SIEMENS

Data sheet 6ES7222-5BH50-0XB0

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SIMATIC S7-1200 G2: SM 1222 digital output, 16 DO; outputs: 16x DO, 24 V DC 0.5 A, sourcing transistor



Figure similar

General information	
Product type designation	SM 1222, DQ 16x 24 V DC/0.5 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.	120 mA
Digital outputs	
● from load voltage L+, max.	45 mA
Power loss	
Power loss, typ.	3.5 W
Digital outputs	
Number of digital outputs	16
● in groups of	8
Short-circuit protection	No; to be provided externally
Limitation of inductive shutdown voltage to	typ. (L+) -40 V, 1 W dissipation
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.	L+ (-0.5 V)
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.	4 A; Current per mass (Group of 8)
Cable length	
● shielded, max.	500 m

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● 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, in groups of	8
● between the channels and backplane bus	707 V DC (type test)
Isolation	
Isolation tested with	707 V DC (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	
● horizontal installation, min.	-20 °C
● horizontal installation, max.	60 °C; at max. voltages and max. specification
● vertical installation, min.	-20 °C
● vertical installation, max.	50 °C; at max. voltages and max. specification
● 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	
● Installation altitude, min.	-1 000 m
● Installation altitude, max.	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Relative humidity	

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● 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.	173 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**

Miscellaneous | CCC-Ex | CCC-Ex | Type Test Certific-ates/Test Report

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

Environment
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