



SIMATIC S7-200, DIGITAL I/O EM 223,
FOR S7-22X CPU ONLY, 16 DI 24 V DC,
SINK/SOURCE 16 DO RELAY, 2A/POINT

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 ; 24 to 230 V AC
permissible range, lower limit (AC)	5 V
permissible range, upper limit (AC)	250 V
Input current	
from backplane bus 5 V DC, max.	150 mA
from coil current, max.	9 mA ; for each output on signal "1"
from sensor current supply or external current supply (24 V DC), max.	72 mA
Power losses	
Power loss, typ.	6 W
Digital inputs	
Number/binary inputs	16
Input voltage	

Type of input voltage	AC/DC
Rated value, DC	24 V
for signal "0"	0 to 5 V
for signal "1"	15 to 30 VDC
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/binary outputs	16 ; Relay
Functionality/short-circuit strength	No ; to be provided externally
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	2000 mA
Aggregate current of outputs (per group)	
all mounting positions	
maximum current per conductor/group	8 A
Relay outputs	
Number of operating cycles, max.	10000000 ; 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
Switching frequency/contacts/at ohmic load/maximum	0.75 A ; each output
Cable length	
Cable length, shielded, max.	500 m
Cable length unshielded, max.	150 m
Encoder	
Connectable encoders	
2-wire sensor	Yes
Permissible quiescent current (2-wire sensor), max.	1 mA
Galvanic isolation	
Galvanic isolation digital inputs	
Galvanic isolation digital inputs	Yes ; Optocoupler
between the channels, in groups of	8
Galvanic isolation digital outputs	

Galvanic isolation digital outputs	Yes ; Relay
between the channels, in groups of	4
Isolation	
Isolation checked with	500 V AC
Connection method	
Plug-in I/O terminals	Yes
Dimensions	
Width	137.5 mm
Height	80 mm
Depth	62 mm
Weight	
Weight, approx.	400 g

Status

Feb 25, 2013