high-speed counters: 50 m • unshielded, max. 300 m; not for high-speed signals Digital outputs Number of digital outputs Number of digital outputs 16; Transistor Short-circuit protection No; to be provided externally Limitation of inductive shutdown voltage to 1 W Switching capacity of the outputs • with resistive load, max. 0.75 A • on lamp load, max. 5 W	Rated value (DC)	24 V
Input current • for signal "1", typ. 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 Yes; I 0.0 to I 0.3 for counter/technological functions — parameterizable • shielded, max. • unshielded, max. 100 m; Standard input: 500 m, high-speed counters: 50 m • unshielded, max. Digital outputs Number of digital outputs Number of digital outputs Short-circuit protection Limitation of inductive shutdown voltage to • with resistive load, max. • un lamp load, max. 0.75 A • on lamp load, max. 5 W	• for signal "0"	0 to 5 V
for signal "1", typ. 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 Yes; I 0.0 to I 0.3 for counter/technological functions — parameterizable Yes; (E 0.0 to E 1.5) 30 kHz Cable length • shielded, max. • unshielded, max. • unshielded, max. Out of thigh-speed signals Digital outputs Number of digital outputs Short-circuit protection Limitation of inductive shutdown voltage to with resistive load, max. • on lamp load, max. 2.5 mA Yes; I D.0 to I 0.3 Yes; (E 0.0 to E 1.5) 30 kHz	• for signal "1"	min. 15 V
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 Yes; I 0.0 to I 0.3 for counter/technological functions — parameterizable Yes; (E 0.0 to E 1.5) 30 kHz Cable length • shielded, max. • unshielded, max. Digital outputs Number of digital outputs Number of digital outputs Short-circuit protection No; to be provided externally Limitation of inductive shutdown voltage to • with resistive load, max. • on lamp load, max. • on lamp load, max.	Input current	
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parameterizable at "0" to "1", min at "0" to "1", max. 12.8 ms for interrupt inputs parameterizable parameter	Input delay (for rated value of input voltage)	
— at "0" to "1", min. — at "0" to "1", max. 12.8 ms for interrupt inputs — parameterizable Yes; I 0.0 to I 0.3 for counter/technological functions — parameterizable Yes; (E 0.0 to E 1.5) 30 kHz Cable length • shielded, max. • unshielded, max. 100 m; Standard input: 500 m, high-speed counters: 50 m 300 m; not for high-speed signals Digital outputs Number of digital outputs Number of digital outputs Short-circuit protection No; to be provided externally Limitation of inductive shutdown voltage to Switching capacity of the outputs • with resistive load, max. • on lamp load, max. 5 W	for standard inputs	
- at "0" to "1", max. - at "0" to "1", max. for interrupt inputs - parameterizable Yes; I 0.0 to I 0.3 for counter/technological functions - parameterizable Yes; (E 0.0 to E 1.5) 30 kHz Cable length • shielded, max. • unshielded, max. • unshielded, max. Digital outputs Number of digital outputs Short-circuit protection No; to be provided externally Limitation of inductive shutdown voltage to Switching capacity of the outputs • with resistive load, max. • on lamp load, max. 12.8 ms 12.8 ms 16.3 To 10.0 to I 0.3 The standard input: 500 m, high-speed counters: 50 m 300 m; not for high-speed signals 16; Transistor No; to be provided externally 1 W Switching capacity of the outputs • with resistive load, max. 10.75 A 10.0 to I 0.3 10.	— parameterizable	Yes; all
for interrupt inputs — parameterizable for counter/technological functions — parameterizable Yes; (E 0.0 to E 1.5) 30 kHz Cable length • shielded, max. • unshielded, max. 100 m; Standard input: 500 m, high-speed counters: 50 m 300 m; not for high-speed signals Digital outputs Number of digital outputs Short-circuit protection Limitation of inductive shutdown voltage to Switching capacity of the outputs • with resistive load, max. • on lamp load, max. 500 m; Standard input: 500 m, high-speed counters: 50 m 300 m; not for high-speed signals 16; Transistor No; to be provided externally 1 W Switching capacity of the outputs • with resistive load, max. 5 W	— at "0" to "1", min.	0.2 ms
— parameterizable Yes; I 0.0 to I 0.3 for counter/technological functions — parameterizable Yes; (E 0.0 to E 1.5) 30 kHz Cable length ● shielded, max. ● unshielded, max. Digital outputs Number of digital outputs Number of digital outputs Short-circuit protection Limitation of inductive shutdown voltage to Switching capacity of the outputs ● with resistive load, max. ● on lamp load, max. Yes; (E 0.0 to I 0.3 Yes; (E 0.0 to I 0.5) 30 kHz For inductive 500 m, high-speed counters: 50 m 300 m; not for high-speed signals 16; Transistor No; to be provided externally 1 W Switching capacity of the outputs ● with resistive load, max. • on lamp load, max. 5 W	— at "0" to "1", max.	12.8 ms
for counter/technological functions — parameterizable Yes; (E 0.0 to E 1.5) 30 kHz Cable length • shielded, max. • unshielded, max. Digital outputs Number of digital outputs Short-circuit protection Limitation of inductive shutdown voltage to Switching capacity of the outputs • with resistive load, max. • on lamp load, max. Yes; (E 0.0 to E 1.5) 30 kHz Yes; (E 0.0 to E 1.5) 30 kHz Standard input: 500 m, high-speed counters: 50 m 300 m; not for high-speed signals 16; Transistor No; to be provided externally 1 W Switching capacity of the outputs • with resistive load, max. 0.75 A 5 W	for interrupt inputs	
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Cable length ● shielded, max. • unshielded, max. Digital outputs Number of digital outputs Short-circuit protection Limitation of inductive shutdown voltage to Switching capacity of the outputs ● with resistive load, max. • on lamp load, max. 500 m; Standard input: 500 m, high-speed counters: 50 m 300 m; not for high-speed signals 16; Transistor No; to be provided externally 1 W 5witching capacity of the outputs • with resistive load, max. 5 W	for counter/technological functions	
 shielded, max. unshielded, max. Digital outputs Number of digital outputs Short-circuit protection Limitation of inductive shutdown voltage to Switching capacity of the outputs with resistive load, max. on lamp load, max. 500 m; Standard input: 500 m, high-speed counters: 50 m No migh-speed signals No; to be provided externally 16; Transistor No; to be provided externally 1 W Switching capacity of the outputs on lamp load, max. 5 W 	— parameterizable	Yes; (E 0.0 to E 1.5) 30 kHz
 unshielded, max. Digital outputs Number of digital outputs Short-circuit protection Limitation of inductive shutdown voltage to Switching capacity of the outputs with resistive load, max. on lamp load, max. 300 m; not for high-speed signals No; to be provided externally 1 W Switching capacity of the outputs 5 W 	Cable length	
Digital outputs Number of digital outputs Short-circuit protection Limitation of inductive shutdown voltage to Switching capacity of the outputs • with resistive load, max. • on lamp load, max. 5 W	• shielded, max.	500 m; Standard input: 500 m, high-speed counters: 50 m
Number of digital outputs 16; Transistor Short-circuit protection No; to be provided externally Limitation of inductive shutdown voltage to 1 W Switching capacity of the outputs • with resistive load, max. • on lamp load, max. 5 W	• unshielded, max.	300 m; not for high-speed signals
Number of digital outputs 16; Transistor Short-circuit protection No; to be provided externally Limitation of inductive shutdown voltage to 1 W Switching capacity of the outputs • with resistive load, max. • on lamp load, max. 5 W	Digital outputs	
Limitation of inductive shutdown voltage to 1 W Switching capacity of the outputs • with resistive load, max. • on lamp load, max. 5 W		16; Transistor
Switching capacity of the outputs • with resistive load, max. • on lamp load, max. 5 W	Short-circuit protection	No; to be provided externally
 with resistive load, max. on lamp load, max. 5 W 	Limitation of inductive shutdown voltage to	1 W
• on lamp load, max. 5 W	Switching capacity of the outputs	
	• with resistive load, max.	0.75 A
Output voltage	● on lamp load, max.	5 W
	Output voltage	

• for signal "1", min.	20 V DC
Output current	
• for signal "1" rated value	750 mA
• for signal "0" residual current, max.	10 μΑ
Output delay with resistive load	
• "0" to "1", max. • "1" to "0", max.	15 μ s; of the standard outputs, max. (Q 0.2 to Q 1.1) 2 μ s; of the pulse outputs, max. (Q 0.0 to Q 0.1) 2 μ s 130 μ s; of the standard outputs, max. (Q 0.2 to Q 1.1) 10 μ s; of the pulse outputs, max. (Q 0.0 to Q 0.1) 10 μ s
Parallel switching of two outputs	шо рако вакраю, тал. (д в.в. с д в.т.) то ре
• for uprating	Yes
Switching frequency	
• of the pulse outputs, with resistive load, max.	20 kHz; Q0.0 to Q0.1
Total current of the outputs (per group)	20 KHz, Q0.0 to Q0.1
all mounting positions	C A
— up to 40 °C, max.	6 A
horizontal installation	
— up to 55 °C, max.	6 A
Relay outputs	
 Number of relay outputs, integrated 	0
Cable length	
• shielded, max.	500 m
• unshielded, max.	150 m
Analog inputs	
Number of analog potentiometers	2; Analog potentiometer; resolution 8 bit
Encoder	
Connectable encoders	
• 2-wire sensor	Yes
 permissible quiescent current (2-wire 	1 mA
sensor), max.	
1. Interface	
Interface type	Integrated RS 485 interface
Physics	RS 485
Functionality	
• MPI	Yes; As MPI slave for data exchange with MPI masters (S7-
• PPI	300/S7-400 CPUs, OPs, TDs, Push Button Panels); S7-200-internal CPU/CPU communication is possible in the MPI network with restrictions; transmission rates: 19.2/187.5 kbit/s Yes; with PPI protocol for program functions, HMI functions (TD 200, OP), S7-200-internal CPU/CPU communication;
	transmission rates 9.6/19.2/187.5 kbit/s

• serial data exchange	Yes; As freely programmable interface with interrupt facility for serial data exchange with third-party devices with ASCII protocol transfer rates: 1.2 / 2.4 / 4.8 / 9.6 / 19.2 / 38.4 / 57.6 / 115.2 kbps; the PC/PPI cable can also be used as RS 232/RS 485 converter
MPI	
Transmission rate, min.	19.2 kbit/s
• Transmission rate, max.	187.5 kbit/s
2. Interface	
Interface type	Integrated RS 485 interface
Physics	RS 485
Functionality	
• MPI	Yes; As MPI slave for data exchange with MPI masters (S7-300/S7-400 CPUs, OPs, TDs, Push Button Panels); S7-200-internal CPU/CPU communication is possible in the MPI network with restrictions; transmission rates: 19.2/187.5 kbit/s
• PPI	Yes; with PPI protocol for program functions, HMI functions (TD 200, OP), S7-200-internal CPU/CPU communication; transmission rates 9.6/19.2/187.5 kbit/s
serial data exchange	Yes; As freely programmable interface with interrupt facility for serial data exchange with third-party devices with ASCII protocol transfer rates: 1.2 / 2.4 / 4.8 / 9.6 / 19.2 / 38.4 / 57.6 / 115.2 kbps; the PC/PPI cable can also be used as RS 232/RS 485 converter
Integrated Functions	
Number of counters	6; High-speed counters (30 kHz each), 32 bits (incl. sign), can be used as up/down counters or for connecting 2 incremental encoders with 2 pulse trains offset by 90° (max. 20 kHz (A/B counters)); parameterizable enable and reset input; interrupt facilities (incl. call of subroutine with any content) when the setpoint is reached; reversal in counting direction, etc.
Counting frequency (counter) max.	30 kHz
Number of alarm inputs	4; 4 rising edges and/or 4 falling edges
Number of pulse outputs	2; High-speed outputs, 20 kHz, with interrupt option; pulse-width and frequency modulation option
Limit frequency (pulse)	20 kHz
Potential separation	
Potential separation digital inputs	
• between the channels	Yes
• between the channels, in groups of	13 and 11
Potential separation digital outputs	
• between the channels	Yes; Optocoupler
between the channelsbetween the channels, in groups of	Yes; Optocoupler 8 and 8

Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP20	Yes
Ambient conditions	
Ambient temperature during operation	
 horizontal installation, min. 	0 °C
 horizontal installation, max. 	55 °C
 vertical installation, min. 	0 °C
 vertical installation, max. 	45 °C
Air pressure acc. to IEC 60068-2-13	
permissible range, lower limit	860 hPa
 permissible range, upper limit 	1 080 hPa
Relative humidity	
Operation, min.	5 %
Operation, max.	95 %; RH class 2 in accordance with IEC 1131-2
Configuration	
Programming	Bit logic instructions, compare instructions, timer instructions,
	counter instructions, clock instructions, transmissions instructions, table instructions, logic instructions, shift and rotate instructions, conversion instructions, program control instructions, interrupt and communications instructions, logic stack instructions, integer maths, floating-point math instructions, numerical functions
 Program processing 	free cycle (OB 1), interrupt-controller, time-controlled (1 to 255 ms)
 Program organization 	1 OB, 1 DB, 1 SDB subroutines with/without parameter transfer
 Number of subroutines, max. 	64
Programming language	
— LAD	Yes
— FBD	Yes
— STL	Yes
Know-how protection	
User program protection/password protection	Yes; 3-stage password protection
Connection method	
Plug-in I/O terminals	Yes
Dimensions	
Width	196 mm
Height	80 mm
Depth	62 mm
Weights	
Weight, approx.	550 g

08/12/2017 last modified: