## SIEMENS

## Data sheet

## 6AG1222-1HH32-2XB0



SIPLUS S7-1200 SM 1222 16DQ RLY based on 6ES7222-1HH32-0XB0 with conformal coating, -40...+70 °C, start up -25 °C, digital output 16 DQ, relay 2 A

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Supply voltage           permissible range, lower limit (DC)         20.4 V	16x relay/2 A				
permissible range, lower limit (DC) 20.4 V					
permissible range, upper limit (DC) 28.8 V	28.8 V				
Input current					
from backplane bus 5 V DC, max. 135 mA					
Digital outputs					
• from load voltage L+, max. 11 mA/relay c	11 mA/relay coil				
Power loss					
Power loss, typ. 8.5 W	8.5 W				
Digital outputs					
Number of digital outputs 16					
• in groups of 1	1				
Short-circuit protection No; to be prov	No; to be provided externally				
Switching capacity of the outputs					
• with resistive load, max. 2 A	2 A				
• on lamp load, max. 30 W with DC	c, 200 W with AC				
Output voltage					
Rated value (DC)     5 V DC to 30	V DC				
Rated value (AC)     5 V AC to 250	) V AC				
Output current					
for signal "1" rated value     2 A					
Output delay with resistive load					
• "0" to "1", max. 10 ms					
• "1" to "0", max. 10 ms					
Total current of the outputs (per group)					
horizontal installation					
— up to 50 °C, max. 10 A; Current	per mass				
Relay outputs					
	16 24 V				
	mechanically 10 million, at rated load voltage 100 000				
Switching capacity of contacts					
— with inductive load, max. 2 A					
	30 W with DC, 200 W with AC				
	2 A				
Cable length					

• unshielded, max.         500 m           Interrupts/diagnostic status information         Yes           Alarms         • Diagnostic alarm         Yes           • Diagnostic alarm         Yes           Diagnostic indication LED         • Yes           • for status of the outputs         Yes           • for status of the outputs         Yes           • for status of the outputs         Yes           • Potential separation         Petential separation digital outputs           • between the channels, in groups of         4           • between the channels in groups of         4           • between different circuits         750 V AC for 1 minute           Portical sof protection         IP20           Ambient conditions         IP20           Free fail         • Cass of protection           • max.         0.3 m; five times, in product package           Anbient temperature during operation         -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C      <
Interrupts/diagnostics/status information           Diagnostic function         Yes           Alarms         • Diagnostic alarm         Yes           Diagnostic alarm         Yes           Diagnostic infaction LED         • for status of the outputs         Yes           • for status of the outputs         Yes         Yes           Potential separation         Yes         Yes           Potential separation digital outputs         Relays         • between the channels and backplane bus         1 500 V AC for 1 minute           Permissible potential difference         Degree of protection         IP 20           Ambient conditions         750 V AC for 1 minute         Permissible potential difference           Degree of protection         IP20         Ambient conditions           Free fail         • Fail height, max.         0.3 m; five times, in product package           Ambient temperature during operation         -40 °C; = Tmin (incl. condensation/frost); start-up @-25 °C           • role (restart, min.         -26 °C         70 °C number of simultaneously activated outputs 8 (no adjacent points) for herizontal mounting position           • At cold restart, min.         -26 °C         70 °C           Ambient itemperature during storage/transportation         • min.         -40 °C on mount =
Diagnostics function       Yes         Alarms       • Diagnostic alarm         • Diagnostic alarm       Yes         Diagnostic indication LED       • for status of the outputs         • for status of the outputs       Yes         • for maintenance       Yes         Potential separation       Petermissible potential separation         Potential separation       Relays         • between the channels, in groups of       4         • between the channels, in groups of       4         • between the channels and backplane bus       1500 V AC for 1 minute         Permissible potential difference       Degree and class of protection         IP degree of protection       IP20         Ambient conditions       IP20         Ambient temperature during operation       -40 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position -25 °C         • max.       70 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position -25 °C         • max.       70 °C         • min.       -40 °C         • min.
Alarms       Diagnostic alarm       Yes         Diagnoses       • Monitoring the supply voltage       Yes         Diagnostics indication LED       • for status of the outputs       Yes         • of or maintenance       Yes         Potential separation       Yes         Potential separation digital outputs       • fee maintenance         • between the channels, in groups of       4         • between the channels and backplane bus       1 500 V AC for 1 minute         Permissible potential difference       • between different circuits         Degree and class of protection       IP20         Ambient conditions       IP20         Free fall       • fall height, max.         0.3 m; five times, in product package         Ambient temperature during operation       -40 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position         • At cold restart, min.       -25 °C         Ambient temperature during storage/transportation       -60 °C         • max.       70 °C;         • max.       70 °C         • Monitor netating to sea level       -25 °C         • Installation altitude above sea level, max.       -40 °C         • Installation altitude above sea level, max.       2000 m <td< td=""></td<>
Diagnoses       Monitoring the supply voltage       Yes         Diagnostics indication LED       • for status of the outputs       Yes         • for status of the outputs       Yes         • for maintenance       Yes         Potential separation       Yes         Potential separation digital outputs       Relays         • between the channels, in groups of       4         • between the channels and backplane bus       1 500 V AC for 1 minute         Permissible potential difference       750 V AC for 1 minute         Degree and class of protection       IP20         Ambient conditions       Free fail         • Fail height, max.       0.3 m; five times, in product package         Ambient temperature during operation       -25 °C         • min.       -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C         • max.       70 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position         • At cold restart, min.       -25 °C         • Ambient temperature during storage/transportation       • min.         • max.       70 °C         Ambient air temperature barometric pressure- aitude       • Installation altitude above sea level, max.         • Ambient air temperature-barometric pressure- aitude       2 000 m +2 000 m +2 00
• Monitoring the supply voltage       Yes         Diagnostics indicaton LED       • for status of the outputs         • for status of the outputs       Yes         • for maintenance       Yes         Potential separation       Potential separation digital outputs         • between the channels, in groups of       4         • between the channels and backplane bus       1 500 V AC for 1 minute         Permissible potential difference       Etween different circuits         between different circuits       750 V AC for 1 minute         Degree and class of protection       IP20         Ambient conditions       Free fall         • Fall height, max.       0.3 m; five times, in product package         Ambient temperature during operation       -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C         • min.       -25 °C         Ambient temperature during storage/transportation       -70 °C;         • Mation altitude above sea level       -         • Installation altitude above sea level, max.       2000 m         • Ambient it temperature-barometric pressure-altitude       2000 m         • Trax - 10 K) at 795 hPa (-1000 m, +2 000 m) // Tmin (Tmax - 10 K) at 795 hPa (-1000 m, +2 000 m) // Tmin (Tmax - 10 K) at 795 hPa (-1000 m, +2 000 m) // Tmin (Tmax - 20 K) at 658 hPa 560 hPa (+3 500 m +5 000 m); abov 2 000 m max. 132 V AC
Diagnostics indication LED <ul> <li>for status of the outputs</li> <li>for maintenance</li> <li>Yes</li> <li>Potential separation</li> <li>Potential separation digital outputs</li> <li>between the channels</li> <li>between the channels in groups of</li> <li>between the channels and backplane bus</li> <li>1 500 V AC for 1 minute</li> <li>Permissible potential difference</li> <li>between different circuits</li> <li>750 V AC for 1 minute</li> <li>Degree and class of protection</li> <li>IP20</li> <li>Ambient conditions</li> <li>Free fall</li> <li>Fall height, max.</li> <li>0.3 m; five times, in product package</li> <li>Ambient temperature during operation</li> <li>min.</li> <li>-40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C</li> <li>70 °C</li> <li>Ambient altitude above sea level</li> <li>Installation altitude above sea level, max.</li> <li>Ambient air temperature-barometric pressure- altitude</li> <li>Condition max.</li> <li>2000 m</li> <li>Tmin Tmax at 1140 hPa 795 hPa (-1000 m + 2000 m) // Tmin  (Tmax - 10 K) at 795 hPa 560 hPa (+3 500 m + 500 m); abov 2000 m max.</li> <li>2000 m max. 132 V AC</li> <li>Relatve humidity</li> <li>Relatve humidity</li> <li>Relatve humidity</li> <li>Condensation Proceed and the proceed and proceed and the procee</li></ul>
• for status of the outputs         Yes           • for maintenance         Yes           Potential separation         Potential separation digital outputs           • between the channels         Relays           • between the channels, in groups of         4           • between the channels and backplane bus         1 500 V AC for 1 minute           Pormissible potential difference            between different circuits         750 V AC for 1 minute           Degree and class of protection         IP20           Ambient conditions            Free fall         0.3 m; five times, in product package           Ambient temperature during operation         -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C           max.         0.3 m; five times, in product package           Ambient temperature during operation         -40 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position           • At cold restart, min.         -25 °C           Ambient temperature during storage/transportation         -40 °C           • max.         70 °C           Antibient temperature during to sea level         2 000 m           • Installation altitude above sea level, max.         2 000 m           • Installation altitude above sea level, max.         2 000 m<
• for maintenance       Yes         Potential separation       Potential separation digital outputs         • between the channels       Relays         • between the channels and backplane bus       1 500 V AC for 1 minute         Permissible potential difference       1 500 V AC for 1 minute         Degree and class of protection       IP20         Ambient conditions       Free fall         • Fall height, max.       0.3 m; five times, in product package         Ambient temperature during operation       -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C         • min.       -40 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position         • At cold restart, min.       -25 °C         Ambient temperature during storage/transportation       -40 °C         • max.       70 °C         Antibuted above sea level       -25 °C         • max.       70 °C         Attitude during operation relating to sea level       -200 m         • Installation attitude above sea level, max.       2 000 m         • Installation attitude above sea level, max.       2 000 m         • Installation attitude above sea level, max.       2 000 m         • Installation attitude above sea level, max.       2 000 m         • Imin Tmax ± 1 140 hPa
Potential separation         Potential separation digital outputs         • between the channels       Relays         • between the channels, in groups of       4         • between the channels and backplane bus       1 500 V AC for 1 minute         Permissible potential difference          between different circuits       750 V AC for 1 minute         Degree and class of protection       IP20         Ambient conditions          Free fall       •         • Fall height, max.       0.3 m; five times, in product package         Ambient temperature during operation       -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C         • min.       -40 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position         • At cold restart, min.       -25 °C         Ambient temperature during storage/transportation       -25 °C         • min.       -40 °C         • max.       70 °C         Altitude during operation relating to sea level       -         • Installation altitude above sea level, max.       2 000 m         • Ambient arit emperature-barometric pressure- altitude       Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax - 10 K) at 795 hPa 540 hPa (+3 500 m +5 00 m) // au
Potential separation digital outputs <ul> <li>between the channels</li> <li>between the channels, in groups of</li> <li>between the channels and backplane bus</li> <li>1500 V AC for 1 minute</li> </ul> Permissible potential difference            between different circuits       750 V AC for 1 minute         Degree and class of protection <ul> <li>IP degree of protection</li> <li>IP degree of protection</li> <li>IP degree of protection</li> <li>IP degree of protection</li> <li>IP degree and class of protection</li> <li>IP degree of a degree of protection</li> <li>IP degree of a degree of protection</li> <li>IP degree of protection</li> <li>IP degree of a degree of protection&lt;</li></ul>
• between the channels       Relays         • between the channels, in groups of       4         • between the channels and backplane bus       1 500 V AC for 1 minute         Permissible potential difference       750 V AC for 1 minute         Degree and class of protection       IP degree of protection         IP degree of protection       IP20         Ambient conditions       Free fall         • Fall height, max.       0.3 m; five times, in product package         Ambient temperature during operation       -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C         • max.       70 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position         • At cold restart, min.       -25 °C         Ambient temperature during storage/transportation       -40 °C         • min.       -40 °C         • max.       70 °C         Attitude during operation relating to sea level       -40 °C         • max.       70 °C         Attitude above sea level, max.       2 000 m         • hashent air temperature-barometric pressure- attitude       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) // Tmi (Tmax - 20 K) at 658 hPa 658 hPa (+3 500 m +5 000 m); abov 2 000 m max. 132 V AC
• between the channels, in groups of       4         • between the channels and backplane bus       1 500 V AC for 1 minute         Permissible potential difference       750 V AC for 1 minute         Degree and class of protection       IP20         Ambient conditions       IP20         Free fall       0.3 m; five times, in product package         Ambient temperature during operation       -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C         • min.       -40 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position         • At cold restart, min.       -25 °C         Ambient temperature during storage/transportation       -40 °C         • max.       70 °C         Altitude during operation relating to sea level       -25 °C         • max.       70 °C         Ambient temperature during storage/transportation       -25 °C         • max.       70 °C         Altitude during operation relating to sea level       -         • Installation altitude above sea level, max.       2 000 m         • Ambient air temperature-barometric pressure-altitude       2 000 m
between the channels and backplane bus     1 500 V AC for 1 minute  Permissible potential difference  between different circuits     750 V AC for 1 minute  Degree and class of protection  IP degree of protection IP degree of protecting to generation IP degree of protection IP degree of pr
Permissible potential difference         between different circuits       750 V AC for 1 minute         Degree and class of protection       IP 20         Ambient conditions       IP 20         Free fall <ul> <li>Fall height, max.</li> <li>Maint temperature during operation</li> <li>min.</li> <li>-40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C</li> <li>max.</li> <li>At cold restart, min.</li> <li>-40 °C; = Tmax; Tmax &gt; +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position</li> <li>-25 °C</li> </ul> <li>Ambient temperature during storage/transportation         <ul> <li>min.</li> <li>-40 °C</li> <li>max.</li> <li>At cold restart, min.</li> <li>-40 °C</li> <li>max.</li> <li>At cold restart, min.</li> <li>-25 °C</li> <li>Ambient temperature during storage/transportation</li> <li>min.</li> <li>-40 °C</li> <li>max.</li> <li>70 °C</li> </ul> </li> <li>Altitude during operation relating to sea level</li> <li>Installation altitude above sea level, max.</li> <li>Ambient air temperature-barometric pressure- altitude</li> <li>Installation altitude above sea level, max.</li> <li>Ambient air temperature-barometric pressure- altitude</li> <li>Relative humidity</li>
between different circuits       750 V AC for 1 minute         Degree and class of protection       IP 20         Ambient conditions       IP20         Ambient conditions       0.3 m; five times, in product package         Ambient temperature during operation       0.3 m; five times, in product package         Ambient temperature during operation       -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C         • max.       70 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position         • At cold restart, min.       -25 °C         • Ambient temperature during storage/transportation       -40 °C         • max.       70 °C         Altitude during operation relating to sea level       2000 m         • Installation altitude above sea level, max.       2 000 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 (-2000 m +3 500 m) // Tmin (Tmax - 10 K) at 795 hPa (-3 000 m +3 500 m) // Tmin (Tmax - 10 K) at 795 hPa (-3 000 m +3 500 m) // Tmin (Tmax - 10 K) at 795 hPa (-4 000 m +5 000 m); abov 2 000 m max. 132 V AC
Degree and class of protection       IP20         Ambient conditions       IP20         Free fall       0.3 m; five times, in product package         Ambient temperature during operation       0.3 m; five times, in product package         Ambient temperature during operation       -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C         max.       70 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position         • At cold restart, min.       -25 °C         Ambient temperature during storage/transportation       -40 °C         • max.       70 °C         Altitude during operation relating to sea level       -40 °C         • Installation altitude above sea level, max.       2 000 m         • Ambient air temperature-barometric pressure-altitude       2 000 m
IP degree of protection       IP20         Ambient conditions       Free fall         • Fall height, max.       0.3 m; five times, in product package         Ambient temperature during operation       • 40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C         • max.       -40 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position         • At cold restart, min.       -25 °C         Ambient temperature during storage/transportation       -40 °C         • max.       70 °C         Altitude during operation relating to sea level       -40 °C         • Installation altitude above sea level, max.       2 000 m         • Ambient air temperature-barometric pressureative attitude       Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax - 10 K) at 795 hPa (-2000 m +3 500 m) // Tmin (Tmax - 20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m); abov 2 000 m max. 132 V AC
Ambient conditions         Free fall         • Fall height, max.       0.3 m; five times, in product package         Ambient temperature during operation       -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C         • max.       -40 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position         • At cold restart, min.       -25 °C         Ambient temperature during storage/transportation       -40 °C         • min.       -40 °C         • max.       70 °C         Attitude during operation relating to sea level       -40 °C         • Installation altitude above sea level, max.       2 000 m         • Ambient air temperature-barometric pressure- altitude       2 000 m         • Comparison of K at 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin         • Comparison of K at 140 hPa 795 hPa (-1 000 m +3 500 m) // Tmin         • Comparison of K at 140 hPa 795 hPa (-1 000 m +3 500 m) // Tmin         • Comparison of K at 140 hPa 795 hPa (-1 000 m +3 500 m) // Tmin         • Comparison of K at 140 hPa 795 hPa (-1 000 m +3 500 m) // Tmin         • Comparison of K at 140 hPa 795 hPa (-1 000 m +3 500 m) // Tmin         • Comparison of K at 140 hPa 795 hPa (-1 000 m +3 500 m) // Tmin         • Comparison of K at 140 hPa 795 hPa 658 hPa (+3 500 m +5 000 m); abov
Free fall       0.3 m; five times, in product package         Ambient temperature during operation       -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C         • min.       -40 °C; = Tmax; Tmax > +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position         • At cold restart, min.       -25 °C         • Ambient temperature during storage/transportation       -40 °C         • max.       70 °C         Ambient goperation relating to sea level       -40 °C         • Installation altitude above sea level, max.       70 °C         Altitude       2 000 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); abov 2 000 m max. 132 V AC
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<ul> <li>min.</li> <li>-40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C</li> <li>70 °C; = Tmax; Tmax &gt; +60 °C number of simultaneously activated outputs 8 (no adjacent points) for horizontal mounting position</li> <li>At cold restart, min.</li> <li>-25 °C</li> <li>Ambient temperature during storage/transportation         <ul> <li>max.</li> <li>-40 °C</li> <li></li></ul></li></ul>
<ul> <li>max.</li> <li>At cold restart, min.</li> <li>At cold restart, min.</li> <li>-25 °C</li> <li>Ambient temperature during storage/transportation         <ul> <li>min.</li> <li>-40 °C</li> <li>max.</li> <li>70 °C -</li> </ul> </li> <li>Altitude during operation relating to sea level         <ul> <li>Installation altitude above sea level, max.</li> <li>Ambient air temperature-barometric pressure-altitude</li> <li>Coord max.</li> </ul> </li> <li>Ambient air temperature during to pressure-altitude</li> <li>Coord max 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); abov 2 000 m max. 132 V AC</li> </ul>
• At cold restart, min.       -25 °C         Ambient temperature during storage/transportation       -40 °C         • min.       -40 °C         • max.       70 °C         Altitude during operation relating to sea level       -40 °C         • Installation altitude above sea level, max.       2 000 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); abov 2 000 m max. 132 V AC
Ambient temperature during storage/transportation         • min.       -40 °C         • max.       70 °C         Altitude during operation relating to sea level         • Installation altitude above sea level, max.       2 000 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) // Tmi (Tmax - 20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m); abov 2 000 m max. 132 V AC
<ul> <li>min.</li> <li>max.</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 pressure- altitude</li> <li>Mathematical Content of Content of</li></ul>
max. 70 °C Altitude during operation relating to sea level     Installation altitude above sea level, max.     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) // Tmi     (Tmax - 20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m); abov     2 000 m max. 132 V AC
Altitude during operation relating to sea level         • Installation altitude above sea level, max.         • 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); abov 2 000 m max. 132 V AC         Relative humidity
<ul> <li>Installation altitude above sea level, max.</li> <li>Ambient air temperature-barometric pressure- 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) // Tmi  (Tmax - 20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m); abov 2 000 m max. 132 V AC</li> </ul>
<ul> <li>Ambient air temperature-barometric pressure- 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); abov 2 000 m max. 132 V AC</li> </ul>
altitude       (Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmi         (Tmax - 20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m); abov         2 000 m max. 132 V AC
60068-2-38, max. condensation conditions)
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 Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of
<ul> <li>to biologically active substances according to EN 60721-3-3</li> <li>to chemically active substances according to</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</li> </ul>
EN 60721-3-3 (severity degree 3); * — to mechanically active substances according to — to mechanically active substances according to — to mechanically active substances according to
EN 60721-3-3 Use on ships/at sea
— to biologically active substances according to Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3
<ul> <li>EN 60721-3-6</li> <li>Tes, Class 6D2 field and fungal spores (excluding faulta), class 6D3 frequest</li> <li>Tes, Class 6D2 field and fungal spores (excluding faulta), class 6D3 frequest</li> <li>Tes, Class 6D3 field and fungal spores (excluding faulta), class 6D3 frequest</li> <li>Tes, Class 6D3 field and fungal spores (excluding faulta), class 6D3 frequest</li> <li>Tes, Class 6D3 field and fungal spores (excluding faulta), class 6D3 field and fungal spores (excluding faulta), class 6D3 frequest</li> </ul>
EN 60721-3-6 (severity degree 3); * — to mechanically active substances according to — to mechanically active substances according to
EN 60721-3-6 Usage in industrial process technology
— Against chemically active substances acc. to     EN 60654-4     Yes; Class 3 (excluding trichlorethylene)
<ul> <li>Environmental conditions for process,</li> <li>measuring and control systems acc. to ANSI/ISA-</li> <li>Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible</li> </ul>

71.04	level LC3 (salt spray) and level LB3 (oil)		
Remark			
<ul> <li>— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04</li> </ul>	* The supplied plug covers must remain in place over the unused interfaces during operation!		
Conformal coating			
<ul> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> </ul>	Yes; Class 2 for high reliability		
<ul> <li>Protection against fouling acc. to EN 60664-3</li> </ul>	Yes; Type 1 protection		
<ul> <li>Military testing according to MIL-I-46058C, Amendment 7</li> </ul>	Yes; Discoloration of coating possible during service life		
<ul> <li>Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> </ul>	Yes; Conformal coating, Class A		
connection method / header			
required front connector	Yes		
Mechanics/material			
Enclosure material (front)			
Plastic	Yes		
Dimensions			
Width	45 mm		
Height	100 mm		
Depth	75 mm		
Weights			
Weight, approx.	260 g		

last modified:

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