SIEMENS

Data sheet

6ES7222-1BF32-0XB0



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

General information	
Product type designation	SM 1222, DQ 8x24 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.	120 mA
Power loss	
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	
 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	
• 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 IP degree of protection Standards, approvals, certificates CE mark Yes CSA approval Yes UL approval Yes CULus FM approval Yes RCM (formerly C-TICK) Yes KC approval Yes Marine approval Ambient conditions Free fall Freal height, max. O.3 m; five times, in product package Ambient temperature during operation • min. • min. • 20 °C • max. • horizontal installation, min.	 between the channels, in groups of 	1	
Degree and class of protection IP degree of protection Standards, approvals, certificates CE mark CSA approval Ves UL approval Yes CULus FM approval Yes RCM (formerly C-TICK) 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. horizontal installation, min.	- 1		
IP degree of protection Standards, approvals, certificates CE mark Yes CSA approval Yes UL approval Yes CULus 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. min. -20 °C max. horizontal installation, min.			
Standards, approvals, certificates CE mark CSA approval Yes UL approval Yes cULus FM approval Yes RCM (formerly C-TICK) Yes KC approval Yes Marine approval Ambient conditions Free fall Fall height, max. 0.3 m; five times, in product package Ambient temperature during operation min. min. max. 60 °C horizontal installation, min.		IP20	
CE mark CSA approval Yes UL approval Yes cULus FM approval Yes RCM (formerly C-TICK) 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. min. min. min. -20 °C max. horizontal installation, min.			
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FM approval RCM (formerly C-TICK) Yes KC approval Yes Marine approval Yes Ambient conditions Free fall Fall height, max. O.3 m; five times, in product package Ambient temperature during operation min. min. min. min. min. -20 °C max. horizontal installation, min.	UL approval	Yes	
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KC approval Marine approval Ambient conditions Free fall Fall height, max. O.3 m; five times, in product package Ambient temperature during operation min. -20 °C max. min. min. -20 °C	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. min. max. max. 60 °C horizontal installation, min.	RCM (formerly C-TICK)	Yes	
Ambient conditions Free fall Fall height, max. O.3 m; five times, in product package Ambient temperature during operation min. -20 °C max. 60 °C horizontal installation, min. -20 °C	KC approval	Yes	
Free fall Fall height, max. O.3 m; five times, in product package Ambient temperature during operation min. 20 °C max. horizontal installation, min. -20 °C	Marine approval	Yes	
 Fall height, max. Ambient temperature during operation min. -20 °C max. horizontal installation, min. 0.3 m; five times, in product package 	Ambient conditions		
Ambient temperature during operation • min. • max. • horizontal installation, min. -20 °C 60 °C -20 °C	Free fall		
 min. -20 °C max. 60 °C horizontal installation, min. -20 °C 	• Fall height, max.	0.3 m; five times, in product package	
 max. horizontal installation, min. 60 °C -20 °C 	Ambient temperature during operation		
• horizontal installation, min20 °C	• min.	-20 °C	
	• max.	0° C	
00.00	 horizontal installation, min. 	-20 °C	
• norizontal installation, max. 60 °C	 horizontal installation, max. 	60 °C	
• vertical installation, min20 °C	 vertical installation, min. 	-20 °C	
• vertical installation, max. 50 °C	 vertical installation, max. 	50 °C	
• permissible temperature change 5°C to 55°C, 3°C / minute	permissible temperature change	5°C to 55°C, 3°C / minute	
Ambient temperature during storage/transportation	Ambient temperature during storage/transportation		
• min40 °C	• min.	-40 °C	
• max. 70 °C	• max.	70 °C	
Air pressure acc. to IEC 60068-2-13	Air pressure acc. to IEC 60068-2-13		
• Storage/transport, min. 660 hPa	Storage/transport, min.	660 hPa	
• Storage/transport, max. 1 080 hPa	Storage/transport, max.	1 080 hPa	
Relative humidity	Relative humidity		
• Operation at 25 °C without condensation, max. 95 %	 Operation at 25 °C without condensation, max. 	95 %	
connection method	connection method		
required front connector Yes	required front connector	Yes	
Mechanics/material	Mechanics/material		
Enclosure material (front)	Enclosure material (front)		
• Plastic Yes	Plastic	Yes	
Dimensions	Dimensions		
Width 45 mm	Width	45 mm	
Height 100 mm	Height	100 mm	
Depth 75 mm	Depth	75 mm	
Weights	Weights		
Weight, approx. 180 g	Weight, approx.	180 g	

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