

SIMATIC S7-1200, Digital output SM 1222, 8 DO, 24 V DC, transistor 0.5 A



### General information

Product type designation	SM 1222, DQ 8x24 V DC/0.5 A
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### Supply voltage

permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V

### Input current

from backplane bus 5 V DC, max.	120 mA
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### Power loss

Power loss, typ.	1.5 W
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### Digital outputs

Number of digital outputs	8
• in groups of	1
Short-circuit protection	No; to be provided externally
Limitation of inductive shutdown voltage to	typ. (L+) -48 V

### Switching capacity of the outputs

• with resistive load, max.	0.5 A
• on lamp load, max.	5 W

<b>Output voltage</b>	
• Rated value (DC)	24 V
• for signal "0", max.	0.1 V; with 10 kOhm load
• for signal "1", min.	20 V DC
<b>Output current</b>	
• for signal "1" rated value	0.5 A
• for signal "0" residual current, max.	10 µA
<b>Output delay with resistive load</b>	
• "0" to "1", max.	50 µs
• "1" to "0", max.	200 µs
<b>Total current of the outputs (per group)</b>	
horizontal installation	
— up to 50 °C, max.	4 A; Current per mass
<b>Relay outputs</b>	
<b>Switching capacity of contacts</b>	
— with inductive load, max.	0.5 A
— on lamp load, max.	5 W
— with resistive load, max.	0.5 A
<b>Cable length</b>	
• shielded, max.	500 m
• unshielded, max.	150 m
<b>Interrupts/diagnostics/status information</b>	
<b>Alarms</b>	
• Diagnostic alarm	Yes
<b>Diagnostics indication LED</b>	
• for status of the outputs	Yes
<b>Potential separation</b>	
<b>Potential separation digital outputs</b>	
• between the channels, in groups of	1
• between the channels and backplane bus	500 V AC
<b>Degree and class of protection</b>	
IP degree of protection	IP20
<b>Standards, approvals, certificates</b>	
CE mark	Yes
CSA approval	Yes
UL approval	Yes
cULus	Yes
FM approval	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
Marine approval	Yes

## Ambient conditions

### Free fall

- Fall height, max. 0.3 m; five times, in product package

### Ambient temperature during operation

- min. -20 °C
- max. 60 °C
- horizontal installation, min. -20 °C
- horizontal installation, max. 60 °C
- vertical installation, min. -20 °C
- vertical installation, max. 50 °C
- permissible temperature change 5°C to 55°C, 3°C / minute

### Ambient temperature during storage/transportation

- min. -40 °C
- max. 70 °C

### Air pressure acc. to IEC 60068-2-13

- Storage/transport, min. 660 hPa
- Storage/transport, max. 1 080 hPa

### Relative humidity

- Operation at 25 °C without condensation, max. 95 %

## Connection method

required front connector Yes

## Mechanics/material

Enclosure material (front)  
• Plastic Yes

## Dimensions

Width 45 mm  
Height 100 mm  
Depth 75 mm

## Weights

Weight, approx. 180 g

**last modified:** 03/14/2020