



Spare part SIMATIC S7-200, Digital I/O EM 223, only for S7-22X CPU, 4 DI/4 DO relay, 5-30 V DC, 250 V AC

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.	40 mA
from coil current, max.	9 mA; for each output on signal "1"
Power loss	
Power loss, typ.	2 W
Digital inputs	
Number of digital inputs	4
Input voltage	
• Type of input voltage	AC/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	4; 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	4
Potential separation digital outputs	
• Potential separation digital outputs	Yes; Relays
• between the channels, in groups of	4
Isolation	
Isolation tested with	500 V AC
connection method / header	
Plug-in I/O terminals	Yes
Dimensions	
Width	46 mm
Height	80 mm
Depth	62 mm
Weights	
Weight, approx.	160 g
last modified:	3/12/2021 