

SIMATIC S7-1200, DIGITAL OUTPUT SM 1222, 8 DO, 24V DC, TRANSISTOR 0.5A



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
Power loss	
Power loss, typ.	1.5 W
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
Output voltage	
• 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>	
Switching capacity of contacts	
— 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>	
Alarms	Yes
Diagnostic functions	Yes
<b>Alarms</b>	
• Diagnostic alarm	Yes
<b>Diagnostic messages</b>	
• Monitoring the supply voltage	Yes
<b>Diagnostics indication LED</b>	
• for status of the outputs	Yes
• for maintenance	Yes
• Status indicator digital output (green)	Yes
<b>Potential separation</b>	
Potential separation digital outputs	
• between the channels, in groups of	1
• between the channels and backplane bus	500 V AC
<b>Degree and class of protection</b>	
Degree of protection acc. to EN 60529	
• IP20	Yes
<b>Standards, approvals, certificates</b>	
CE mark	Yes
CSA approval	Yes

UL approval	Yes
cULus	Yes
FM approval	Yes
RCM (formerly C-TICK)	Yes
<b>Marine approval</b>	
• Marine approval	Yes

### Ambient conditions

#### Free fall

• Fall height, max.	0.3 m; five times, in dispatch package
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#### Ambient temperature during operation

• permissible temperature range	-20 °C to +60 °C horizontal mounting, -20 °C to 50 °C vertical mounting, 95% humidity, non-condensing
• min.	-20 °C
• max.	60 °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

• permissible range (without condensation) at 25 °C	95 %
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### Connection method

required front connector	Yes
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### Mechanics/material

Enclosure material (front)	
• Plastic	Yes

### Dimensions

Width	45 mm
Height	100 mm
Depth	75 mm

### Weights

Weight, approx.	180 g
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**last modified:** 08.01.2016