SIEMENS

Data sheet

6ES7223-1PH22-0XA0



Spare part SIMATIC S7-200, Digital I/O EM 223, only for S7-22X CPU, 8 DI 24 V DC, Sink/Source, 8 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.	80 mA
from coil current, max.	9 mA; for each output on signal "1"
Power loss	
Power loss, typ.	3 W
Digital inputs	
Number of digital inputs	8
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	8; 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), 	1 mA
max.	
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	
Plug-in I/O terminals	Yes
Dimensions	
Width	71.2 mm
Height	80 mm
Depth	62 mm
Weights	
Weight, approx.	300 g

3/12/2021

last modified: