

Device coupler - FB-2SP - 2316051

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Device coupler for Foundation Fieldbus and PROFIBUS PA expansions with terminal connections for 2 spurs connected to fieldbus end devices

Product Description

The FB-2SP has terminal blocks for two spur connections to each device coupler. The device coupler provides short-circuit protection to the fieldbus trunk. Voltage and communication are routed via the TBUS connection system to multiple installed device couplers.

RoHS



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 466158
GTIN	4046356466158

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	17.5 mm
Height	89.7 mm
Depth	70.4 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C (depending on set rated current)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Degree of protection	IP20

General

Mounting position	On horizontal DIN rail NS 35 in acc. with EN 60715
Net weight	99.76 g

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Technical data

General

Housing material	PA 6.6-FR
Color	green
Conformance	CE-compliant, additionally EN 61326
Fieldbus Foundation	FF-846

Power supply

Supply voltage range	10.3 V DC ... 32 V DC (input on trunk line side)
Typical current consumption	6 mA

Interfaces

Interface 1	Foundation Fieldbus and PROFIBUS PA Segment
No. of ports	2
Connection method	Pluggable COMBICON screw connection for each spur
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Output nominal voltage	≤ 32 V (each spur)
Output current	15 mA (each spur, adjustable via selector switch, -40 ... 85°C)
	25 mA (each spur, adjustable via selector switch, -40...80°C)
	35 mA (each spur, adjustable via selector switch, -40...75°C)
	45 mA (each spur, adjustable via selector switch, -40...70°C)
Maximum output current	22 mA (each spur, adjustable via selector switch, -40 ... 85°C)
	33 mA (each spur, adjustable via selector switch, -40...80°C)
	45 mA (each spur, adjustable via selector switch, -40...75°C)
	57 mA (each spur, adjustable via selector switch, -40...70°C)
Inductance L _i	4 µH
Max. output voltage U _o	U _i

Safety data

Max. output voltage U _o	U _i
Max. output current I _o	48 mA
Max. output power P _o	1.536 W
Group	IIB
Max. external capacitance C _o	100 nF
Group	IIB
Max. external inductivity L _o	325 µH
ATEX	Sira 08ATEX4303X: II 3(3)G Ex nA [Ic Gc] IIB T4 Gc, FISCO Ic spurs Ex nA [nL Gc] IIB T4 Gc, FNICO spurs
IECEX	IECEX SIR 08.0110X: II 3(3)G

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Technical data

Safety data

	Ex nA [Ic Gc] IIB T4 Gc, FISCO Ic spurs Ex nA [nL Gc] IIB T4 Gc, FNICO spurs
CSA, USA/Canada	Class I, Div. 2, Groups C, D Ex nA [nL] IIB T4, FNICO/Entity Class I, Zone 2, AEx nA [nL] IIB T4, FNICO/Entity

Standards and Regulations

Type of test	Corrosive resistance in acc. to ANSI-ISA 71.04-1985 - Severity level G3
Designation	Standards/regulations
Standards/regulations	Ring wave noise immunity in acc. with IEC 61000-4-12
Designation	Standards/regulations
Standards/regulations	Dry heat in acc. with IEC 61131-2
Designation	Standards/regulations
Standards/regulations	Damp heat in acc. with IEC 61131-2
Designation	Standards/regulations
Standards/regulations	Shock and vibration in acc. with EN 61131-2 and EN 50178
	IEC 61158-2
	IEC 60529, IEC 61158-2
	NE21
	EN 61326, EN 60068-2-27, EN 60068-2-6
	FF-846
Shock	15g, 11 ms
Vibration (operation)	1g, 10 Hz ... 150 Hz
Conformance	CE-compliant, additionally EN 61326
Fieldbus Foundation	FF-846
Group	IIB
	IIB
ATEX	Sira 08ATEX4303X: II 3(3)G Ex nA [Ic Gc] IIB T4 Gc, FISCO Ic spurs Ex nA [nL Gc] IIB T4 Gc, FNICO spurs
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CSA, USA/Canada	Class I, Div. 2, Groups C, D Ex nA [nL] IIB T4, FNICO/Entity Class I, Zone 2, AEx nA [nL] IIB T4, FNICO/Entity

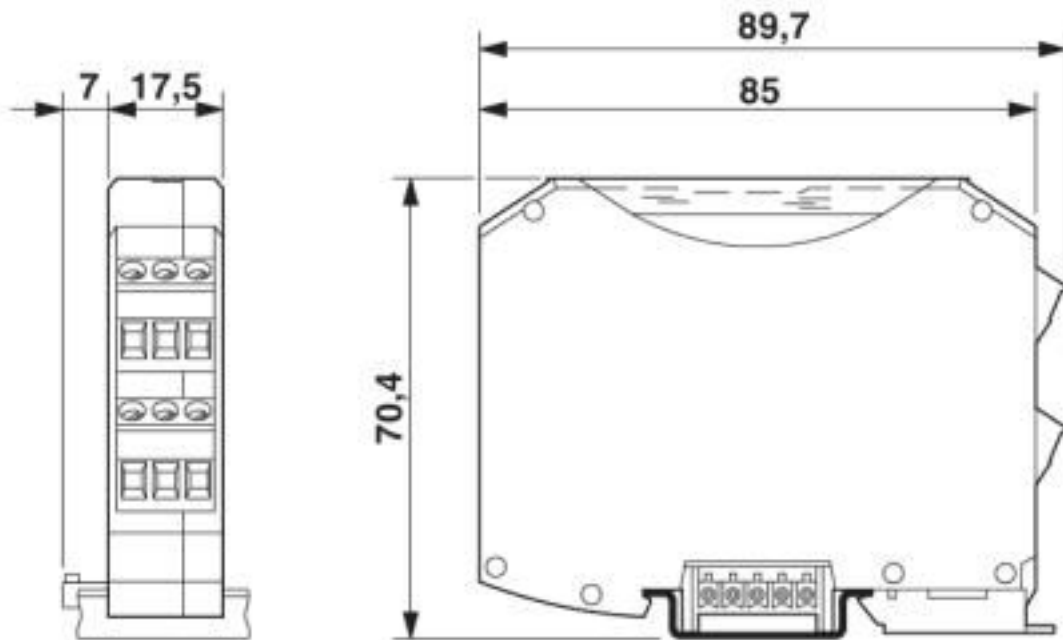
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

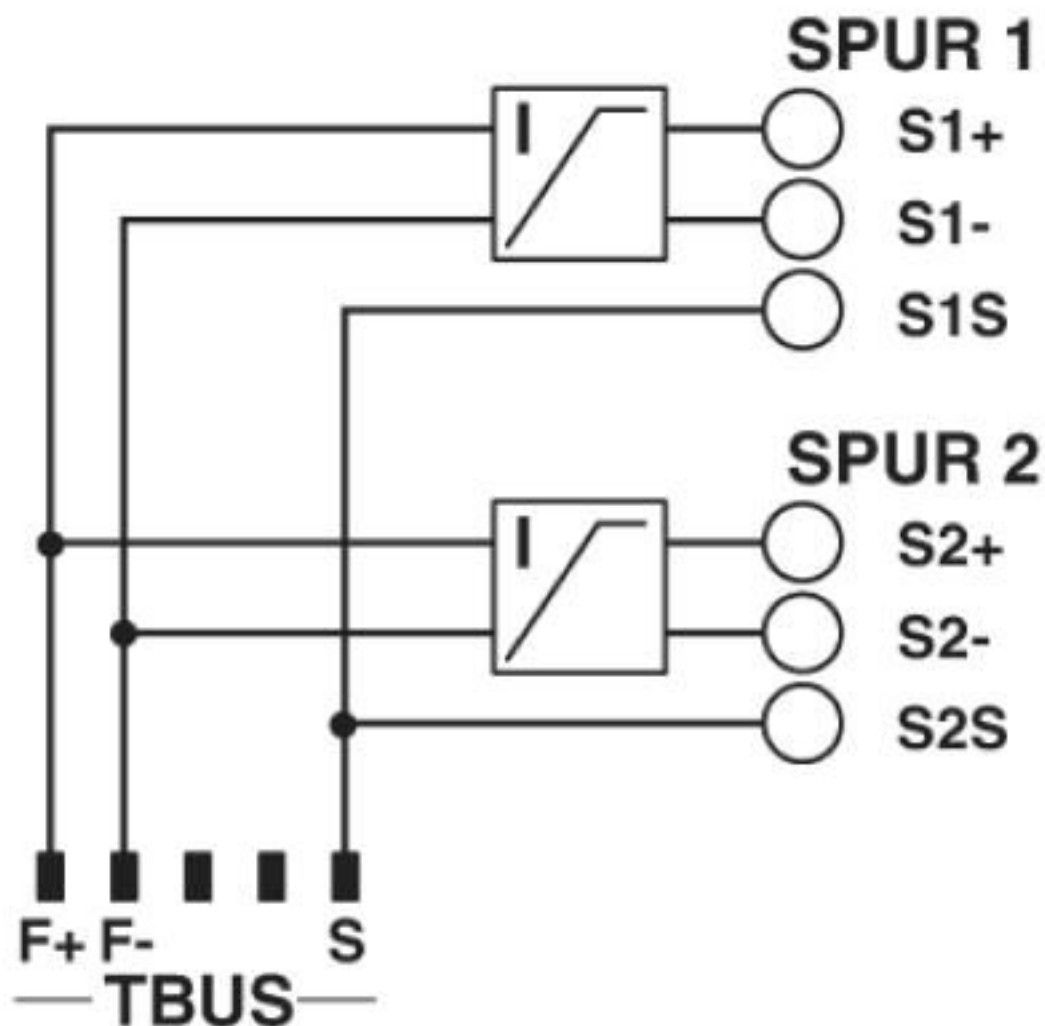
Device coupler - FB-2SP - 2316051

Dimensional drawing



Device coupler - FB-2SP - 2316051

Circuit diagram



Connection diagram: FB-2SP

Classifications

eCl@ss

eCl@ss 10.0.1	27242610
eCl@ss 4.0	27250200
eCl@ss 4.1	27250200
eCl@ss 5.0	27259200
eCl@ss 5.1	27259200
eCl@ss 6.0	27242600
eCl@ss 7.0	27242610
eCl@ss 8.0	27242610
eCl@ss 9.0	27242610

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Classifications

ETIM

ETIM 2.0	EC001423
ETIM 3.0	EC001600
ETIM 4.0	EC001600
ETIM 5.0	EC001600
ETIM 6.0	EC001600
ETIM 7.0	EC001600

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

Accessories

Accessories

Base element

Surge protection base element - PT 4+F-BE - 2839415



Base element for protective plug PT with protective circuit for a 4-wire floating signal circuit, gas-filled surge arrester between the connections 3-4 (GND) and 9-10, for mounting on NS 35/7.5 and NS35/15, housing width: 17.5 mm

Control box

Junction box - FB-15-SS - 2316190



Stainless steel field junction box with 15 ports for use in hazardous locations. Includes FB-ET trunk module, Plugtrab base with option for surge protection plug, and DIN rail space for up to 12 device couplers.

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Accessories

Junction box - FB-9-SS - 2316213



Stainless steel field junction box with 9 ports for use in hazardous locations. Includes FB-ET trunk module, Plugtrab base with option for surge protection plug, and DIN rail space for up to 6 device couplers.

Device coupler

Power distributor - FB-PS-BASE/EX - 2316145



Base for fieldbus power supply plugs. Provides redundancy when 2 plugs are installed. Redundancy is maintained across multiple bases via internal power buses. Additional internal bus provides remote indication.

Device coupler - FB-DIAG/FF/NC - 2316297



Field diagnostic module, includes TBUS connector

Power supply

Power module - FB-PS-PLUG-24DC/28DC/0.5/EX - 2316132



Power supply plug for fieldbus system in hazardous locations. Provides 500 mA @ 28 V DC to couplers along the trunk.

Surge protection for information technology

Surge protection plug - PT 2X2-FF-ST - 2800755



PLUGTRAB, plug-in surge protection for Foundation Fieldbus

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