

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
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Power losses

Power loss, typ.	1.5 W
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Digital inputs

Number of digital inputs	0
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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

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

Output current

• for signal "1" rated value	0.5 A
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• for signal "0" residual current, max.	10 µA
Output delay with resistive load	
• "0" to "1", max.	50 µs
• "1" to "0", max.	200 µs
Aggregate current of outputs (per group)	
horizontal installation	
— up to 50 °C, max.	4 A; Current per mass
Relay outputs	
Switching capacity of contacts	
— with inductive load, max.	0.5 A
— on lamp load, max.	5 W
— with resistive load, max.	0.5 A
Cable length	
• shielded, max.	500 m
• Unshielded, max.	150 m
Interrupts/diagnostics/status information	
Alarms	
• Alarms	Yes
• Diagnostic alarm	Yes
Diagnostic messages	
• Diagnostic functions	Yes
• Monitoring the supply voltage	Yes
Diagnostics indication LED	
• For status of the outputs	Yes
• for maintenance	Yes
• Status indicator digital output (green)	Yes
Potential separation digital outputs	
• between the channels, in groups of	1
• between the channels and the backplane bus	500 V AC
Degree and class of protection	
Degree of protection to EN 60529	
• IP20	Yes
Standards, approvals, certificates	
CE mark	Yes
CSA approval	Yes
UL approval	Yes
cULus	Yes
FM approval	Yes
RCM (formerly C-TICK)	Yes
Marine approval	
• Marine approval	Yes

Ambient conditions

Free fall

- Drop height, max. (in packaging) 0.3 m; five times, in dispatch package

Ambient temperature in 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 %

Connection method

required front connector Yes

Mechanics/material

Type of housing (front)

- plastic Yes

Dimensions

Width 45 mm

Height 100 mm

Depth 75 mm

Weights

Weight, approx. 180 g

last modified: 20.04.2015