

SIMATIC S7-1200, Digital output SM 1222, 8 DO, Relay Changeover contact

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.	140 mA
Digital outputs	
• from load voltage L+, max.	16.7 mA/relay coil
Power loss	
Power loss, typ.	5 W
Digital outputs	
Number of digital outputs	8
• in groups of	1
Short-circuit protection	No; to be provided externally
Switching capacity of the outputs	
• with resistive load, max.	2 A
• on lamp load, max.	30 W with DC, 200 W with AC
Output voltage	
• Rated value (DC)	5 V DC to 30 V DC
• Rated value (AC)	5 V AC to 250 V AC
Output current	
• for signal "1" rated value	2 A
Output delay with resistive load	
• "0" to "1", max.	10 ms
• "1" to "0", max.	10 ms
Total current of the outputs (per group)	
horizontal installation	
— up to 50 °C, max.	2 A; Current per mass
Relay outputs	
• Number of relay outputs	8
• Rated supply voltage of relay coil L+ (DC)	24 V
• Number of operating cycles, max.	mechanically 10 million, at rated load voltage 100 000
Switching capacity of contacts	
— with inductive load, max.	2 A
— on lamp load, max.	30 W with DC, 200 W with AC
— with resistive load, max.	2 A
Cable length	
• shielded, max.	500 m
• unshielded, max.	150 m
Interrupts/diagnostics/status information	
Alarms	
• Diagnostic alarm	Yes
Diagnostics indication LED	
• for status of the outputs	Yes
Potential separation	
Potential separation digital outputs	
• between the channels	Relays
• between the channels, in groups of	1
• between the channels and backplane bus	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			
• 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			
• Fall height, max.		0.3 m; five times, in product package	
Ambient temperature during operation			
• min.		-20 °C	
• max.		60 °C; Number of simultaneously activated outputs: 4 (no adjacent points) at 60 °C horizontal or 50 °C vertical, 8 at 55 °C horizontal or 45 °C vertical	
• horizontal installation, min.		-20 °C	
• horizontal installation, max.		60 °C	
• vertical installation, min.		-20 °C	
• vertical installation, max.		50 °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			
• Operation at 25 °C without condensation, max.		95 %	
connection method			
required front connector		Yes	
Mechanics/material			
Enclosure material (front)			
• Plastic		Yes	
Dimensions			
Width		70 mm	
Height		100 mm	
Depth		75 mm	
Weights			
Weight, approx.		310 g	
Classifications			
		Version	Classification
	eClass	14	27-24-22-04
	eClass	12	27-24-22-04
	eClass	9.1	27-24-22-04
	eClass	9	27-24-22-04
	eClass	8	27-24-22-04

eClass	7.1	27-24-22-04
eClass	6	27-24-22-04
ETIM	10	EC001419
ETIM	9	EC001419
ETIM	8	EC001419
ETIM	7	EC001419
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval



[KC](#)

General Product Approval	EMV	Test Certificates	Maritime application
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Maritime application	other
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other	Railway	Environment
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[Confirmation](#)

[Miscellaneous](#)

[Confirmation](#)

[Special Test Certificate](#)



[Environmental Confirmations](#)

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