

SIPLUS S7-1200 SB1223 I/O -40...+60°C start up -25°C with conformal coating based on 6ES7223-3AD30-0XB0 . Digital input/output 2 DI/2DO, 5V DC 200kHz



Figure similar

### 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. 50 mA

### Output voltage

Power supply to the transmitters

- Supply current, max. 4 mA; per channel

### Power loss

Power loss, typ. 0.5 W

### Digital inputs

Number of digital inputs 2  
 • in groups of 1  
 Input characteristic curve in accordance with IEC 61131, type 1 Yes

Number of simultaneously controllable inputs

all mounting positions

— up to 40 °C, max.	2
<b>Input voltage</b>	
• Type of input voltage	DC
• Rated value (DC)	5 V
• for signal "0"	0 to 1 V
• for signal "1"	2 to 6 V
<b>Input current</b>	
• for signal "0", max. (permissible quiescent current)	3 mA
• for signal "1", min.	6 mA
<b>Input delay (for rated value of input voltage)</b>	
for standard inputs	
— parameterizable	Yes; 0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four
— at "0" to "1", max.	2 µs
for interrupt inputs	
— parameterizable	Yes
for technological functions	
— parameterizable	Yes
<b>Cable length</b>	
• shielded, max.	50 m
<b>Digital outputs</b>	
Number of digital outputs	2
• in groups of	1
Short-circuit protection	No
<b>Switching capacity of the outputs</b>	
• with resistive load, max.	0.1 A
<b>Load resistance range</b>	
• upper limit	5 Ω
<b>Output voltage</b>	
• Rated value (DC)	5 V
• for signal "0", max.	0.4 V
• for signal "1", min.	L+ (-0.5 V)
• for signal "1", max.	6 V
<b>Output current</b>	
• for signal "1" permissible range, max.	0.1 A
<b>Cable length</b>	
• shielded, max.	50 m
<b>Interrupts/diagnostics/status information</b>	
Alarms	Yes
Diagnostics function	Yes
Diagnostics indication LED	

- for status of the inputs
- for status of the outputs

Yes

Yes

## Ambient conditions

Ambient temperature during operation	
• min.	-40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C
• max.	60 °C; = Tmax
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	5 000 m
• Ambient air temperature-barometric pressure-altitude	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)
Relative humidity	
• 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	
— Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
— to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
— to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
Usage in industrial process technology	
— Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)
— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	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)
Remark	

— 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

- Coatings for printed circuit board assemblies acc. to EN 61086
- Protection against fouling acc. to EN 60664-3
- 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; Class 2 for high availability

Yes; Type 1 protection

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.

40 g

**last modified:**

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