Data sheet 6AG2155-6AA01-4BN0



SIPLUS ET 200SP IM155-6PN ST BA TX rail based on 6ES7155-6AA01-0BN0 with conformal coating, -40...+70 °C, OT4 with ST1/2 (+85 °C for 10 minutes), bundle PROFINET IM, 1 slot for BusAdapter, max. 32 I/O modules and 16 ET 200AL modules, single hot swap, bundle consists of: interface module (6AG2155-6AU01-4BN0), server module (6AG1193-6PA00-7AA0), BusAdapter BA 2xRJ45 (6AG2193-6AR00-4AA0)

General information	
Product type designation	IM 155-6 PN ST
Product function	
● I&M data	Yes; I&M0 to I&M3
 Module swapping during operation (hot swapping) 	Yes; Single hot swapping
• Isochronous mode	No
Engineering with	
STEP 7 TIA Portal configurable/integrated from version	see entry ID: 109746275
Configuration control	
via dataset	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Short-circuit protection	Yes
Mains buffering	
 Mains/voltage failure stored energy time 	10 ms
Input current	
Current consumption (rated value)	450 mA
Current consumption, max.	550 mA
Inrush current, max.	3.7 A
l²t	0.09 A²·s
Power	
Infeed power to the backplane bus	4.5 W
Power loss	
Power loss, typ.	1.9 W
Address area	
Address space per module	
 Address space per module, max. 	256 byte; per input / output
Address space per station	
 Address space per station, max. 	512 byte; Dependent on configuration
Hardware configuration	
Rack	
Modules per rack, max.	32; + 16 ET 200AL modules
Submodules	
Number of submodules per station, max.	256
Interfaces	
Number of PROFINET interfaces	1; 2 ports (switch)
1. Interface	

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Interface types	Very Day acceptabled Dura Adv. 1. DA O. D. 1.5
RJ 45 (Ethernet)	Yes; Pre-assembled BusAdapter BA 2x RJ45
Number of ports	2
 integrated switch 	Yes
BusAdapter (PROFINET)	Yes; Applicable BusAdapter: BA 2x RJ45, BA 2x FC
Protocols	
PROFINET IO Device	Yes
Open IE communication	Yes
Media redundancy	Yes; PROFINET MRP
PROFINET IO Device	
Services	
— IRT	Yes; with send cycles of between 250 µs and 4 ms in increments of 125 µs
— PROFlenergy	Yes
 Prioritized startup 	Yes
— Shared device	Yes
Number of IO Controllers with shared device, max.	2
Interface types	
RJ 45 (Ethernet)	
Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 10 Mbps	Yes; for Ethernet services
• 100 Mbps	Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
 Autonegotiation 	Yes
Autocrossing	Yes
Protocols	
Redundancy mode	
PROFINET system redundancy (S2)	No
Media redundancy	
— MRP	Yes
— MRPD	No
Open IE communication	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes
Interrupts/diagnostics/status information	
Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes
Diagnostics indication LED	
• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
MAINT LED	Yes; Yellow LED
 Monitoring of the supply voltage (PWR-LED) 	Yes; green PWR LED
Connection display LINK TX/RX	Yes; 2x green link LEDs on BusAdapter
Potential separation	
between backplane bus and electronics	No
between PROFINET and all other circuits	Yes; 1 500 V AC
between supply and all other circuits	No
Permissible potential difference	
between different circuits	Safety extra low voltage SELV
Isolation	
Isolation tested with	750 V DC (type test) and according to EN 50155 (routine test)
Standards, approvals, certificates	
Network loading class	2
Security level	According to Security Level 1 Test Cases V1.1.1
Railway application	
• EN 50121-3-2	Yes; EMC for rail vehicles
• EN 50121-4	Yes; EMC for signal and telecommunications systems
• EN 50124-1	Yes; Railway applications - overvoltage category OV2; pollution degree PD2; rated surge voltage UNi = 0.5 kV; UNm = 24 V DC
• EN 50125-1	Yes; Rail vehicles - see ambient conditions
● EN 50125-2	Yes: Stationary electrical equipment - see ambient conditions

- EN 50155 - EN 61373 - Fire protection act to EN 45545 2 - Ambient conditions - Ambient conditions - Ambient experiture during operation - Incording a peration of peration of a peration - Incording a peration of peration of a perati	● EN 50125-3	Yes; Signal and telecommunications systems - see ambient conditions; vibrations and shocks: Application point outside of tracks (1 m to 3 m away from track)
New Price protection acc. to EN 45545 2 **Ambient conditions **Ambient temperature during operation** **Noticontal installation, min.** **Noticontal installation, min.** **Vertical installation, min.** **Installation attitude above sea level, mix.** **Ambient air temperature-barometric pressure-altitude** **Resistance** **Coolinits and libricants** **Vertical installation, min.**	● EN 50155	Yes; Rail vehicles - temperature class OT4, ST1/ST2, horizontal mounting
Ambient semperature during operation • hortzontal installation, min. • hortzontal installation, min. • vertical installation attitude above sea level, mix. • Ambient air temperature-barometric pressure-altitude Resisten bruncity • With condensation, tested in accordance with IEC 60083- 2-38, mix. • Resistance Coolents and lubricants — Resistant to commercially available coolans and lubricants — to biologically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-5 — to chemically active substances according to EN 60721-3-5 — to chemically active substances according to EN 60721-3-5 — to chemically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-5-5 — to mechanically active s	• EN 61373	Yes; Rail vehicles - vibrations and shocks: Category 1 Class A/B
Ambient temperature during operation • horizontal installation, min. • vertical installation max. 50°C; = Train (incl. condensation/first) 50°C; = Train (incl. condensation for provise was level. max. 50°C; = Train (incl. condensation for provise was level. max. 50°C; = Train (incl. condensation/first) 50°C; = Train (in	• Fire protection acc. to EN 45545-2	Yes; For proof of conformity, see Service & Support
+ horizontal installation, mix. + horizontal installation, mix. + vertical installation altitude above sea level, mix. + Ambient air temperature-barometric pressure-altitude Relative humidity + with condensation, tested in accordance with IEC 60068-2-38, max Resistance - Resistant to commercially available coolants and lubricants - Versil installation in the programment of	Ambient conditions	
Norzental installation, mix. vertical installation mix	Ambient temperature during operation	
vertical installation, min. vertical installation at minute above sea level, min. vertical installation at minute above seal level, min. vertical installation at minute above sea level, min. vertical installation at minute above seal level, min. vertical installation at minute and installation and performance according to EN core. vertical installation at minute and installation and performance according to EN core. vertical minute and installation at minute and installation and performance of lectrical installation and Performance of Pictorical installation and Performance of Pictorical installation and Performance of Electrical installation and Performance of Elec	 horizontal installation, min. 	-40 °C; = Tmin (incl. condensation/frost)
Altitude during operation relating to sea level Installation affaired prove sea level, max. Ambient air temperature-barometric pressure-altitude Relative huminotity With condensation, tested in accordance with IEC 60088- 2-38, max. Resistance Coolants and lubricants — In the condensation of frost (no commissioning in bedewed state), horizontal installation Yes; Incl. diesel and oil droplets in the air Ubricants Ves in the diese and oil droplets in the air Ubricants Ves in the diese and oil droplets in the air Ves; Class 382 mold, fungus and dry rot spores (with the exception of fauna); Class 383 on request Ves; Class 384 incl. sand, dust, * 0721-3-3 — to mechanically active substances according to EN 60721-3	 horizontal installation, max. 	70 °C; = Tmax; +85 °C for 10 min (OT4, ST1/ST2 acc. to EN 50155)
Altitude during operation relating to sea level Installation altitude above sea level, max. Anhoher lat retemperature-barometric pressure-altitude Relative humidity With condensation, lested in accordance with IEC 60088-2-38, max. Resistance Coolants and lubricants. Resistant to commercially available coolants and lubricants. The sistant to commercially available coolants and lubricants. The cooling of the properties of the minimum of the minim	 vertical installation, min. 	-40 °C; = Tmin
Installation altitude above sea level, max. Ambient air temperature-barometric pressure-altitude Relative humidity With condensation, tested in accordance with IEC 60088-2-38, max. Resistance Coolants and lubricants — Resistant to commercially available coolants and lubricants — Resistant to commercially available coolants and lubricants — The 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 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substa	vertical installation, max.	50 °C; = Tmax
Relative humidity With condensation, tested in accordance with IEC 6008s- 2-38, max. Resistance Coolants and lubricants —Resistance Coolants and lubricants —In 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 60721-3-5 —To mechanically active substances according to EN 60721-6 —To mechanically active substances according to EN 60721-	Altitude during operation relating to sea level	
Relative humidity With condensation, tested in accordance with IEC 60088-2-38, max. Resistance Cocionats 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 Use on land craft, rail wholdes and special-purpose vehicles —To biologically active substances according to EN 60721-3-5 —To mechanically active substances according to EN 60	 Installation altitude above sea level, max. 	2 000 m
With condensation, tested in accordance with IEC 60088-2-38, max. Resistance Coolants and fubricants Resistance Resistance Coolants and fubricants Resistance Resistance Resistance Coolants and fubricants Resistance Re	Ambient air temperature-barometric pressure-altitude	Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m)
Resistant to commercially available 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 chemically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-5 — to chemically active substances according to EN 60721-3-5 — to chemically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — 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 — Everyonnematal conditions acc. to EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) Ves; Class 2 for high reliability Yes; Class 2 for high reliability Yes; Class	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 Use on land craft, rail vehicles and special-purpose vehicles — to biologically active substances according to EN 60721-3-3 Use on land craft, rail vehicles and special-purpose vehicles — to biologically active substances according to EN 60721-3-5 — to chemically active substances according to EN 60721-3-5 — to chemically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 Usage in industrial process technology — Against chemically active substances acc. to EN 6068-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 Remark — Note regarding classification of environmental conditions acc. to EN 60721, EN 6068-4 and ANSI/ISA-71.04 Conformal coating • Coatings for printed circuit board assemblies acc. to EN 60186 • Protection against foulling acc. to EN 6068-4 • Protection against foulling acc. to EN 6068-4 • Electronic equipment on rolling stock acc. to EN 50155 • Military testing according to MIL-1-46058C, Amendment 7 • Qualification and Performance of Electrical Insulating Composed for Printed Board Assemblies according to IPC- Co-830A Connection method ET-Connection • via BU/BA Send Discontinual process testing acc. to EN 50155-2017 Yes; Class 2 for high reliability Yes; Class PC2 protective coating acc. to EN 50155-2017 Yes; Class PC2	· · · · · · · · · · · · · · · · · · ·	
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 60721-3-5 — to biologically active substances according to EN 60721-3-5 — to chemically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances acc. to EN 60721-3-5 — to mechanically active substances acc. to EN 60721-3-5 — to mechanically active substances acc. to EN 60721-3-5 — to mechanically active substances acc. to EN 60721-3-5 Usage in industrial process technology — Against chemically active substances acc. to EN 60864-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/SA-71.04 Remark — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/SA-71.04 Conformal coating • Coatings for printed circuit board assemblies acc. to EN 60155 • Military testing according to MIL-1-46058C, Amendment 7 • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-0-0-300A Connection method ET-Connection • via BU/BA Send Width Height 117 mm Wolghts	Resistance	
Lubricants Use in statlonary industrial systems — to biologically active substances according to EN 60721-3-3 — to themically 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 Use on land craft, rall vehicles and special-purpose vehicles — to biologically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances acc. to EN 60721-3-5 — to mechanically active substances acc. to EN 60721-3-5 — to mechanically active substances acc. to EN 60721-3-5 — to mechanically active substances acc. to EN 60721-3-5 — to mechanically active substances acc. to EN 60721-3-5 — to mechanically active substances acc. to EN 60721-3-5 — to mechanically active substances acc. to EN 60721-3-5 — to mechanically active substances acc. to EN 60721-3-5 — to mechanically active substances acc. to EN 60721-3-5 — to mechanically active substances acc. to EN 6068-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/SA-71.04 Conformal coating • Coatings for printed circuit board assemblies acc. to EN 6073-1 • Electronic equipment on rolling stock acc. to EN 6068-3 • Electronic equipment on rolling stock acc. to EN 50155 • Military testing according to MiL-14605BC, Amendment 7 • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-0-0-230A Connection method ET-Connection • via BU/BA Send The supplied plug covers must remain in place over the unused interfaces during operation of coating	Coolants and lubricants	
- 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 Use on land craft, rail vehicles and special-purpose vehicles - to biologically active substances according to EN 60721-3-5 - to chemically active substances according to EN 60721-3-5 - to chemically active substances according to EN 60721-3-5 - to mechanically active substances according to EN 60721-3-5 - to mechanically active substances according to EN 60721-3-5 Usage in industrial process technology - Against chemically active substances acc. to EN 6068-4 - Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 Remark - Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 Conformal coading - Coatings for printed circuit board assemblies acc. to EN 61086 - Protection against fouling acc. to EN 60664-3 - Electronic equipment on rolling stock acc. to EN 50155 - Military testing according to MIL-48058C, Amendment 7 - Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A Connection method ET-Connection • via BU/BA Send Ves; 16 ET 200AL modules Pinenthy Amendment Pinenthy Pinenthy Pinenthy Pinenthy Pinenthy Pinenthy		Yes; Incl. diesel and oil droplets in the air
Class 383 on request	•	
degree 3); " — to mechanically active substances according to EN 60721-3-3 Use on land craft, rail vehicles and special-purpose vehicles — to biologically active substances according to EN 60721-3-5 — to chemically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 Usage in industrial process technology — Against chemically active substances acc. to EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 Remark — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 Conformal coating • Coatings for printed circuit board assemblies acc. to EN 61886 • Protection against fouling acc. to EN 60664-3 • Liectronic equipment on rolling stock acc. to EN 50155 • Military testing according to MIL-146058C, Amendment 7 • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A Connection method ET-Connection • via BU/BA Send Dimensions Width Height 117 mm Veights	60721-3-3	Class 3B3 on request
Use on land craft, rail vehicles and special-purpose vehicles — to biologically active substances according to EN 60721-3-5 — to chemically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 Usage in industrial process technology — Against chemically active substances acc. to EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 Remark — Note regarding classification of environmental conditions acc. to EN 60664-3 ANSI/ISA-71.04 Conformal coating • Coatings for printed circuit board assemblies acc. to EN 61686 • Protection against fouling acc. to EN 60664-3 • Electronic equipment on rolling stock acc. to EN 61686 • Protection against fouling according to MIL-1-46058C, Amendment 7 • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A Connection method ET-Connection • via BU/BA Send Ves; class 582 mold, fungus and dry rot spores (with the exception of fauna); Class 583 on request Yes; Class 583 on request Yes; Class 583 incl. sand, dust; * Yes; Class 583 incl. sand, dust; * Yes; Class 583 incl. sand, dust; * Yes; Class 583 (excluding trichlorethylene) Yes; Level GX group A/B (excluding trichlorethylene) for the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) Yes; Class 2 for high reliability Yes; Class 383 for acc. to EN 50155: 2017 Yes; Discoloration of coating possible during service life Yes; Conformal coating, Class A Conformal coating, Class A The supplied plug covers must remain in place over the unused interfaces of the formation of the process of the fo	60721-3-3	degree 3); *
to biologically active substances according to EN 60721-3-5 to chemically active substances according to EN 60721-3-5 to chemically active substances according to EN 60721-3-5 to mechanically active substances according to EN 60721-3-5 Usage in industrial process technology Against chemically active substances acc. to EN 60664-4 Environmental conditions for process, measuring and control systems acc. to ANSI/SA-71.04 Environmental conditions for process, measuring and control systems acc. to ANSI/SA-71.04 Environmental conditions for process, measuring and control systems acc. to EN 60721, EN 60684-4 and ANSI/SA-71.04 Note regarding classification of environmental conditions acc. to EN 60721, EN 60684-4 and ANSI/SA-71.04 Conformal coating Coatings for printed circuit board assemblies acc. to EN 61086 Protection against fouling acc. to EN 60664-3 Electronic equipment on rolling stock acc. to EN 50155 Military testing according to MIL-1-46058C, Amendment 7 Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-30A Connection via BU/BA Send Tr-Connection via BU/BA Send Treconnection via BU/BA Send Treconnection via Bu/BA Send Treconnection via Bu/BA Send Treconnection via Bu/BA Send Treconnection via Bu/BA Send Treconnection via Bu/BA Send Treconnection via Bu/BA Send Treconnection via Bu/BA Send Treconnection via Bu/BA Send Treconnection	60721-3-3	Yes; Class 3S4 incl. sand, dust, *
Class 5B3 on request Yes; Class 5C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity 60721-3-5 — to mechanically active substances according to EN 60721-3-5 — to mechanically active substances according to EN 60721-3-5 Usage in industrial process technology — Against chemically active substances acc. to EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 Remark — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 Conformal coating		V 01 500 11 () 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
degree 3); * - to mechanically active substances according to EN 60721-3-5 Usage in industrial process technology - Against chemically active substances acc. to EN 60654-4 - Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 Remark - Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 Conformal coating • Coatings for printed circuit board assemblies acc. to EN 61086 • Protection against fouling acc. to EN 60664-3 • Protection against fouling acc. to EN 60664-3 • Class 2 for high reliability Yes; Clas	60721-3-5	Class 5B3 on request
Usage in industrial process technology	60721-3-5	degree 3); *
- Against chemically active substances acc. to EN 60654-4 - Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 Remark - Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 Conformal coating		Yes; Class 553 Incl. sand, dust; ^
60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 Remark — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 Conformal coating • Coatings for printed circuit board assemblies acc. to EN 61086 • Protection against fouling acc. to EN 60664-3 • Electronic equipment on rolling stock acc. to EN 50155 • Military testing according to MIL-1-46058C, Amendment 7 • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A connection method ET-Connection • via BU/BA Send Dimensions Width 50 mm Height Tyes; 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) * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces operation! * The supplied plug covers must remain in place over the unused interfaces operation! * The supplied plug covers must remain in place over the unused interfac		
and control systems acc. to ANSI/ISA-71.04 Remark	60654-4	
- Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 Conformal coating • Coatings for printed circuit board assemblies acc. to EN 61086 • Protection against fouling acc. to EN 60664-3 • Electronic equipment on rolling stock acc. to EN 50155 • 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 connection method ET-Connection • via BU/BA Send Dimensions Width 50 mm Height 117 mm Depth 74 mm * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug covers must remain in place over the unused interfaces during operation! * The supplied plug to the supplied plug to place to		concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level
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ET-Connection	 Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC- 	
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Dimensions Width 50 mm Height 117 mm Depth 74 mm Weights Text of the control of the contr	ET-Connection	
Width 50 mm Height 117 mm Depth 74 mm Weights	• via BU/BA Send	Yes; + 16 ET 200AL modules
Height 117 mm Depth 74 mm Weights	Dimensions	
Depth 74 mm Weights	Width	50 mm
Weights	Height	117 mm
	Depth	74 mm
Weight, approx. 190 g; IM 155-6 PN BA with 2x RJ45 ports and server module	Weights	
	Weight, approx.	190 g; IM 155-6 PN BA with 2x RJ45 ports and server module
Other	Other	

Note:	for use in railway applications, also observe the product information "SIPLUS extreme RAIL" A5E37661960A, Online Support article 109736776
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