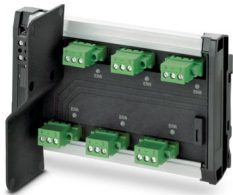


FB-6SP - Device coupler



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

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
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Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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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 mm ² ... 0.20 mm ²
Conductor cross-section, rigid	2.50 mm ² ... 0.20 mm ²
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 L_i	4 μ H
Capacitance C_i	0 μ F
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
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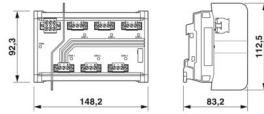


PROFIBUS

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 mm ²
Conductor cross-section flexible min.	0.2 mm ²
Conductor cross-section, rigid max.	2.5 mm ²
Conductor cross-section, rigid min.	0.2 mm ²
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

Flammability rating according to UL 94	V0
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Mechanical tests

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

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

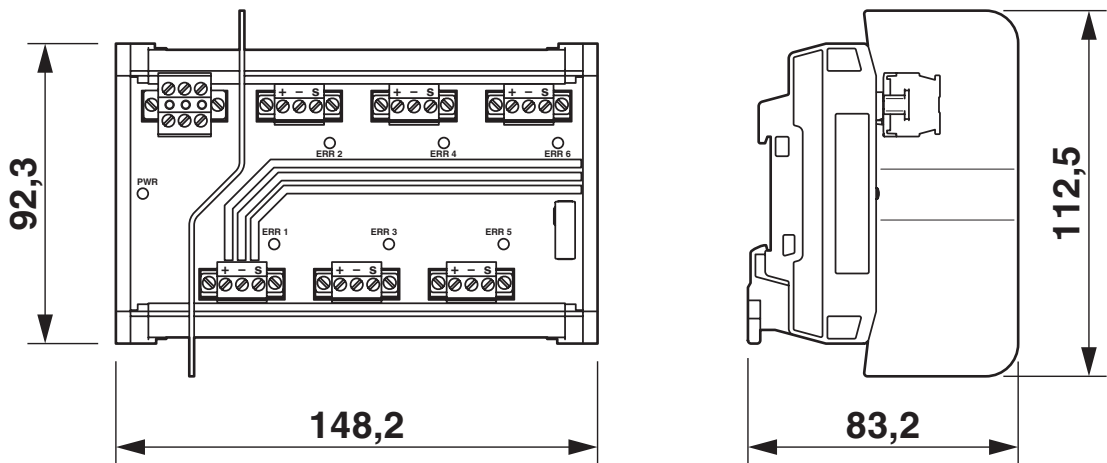
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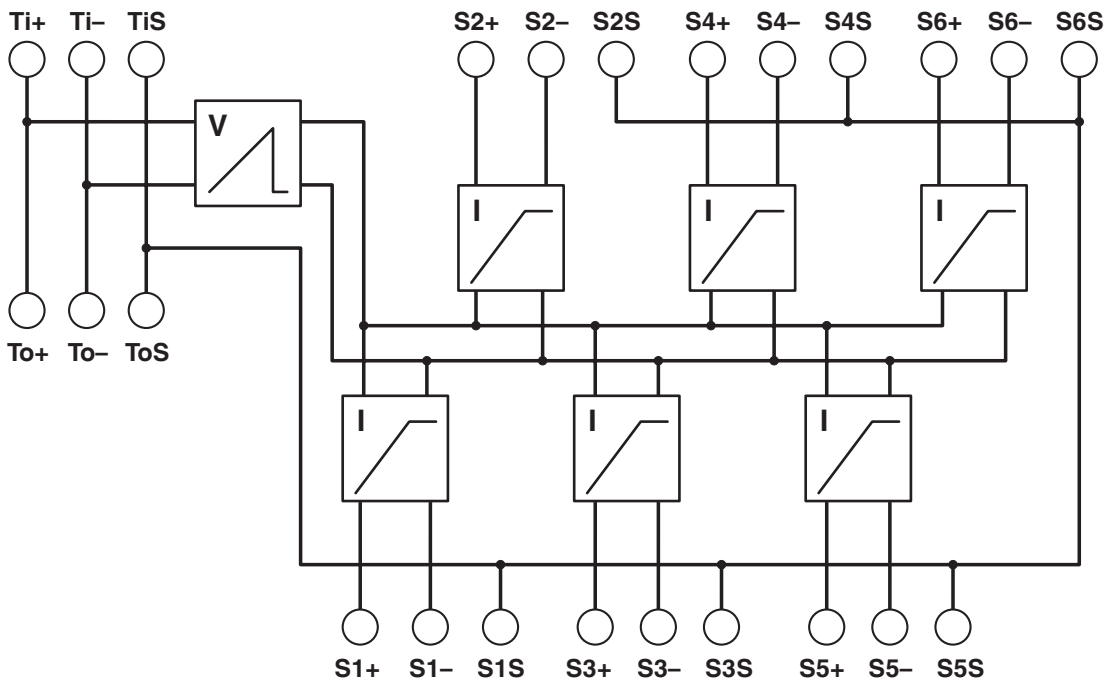
Drawings

Dimensional drawing



FB-6SP dimensions

Circuit diagram



Connection diagram: FB-6SP

FB-6SP - Device coupler



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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

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Classifications

ECLASS

ECLASS-13.0	27242610
ECLASS-15.0	27242610

ETIM

ETIM 9.0	EC001600
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UNSPSC

UNSPSC 21.0	32151600
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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