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 µA
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	

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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
Ecological footprint	
● environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	68.6 kg
— global warming potential, (during production) [CO2 eq]	8.16 kg
— global warming potential, (during operation) [CO2 eq]	60.7 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.334 kg
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	
● 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

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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







General Product Approval

Manufacturer Declaration

China RoHS

EMV



For use in hazardous locations





FM

For use in hazardous locations



Miscellaneous

CCC-Ex

Maritime application





NK / Nippon Kaiji Kyokai

Maritime application





CCS (China Classification Society)

KR (Korean Register of Shipping)

Environment



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