



Figure similar

SIPLUS S7-1200 SB 1223 I/O based on 6ES7223-3AD30-0XB0 with conformal coating, -40...+60 °C, start up -25 °C, digital input/output 2 DI/2 DQ, 5 V DC 200 kHz

General information	
Product type designation	SB 1223, DI 2x5 V DC/DQ 2x5 V DC 200 kHz
based on	6ES7223-3AD30-0XB0
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated from version 	see entry ID: 109746275
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
<ul style="list-style-type: none"> in groups of 	2
Input voltage	
<ul style="list-style-type: none"> Rated value (DC) 	5 V
<ul style="list-style-type: none"> for signal "0" 	(L+ minus 1.0 V DC) ... L+
<ul style="list-style-type: none"> for signal "1" 	0 V ... (L+ minus 2.0 V DC)
Input current	
<ul style="list-style-type: none"> for signal "0", max. (permissible quiescent current) 	2.2 mA
<ul style="list-style-type: none"> for signal "1", min. 	5.1 mA
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> shielded, max. 	50 m; shielded, twisted pair
Digital outputs	
Number of digital outputs	2; MOSFET, solid-state (current-sinking/current-sourcing)
<ul style="list-style-type: none"> in groups of 	2
Short-circuit protection	No
Switching capacity of the outputs	
<ul style="list-style-type: none"> with resistive load, max. 	0.1 A
Load resistance range	
<ul style="list-style-type: none"> upper limit 	7 Ω

Output voltage	
<ul style="list-style-type: none"> • Rated value (DC) • for signal "0", max. • for signal "1", min. • for signal "1", max. 	<p>5 V</p> <p>0.2 V</p> <p>L+ minus 0.7 V DC</p> <p>6 V</p>
Output current	
<ul style="list-style-type: none"> • for signal "1" rated value • for signal "1" permissible range, max. 	<p>0.1 A</p> <p>0.1 A</p>
Cable length	
<ul style="list-style-type: none"> • shielded, max. 	50 m
Interrupts/diagnostics/status information	
Diagnostics indication LED	
<ul style="list-style-type: none"> • for status of the inputs • for status of the outputs 	<p>Yes</p> <p>Yes</p>
Ambient conditions	
Free fall	
<ul style="list-style-type: none"> • Fall height, max. 	0.3 m; five times, in product package
Ambient temperature during operation	
<ul style="list-style-type: none"> • min. • max. 	<p>-40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C</p> <p>60 °C; = Tmax</p>
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> • min. • max. 	<p>-40 °C</p> <p>70 °C</p>
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> • Installation altitude above sea level, max. • Ambient air temperature-barometric pressure-altitude 	<p>5 000 m</p> <p>Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)</p>
Relative humidity	
<ul style="list-style-type: none"> • With condensation, tested in accordance with IEC 60068-2-38, max. 	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation
Resistance	
Coolants and lubricants	
<ul style="list-style-type: none"> — Resistant to commercially available coolants and lubricants 	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems	
<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 	<p>Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request</p> <p>Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</p> <p>Yes; Class 3S4 incl. sand, dust, *</p>
Use on ships/at sea	
<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-6 — to chemically active substances according to EN 60721-3-6 — to mechanically active substances according to EN 60721-3-6 	<p>Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request</p> <p>Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</p> <p>Yes; Class 6S3 incl. sand, dust; *</p>
Usage in industrial process technology	
<ul style="list-style-type: none"> — Against chemically active substances acc. to EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 	<p>Yes; Class 3 (excluding trichlorethylene)</p> <p>Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)</p>
Remark	
<ul style="list-style-type: none"> — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 	* The supplied plug covers must remain in place over the unused interfaces during operation!
Conformal coating	
<ul style="list-style-type: none"> • Coatings for printed circuit board assemblies acc. to EN 61086 • Protection against fouling acc. to EN 60664-3 	<p>Yes; Class 2 for high reliability</p> <p>Yes; Type 1 protection</p>

- Military testing according to MIL-I-46058C, Amendment 7
- Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A

Yes; Discoloration of coating possible during service life
 Yes; Conformal coating, Class A

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



[Manufacturer Declaration](#)



[China RoHS](#)



General Product Approval

EMV

For use in hazardous locations

[China RoHS](#)



For use in hazardous locations

Maritime application



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