



Figure similar

SIPLUS ET 200SP BU20-P12+A0+4B TX rail based on 6ES7193-6BP20-0BB1 with conformal coating, -40...+70 °C, OT4 with ST1/2 (+85 °C for 10 minutes), BU type B1, push-in terminals, without AUX terminals, new load group, WxH: 15 mm x 117 mm, with temperature acquisition

General information	
Product type designation	BU type B1
based on	6ES7193-6BP20-0BB1
Supply voltage	
Rated value (DC)	See manual
<ul style="list-style-type: none"> For P1 and P2 bus For AUX bus for process terminals 	24 V 24 V; Equal potential group to P1/P2 bus or PE 24 V
Rated value (AC)	See manual
<ul style="list-style-type: none"> For P1 and P2 bus For AUX bus for process terminals 	230 V 230 V; Equal potential group to P1/P2 bus or PE 230 V
external protection for power supply lines	Yes
Mains filter	
<ul style="list-style-type: none"> integrated 	No
Current carrying capacity	
up to 60 °C, max.	10 A
For P1 and P2 bus, max.	10 A
For AUX bus, max.	10 A
For process terminals, max.	5 A
Hardware configuration	
Automatic encoding	Yes
Slots	
<ul style="list-style-type: none"> Number of slots 	1
Potential separation	
between backplane bus and supply voltage	Yes
between process terminals and supply voltage	Yes; Not applicable for process terminals 9 to 12
between power bus and supply voltage	Yes
Isolation	
Isolation tested with	2 545 V DC (type test) and according to EN 50155 (routine test)
Standards, approvals, certificates	
Railway application	
<ul style="list-style-type: none"> EN 50121-3-2 EN 50121-4 EN 50121-5 EN 50124-1 EN 50125-1 	Yes; EMC for rail vehicles Yes; EMC for signal and telecommunications systems Yes; EMC for fixed installations and railway power supply equipment Yes; Railway applications - overvoltage category OV3; pollution degree PD2; UNm = 230 V AC Yes; Rail vehicles - see ambient conditions

- EN 50125-2
- EN 50125-3
- EN 50155
- EN 61373
- Fire protection acc. to EN 45545-2

Yes; Stationary electrical equipment - see ambient conditions
 Yes; Signal and telecommunications systems - see ambient conditions;
 vibrations and shocks: Application point outside of tracks (1 m to 3 m away from track)
 Yes; Rail vehicles - temperature class OT4, ST1/ST2, horizontal mounting position
 Yes; Rail vehicles - vibrations and shocks: Category 1 Class A/B
 Yes; For proof of conformity, see Service & Support

Ambient conditions

Ambient temperature during operation	
<ul style="list-style-type: none"> • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. 	<p>-40 °C; = Tmin (incl. condensation/frost) 70 °C; = Tmax; +85 °C for 10 min (OT4, ST1/ST2 acc. to EN 50155) -40 °C; = Tmin 50 °C; = Tmax</p>
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> • Installation altitude above sea level, max. • Ambient air temperature-barometric pressure-altitude 	<p>2 000 m Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)</p>
Relative humidity	
<ul style="list-style-type: none"> • With condensation, tested in accordance with IEC 60068-2-38, max. 	<p>100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation</p>
Resistance	
Coolants and lubricants	
<ul style="list-style-type: none"> — Resistant to commercially available coolants and lubricants 	<p>Yes; Incl. diesel and oil droplets in the air</p>
Use in stationary industrial systems	
<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — Against mechanical environmental conditions acc. to EN 60721-3-3 	<p>Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes; Class 3S4 incl. sand, dust, * Yes; Class 3M8 using the SIPLUS Mounting Kit ET 200SP (6AG1193-6AA00-0AA0)</p>
Use on land craft, rail vehicles and special-purpose vehicles	
<ul style="list-style-type: none"> — 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 — Against mechanical environmental conditions acc. to EN 60721-3-5 — against mechanical environmental conditions in agriculture acc. to ISO 15003 	<p>Yes; Class 5B2 mold, fungus and dry rot spores (with the exception of fauna); Class 5B3 on request Yes; Class 5C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes; Class 5S3 incl. sand, dust; * Yes; Class 5M2 using the SIPLUS Mounting Kit ET 200SP (6AG1193-6AA00-0AA0) Yes; level 1 (Location LE) using the SIPLUS Mounting Kit ET 200SP (6AG1193-6AA00-0AA0)</p>
Usage in industrial process technology	
<ul style="list-style-type: none"> — Against chemically active substances acc. to EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 	<p>Yes; Class 3 (excluding trichlorethylene) Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)</p>
Remark	
<ul style="list-style-type: none"> — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 	<p>* The supplied plug covers must remain in place over the unused interfaces during operation!</p>
Conformal coating	
<ul style="list-style-type: none"> • Coatings for printed circuit board assemblies acc. to EN 61086 • Protection against fouling acc. to EN 60664-3 • 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 	<p>Yes; Class 2 for high reliability Yes; Type 1 protection Yes; Class PC2 protective coating acc. to EN 50155:2017 Yes; Discoloration of coating possible during service life Yes; Conformal coating, Class A</p>
Dimensions	
Width	20 mm

Height	117 mm
Depth	35 mm
Weights	
Weight, approx.	48 g
Other	
Note:	for use in railway applications, also observe the product information "SIPLUS extreme RAIL" A5E37661960A, Online Support article 109736776

Classifications		
	Version	Classification
eClass	14	27-24-26-03
eClass	12	27-24-26-03
eClass	9.1	27-24-26-03
eClass	9	27-24-26-03
eClass	8	27-24-26-03
eClass	7.1	27-24-26-03
eClass	6	27-24-26-03
ETIM	10	EC001598
ETIM	9	EC001598
ETIM	8	EC001598
ETIM	7	EC001598
IDEA	4	3560
UNSPSC	15	32-15-17-04

Approvals / Certificates

General Product Approval

[Manufacturer Declaration](#)



EG-Konf.

[China RoHS](#)



UL



EG-Konf.

General Product Approval **EMV** **Railway**



[China RoHS](#)



RCM

[Confirmation](#)

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