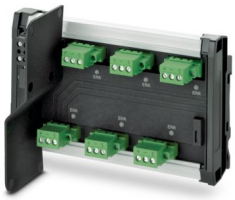
FB-6SP - Device coupler

2316307

https://www.phoenixcontact.com/us/products/2316307

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

Your advantages

- Terminator preinstalled
- Provides current limiting short-circuit protection per spur
- Ex nA [nL, Ex nA [ic] or FISCO ic spur connections
- Connect up to 6 Foundation Fieldbus or PROFIBUS PA field devices
- Single-sided plug configuration eliminates cable bend radius issues

ELEKTROGERÄTE RÜCKNAHME

Commercial data

Item number	2316307
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN11
Product key	DNC144
GTIN	4046356883580
Weight per piece (including packing)	323.5 g
Weight per piece (excluding packing)	322.5 g
Customs tariff number	85369095
Country of origin	US

Technical data

Notes

Note on application

Note on application	Only for industrial use

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area

Product properties

Product type	Device coupler
MTTF	1256 Years (25 degrees C)

Electrical properties

Supply

Supply voltage range	10.5 V DC ... 32 V DC (input on trunk line side)
Typical current consumption	4.8 mA

Connection data

Supply

Conductor cross-section, flexible	2.50 mm² ... 0.20 mm²
Conductor cross-section, rigid	2.50 mm² ... 0.20 mm²
Conductor cross-section, flexible [AWG]	24 ... 12
Conductor cross-section AWG	24 ... 12

Ex data

Safety data

Input voltage U_i	32 V (IIB (C/D))
	24 V (IIC (A/B))
	17.5 V (FISCO)
Inductance Li	4 µH
Capacitance Ci	0 µF
Max. output voltage U_o	U_{in} (Branch line)
Max. output current I_o	56 mA (Branch line)
Max. output power P_o	1.792 W
Current consumption	4.8 mA (Maximum, no load)
	0.34 A (maximum trunk current)
IIC/IIB (Branch line): Max. external inductivity L_o / Max. external capacitance C_o	/ 80 nF
	0.26 mH

Interfaces

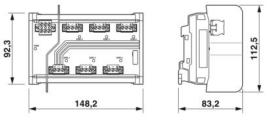
Signal	FOUNDATION Fieldbus

	PROFIBUS

Data: Foundation Fieldbus and PROFIBUS PA Segment

Connection method	Pluggable COMBICON screw connection for each spur
No. of channels	6
Termination resistor	100 Ω, external removable plug included
	100 Ω (external removable plug)
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	38 mA

Dimensions

Dimensional drawing	
Width	148.2 mm
Height	112.5 mm
Depth	83.5 mm

Material specifications

Color (Housing)	black (RAL 9005)
Flammability rating according to UL 94	V0

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)	-50 °C ... 90 °C
Ambient temperature (storage/transport)	-50 °C ... 90 °C
Altitude	2000 m
Max. permissible relative humidity (operation)	< 95 % (non-condensing)
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Shock	30g, 11 ms
Vibration (operation)	10 Hz ... 150 Hz, 5g

Approvals

ATEX

Identification	II 3(3)G Ex nA [ic] IIC T4 Gc, Entity/FISCO ic spurs
	Ex nA [nL] IIC T4 Gc
	Ex ic IIC T4 Gc, FISCO ic
Certificate	Sira 13ATEX4247X

IECEx

Identification	Ex nA [ic] IIC T4 Gc, Entity/FISCO ic spurs
	Ex nA [nL] IIC T4 Gc
	Ex ic IIC T4 Gc, FISCO ic
Certificate	IECEx SIR 13.0089X

CSA, USA/Canada

Identification	Class I, Div. 2, Groups A, B, C, D
	Ex nA [nL] IIC T4 Gc
	Class I, Zone 2, AEx nA [nC] IIC T4 Gc

UL, USA

Identification	Class I, Zone 2
	AEx nA [ic] IIC T4, Entity/FISCO spurs
	Ex nA [ic] IIC T4 Gc
	Class I, Div. 2, Groups A, B, C, D T4

UKCA Ex (UKEX)

Identification	II 3(3)G Ex nA [ic] IIC T4 Gc, Entity/FISCO ic spurs
	Ex nA [nL] IIC T4 Gc
	Ex ic IIC T4 Gc, FISCO ic
Certificate	PxCAI22UKEx2316307X

CCC

Identification	Ex ec [ic] IIC T4 Gc
	Ex ic IIC T4 Gc

Standards and regulations

Standards

Standards/regulations	EN 60079-0:2011, EN 60079-11:2012, EN 60079-15:2005, EN 60079-15:2010
	IEC 60079-0:2011, IEC 60079-11:2011, IEC 60079-15:2005, IEC 60079-15:2010

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

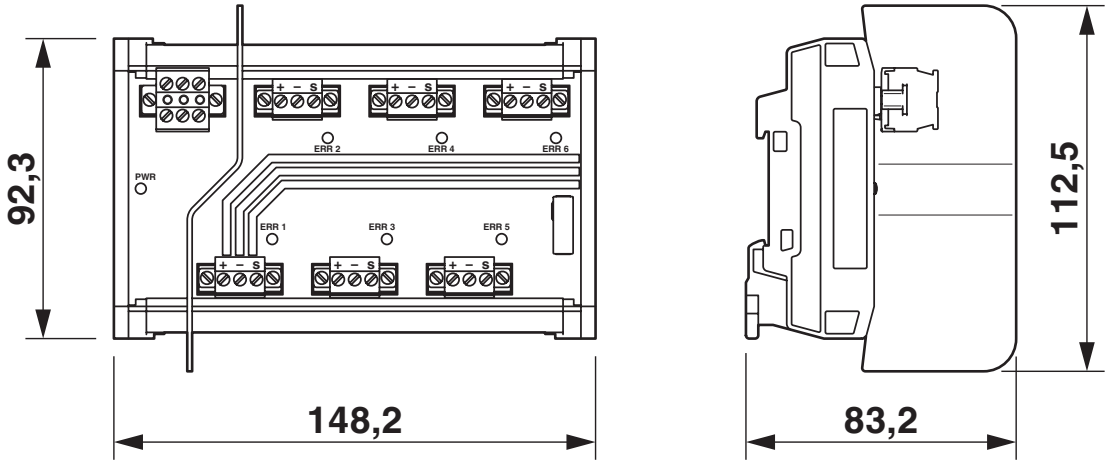
Standards/regulations	Shock and vibration in acc. with EN 61131-2 and EN 50178
Standards/regulations	IEC 61158-2

Mounting

Mounting type	DIN rail mounting
Mounting position	On horizontal and vertical DIN rail NS 35 in acc. with EN 60715

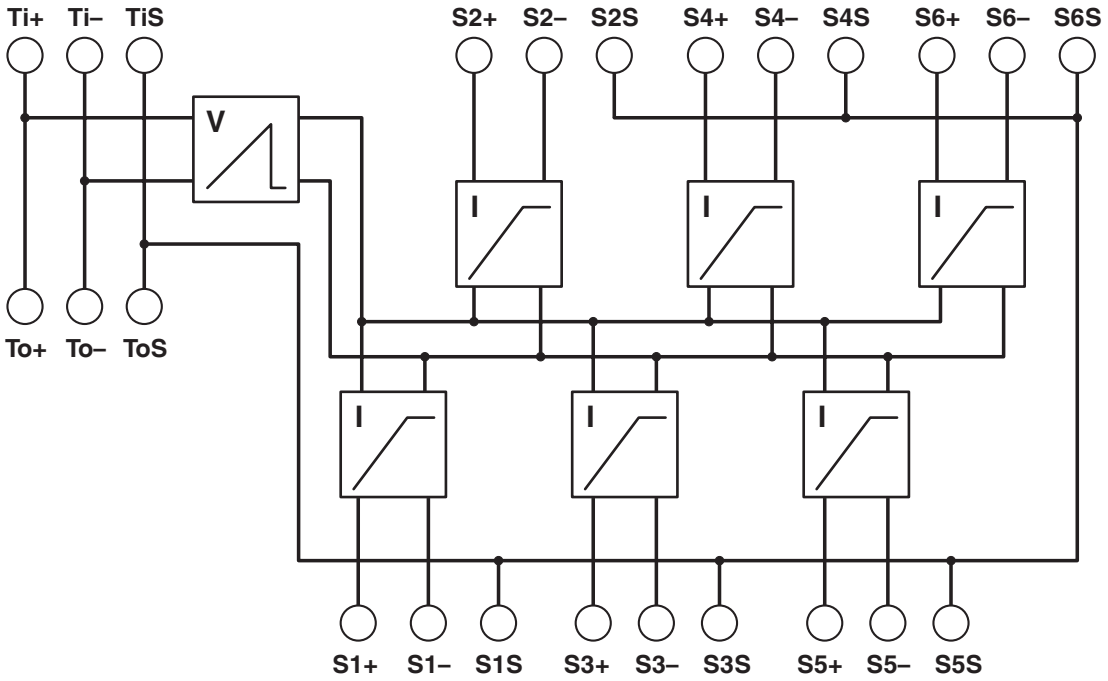
Drawings

Dimensional drawing



FB-6SP dimensions

Circuit diagram



Connection diagram: FB-6SP

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2316307

UL Listed
Approval ID: E330267

cUL Listed
Approval ID: E330267

CSA
Approval ID: 2673619

cUL Listed
Approval ID: E199827

UL Listed
Approval ID: E199827

CSAus
Approval ID: 2673619

CCC
Approval ID: 2022122310115623

IECEx
Approval ID: IECEx SIR 13.0089X

ATEX
Approval ID: SIRA 13 ATEX 4247X

Classifications

ECLASS

ECLASS-13.0	27242610
ECLASS-15.0	27242610

ETIM

ETIM 10.0	EC001600

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)
SCIP	dc51b17f-1fca-4776-93fb-9a975cacddd7

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com