



Figure similar

Spare part SIMATIC S7-200, Digital I/O EM 223, only for S7-22X CPU, 16 DI 24 V DC, Sink/Source, 16 DO relay, 2 A/channel

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• permissible range, lower limit (DC)	5 V
• permissible range, upper limit (DC)	30 V
Load voltage L1	
• Rated value (AC)	230 V; 24V AC to 230V AC
• permissible range, lower limit (AC)	5 V
• permissible range, upper limit (AC)	250 V
Input current	
from external supply (24 V DC), max.	72 mA
from backplane bus 5 V DC, max.	150 mA
from coil current, max.	9 mA; for each output on signal "1"
Power loss	
Power loss, typ.	6 W
Digital inputs	
Number of digital inputs	16
Input voltage	
• Type of input voltage	DC
• Rated value (DC)	24 V
• for signal "0"	0 to 5 V
• for signal "1"	15 V DC to 30 V DC
Input current	
• for signal "1", typ.	4 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— at "0" to "1", max.	4.5 ms
Digital outputs	
Number of digital outputs	16; Relays
Short-circuit protection	No
Output voltage	
• for signal "0", max.	0.1 V; with 10 kOhm load
• for signal "1", min.	L+/L1
Output current	
• for signal "1" rated value	2 000 mA
Total current of the outputs (per group)	
all mounting positions	
— Current per conductor/group, max.	8 A
Relay outputs	

• Number of operating cycles, max.	10 000 000; mechanically 10 million, at rated load voltage 100 000
Switching capacity of contacts	
— with inductive load, max.	0.75 A; each output
— on lamp load, max.	200 W; 30 W with DC, 200 W with AC
— with resistive load, max.	0.75 A; each output
Cable length	
• shielded, max.	500 m
• unshielded, max.	150 m

Encoder

Connectable encoders	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1 mA

Potential separation

Potential separation digital inputs	
• Potential separation digital inputs	Yes; Optocoupler
• between the channels, in groups of	8
Potential separation digital outputs	
• Potential separation digital outputs	Yes; Relays
• between the channels, in groups of	4

Isolation

Isolation tested with	500 V AC
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connection method

Plug-in I/O terminals	Yes
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Dimensions

Width	137.5 mm
Height	80 mm
Depth	62 mm

Weights

Weight, approx.	400 g
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Classifications

	Version	Classification
eClass	14	27-24-22-04
eClass	12	27-24-22-04
eClass	9.1	27-24-22-04
eClass	9	27-24-22-04
eClass	8	27-24-22-04
eClass	7.1	27-24-22-04
eClass	6	27-24-22-04
ETIM	9	EC001419
ETIM	8	EC001419
ETIM	7	EC001419
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval	For use in hazardous locations	Marine / Shipping
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[Manufacturer Declaration](#)



[FM](#)



Marine / Shipping



[CCS \(China Classification Society\)](#)

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