## **SIEMENS**

## **Data sheet**

6ES7214-1BD23-0XB0



Figure similar

\*\*\*Spare part\*\*\* SIMATIC S7-200, CPU 224 Compact unit, AC power supply 14 DI DC/10 DO relay, 8/12 KB progr./8 KB data, PROFIBUS DP expandable

Supply voltage	
Rated value (AC)	
• 120 V AC	Yes
• 230 V AC	Yes
Load voltage L+	
<ul> <li>Rated value (DC)</li> </ul>	24 V
<ul> <li>permissible range, lower limit (DC)</li> </ul>	5 V
<ul> <li>permissible range, upper limit (DC)</li> </ul>	30 V
Load voltage L1	
<ul> <li>Rated value (AC)</li> </ul>	100 V; 100 V AC to 230 V AC
<ul> <li>permissible range, lower limit (AC)</li> </ul>	5 V
<ul> <li>permissible range, upper limit (AC)</li> </ul>	250 V
<ul> <li>permissible frequency range, lower limit</li> </ul>	47 Hz
<ul> <li>permissible frequency range, upper limit</li> </ul>	63 Hz
Input current	
Inrush current, max.	20 A; at 264 V
from supply voltage L1, max.	200 mA; 30 to 100 mA (240 V); 60 to 200 mA (120 V); output current for
	expansion modules (5 V DC) 600 mA
Encoder supply	
24 V encoder supply	
• 24 V	Yes; Permissible range: 20.4V to 28.8V
<ul> <li>Short-circuit protection</li> </ul>	Yes; electronic at 280 mA
Output current, max.	280 mA
Power loss	
Power loss, typ.	10 W
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	
<ul><li>integrated (for program)</li></ul>	12 kbyte; 8 KB with active run-time edit
integrated (for data)	8 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

for bit operations, max.  Counters, timers and their retentivity  S7 counter  Number Retentivity  - adjustable - lower limit - upper limit - u	CPU processing times	
Counters, timers and their retentivity  7 counter  Number Adjustable Adjustable Adjustable August firms Augus		0.22 µs
Signature  Number Retentivity  - adjustable - lower limit - upper limit	<u> </u>	
Retentivity		
	Number	256
lower limit	Retentivity	
- upper limit 0	— adjustable	Yes; via high-performance capacitor or battery
Counting range		
lower limit upper limit upper limit upper limit yes via high-performance capacitor or battery adjustable upper limit	• • • • • • • • • • • • • • • • • • • •	256
- upper limit  Number		
S7 times  Number		
Number Retentivity  - adjustable		32 / 0 /
Retentivity		256
- adjustable — upper limit 64  Time range — lower limit 1 ms to any service of the service of th		200
- upper limit Time range - lower limit - upper limit - upp	•	Yes; via high-performance capacitor or battery
lower limit 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  Fiag  Size, max. 32 byte • of which retentive with battery • of which retentive without battery • of which retentive without battery  The symbol of the symbo		
- upper limit  - uppe	Time range	
Data areas and their retentivity  Flag  Size, max. Retentivity available of which retentive with battery of which retentive without battery  Ty Conly 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. Oinputs and 7 outputs (EM) or max. 0 inputs and 14 outputs (EM) AS-Interface inputs/outputs, max. Oight inputs/Outputs, max. 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 10° of or signal 10° of or signal 11" Input current of or signal 11" Input delay (for rated value of input voltage) for standard inputs  — parameterizable — at "0" to "1", min. — at "0" to "1", max. — parameterizable — param	— lower limit	1 ms
• Size, max.  • Retentivity available • of which retentive with battery • of which retentive without battery  ■ Oto 112 in EEPROM, adjustable    Number of expansion units, max.	— upper limit	
• Size, max. • Retentivity available • of which retentive with battery • of which retentive with battery • of which retentive without battery  • of which retentive without battery  • of which retentive without battery  **No 10 to 12 in EEPROM, adjustable  **Person and adjustable  **Person and adjustable  **Person and adjustable  **To 10 yexpansion 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.  • Analog inputs/outputs, max.  • AS-Interface inputs/outputs, max.  • AS-Interface inputs/outputs, max.  **Digital inputs  Number of digital inputs  Number of digital inputs  **Person and an analogue of the S7-22x series can be used. Due to the limited output current, the use of expansion modules may be limited solic the limited output current, the use of expansion modules may be limited solic the limited output current, the use of expansion modules may be limited solic the limited output current, the use of expansion modules may be limited solic the limited output current, the use of expansion modules may be limited solic the limited output current, the use of expansion modules may be limited solic the limited output current, the use of expansion modules may be limited solic the limited output current, the use of expansion modules and bused. Due to finance of ex	Data areas and their retentivity	
Retentivity available of which retentive with battery of which retentive without battery of which retentive without battery of which retentive without battery  1 to 255, via high-performance capacitor or battery, adjustable  1 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.  • Digital inputs/outputs, max.  • Digital inputs/outputs, max.  • AS-Interface inputs/outputs, max.  • AS-Interface inputs/outputs, max.  • (EM)  • (CPU + EM)  • (CPU + EM	Flag	
of which retentive with battery     of which retentive without battery     of the Internative without battery     of which retentive without battery     of the Internative without battery     of which retentive without battery      of the Internative without battery     of which retentive without battery      of which retentive without battery      of which retentive without battery      of which retentive without battery      of which retentive without battery      of which retentive without battery      of which retentive without battery      of which retentive without battery      of which retentive without battery      of which retentive without battery      of which retentive without battery      of which retentive without battery      of which retentive without battery      of which retentive without sord was of expansion modules of whe limited the limited output current, the use of expansion modules may be limited the limited output very cannot be even for expansion modules may be limited the limited output current, the use of expansion modules may be limited the limited output very cannot be even for what of when the limited output current, the use of expansion modules are feasible when limited with the limited output current, the use of expansion modules may be limited the limited output current, the use of expansion modules may be limited with the limited output current, the use of expansion modules may be limited output current of expansion modules may be limi	•	
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  Expansion modules  Analog inputs/outputs, max.  55; max. 28 inputs and 7 outputs (EM) or max. 0 inputs and 14 outputs (EM)  Digital inputs/outputs, max.  62; AS-Interface A/B slaves (CP 243-2)  Digital inputs  Number of digital inputs  Number of digital inputs  Source/sink input  Yes; optionally, per group  Input voltage  Rated value (DC)  for signal "0"  for signal "1"  por or signal "1"  por or signal "1", typ.  Input devial (ay 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  or parameterizable  yes; (E 0.0 to E 1.5) 30 kHz  Cable length	•	
Hardware configuration  Number of expansion units, max.  connectable programming devices/PCs  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  Number of digital inputs  Personance/sink input  Input voltage  • Rated value (DC) • for signal "1" • for signal "1" • 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", min. — at "0" to "1", min. — parameterizable — at "0" to "1", min. — parameterizable	•	
Number of expansion units, max.  connectable programming devices/PCs  Expansion modules  • Analog inputs/outputs, max.  • Digital inputs/outputs, max.  • AS-Interface inputs/outputs, max.  Digital inputs  Number of digital inputs  Number of digital inputs  14  Source/sink input  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 — at "0" to "1", max.  — at "0" to "1", max.  for interrupt inputs — parameterizable  — parameterizable  — parameterizable — parameterizable — parameterizable — parameterizable  — parameterizable — parameterizable  — parameterizable  — parameterizable — parameterizable  — parameterizable — parameterizable  — parameterizable  — parameterizable  — parameterizable  — parameterizable  — parameterizable  — parameterizable  — parameterizable  — parameterizable  — parameterizable  Yes; (E 0.0 to E 1.5) 30 kHz		U to 112 in EEPROM, adjustable
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 A/B slaves (CP 243-2)  Digital inputs  Number of digital inputs  Source/sink input  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 — at "0" to "1", min. — at "0" to "1", max.  for interrupt inputs — parameterizable — parameterizable for technological functions — parameterizable — parameterizable  — parameterizable — parameterizable — parameterizable — parameterizable — parameterizable  — parameterizable — parameterizable  Yes; I 0.0 to I 0.3  Yes; (E 0.0 to E 1.5) 30 kHz		
Expansion modules  • Analog inputs/outputs, max.  • Digital inputs/outputs, max.  • AS-Interface inputs/outputs, max.  Digital inputs  Number of digital inputs  Number of digital inputs  Source/sink input  14  Source/sink input  Yes; optionally, per group  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 — at "0" to "1", min. — at "0" to "1", max.  for interrupt inputs  — parameterizable for technological functions — parameterizable  — parameterizable  Yes; I 0.0 to I 0.3  Yes; (E 0.0 to E 1.5) 30 kHz	•	the limited output current, the use of expansion modules may be limited.
<ul> <li>Analog inputs/outputs, max.</li> <li>Digital inputs/outputs, max.</li> <li>AS-Interface inputs/outputs, max.</li> <li>AS-Interface inputs/outputs, max.</li> <li>EG; AS-Interface A/B slaves (CP 243-2)</li> </ul> Digital inputs Number of digital inputs Number of digital inputs Patent voltage <ul> <li>Rated value (DC)</li> <li>for signal "0"</li> <li>for signal "1"</li> <li>min. 15 V</li> </ul> Input current <ul> <li>for signal "1", typ.</li> </ul> Input delay (for rated value of input voltage) <ul> <li>for standard inputs</li> <li>— parameterizable</li> <li>— at "0" to "1", min.</li> <li>— at "0" to "1", max.</li> <li>To standard inputs</li> </ul> Yes; all <ul> <li>— at "0" to "1", max.</li> <li>12.8 ms</li> </ul> <li>for interrupt inputs</li> <li>— parameterizable</li> <li>Yes; I 0.0 to I 0.3</li> <li>for technological functions</li> <li>— parameterizable</li> <li>Yes; (E 0.0 to E 1.5) 30 kHz</li> Cable length Cable length		SIMATIC PG/PC, standard PC
• Digital inputs/outputs, max.  • AS-Interface inputs/outputs, max.  • AS-Interface inputs/outputs, max.  • AS-Interface inputs/outputs, max.  62; AS-Interface A/B slaves (CP 243-2)  Digital inputs  Number of digital inputs  Source/sink input  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 — at "0" to "1", min. — at "0" to "1", max.  for interrupt inputs  — parameterizable for technological functions — parameterizable  — parameterizable  Fes; I 0.0 to I 0.3  Yes; (E 0.0 to E 1.5) 30 kHz	•	35: may 28 inputs and 7 outputs (EM) or may 0 inputs and 14 outputs
AS-Interface inputs/outputs, max.  Digital inputs  Number of digital inputs  Source/sink input  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 — at "0" to "1", max.  for interrupt inputs — parameterizable — parameterizable — parameterizable — parameterizable — parameterizable — at "0" to "1", max.  for interrupt inputs — parameterizable		(EM)
Number of digital inputs  Number of digital inputs  Source/sink input  Pass optionally, per group  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  at "0" to "1", min.  at "0" to "1", max.  for interrupt inputs  parameterizable  parameterizable  parameterizable  parameterizable  parameterizable  parameterizable  parameterizable  parameterizable  yes; I 0.0 to I 0.3  for technological functions  parameterizable  Yes; (E 0.0 to E 1.5) 30 kHz  Cable length		
Number of digital inputs  Source/sink input  Yes; optionally, per group  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 - at "0" to "1", min at "0" to "1", max.  for interrupt inputs  - parameterizable		62; AS-Interface A/B slaves (CP 243-2)
Source/sink input Input voltage  Rated value (DC) for signal "0" for signal "1" min. 15 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 - parameterizable - parameterizable - at "0" to "1", max.  for interrupt inputs  - parameterizable - yes; (E 0.0 to E 1.5) 30 kHz		
Input voltage  Rated value (DC) for signal "0" for signal "1" The parameterizable at "0" to "1", max.  for interrupt inputs  — parameterizable — at "0" to "1", max.  for interrupt inputs  — parameterizable  Yes; I 0.0 to I 0.3  for technological functions — parameterizable  Yes; (E 0.0 to E 1.5) 30 kHz  Cable length		
<ul> <li>Rated value (DC)</li> <li>for signal "0"</li> <li>for signal "1"</li> <li>min. 15 V</li> <li>Input current</li> <li>for signal "1", typ.</li> <li>Input delay (for rated value of input voltage)</li> <li>for standard inputs</li> <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>Yes; I 0.0 to I 0.3</li> <li>for technological functions</li> <li>— parameterizable</li> <li>Yes; (E 0.0 to E 1.5) 30 kHz</li> </ul> Cable length	·	Yes; optionally, per group
<ul> <li>for signal "0" <ul> <li>for signal "1"</li> <li>min. 15 V</li> </ul> </li> <li>Input current <ul> <li>for signal "1", typ.</li> <li>for signal "1", typ.</li> </ul> </li> <li>Input delay (for rated value of input voltage) <ul> <li>for standard inputs</li> <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>Yes; I 0.0 to I 0.3</li> </ul> </li> <li>for technological functions <ul> <li>— parameterizable</li> <li>Yes; (E 0.0 to E 1.5) 30 kHz</li> </ul> </li> </ul> <li>Cable length</li>		24 \/
<ul> <li>for signal "1" min. 15 V</li> <li>Input current <ul> <li>for signal "1", typ.</li> <li>2.5 mA</li> </ul> </li> <li>Input delay (for rated value of input voltage) <ul> <li>for standard inputs</li> <li>— parameterizable</li> <li>— at "0" to "1", min.</li> <li>— at "0" to "1", max.</li> <li>12.8 ms</li> </ul> </li> <li>for interrupt inputs <ul> <li>— parameterizable</li> <li>Yes; I 0.0 to I 0.3</li> </ul> </li> <li>for technological functions <ul> <li>— parameterizable</li> <li>Yes; (E 0.0 to E 1.5) 30 kHz</li> </ul> </li> </ul> Cable length <ul> <li>Cable length</li> </ul>		
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 — parameterizable — parameterizable — parameterizable  — parameterizable  — parameterizable  Yes; I 0.0 to I 0.3  for technological functions — parameterizable  Yes; (E 0.0 to E 1.5) 30 kHz	•	
<ul> <li>● for signal "1", typ.</li> <li>Input delay (for rated value of input voltage)</li> <li>for standard inputs</li> <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>— parameterizable</li> <li>— parameterizable</li> <li>— parameterizable</li> <li>— parameterizable</li> <li>— parameterizable</li> <li>Yes; I 0.0 to I 0.3</li> <li>for technological functions</li> <li>— parameterizable</li> <li>Yes; (E 0.0 to E 1.5) 30 kHz</li> </ul> Cable length		
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 — parameterizable — parameterizable — parameterizable  — parameterizable  Yes; I 0.0 to I 0.3  for technological functions — parameterizable  Yes; (E 0.0 to E 1.5) 30 kHz  Cable length	·	2.5 mA
<ul> <li>— parameterizable</li> <li>— at "0" to "1", min.</li> <li>— at "0" to "1", max.</li> <li>— at "0" to "1", max.</li> <li>12.8 ms</li> <li>for interrupt inputs</li> <li>— parameterizable</li> <li>— parameterizable</li> <li>— parameterizable</li> <li>— parameterizable</li> <li>Yes; I 0.0 to I 0.3</li> <li>Yes; (E 0.0 to E 1.5) 30 kHz</li> </ul> Cable length		
<ul> <li>— at "0" to "1", min.</li> <li>— at "0" to "1", max.</li> <li>for interrupt inputs</li> <li>— parameterizable</li> <li>— parameterizable</li> <li>— parameterizable</li> <li>— parameterizable</li> <li>Yes; I 0.0 to I 0.3</li> <li>for technological functions</li> <li>— parameterizable</li> <li>Yes; (E 0.0 to E 1.5) 30 kHz</li> </ul>	•	
<ul> <li>— at "0" to "1", max.</li> <li>for interrupt inputs</li> <li>— parameterizable</li> <li>— parameterizable</li> <li>— parameterizable</li> <li>— parameterizable</li> <li>Yes; I 0.0 to I 0.3</li> <li>for technological functions</li> <li>— parameterizable</li> <li>Yes; (E 0.0 to E 1.5) 30 kHz</li> </ul> Cable length	•	
for interrupt inputs  — parameterizable  for technological functions  — parameterizable  Yes; I 0.0 to I 0.3  Yes; (E 0.0 to E 1.5) 30 kHz  Cable length		
— parameterizable Yes; I 0.0 to I 0.3 for technological functions — parameterizable Yes; (E 0.0 to E 1.5) 30 kHz  Cable length		12.8 ms
for technological functions  — parameterizable  Cable length  Yes; (E 0.0 to E 1.5) 30 kHz	· ·	Voc. 10.0 to 10.2
— parameterizable Yes; (E 0.0 to E 1.5) 30 kHz  Cable length		Tes, TU.U IO TU.3
Cable length	-	Yes: (F 0.0 to F 1.5) 30 kHz
	·	100, (£ 0.0 to £ 1.0) 00 MIZ
, , , , , , , , , , , , , , , , , , , ,		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 10; Relays		10; Relays
Short-circuit protection No; to be provided externally		
Switching capacity of the outputs		
with resistive load, max.  2 A		2 A
• on lamp load, max. 200 W; 30 W with DC, 200 W with AC	on lamp load, max.	200 W; 30 W with DC, 200 W with AC

Output voltage	
Output voltage  • for signal "1", min.	L+/L1
Output current	L1/L1
• for signal "1" rated value	2 A
for signal "0" residual current, max.	0 mA
Output delay with resistive load	O TIM
• "0" to "1", max.	10 ms; all outputs
• "1" to "0", max.	10 ms; all outputs
Parallel switching of two outputs	
for uprating	No
Switching frequency	
of the pulse outputs, with resistive load, max.	1 Hz
Total current of the outputs (per group)	
all mounting positions	
— up to 40 °C, max.	10 A
horizontal installation	
— up to 55 °C, max.	10 A
Relay outputs	
<ul> <li>Number of relay outputs</li> </ul>	10
<ul> <li>Number of operating cycles, max.</li> </ul>	10 000 000; mechanically 10 million, at rated load voltage 100 000
Cable length	
<ul><li>shielded, max.</li></ul>	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 sensor),	1 mA
max.	
1. Interface	
Interface type	Integrated RS 485 interface
Protocols	
• 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;
- DDI	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
MPI	cable can also be used as RS 232/RS 485 converter
Transmission rate, min.	19.2 kbit/s
Transmission rate, min.  Transmission rate, max.	19.2 kbit/s
,	TOT SO NOTICE
Integrated Functions	A. A sisting a days and to A.C. III
Number of alarm inputs	4; 4 rising edges and/or 4 falling edges
Potential separation	
Potential separation digital inputs	
<ul> <li>between the channels</li> </ul>	Yes
between the channels, in groups of	6 and 8
Potential separation digital outputs	
<ul><li>between the channels</li></ul>	Yes; Relays
between the channels, in groups of	3 and 4
Permissible potential difference	
between different circuits	500 V DC between 24 V DC and 5 V DC; 1500 V AC between 24 V DC
	and 230 V AC
	and 250 V AC
Degree and class of protection	and 250 V AC
Degree and class of protection  IP degree of protection	IP20
IP degree of protection	
IP degree of protection Ambient conditions	
IP degree of protection	

<ul> <li>horizontal installation, max.</li> </ul>	55 °C
vertical installation, min.	0 °C
vertical installation, max.	45 °C
Air pressure acc. to IEC 60068-2-13	40 0
permissible range, lower limit	860 hPa
permissible range, upper limit	1 080 hPa
Relative humidity	1 000 m u
Operation, min.	5 %
Operation, max.	95 %; RH class 2 in accordance with IEC 1131-2
configuration / header	
configuration / programming / header	
• Command set	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
<ul> <li>Program processing</li> </ul>	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
<ul> <li>Number of subroutines, max.</li> </ul>	64
Programming language	
— LAD	Yes
— FBD	Yes
— STL	Yes
Know-how protection	
<ul> <li>User program protection/password protection</li> </ul>	Yes; 3-stage password protection
connection method / header	
Plug-in I/O terminals	Yes
Dimensions	
Width	120.5 mm
Height	80 mm
Depth	62 mm
Weights	
Weight, approx.	410 g
last modified:	3/12/2021 🖸