SIEMENS

Data sheet 6ES7222-5BF50-0XB0

Figure similar

SIMATIC S7-1200 G2: SB 1222 digital output, 8 DO 100 kHz; outputs: 8x DQ 24 V DC 0.1 A sinking/sourcing transistor, 100 kHz

General information	
Product type designation	SB 1222, DQ 8x 24 V DC 100 kHz
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, typ.	30 mA
Digital outputs	
● from load voltage L+, max.	15 mA
Power loss	
Power loss, typ.	1 W
Digital outputs	
Number of digital outputs	8
● in groups of	8
Short-circuit protection	Yes
Switching capacity of the outputs	
● with resistive load, max.	0.1 A
Output voltage	
● Rated value (DC)	24 V
● for signal "0", max.	1 V
● for signal "1", min.	L+ (-1.5 V)
Output current	
● for signal "1" rated value	0.1 A
Output delay with resistive load	
● "0" to "1", max.	1.8 µs
● "1" to "0", max.	1.8 µs
Total current of the outputs (per group)	
horizontal installation	
— up to 50 °C, max.	0.4 A
Cable length	
● shielded, max.	500 m; 500 m shielded, 50 m shielded for PTO outputs
● 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	No
● between the channels, in groups of	8
● Number of potential groups	1
● between the channels and backplane bus	Yes; 707 V DC (type test)
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	
CE mark	Yes
CSA approval	No
UL approval	Yes
cULus	Yes
FM approval	No
RCM (formerly C-TICK)	Yes
KC approval	No
Marine approval	No
Ambient conditions	
Free fall	
● Fall height, max.	0.3 m; five times, in product package
Ambient temperature during operation	
● min.	-20 °C
● max.	40 °C; at max. voltages and max. specifications
● horizontal installation, min.	-20 °C
● horizontal installation, max.	60 °C; at rated voltages, 50 % of max. specification and alternate IO active
● vertical installation, min.	-20 °C
● vertical installation, max.	50 °C; at rated voltages, 50 % of max. specification and alternate IO active
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	
● 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
Mechanics/material	
Enclosure material (front)	
● Plastic	Yes
Dimensions	
Width	15 mm
Height	62 mm
Depth	63 mm
Weights	
Weight, approx.	29 g

last modified: 1/22/2025