



SIPLUS S7-1200 SB 1223 2DI/2DQ based on 6ES7223-0BD30-0XB0 with conformal coating, -40...+60 °C, start up -25 °C, digital input/output 2 DI 24 V DC/2 DQ 24 V DC

General information	
Product type designation	SB 1223, DI 2x24 V DC/DQ 2x24 V DC
Supply voltage	
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Power loss	
Power loss, typ.	1 W
Digital inputs	
Number of digital inputs	2
Input voltage	
• Type of input voltage	DC
Input current	
• for signal "1", typ.	7 mA
Cable length	
• shielded, max.	50 m
Digital outputs	
Number of digital outputs	2
Short-circuit protection	No
Cable length	
• shielded, max.	50 m
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	

<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 	<p>* The supplied plug covers must remain in place over the unused interfaces during operation!</p>
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 • 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 	<p>Yes; Class 2 for high reliability</p> <p>Yes; Type 1 protection</p> <p>Yes; Discoloration of coating possible during service life</p> <p>Yes; Conformal coating, Class A</p>
Dimensions	
Width	38 mm
Height	62 mm
Depth	21 mm
last modified:	9/16/2021 