

SIMATIC S7-200, DIGITAL I/O EM 223, FOR S7-22X CPU ONLY, 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 backplane bus 5 V DC, max. | 40 mA |
| from sensor current supply or external current supply (24 V DC), max. | 72 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

Plug-in I/O terminals

Yes

Dimensions

Width

46 mm

Height

80 mm

Depth

62 mm

Weights

Weight, approx.

160 g

last modified:

08/12/2017