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Data sheet 6ES7223-3BD30-0XB0

SIMATIC S7-1200, Digital I/O SB 1223, 2 DI/2 DQ, 24 V DC 200 kHz

Figure similar

General information	
Product type designation	SB 1223, DI 2x24 V DC/DQ 2x24 V DC 200 kHz
Input current	
from backplane bus 5 V DC, typ.	35 mA
Power loss	
Power loss, typ.	0.5 W
Digital inputs	
Number of digital inputs	2; Current-sourcing
● in groups of	2
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	2
Input voltage	
● Rated value (DC)	24 V
● for signal "0"	(L+ minus 5.0 V DC) ... L+
● for signal "1"	0 V ... (L+ minus 10 V DC)
Input current	
● for signal "0", max. (permissible quiescent current)	1.4 mA
● for signal "1", min.	2.9 mA
● for signal "1", typ.	7 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes; 0.1 / 0.2 / 0.4 / 0.8 / 1.6 / 3.2 / 6.4 / 10.0 / 12.8 / 20.0 µs; 0.05 / 0.1 / 0.2 / 0.4 / 0.8 / 1.6 / 3.2 / 6.4 / 10.0 / 12.8 / 20.0 ms
for interrupt inputs	
— Parameterizable	Yes
for technological functions	
— Parameterizable	Yes
Cable length	
● shielded, max.	50 m; shielded, twisted pair
Digital outputs	
Number of digital outputs	2; MOSFET, solid-state (current-sinking/current-sourcing)
● in groups of	2
Short-circuit protection	No
Switching capacity of the outputs	
● with resistive load, max.	0.1 A
Output voltage	
● Rated value (DC)	24 V

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● for signal "0", max.	1 V
● for signal "1", min.	L+ (-1.5 V)
Output current	
● for signal "1" rated value	0.1 A
● for signal "1" permissible range, max.	0.1 A
Cable length	
● shielded, max.	50 m
Interrupts/diagnostics/status information	
Diagnostics indication LED	
● for status of the inputs	Yes
● for status of the outputs	Yes
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	
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
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 %
Mechanics/material	
Enclosure material (front)	
● Plastic	Yes
Dimensions	
Width	38 mm
Height	62 mm
Depth	21 mm
Weights	
Weight, approx.	35 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

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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

Manufacturer Declaration

General Product Approval

Manufacturer Declaration

China RoHS

EMV

For use in hazardous locations

For use in hazardous locations

FM

Miscellaneous

CCC-Ex

Maritime application

Maritime application

NK / Nippon Kaiji Kyokai

CCS (China Classification Society)

Maritime application

KR (Korean Register of Shipping)

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