Data sheet

6ES7222-1BH32-0XB0



SIMATIC S7-1200, Digital output SM 1222, 16 DO, 24 V DC, transistor 0.5 A $\,$

General information	
Product type designation	SM 1222, DQ 16x24 V DC/0.5 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
Power loss	
Power loss, typ.	2.5 W
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
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 μΑ
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	
Diagnostic alarm	Yes

Diagnostics indication LED		
for status of the outputs	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		
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	
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	
 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		
	-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	0.507	
Operation at 25 °C without condensation, max.	95 %	
connection method / header		
required front connector	Yes	
Mechanics/material		
Enclosure material (front)		
Plastic	Yes	
Dimensions		
Width	45 mm	
Height	100 mm	
Depth	75 mm	
Weights		
Weight, approx.	220 g	
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last modified:	2/26/2021 🖸	