

SIMATIC S7-1200, Digital output SM 1222, 8 DO, relay 2 A

General information	
Product type designation	SM 1222, DQ 8x relay/2 A
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
Digital outputs	
<ul style="list-style-type: none"> from load voltage L+, max. 	11 mA/relay coil
Power loss	
Power loss, typ.	4.5 W
Digital outputs	
Number of digital outputs	8
<ul style="list-style-type: none"> in groups of 	2
Short-circuit protection	No; to be provided externally
Switching capacity of the outputs	
<ul style="list-style-type: none"> with resistive load, max. on lamp load, max. 	2 A 30 W with DC, 200 W with AC
Output voltage	
<ul style="list-style-type: none"> Rated value (DC) Rated value (AC) 	5 V DC to 30 V DC 5 V AC to 250 V AC
Output current	
<ul style="list-style-type: none"> for signal "1" rated value 	2 A
Output delay with resistive load	
<ul style="list-style-type: none"> "0" to "1", max. "1" to "0", max. 	10 ms 10 ms
Total current of the outputs (per group)	
horizontal installation	
— up to 50 °C, max.	10 A; Current per mass
Relay outputs	
<ul style="list-style-type: none"> Number of relay outputs Rated supply voltage of relay coil L+ (DC) Number of operating cycles, max. 	8 24 V mechanically 10 million, at rated load voltage 100 000
Switching capacity of contacts	
<ul style="list-style-type: none"> with inductive load, max. on lamp load, max. with resistive load, max. 	2 A 30 W with DC, 200 W with AC 2 A
Cable length	
<ul style="list-style-type: none"> shielded, max. unshielded, max. 	500 m 150 m
Interrupts/diagnostics/status information	
Alarms	
<ul style="list-style-type: none"> Diagnostic alarm 	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> for status of the outputs 	Yes
Potential separation	
Potential separation digital outputs	
<ul style="list-style-type: none"> between the channels between the channels, in groups of between the channels and backplane bus 	Relays 2 1 500 V AC for 1 minute
Permissible potential difference	

between different circuits	750 V AC for 1 minute
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	
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
Ecological footprint	
<ul style="list-style-type: none"> environmental product declaration 	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	68.6 kg
— global warming potential, (during production) [CO2 eq]	8.16 kg
— global warming potential, (during operation) [CO2 eq]	60.7 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.334 kg
Ambient conditions	
Free fall	
<ul style="list-style-type: none"> Fall height, max. 	0.3 m; five times, in product package
Ambient temperature during operation	
<ul style="list-style-type: none"> min. max. horizontal installation, min. horizontal installation, max. vertical installation, min. vertical installation, max. permissible temperature change 	-20 °C 60 °C -20 °C 60 °C -20 °C 50 °C 5°C to 55°C, 3°C / minute
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> min. max. 	-40 °C 70 °C
Air pressure acc. to IEC 60068-2-13	
<ul style="list-style-type: none"> Storage/transport, min. Storage/transport, max. 	660 hPa 1 080 hPa
Relative humidity	
<ul style="list-style-type: none"> Operation at 25 °C without condensation, max. 	95 %
connection method	
required front connector	Yes
Mechanics/material	
Enclosure material (front) <ul style="list-style-type: none"> Plastic 	Yes
Dimensions	
Width	45 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	190 g
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