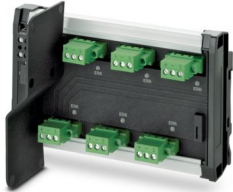


FB-6SP - Device coupler

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 |
|---------------------|-------------------------|

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 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 |
|--------|---------------------|

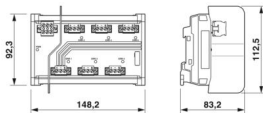
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| | |
|---|--|
| | PROFIBUS |
| Data: Foundation Fieldbus and PROFIBUS PA Segment | |
| Connection method | Pluggable COMBICON screw connection for each spur |
| No. of channels | 6 |
| Termination resistor | 100 Ω, external removable plug included 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

| | |
|--|------------------|
| 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 |
|-----------------------|-----------------------------------|

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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 |

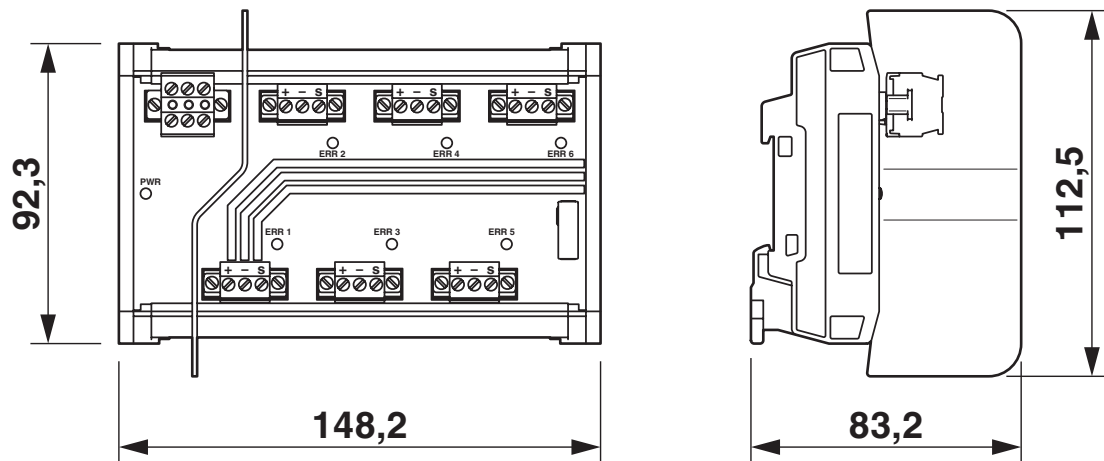
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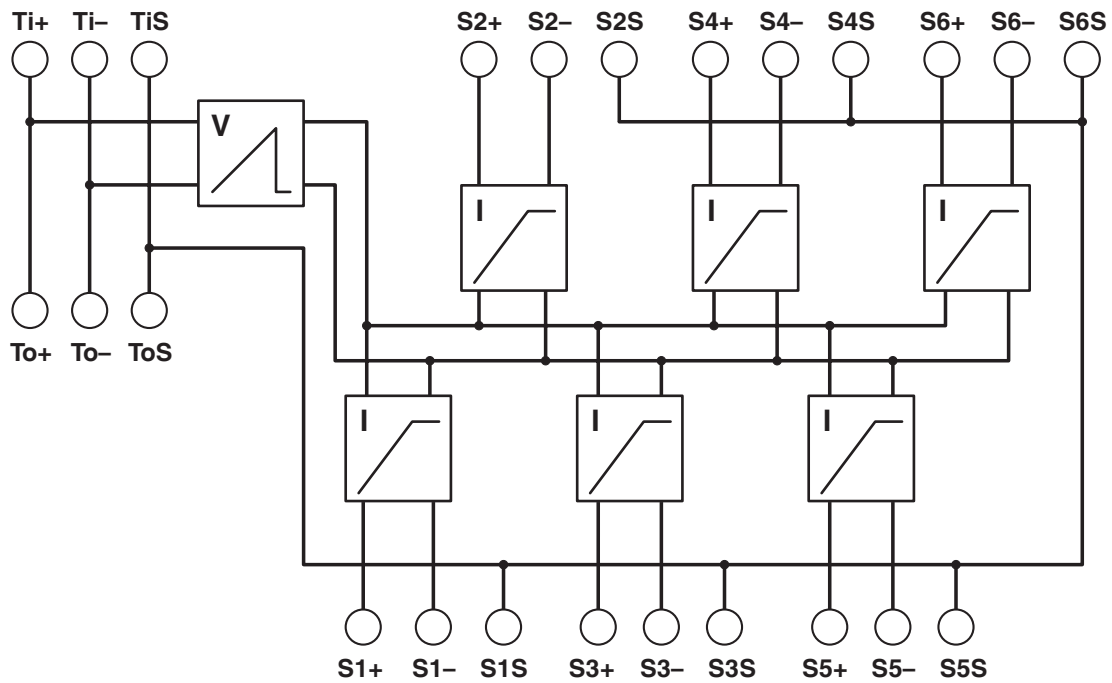
Drawings

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 10.0 | EC001600 |
|-----------|----------|

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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