6ES7222-1HF32-0XB0

Data sheet SIMATIC S7-1200, DIGITAL OUTPUT SM 1222, 8 DO, RELAY 2A



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		
• from load voltage L+, max.	11 mA/relay coil	
Power loss		
Power loss, typ.	4.5 W	
Digital outputs		
Number of digital outputs	8	
• in groups of	2	
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" permissible range, max.	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.	10 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	
Interrupts/diagnostics/status information Alarms	
	Yes
Alarms	Yes
Alarms • Diagnostic alarm	Yes
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs	
Alarms • Diagnostic alarm Diagnostics indication LED	
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs Potential separation	
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs Potential separation Potential separation digital outputs	Yes
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs Potential separation Potential separation digital outputs • between the channels	Yes
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of	Yes Relays 2
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of • between the channels and backplane bus	Yes Relays 2
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of • between the channels and backplane bus Permissible potential difference	Yes Relays 2 1500 V AC for 1 minute
Alarms	Relays 2 1500 V AC for 1 minute 750 V AC for 1 minute
Alarms Diagnostic alarm Diagnostics indication LED for status of the outputs Potential separation Potential separation digital outputs between the channels between the channels, in groups of between the channels and backplane bus Permissible potential difference between different circuits Degree and class of protection	Yes Relays 2 1500 V AC for 1 minute
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of • between the channels and backplane bus Permissible potential difference between different circuits Degree and class of protection Degree of protection acc. to EN 60529 • IP20 Standards, approvals, certificates	Yes Relays 2 1500 V AC for 1 minute 750 V AC for 1 minute Yes
Alarms Diagnostics alarm Diagnostics indication LED for status of the outputs Potential separation Potential separation digital outputs between the channels between the channels, in groups of between the channels and backplane bus Permissible potential difference between different circuits Degree and class of protection Degree of protection acc. to EN 60529 IP20 Standards, approvals, certificates CE mark	Yes Relays 2 1500 V AC for 1 minute 750 V AC for 1 minute Yes
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of • between the channels and backplane bus Permissible potential difference between different circuits Degree and class of protection Degree of protection acc. to EN 60529 • IP20 Standards, approvals, certificates	Yes Relays 2 1500 V AC for 1 minute 750 V AC for 1 minute 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 product package
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 %
Connection method	
required front connector	Yes
Mechanics/material	
Enclosure material (front)	
• Plastic	Yes
Dimensions	
Width	45 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	190 g
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