SIEMENS

Data sheet

6ES7222-1BF32-0XB0



SIMATIC S7-1200, Digital output SM 1222, 8 DO, 24 V DC, transistor 0.5 A

Product type designation	SM 1222, DQ 8x24 V DC/0.5 A	
Supply voltage	SW 1222, BQ 0X24 V BOX.571	
permissible range, lower limit (DC)	20.4 V	
permissible range, upper limit (DC)	28.8 V	
nput current	20.0 1	
from backplane bus 5 V DC, max.	120 mA	
Power loss	120 1111	
Power loss, typ.	1.5 W	
Digital outputs		
Number of digital outputs	8	
• 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	91 ()	
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.	4 A; Current per mass	
Cable length	<u> </u>	
• shielded, max.	500 m	
• unshielded, max.	150 m	
nterrupts/diagnostics/status information		
Alarms		
Diagnostic alarm	Yes	
Diagnostics indication LED		
for status of the outputs	Yes	
Potential separation		

between the channels and backplane bus Degree and class of protection Pleagree of protection Standards, approvals, certificates CE mark	 between the channels, in groups of 	1	
Pegree of protection Pegree of Pegree			
Processor Proc			
Standards, approvals, certificates CE mark CE mark Ves CSA approval Yes Ut approval Yes FM approval Yes RCM (formerly C-TICK) Yes RCM (formerly C-TICK) Yes Ambient conditions Free fall Fall height, max. 0.3 m; five times, in product package Ambient temperature during operation • min. • max. • horizontal installation, min. • horizontal installation, min. • horizontal installation, min. • horizontal installation, min. • vertical installation, min. • vertical installation, min. • vertical installation, max. • bo "C • wertical installation, min. • yeo "C • wertical installation, min. • 20 "C • wertical installation, min. • 20 "C • wertical installation, min. • 20 "C • vertical installation, min. • yeo "C • vertical installation, min. • 20 "C • vertical installation, min. • vertical installation, min. • vertical installation, min. • vertical installation, min. • vertical insta		IP20	
CE mark			
Ves		Yes	
UL approval	CSA approval	Yes	
cUllus Yes FM approval Yes RCM (formerty 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. • min. -20 °C • max. 60 °C • horizontal installation, min. -20 °C • vertical installation, max. 60 °C • vertical installation, max. 50 °C • vertical installation, max. 50 °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 • permissible temperature during storage/transportation *** • min. -40 °C • Ali pressure acc. to IEC 60068-2-13 *** • Storage/transport, min. 660 hPa • Storage/transport, max. 1080 hPa Relative humidity <t< td=""><td>· ·</td><td>Yes</td></t<>	· ·	Yes	
FM approval		Yes	
RCM (formerly C-TICK)		Yes	
KC approval Marine approval Arbient conditions Free fall Fall height, max. O.3 m; five times, in product package Arbient temperature during operation inin. And the conditions Free fall Fall height, max. O.3 m; five times, in product package Arbient temperature during operation Arbient temperature during operation Arbient installation, min. Arbient temperature change Arbient temperature during storage/transportation Arbient tempera		Yes	
Ambient conditions Free fall • Fall height, max. Ambient temperature during operation • min. • max. • horizontal installation, min. • horizontal installation, max. • horizontal installation, min. • vertical installation, min. • vertical installation, max. • vertical installation, max. • permissible temperature change • "C" • weritoral installation, max. • permissible temperature change • "C" • weritoral installation, max. • permissible temperature during storage/transportation • min. • 40 "C" • max. Air pressure acc. to IEC 60068-2-13 • Storage/transport, min. • Storage/transport, min. • Storage/transport, min. • Operation at 25 "C" without condensation, max. 1 080 hPa Relative humidity • Operation at 25 "C" without condensation, max. 55 % connection method required front connector Yes Mochanics/material Enclosure material (front) • Plastic Yes Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights		Yes	
Free fall Fall height, max. Ambient temperature during operation min. min. max. horizontal installation, min. vertical installation, min. vertical installation, max. permissible temperature change Ambient temperature during operation vertical installation, min. vertical installation, max. permissible temperature change Ambient temperature during storage/transportation max. 70 °C Air pressure acc. to IEC 60068-2-13 Storage/transport, min. Storage/transport, max. Relative humidity Operation at 25 °C without condensation, max. 95 % connection method required front connector Mechanics/matorial Enclosure material (front) Plastic Yes Dimensions Width A5 mm Height Depth 75 mm Weights	Marine approval	Yes	
Fall height, max. Ambient temperature during operation • min. • max. • horizontal installation, min. • horizontal installation, min. • vertical installation, min. • vertical installation, min. • yerical installation, min. • yerical installation, min. • yerical 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. 95 % connection method required front connector Mechanics/material Enclosure material (front) • Plastic Yes Dimensions Width 45 mm Height Depth 75 mm Weights	Ambient conditions		
Ambient temperature during operation • min. • max. • horizontal installation, min. • horizontal installation, max. • horizontal installation, max. • vertical installation, max. • vertical installation, min. • vertical installation, max. • permissible temperature change Ambient temperature during storage/transportation • min. • max. Ali 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 Mechanics/material Enclosure material (front) • Plastic Press Width 45 mm Height 100 mm Depth 75 mm Wolghts	Free fall		
 min. max. 60 °C horizontal installation, min. -20 °C horizontal installation, max. vertical installation, max. vertical installation, max. vertical installation, max. 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. 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	Fall height, max.	0.3 m; five times, in product package	
max. horizontal installation, min. horizontal installation, max. vertical installation, max. vertical installation, min. vertical installation, max. vertical installation, max.	Ambient temperature during operation		
 horizontal installation, min. -20 °C horizontal installation, max. vertical installation, min. -20 °C vertical installation, min. -20 °C vertical installation, max. 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. 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	• min.	-20 °C	
horizontal installation, max. vertical installation, min. vertical installation, max. vertical installation. vertical	• max.	60 °C	
 vertical installation, min. vertical installation, max. vertical installation, max. permissible temperature change S°C to 55°C, 3°C / minute Ambient temperature during storage/transportation min. 40 °C max. To °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. operation method required front connector Yes Mechanics/material Enclosure material (front) Plastic Yes Dimensions Width 45 mm Height 100 mm Depth 75 mm	 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.	 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. 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. required front connector Mechanics/material Enclosure material (front) Plastic Plastic Ves Dimensions Width Height Height 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. 55 % 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	• 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 Mechanics/material Enclosure material (front) Plastic Yes Dimensions Width 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 Yes Dimensions Width Height 100 mm Depth 75 mm Weights	Air pressure acc. to IEC 60068-2-13		
Relative humidity Operation at 25 °C without condensation, max. Sometion method required front connector Mechanics/material Enclosure material (front) Plastic Plastic Yes Dimensions Width 45 mm Height Depth 75 mm Weights	 Storage/transport, min. 	660 hPa	
Operation at 25 °C without condensation, max. connection method required front connector Mechanics/material Enclosure material (front)	Storage/transport, max.	1 080 hPa	
required front connector Yes 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)	 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)	required front connector	Yes	
◆ Plastic Yes Dimensions 45 mm Height 100 mm Depth 75 mm Weights	Mechanics/material		
Dimensions Width 45 mm Height 100 mm Depth 75 mm Weights Weights	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. 180 g	Weights		
	Weight, approx.	180 g	

last modified: 3/12/2024 **C**