SIEMENS

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	
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 and backplane bus Degree and class of protection Pages of protection P20 Standards, approvals, certificates CE mark	 between the channels, in groups of 	1	
Pegree of protection IP20			
P degree of protection			
Standards, approvals, certificates		IP20	
CE mark			
UL approval Yes		Yes	
Culus	CSA approval	Yes	
FM approval	UL approval	Yes	
RCM (formerly C-TICK)	cULus	Yes	
KC approval Marine approval Ambient conditions Free fall Fall height, max. 0.3 m; five times, in product package Ambient temperature during operation min. min. horizontal installation, min. horizontal installation	FM approval	Yes	
Marine approval Ambient conditions Free fall Fall height, max. O.3 m; five times, in product package Ambient temperature during operation min. Occ max. Occ horizontal installation, min. horizontal installation, max. Occ vertical installation, min. vertical installation, min. Vertical installation, min. Vertical installation, max. Occ min. Vertical installation, max. Occ Tocc Vertical installation, max. Occ Tocc Vertical installation, max. Occ Vertical installation, max.	RCM (formerly C-TICK)	Yes	
Ambient conditions Free fall Fre	KC approval	Yes	
Free fall Pall height, max. Ambient temperature during operation min. min. Pall height, max. O.3 m; five times, in product package Ambient temperature during operation min. Pall horizontal installation, min. Por or o	Marine approval	Yes	
Fall height, max. Ambient temperature during operation • min. • max. • horizontal installation, min. • horizontal installation, min. • vertical installation, min. • vertical installation, min. • vertical installation, min. • vertical installation, max. • vertical installation, max. • permissible temperature change Ambient temperature during storage/transportation • min. • max. • 70 °C Air pressure acc. to IEC 60068-2-13 • Storage/transport, min. • Storage/transport, min. • Storage/transport, max. 1 080 hPa • Storage/transport max. Relative humidity • Operation at 25 °C without condensation, max. connection method required front connector Mechanics/material Enclosure material (front) • Plastic Dimensions Width 45 mm Height 100 mm Depth 75 mm Wolghts	Ambient conditions		
Ambient temperature during operation inin. inin	Free fall		
• min. • max. • horizontal installation, min. • horizontal installation, max. • horizontal installation, max. • vertical installation, max. • vertical installation, max. • vertical installation, max. • vertical installation, max. • permissible temperature change Ambient temperature during storage/transportation • min. • max. 70 °C Air pressure acc. to IEC 60068-2-13 • Storage/transport, min. • Storage/transport, min. • Storage/transport, max. 1 080 hPa Relative humidity • Operation at 25 °C without condensation, max. connection method required front connector Mechanics/material Enclosure material (front) • Plastic Yes Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights	Fall height, max.	0.3 m; five times, in product package	
max. horizontal installation, min. horizontal installation, max. horizontal installation, max. vertical installation, min. vertical installation, min. vertical installation, min. vertical installation, max. permissible temperature change S° C to 55°C, 3°C / minute Ambient temperature during storage/transportation min. -40 °C max. Air pressure acc. to IEC 60068-2-13 Storage/transport, min. Storage/transport, min. Storage/transport, max. Relative humidity Operation at 25 °C without condensation, max. connection method required front connector Yes Mechanics/material Enclosure material (front) Plastic Yes Dimensions Width Height 100 mm Depth 75 mm Weights	Ambient temperature during operation		
 horizontal installation, min. horizontal installation, max. vertical installation, min. vertical installation, max. vertical installation, max. permissible temperature change fo c to 55°C, 3°C / minute Ambient temperature during storage/transportation min. 40 °C max. fo c Air pressure acc. to IEC 60068-2-13 Storage/transport, min. Storage/transport, max. Storage/transport, max. Plastive humidity Operation at 25 °C without condensation, max. connection method required front connector Yes Mechanics/material Enclosure material (front) Plastic Yes Dimensions Wright 45 mm Height Depth 75 mm Weights	• min.	-20 °C	
 horizontal installation, max. 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. max. 70 °C Air pressure acc. to IEC 60068-2-13 Storage/transport, min. Storage/transport, max. 1 080 hPa Relative humidity Operation at 25 °C without condensation, max. connection method required front connector Yes Mechanics/material Enclosure material (front) Plastic Yes Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights	• max.	60 °C	
 vertical installation, min. vertical installation, max. vertical installation, max. permissible temperature change SC to 55°C, 3°C / minute Ambient temperature during storage/transportation min. -40 °C max. Air pressure acc. to IEC 60068-2-13 Storage/transport, min. 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 45 mm Height 100 mm Depth 75 mm Weights Weights 	 horizontal installation, min. 	-20 °C	
vertical installation, max. permissible temperature change Ambient temperature during storage/transportation min.	 horizontal installation, max. 	60 °C	
permissible temperature change Ambient temperature during storage/transportation min. min. 40 °C max. 70 °C Air pressure acc. to IEC 60068-2-13 Storage/transport, min. Storage/transport, max. 1 080 hPa Relative humidity Operation at 25 °C without condensation, max. 95 % connection method required front connector Mechanics/material Enclosure material (front) Plastic Plastic Yes Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights	 vertical installation, min. 	-20 °C	
Ambient temperature during storage/transportation • min.	 vertical installation, max. 	50 °C	
	permissible temperature change	5°C to 55°C, 3°C / minute	
Nax. 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 Mechanics/material Enclosure material (front) Plastic Yes Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights	Ambient temperature during storage/transportation		
Air pressure acc. to IEC 60068-2-13 • Storage/transport, min. • Storage/transport, max. 1 080 hPa Relative humidity • Operation at 25 °C without condensation, max. 95 % connection method required front connector Mechanics/material Enclosure material (front) • Plastic Plastic Yes Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights	• min.	-40 °C	
Storage/transport, min. 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 45 mm Height 100 mm Depth 75 mm Weights	• max.	70 °C	
Storage/transport, max. Relative humidity Operation at 25 °C without condensation, max. 95 % connection method required front connector Yes Mechanics/material Enclosure material (front) Plastic Plastic Yes Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights	Air pressure acc. to IEC 60068-2-13		
Relative humidity • Operation at 25 °C without condensation, max. connection method required front connector Mechanics/material Enclosure material (front) • Plastic Plastic Yes Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights	 Storage/transport, min. 	660 hPa	
Operation at 25 °C without condensation, max. connection method required front connector Yes Mechanics/material Enclosure material (front)	Storage/transport, max.	1 080 hPa	
connection method required front connector Mechanics/material Enclosure material (front) ● Plastic Plastic Yes Dimensions Width 45 mm Height 100 mm Depth T5 mm Weights	Relative humidity		
required front connector Mechanics/material Enclosure material (front) Plastic Plastic Yes Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights	 Operation at 25 °C without condensation, max. 	95 %	
Mechanics/material Enclosure material (front) Yes ● Plastic Yes Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights	connection method		
Enclosure material (front) Plastic Plastic Yes Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights	required front connector	Yes	
● Plastic Yes Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights	Mechanics/material		
Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights To me	Enclosure material (front)		
Width 45 mm Height 100 mm Depth 75 mm Weights	Plastic	Yes	
Height 100 mm Depth 75 mm Weights	Dimensions		
Depth 75 mm Weights	Width	45 mm	
Weights	Height	100 mm	
	Depth	75 mm	
Weight approx	Weights		
vveignt, approx. 220 g	Weight, approx.	220 g	

last modified: 8/23/2023 🖸