

\*\*\*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



Figure similar

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
<b>Input voltage</b>	
• 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
<b>Input current</b>	
• for signal "1", typ.	4 mA
<b>Input delay (for rated value of input voltage)</b>	
for standard inputs	
— at "0" to "1", max.	4.5 ms
<b>Digital outputs</b>	
Number of digital outputs	16; Relays
Short-circuit protection	No
<b>Output voltage</b>	
• for signal "0", max.	0.1 V; with 10 kOhm load
• for signal "1", min.	L+/L1
<b>Output current</b>	
• for signal "1" rated value	2 000 mA
<b>Total current of the outputs (per group)</b>	
all mounting positions	
— Current per conductor/group, max.	8 A
<b>Relay outputs</b>	
• Number of operating cycles, max.	10 000 000; mechanically 10 million, at rated load voltage 100 000
<b>Switching capacity of contacts</b>	
— 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
<b>Cable length</b>	
• shielded, max.	500 m
• unshielded, max.	150 m
<b>Encoder</b>	
<b>Connectable encoders</b>	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1 mA
<b>Potential separation</b>	
<b>Potential separation digital inputs</b>	
• Potential separation digital inputs	Yes; Optocoupler
• between the channels, in groups of	8
<b>Potential separation digital outputs</b>	

- Potential separation digital outputs
- between the channels, in groups of

Yes; Relays

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### Isolation

Isolation tested with

500 V AC

### Connection method

Plug-in I/O terminals

Yes

### Dimensions

Width

137.5 mm

Height

80 mm

Depth

62 mm

### Weights

Weight, approx.

400 g

**last modified:**

11/13/2019