

## Device coupler - FB-6SP - 2316307

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Device coupler for Foundation Fieldbus with terminal connections for six spurs connected to fieldbus end devices



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	320.0 g
Country of origin	United States

### Technical data

#### Dimensions

Width	148.2 mm
Height	112.5 mm
Depth	83.5 mm

#### Ambient conditions

Ambient temperature (operation)	-50 °C ... 90 °C
Ambient temperature (storage/transport)	-50 °C ... 90 °C
Degree of protection	IP20

#### General

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
Mounting position	On horizontal and vertical DIN rail NS 35 in acc. with EN 60715
Net weight	324 g
Conformance	CE-compliant, additionally EN 61326

# Device coupler - FB-6SP - 2316307

## Technical data

### General

Fieldbus Foundation	FF-846
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### Power supply

Supply voltage range	10.5 V DC ... 32 V DC (input on trunk line side)
Typical current consumption	4.8 mA
Conductor cross section flexible max.	0.20 mm <sup>2</sup>
Conductor cross section flexible min.	2.50 mm <sup>2</sup>
Conductor cross section solid max.	0.20 mm <sup>2</sup>
Conductor cross section solid min.	2.50 mm <sup>2</sup>
Max. AWG conductor cross section, flexible	12
Min. AWG conductor cross section, flexible	24
Conductor cross section AWG max.	12
Conductor cross section AWG min.	24

### Serial interface

Interface 1	Foundation Fieldbus and PROFIBUS PA Segment
Connection method	Pluggable COMBICON screw connection for each spur
Termination resistor	100 Ω (external removable plug)
	100 Ω, external removable plug included
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Output nominal voltage	≤ 32 V (each spur)
Output current	38 mA

### Safety data

Max. output voltage U <sub>o</sub>	U <sub>in</sub>
Max. output current I <sub>o</sub>	56 mA
Max. output power P <sub>o</sub>	1.792 W
Group	IIC/IIB
Max. external capacity C <sub>o</sub>	80 nF
Group	IIC/IIB
Max. external inductivity L <sub>o</sub>	0.26 mH
ATEX	Sira 13ATEX4247X; # II 3(3)G Ex nA [ic] IIC T4 Gc, Entity/FISCO ic spurs Ex nA [nL] IIC T4 Gc; # II 3G Ex ic IIC T4 Gc, FISCO ic

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### Technical data

#### Safety data

IECEX	IECEX SIR 13.0089X; Ex nA [ic] IIC T4 Gc, Entity/FISCO ic spurs; Ex nA [nL] IIC T4 Gc; Ex ic IIC T4 Gc, FISCO ic
CSA, USA/Canada	Class I, Div. 2, Groups A, B, C, D; Ex nA [nL] IIC T4; Class I, Zone 2, AEx nA [nC] IIC T4
Safety-related maximum voltage $U_m$	17.5 V (in acc. with EN 60079-11)

#### Standards and Regulations

Shock	30g, 11 ms
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
Flammability rating according to UL 94	V0
Vibration (operation)	5g, 10 ... 150 Hz
Conformance	CE-compliant, additionally EN 61326
Fieldbus Foundation	FF-846
Group	IIC/IIB
	IIC/IIB
ATEX	Sira 13ATEX4247X; # II 3(3)G Ex nA [ic] IIC T4 Gc, Entity/FISCO ic spurs Ex nA [nL] IIC T4 Gc; # II 3G Ex ic IIC T4 Gc, FISCO ic
IECEX	IECEX SIR 13.0089X; Ex nA [ic] IIC T4 Gc, Entity/FISCO ic spurs; Ex nA [nL] IIC T4 Gc; Ex ic IIC T4 Gc, FISCO ic
CSA, USA/Canada	Class I, Div. 2, Groups A, B, C, D; Ex nA [nL] IIC T4; Class I, Zone 2, AEx nA [nC] IIC T4

### Classifications

#### eCl@ss

eCl@ss 4.0	27250203
eCl@ss 4.1	27250203
eCl@ss 5.0	27250203
eCl@ss 5.1	27259205
eCl@ss 6.0	27259090
eCl@ss 7.0	27259090
eCl@ss 8.0	27242608
eCl@ss 9.0	27242608

#### ETIM

ETIM 4.0	EC001600
ETIM 5.0	EC001600

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## Classifications

### UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

## Approvals

### Approvals

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#### Approvals

UL Listed / cUL Listed / cULus Listed

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#### Ex Approvals

IECEX / ATEX / UL Listed / CSA / CSAus / cCSAus

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#### Approvals submitted

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## Approval details

UL Listed

cUL Listed

cULus Listed 

## Accessories

Accessories

Base element

## Device coupler - FB-6SP - 2316307

### Accessories

#### 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.

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#### 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

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### Control box

#### Control cabinet - FB-15-AL - 2316187



Aluminum field junction box with 8 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.

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#### Terminal 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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#### Control cabinet - FB-8-AL - 2316200



Aluminum field junction box with 8 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.

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## Accessories

Control cabinet - 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.

## 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

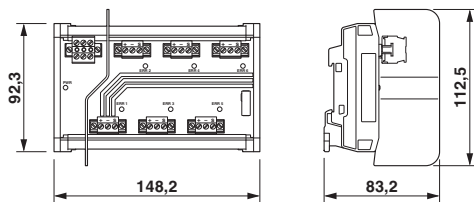
Surge protection plug - PT 2X2-FF-ST - 2800755



PLUGTRAB, plug-in surge protection for Foundation Fieldbus

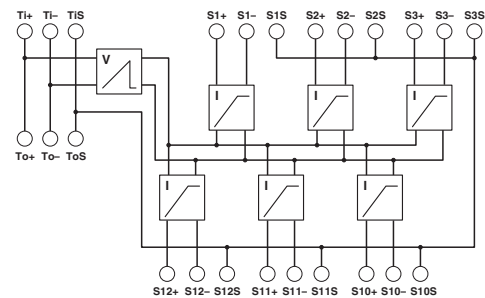
## Drawings

Dimensional drawing



FB-6SP dimensions

Circuit diagram



Connection diagram: FB-6SP

