

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
<ul style="list-style-type: none"> 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

<ul style="list-style-type: none"> with resistive load, max. 	0.5 A
<ul style="list-style-type: none"> on lamp load, max. 	5 W

Output voltage

<ul style="list-style-type: none"> Rated value (DC) 	24 V
<ul style="list-style-type: none"> for signal "0", max. 	0.1 V; with 10 kOhm load
<ul style="list-style-type: none"> for signal "1", min. 	20 V DC
Output current	
<ul style="list-style-type: none"> for signal "1" rated value 	0.5 A
<ul style="list-style-type: none"> for signal "0" residual current, max. 	10 µA
Output delay with resistive load	
<ul style="list-style-type: none"> "0" to "1", max. 	50 µs
<ul style="list-style-type: none"> "1" to "0", max. 	200 µs
Aggregate current of outputs (per group)	
horizontal installation	
<ul style="list-style-type: none"> — up to 50 °C, max. 	4 A; Current per mass
Relay outputs	
Switching capacity of contacts	
<ul style="list-style-type: none"> — with inductive load, max. 	0.5 A
<ul style="list-style-type: none"> — on lamp load, max. 	5 W
<ul style="list-style-type: none"> — with resistive load, max. 	0.5 A
Cable length	
<ul style="list-style-type: none"> Cable length, shielded, max. 	500 m
<ul style="list-style-type: none"> Cable length unshielded, max. 	150 m
Interrupts/diagnostics/status information	
Alarms	
<ul style="list-style-type: none"> Alarms 	Yes
<ul style="list-style-type: none"> Diagnostic alarm 	Yes
Diagnostic messages	
<ul style="list-style-type: none"> Diagnostic functions 	Yes
<ul style="list-style-type: none"> Monitoring the supply voltage 	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> For status of the outputs 	Yes
<ul style="list-style-type: none"> for maintenance 	Yes
<ul style="list-style-type: none"> Status indicator digital output (green) 	Yes
Galvanic isolation	
Galvanic isolation digital outputs	
<ul style="list-style-type: none"> between the channels, in groups of 	1
<ul style="list-style-type: none"> between the channels and the backplane bus 	500 V AC
Degree and class of protection	
Degree of protection to EN 60529	
<ul style="list-style-type: none"> IP20 	Yes
Standards, approvals, certificates	
CE mark	Yes
CSA approval	Yes
UL approval	Yes

cULus	Yes
RCM (formerly C-TICK)	Yes
FM approval	Yes
Marine approval	
• Marine approval	Yes

Climatic and mechanical conditions for storage and transport

Climatic conditions for storage and transport	
Free fall	
— Drop height, max. (in packaging)	0.3 m; five times, in dispatch package
Temperature	
— Permissible temperature range	-40 °C to +70 °C
Air pressure acc. to IEC 60068-2-13	
— Permissible air pressure	1080 to 660 hPa
Relative humidity	
— Permissible range (without condensation) at 25 °C	95 %

Mechanical and climatic conditions during operation

Climatic conditions in operation	
Temperature	
— 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

Connection method

required front connector	Yes
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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:	14.10.2014