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Data sheet 6ES7222-5HH50-0XB0



Figure similar

SIMATIC S7-1200 G2: SM 1222 digital output, 16 relays; outputs: 16x DO, relay 2 A

General information	
Product type designation	SM 1222, DQ 16x relay/2 A
Supply voltage	
Rated value (DC)	24 V
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.	115 mA
Digital outputs	
● from load voltage L+, max.	9 mA; per relay coil
Power loss	
Power loss, typ.	4.2 W
Digital outputs	
Number of digital outputs	16
● in groups of	8
Short-circuit protection	No; to be provided externally
Switching capacity of the outputs	
● with resistive load, max.	2 A
● on lamp load, max.	30 W with DC, 200 W with AC
Output voltage	
● Rated value (DC)	5 V DC to 30 V DC
● Rated value (AC)	5 V AC to 250 V AC
Output current	
● for signal "1" rated value	2 A
Output delay with resistive load	
● "0" to "1", max.	10 ms
● "1" to "0", max.	10 ms
Total current of the outputs (per group)	
horizontal installation	
— up to 50 °C, max.	16 A; Current per mass
Relay outputs	
● Number of relay outputs	16
● Rated supply voltage of relay coil L+ (DC)	24 V
● Number of operating cycles, max.	mechanically 10 million, at rated load voltage 100 000
Switching capacity of contacts	
— with inductive load, max.	2 A
— on lamp load, max.	30 W with DC, 200 W with AC
— with resistive load, max.	2 A

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Cable length	
● shielded, max.	500 m
● unshielded, max.	150 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
● Diagnostic alarm	Yes
Diagnoses	
● Monitoring the supply voltage	Yes
Diagnostics indication LED	
● DIAG LED	Yes
● for status of the outputs	Yes
Potential separation	
Potential separation digital outputs	
● between the channels	Relays
● between the channels, in groups of	8
● between the channels and backplane bus	Yes; 1500 V AC (type test)
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	
Siemens Eco Profile (SEP)	Siemens EcoTech
CE mark	Yes
CSA approval	No
UL approval	Yes
cULus	Yes
FM approval	No
RCM (formerly C-TICK)	Yes
KC approval	Yes
Marine approval	No
Ecological footprint	
● environmental product declaration	Yes; type 2 acc. to ISO 14021
Global warming potential	
— global warming potential, (total) [CO2 eq]	40.3 kg
— global warming potential, (during production) [CO2 eq]	7.79 kg
— global warming potential, (during operation) [CO2 eq]	32.5 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.089 kg
Ambient conditions	
Free fall	
● Fall height, max.	0.3 m; five times, in product package
Ambient temperature during operation	
● min.	-20 °C; No condensation
● max.	40 °C; at max. voltages and max. specifications
● horizontal installation, min.	-20 °C; No condensation
● horizontal installation, max.	60 °C; at rated voltages, 50 % of max. specification and alternate IO active
● vertical installation, min.	-20 °C; No condensation
● vertical installation, max.	50 °C; at rated voltages, 50 % of max. specification and alternate IO active
● 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	
● Operation, min.	540 hPa
● Operation, max.	1 140 hPa
● Storage/transport, min.	540 hPa
● Storage/transport, max.	1 140 hPa
Altitude during operation relating to sea level	

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● Installation altitude, min.	-1 000 m
● Installation altitude, max.	4 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Relative humidity	
● Operation at 25 °C without condensation, max.	95 %
Vibrations	
● Vibration resistance during operation acc. to IEC 60068-2-6	3.5 mm from 5 - 8.4 Hz, 1g from 8.4 - 150 Hz
● Operation, tested according to IEC 60068-2-6	Yes
Shock testing	
● tested according to IEC 60068-2-27	Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms
Pollutant concentrations	
● SO2 at RH < 60% without condensation	S02: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60 % condensation-free
Connection method	
required front connector	No
Mechanics/material	
Enclosure material (front)	
● Plastic	Yes
Dimensions	
Width	30 mm
Height	125 mm
Depth	100 mm
Weights	
Weight, approx.	217 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

Approvals / Certificates

General Product Approval

Miscellaneous

General Product Approval | **EMV** | **For use in hazardous locations**

China RoHS

For use in hazardous locations | **Test Certificates** | **Maritime application**

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Miscellaneous	CCC-Ex	CCC-Ex	Type Test Certific-ates/Test Report	ABS	BUREAU VERITAS

Maritime application					Environment
DNV	LRS	NK / Nippon Kaiji Ky-okai	RINA	KR (Korean Register of Shipping)	EPD

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