FB-2SP - Device coupler

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.

Commercial data

Item number	2316051
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DN11
Product key	DNC144
GTIN	4046356466158
Weight per piece (including packing)	101.1 g
Weight per piece (excluding packing)	99.76 g
Customs tariff number	85369095
Country of origin	US

Technical data

Notes

Utilization restriction

CCCex note	Use in potentially explosive areas is not permitted in China.

Product properties

Product type	Device coupler

Electrical properties

Supply

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

Ex data

Safety data

Max. voltage U_i	253 V AC
Inductance Li	4 µH
Capacitance Ci	0 µF
Max. output voltage U_o	U_i
Max. output current I_o	48 mA
Max. output power P_o	1.536 W
IIB: Max. external inductivity L_o / Max. external capacitance C_o	/ 100 nF
	325 µH

Interfaces

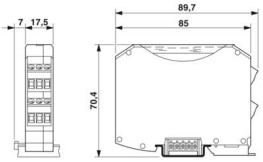
Signal	PROFIBUS
	FOUNDATION Fieldbus

Data: Foundation Fieldbus and PROFIBUS PA Segment

Connection method	Pluggable COMBICON screw connection for each spur
No. of channels	2
Conductor cross-section flexible max.	2.5 mm²
Conductor cross-section flexible min.	0.2 mm²
Conductor cross-section, rigid max.	2.5 mm²
Conductor cross-section, rigid min.	0.2 mm²
Conductor cross-section AWG max.	12
Conductor cross-section AWG min.	24
Output nominal voltage	≤ 32 V (per 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)

Dimensions

Dimensional drawing	
Width	17.5 mm
Height	89.7 mm
Depth	70.4 mm

Material specifications

Color	green
Housing material	PA 6.6-FR

Mechanical tests

Corrosive resistance in accordance with ANSI-ISA 71.04-1985 - Severity level G3	:

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 85 °C (depending on set rated current)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	< 95 % (non-condensing)
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Shock	15g, 11 ms
Vibration (operation)	10 Hz ... 150 Hz, 1g

Approvals

Conformity/Approvals

Conformance	CE-compliant, additionally EN 61326
IEC	IEC 60529, IEC 61158-2
CSA, USA/Canada	Class I, Zone 2, AEx nA[nL] IIB T4
	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
Fieldbus Foundation	FF-846
EN	EN 61326, EN 60068-2-27, EN 60068-2-6

NE	NAMUR NE 21

Ex data

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 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

Standards

Standards/regulations	IEC 60529, IEC 61158-2
	NE21
	EN 61326, EN 60068-2-27, EN 60068-2-6
	FF-846

Standards/regulations

Standards/regulations	Ring wave noise immunity in acc. with IEC 61000-4-12

Standards/regulations

Standards/regulations	Dry heat in acc. with IEC 61131-2

Standards/regulations

Standards/regulations	Damp heat in acc. with IEC 61131-2

Standards/regulations

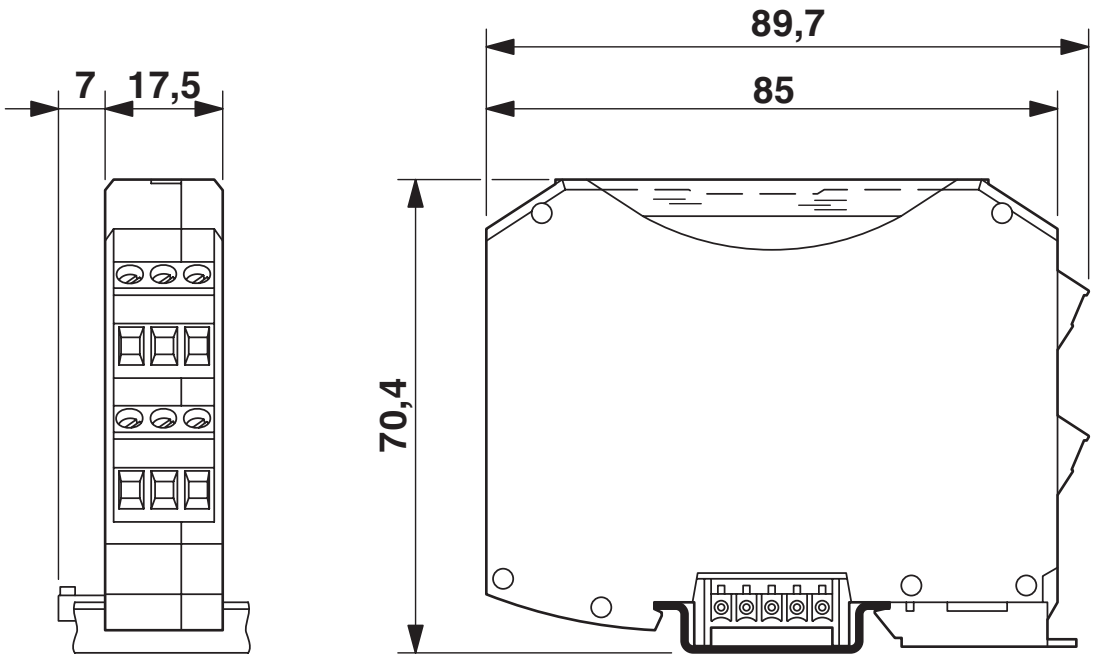
Standards/regulations	Shock and vibration in acc. with EN 61131-2 and EN 50178
Standards/regulations	IEC 61158-2

Mounting

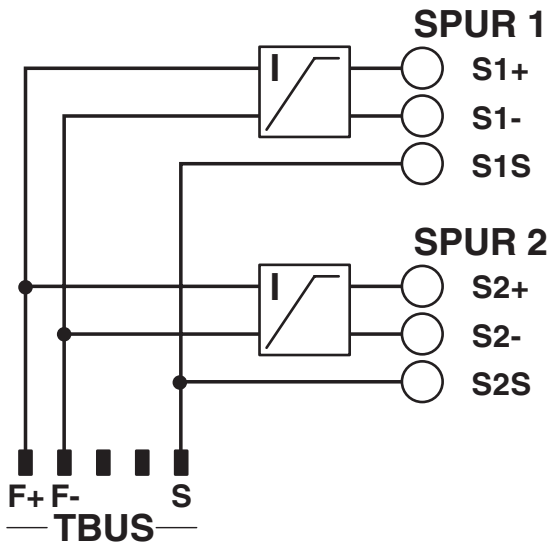
Mounting type	DIN rail mounting
Mounting position	on horizontal DIN rail NS 35 in acc. with EN 60715

Drawings

Dimensional drawing



Circuit diagram



Connection diagram: FB-2SP

Classifications

UNSPSC

UNSPSC 21.0	32151600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)

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