

SIMATIC S7-1200, DIGITAL OUTPUT SM 1222, 16 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.	140 mA
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Power loss

Power loss, typ.	2.5 W
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Digital outputs

Number of digital outputs	16
• 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
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• 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
• 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
Total current of the outputs (per group)	
horizontal installation	
— up to 50 °C, max.	8 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	
Potential separation digital outputs	
• between the channels, in groups of	1
• between the channels and backplane bus	500 V AC
Degree and class of protection	
Degree of protection acc. 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

• 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

Material des Gehäuses (frontseitig)	
• Plastic	Yes

Dimensions

Width	45 mm
Height	100 mm
Depth	75 mm

Weights

Weight, approx.	220 g
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last modified: 13.08.2015