## Data sheet

SIPLUS S7-1200 SB1222 4DO -40...+60°C start up -25°C with conformal coating based on 6ES7222-1BD30-0XB0 . Digital output 4 DO 24 V DC 200 kHz



Figure similar

General information		
Product type designation	SB 1222, DQ 4x24 V DC 200 kHz	
Input ourrent		
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 outputs		
Number of digital outputs	4	
• in groups of	1	
Switching capacity of the outputs		
• with resistive load, max.	0.1 A	
Load resistance range		
• upper limit	10 Ω	

■ Rated value (DC) ■ for signal "0", max. ■ for signal "1", min. ■ 20 V  Output current  ■ for signal "1" permissible range, max. ■ for signal "0" residual current, max.  ■ for signal "0" residual current, max. ■ 10 μA  Cable length ■ shielded, max.  Interrupts/diagnostics/status information  Alarms		
• for signal "0", max. • for signal "1", min.  20 V  Output current  • for signal "1" permissible range, max. • for signal "1" permissible range, max. • for signal "0" residual current, max.  10 μA  Cable length • shielded, max.  Interrupts/diagnostics/status information  Alarms Yes  Diagnostics function  Permin. • for status of the outputs  Ambient temperature during operation • min. • min. • max.  Ambient temperature during storage/transportation • min. • max.  Altitude during operation relating to sea level • Installation altitude above sea level, max. • Ambient air temperature-barometric pressure- altitude • Installation altitude above sea level, max. • Ambient air temperature-barometric pressure- altitude • With condensation, tested in accordance with IEC 60068-2-38, max.  Resistance  Coolants and lubricants  — Resistant to commercially available coolants and lubricants  — Resistant to commercially available coolants and lubricants  — Resistant to commercially active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3	Output voltage	
• for signal "1", min.  Output current  • for signal "1" permissible range, max. • for signal "0" residual current, max.  10 μA  Cable length • shielded, max.  Interrupts/diagnostics/status information  Alarms Yes  Diagnostics function  Piagnostics function  • for status of the outputs  Ambient conditions  Ambient temperature during operation • min. • max.  Ambient temperature during storage/transportation • min. • max.  Ambient temperature during storage/transportation • min. • min. • max.  Ambient temperature during storage/transportation • min. • min. • min. • nax.  Ambient temperature during storage/transportation • min. • min. • min. • nax.  Ambient temperature during storage/transportation • min. • min. • min. • nax.  Ambient temperature during storage/transportation • min. • min. • min. • nax.  Ambient temperature during storage/transportation • min. • min. • min. • min. • nax.  Ambient temperature during storage/transportation • min. • min. • min. • nax.  Ambient temperature during to sea level • Installation altitude above sea level, max. • Ambient air temperature-barometric pressure-altitude • With condensation, tested in accordance with IEC 60068-2-38, max. • With condensation, tested in accordance with IEC 60068-2-38, max.  Resistance  Coolants and lubricants  Use in stationary industrial systems  — Resistant to commercially available coolants and lubricants  Use in stationary industrial systems  — to biologically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according according to EN 60721-3-3	<ul><li>Rated value (DC)</li></ul>	24 V
Output current  • for signal "1" permissible range, max. • for signal "0" residual current, max.  10 µA  Cable length • shielded, max.  Interrupts/diagnostics/status information  Alarms  Pes Diagnostics function  Por status of the outputs  Ambient conditions  Ambient conditions  Ambient temperature during operation • min. • max.  Ambient temperature during storage/transportation • min. • min	● for signal "0", max.	0.1 V; with 10 kOhm load
• for signal "1" permissible range, max. • for signal "0" residual current, max.  2able length • shielded, max.  Interrupts/diagnostics/status information  Alarms  Pes Diagnostics function  • for status of the outputs  Ambient conditions  Ambient temperature during operation • min. • max.  Ambient temperature during storage/transportation • min. • max.  Ambient temperature during storage/transportation • min. • max.  Ambient temperature during storage/transportation • min. • min. • min. • min. • A0 "C; = Tmin (fincl, condensation/frost); start-up @ -25 "C 60 "C; = Tmax  Ambient temperature during storage/transportation • min. • m	● for signal "1", min.	20 V
• for signal "0" residual current, max.  Cable length     • shielded, max.  Interrupts/diagnostics/status information  Alarms     Ves Diagnostics function  Piagnostics function  • for status of the outputs  Ambient conditions  Ambient temperature during operation  • min.     • max.  Ambient temperature during storage/transportation  • min.     • max.  Ambient temperature during storage/transportation  • min.     • max.  Ambient temperature during storage/transportation  • min.     • max.  Ambient agreement of the status of the outputs of the status of the outputs  • max.  Ambient temperature during storage/transportation  • min.     • max.  Abbient temperature during storage/transportation  ### 10 Code "C"  ### 140 PPa 795 PPa 100 m +2 000 m) //  ### Timin	Output current	
Cable length  • shielded, max.    So m	• for signal "1" permissible range, max.	0.1 A
Interrupts/diagnostics/status information  Alarms Yes Diagnostics function Yes Diagnostics indication LED  • for status of the outputs  Ambient conditions  Ambient temperature during operation  • min. • max.  Ambient temperature during storage/transportation  • min. • max.  Ambient temperature during storage/transportation  • min. • max.  Ambient temperature during storage/transportation  • min. • max.  Ambient air temperature during storage/transportation  • min. • max.  A littude during operation relating to sea level  • Installation altitude above sea level, max. • Ambient air temperature-barometric pressure-altitude  • Installation altitude above sea level, max. • Ambient air temperature-barometric pressure-altitude  • With condensation, tested in accordance with IEC 60068-2-38, max.  Resistance  Coolants and lubricants  — Resistant to commercially available coolants and lubricants  Use in stationary industrial systems  — to biologically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3	• for signal "0" residual current, max.	10 μΑ
Interrupts/diagnostics/status information  Alarms  Diagnostics function  For status of the outputs  Ambient conditions  Ambient temperature during operation  min. max.  Ambient temperature during storage/transportation  min. max.  Ambient temperature during storage/transportation  min. max.  Ad °C; = Tmin (incl. condensation/frost); start-up @ -25 °C  6 °C; = Tmax  Ad °C  Third (ad °C  Third	Cable length	
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Diagnostics function Diagnostics indication LED  • for status of the outputs  Ambient conditions  Ambient temperature during operation • min. • max.  Ambient temperature during storage/transportation • min. • max.  Ambient temperature during storage/transportation • min. • max.  Ambient temperature during storage/transportation • min. • max.  Ambient during operation relating to sea level • Installation altitude above sea level, max. • Ambient air temperature-barometric pressurealtitude  • Installation altitude above sea level, max. • Ambient air temperature-barometric pressurealtitude  • With condensation, tested in accordance with IEC 60068-2-38, max.  Resistance  Coolants and lubricants  — Resistant to commercially available coolants and lubricants  Use in stationary industrial systems  — to biologically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according according to EN 60721-3-3		
Diagnostics indication LED  • for status of the outputs  Ambient conditions  Ambient temperature during operation  • min. • max.  Ambient temperature during storage/transportation  • min. • max.  Ambient temperature during storage/transportation  • min. • max.  Ambient temperature during storage/transportation  • min. • max.  Ambient during operation relating to sea level  • Installation altitude above sea level, max. • Ambient air temperature-barometric pressurealtitude  • Installation altitude above sea level, max. • Ambient air temperature-barometric pressurealtitude  • With condensation, tested in accordance with IEC 60068-2-38, max.  Resistance  Coolants and lubricants  — Resistant to commercially available coolants and lubricants  — Resistant to commercially available coolants and lubricants  — to biologically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3		
Ambient conditions  Ambient temperature during operation  • min. • max.  Ambient temperature during storage/transportation  • min. • max.  Ambient temperature during storage/transportation  • min. • max.  Ambient temperature during storage/transportation  • min. • max.  Anticle during operation relating to sea level  • Installation altitude above sea level, max. • Ambient air temperature-barometric pressurealtitude  • Installation altitude above sea level, max. • Ambient air temperature-barometric pressurealtitude  • With condensation, tested in accordance with IEC 60068-2-38, max.  • Resistance  Coolants and lubricants  — Resistant to commercially available coolants and lubricants  Use in stationary industrial systems  — 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  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3	•	Yes
Ambient temperature during operation  • min. • max.  Ambient temperature during storage/transportation  • min. • max.  Ambient temperature during storage/transportation  • min. • max.  Ambient temperature during storage/transportation  • min. • max.  Antitude during operation relating to sea level  • Installation altitude above sea level, max. • Ambient air temperature-barometric pressurealtitude  • Installation altitude above sea level, max. • Ambient air temperature-barometric pressurealtitude  • With condensation, tested in accordance with IPC 60068-2-38, max.  Resistance  Coolants and lubricants  — Resistant to commercially available coolants and lubricants  Use in stationary industrial systems  — 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  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3	•	
## win.  ## win.  ## max.  ## wax.  ##	<ul> <li>for status of the outputs</li> </ul>	Yes
<ul> <li>min.</li> <li>max.</li> <li>60 °C; = Tmax</li> <li>Ambient temperature during storage/transportation</li> <li>min.</li> <li>max.</li> <li>40 °C</li> <li>max.</li> <li>70 °C</li> <li>Altitude during operation relating to sea level</li> <li>Installation altitude above sea level, max.</li> <li>Ambient air temperature-barometric pressurealtitude</li> <li>Minth condensation, tested in accordance with IEC 60068-2-38, max.</li> <li>Resistance</li> <li>Coolants and lubricants</li> <li>Tesistant to commercially available coolants and lubricants</li> <li>Use in stationary industrial systems</li> <li>Te No 60721-3-3</li> <li>— to chemically active substances according to EN 60721-3-3</li> <li>— to mechanically active substances according to EN 60721-3-3</li> <li>— to mechanically active substances according to EN 60721-3-3</li> <li>Te max</li> <li>40 °C; = Tmax</li> <li>A0 °C</li> <li>Cool C</li> <li>Timax - 10 K) at 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -10 K) at 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax -10 K) at 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax -10 K) at 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax -10 K) at 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax -10 K) at 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax -10 K) at 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax -10 K) at 795 h</li></ul>		
max.  Ambient temperature during storage/transportation      min.     max.  Altitude during operation relating to sea level      Installation altitude above sea level, max.     Ambient air temperature-barometric pressurealtitude      Installation altitude above sea level, max.     Ambient air temperature-barometric pressurealtitude      With condensation, tested in accordance with IEC 60068-2-38, max.  Resistance  Coolants and lubricants  — Resistant to commercially available coolants and lubricants  Use in stationary industrial systems  — to biologically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3		40 °C. – Train (incl. condensation (freely)
Ambient temperature during storage/transportation  • min. • max.  Altitude during operation relating to sea level  • Installation altitude above sea level, max. • Ambient air temperature-barometric pressure-altitude  • With condensation, tested in accordance with IEC 60068-2-38, max.  Resistance  Coolants and lubricants  — Resistant to commercially available coolants and lubricants  Use in stationary industrial systems  — to biologically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3	• min.	
<ul> <li>min.</li> <li>max.</li> <li>Altitude during operation relating to sea level</li> <li>Installation altitude above sea level, max.</li> <li>Ambient air temperature-barometric pressurealtitude</li> <li>altitude</li> <li>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) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa (+2 000 m +2 000 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa (+2 000 m +2 000 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa (+2 000 m +2 000 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa 540 hPa</li></ul>		60 °C; = Tmax
<ul> <li>max.</li> <li>Altitude during operation relating to sea level</li> <li>Installation altitude above sea level, max.</li> <li>Ambient air temperature-barometric pressurealititude</li> <li>Ambient air temperature-barometric pressurealititude</li> <li>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) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa (+2 000 m +2 000 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa 540 hPa 540</li></ul>	Ambient temperature during storage/transportation	
Altitude during operation relating to sea level  Installation altitude above sea level, max.  Ambient air temperature-barometric pressurealtitude  Image: Timin 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) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -10 K) at 795 hPa 658 hPa (+2 000 m +2 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (-1 000 m +2 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa	• min.	
Installation altitude above sea level, max.  Ambient air temperature-barometric pressurealtitude  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) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (-1 000 m +2 000 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (-1 000 m +3 500 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (-1 000 m +5 000 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (-1 000 m +5 000 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (-1 000 m +3 500 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (-1 000 m +3 500 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (-1 000 m +3 500 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (-1 000 m +3 500 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (-1 000 m +3 500 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (-1 000 m +5 000 m) // Tmin (Tmax -10 K) at 658 hPa 540 hPa (-1 000 m +5 000 m) // Tmin	• max.	70 °C
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.  Resistance  Coolants and lubricants  — Resistant to commercially available coolants and lubricants  Use in stationary industrial systems  — 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  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3	Altitude during operation relating to sea level	
altitude  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) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+2 000 m +3 500 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+2 000 m +3 500 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa (+2 500 m +5 000 m) // Tmin (Tmax -20 K) at 658 hPa (+2 500 m +5 00 m) // Tmin (Tmax -20 K) at 658 hPa (+2 500 m +5 00 m) // Tmin (Tmax -20 K) at 658 hPa (+2 500 m +5 00 m) // Tmin (Tmax -20 K) at 658 hPa (+2 500 m +5 00 m) // Tmin (Tmax -20 K) at 658 hPa (+2 500 m +5 00 m) // Tmin (Tmax -20 K) at 658 hPa (+2 500 m +5 00 m) // Tmin (Tmax -20 K) at 658 hPa (+2	<ul> <li>Installation altitude above sea level, max.</li> </ul>	5 000 m
● With condensation, tested in accordance with IEC 60068-2-38, max.  Resistance  Coolants and lubricants  — Resistant to commercially available coolants and lubricants  Use in stationary industrial systems  — 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  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3	·	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
Resistance  Coolants and lubricants  — Resistant to commercially available coolants and lubricants  Use in stationary industrial systems  — to biologically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3	Relative humidity	
Coolants and lubricants  — Resistant to commercially available coolants and lubricants  Use in stationary industrial systems  — 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  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3		
<ul> <li>Resistant to commercially available coolants and lubricants</li> <li>Use in stationary industrial systems</li> <li>to biologically active substances according to EN 60721-3-3</li> <li>to chemically active substances according to EN 60721-3-3</li> <li>to EN 60721-3-3</li> <li>to mechanically active substances according to EN 60721-3-3</li> <li>Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request</li> <li>Yes; Class 3C4 (RH &lt; 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</li> <li>Yes; Class 3S4 incl. sand, dust, *</li> </ul>		
Use in stationary industrial systems  — 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 — to mechanically active substances according according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3  — to mechanically active substances according to EN 60721-3-3	Coolants and lubricants	
<ul> <li>to biologically active substances according to EN 60721-3-3</li> <li>to chemically active substances according to EN 60721-3-3</li> <li>To mechanically active substances according to EN 60721-3-3</li> <li>To mechanically active substances according to EN 60721-3-3</li> <li>Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request</li> <li>Yes; Class 3C4 (RH &lt; 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</li> <li>Yes; Class 3S4 incl. sand, dust, *</li> </ul>		Yes; Incl. diesel and oil droplets in the air
<ul> <li>to biologically active substances according to EN 60721-3-3</li> <li>to chemically active substances according to EN 60721-3-3</li> <li>To mechanically active substances according to EN 60721-3-3</li> <li>To mechanically active substances according to EN 60721-3-3</li> <li>Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request</li> <li>Yes; Class 3C4 (RH &lt; 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</li> <li>Yes; Class 3S4 incl. sand, dust, *</li> </ul>	Use in stationary industrial systems	
<ul> <li>to chemically active substances according to EN 60721-3-3</li> <li>to mechanically active substances according to EN 60721-3-3</li> <li>Yes; Class 3C4 (RH &lt; 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</li> <li>Yes; Class 3S4 incl. sand, dust, *</li> </ul>	to biologically active substances according	
— to mechanically active substances  Yes; Class 3S4 incl. sand, dust, *  according to EN 60721-3-3	— to chemically active substances according	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-
	— to mechanically active substances	
	Use on ships/at sea	

Yes; Class 6B2 mold and fungal spores (excluding fauna); Class - to biologically active substances according to EN 60721-3-6 6B3 on request Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-— to chemically active substances according 52 (severity degree 3); \* to EN 60721-3-6 Yes; Class 6S3 incl. sand, dust; \* — to mechanically active substances according to EN 60721-3-6 Usage in industrial process technology Yes; Class 3 (excluding trichlorethylene) - Against chemically active substances acc. to EN 60654-4 - Environmental conditions for process, Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 measuring and control systems acc. to ANSI/ISA-71.04 permissible); level LC3 (salt spray) and level LB3 (oil) Remark \* The supplied plug covers must remain in place over the unused - Note regarding classification of environmental conditions acc. to EN 60721, interfaces during operation! EN 60654-4 and ANSI/ISA-71.04 Conformal coating Yes; Class 2 for high availability Coatings for printed circuit board assemblies acc. to EN 61086 • Protection against fouling acc. to EN 60664-3 Yes; Type 1 protection Yes; Discoloration of coating possible during service life • Military testing according to MIL-I-46058C, Amendment 7 Qualification and Performance of Electrical Yes; Conformal coating, Class A Insulating Compound for Printed Board Assemblies according to IPC-CC-830A Enclosure material (front) Plastic Yes Dimensions Width 38 mm Height 62 mm Depth 21 mm Weights Weight, approx. 40 g

last modified:

08/27/2019