

Data sheet

6ES7222-1BH32-1XB0



SIMATIC S7-1200, Digital output SM 1222, 16 DO, 24 V DC, sourcing (Sinking Output), NPN transistor 0.5 A

General information	
Product type designation	SM 1222, DO 16x 24 V DC/0.5 A Sink
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
Current-sinking	Yes
Short-circuit protection	No; to be provided externally
Limitation of inductive shutdown voltage to	Typ 45 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.	L+ minus 0.75 V DC with 10k Load
• for signal "1", min.	0,5 V
Output current	
• for signal "1" rated value	0.5 A
• for signal "0" residual current, max.	75 µA
Output delay with resistive load	
• "0" to "1", max.	20 µs
• "1" to "0", max.	350 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, 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			
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			
• 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			
• 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			
Weight, approx.	220 g		
Classifications			
	Version	Classification	
eClass	16	27-24-22-04	
eClass	14	27-24-22-04	
eClass	12	27-24-22-04	
eClass	9.1	27-24-22-04	
eClass	9	27-24-22-04	
eClass	8	27-24-22-04	
eClass	7.1	27-24-22-04	
eClass	6	27-24-22-04	
ETIM	10	EC001419	
ETIM	9	EC001419	
ETIM	8	EC001419	

ETIM	7	EC001419
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval

Miscellaneous




EG-Konf.


UL


RCM

China RoHS

General Product Approval

For use in hazardous locations

Manufacturer Declaration

Miscellaneous


IECEX


ATEX

FM


CCC

For use in hazardous locations

Maritime application


IECEX

Type Examination Certificate


ATEX


ABS


BUREAU
VERITAS


DNV

Maritime application

Environment


LRS

NK / Nippon Kaiji Kyokai


RINA

CCS (China Classification Society)



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7/2/2025 

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