



Figure similar

SIMATIC S7-1200, Digital I/O SB 1223, 2 DI/2 DQ, 5V DC 200kHz

General information	
Product type designation	SB 1223, DI 2x5 V DC/DQ 2x5 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
Input voltage	
• Rated value (DC)	5 V
• for signal "0"	(L+ minus 1.0 V DC) ... L+
• for signal "1"	0 V ... (L+ minus 2.0 V DC)
Input current	
• for signal "0", max. (permissible quiescent current)	2.2 mA
• for signal "1", min.	5.1 mA
• for signal "1", typ.	15 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
Load resistance range	
• upper limit	7 Ω
Output voltage	
• Rated value (DC)	5 V
• for signal "0", max.	0.2 V

• for signal "1", min. • for signal "1", max.	L+ minus 0.7 V DC 6 V		
Output current			
• for signal "1" rated value • for signal "1" permissible range, max.	0.1 A 0.1 A		
Cable length			
• shielded, max.	50 m		
Interrupts/diagnostics/status information			
Diagnostics indication LED			
• for status of the inputs • for status of the outputs	Yes 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. • max. • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max.	-20 °C 60 °C -20 °C 60 °C -20 °C 50 °C		
Ambient temperature during storage/transportation			
• min. • max.	-40 °C 70 °C		
Air pressure acc. to IEC 60068-2-13			
• Storage/transport, min. • Storage/transport, max.	660 hPa 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	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
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval



[Miscellaneous](#)
[Manufacturer Declaration](#)
[China RoHS](#)


General Product Approval

EMV

For use in hazardous locations





[EM](#)


For use in hazardous locations

Maritime application


[CCC-Ex](#)



[NK / Nippon Kaiji Kyokai](#)

Maritime application




[CCS \(China Classification Society\)](#)


last modified:

7/2/2025 