

## Device coupler - FB-8SP ISO - 2316311

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Zone 1 installed device coupler for Foundation Fieldbus and PROFIBUS PA with terminal connections for eight spurs connected to fieldbus end devices.

### Your advantages

- Connect up to eight Foundation Fieldbus or PROFIBUS PA field devices located in Zone 0/1
- Terminator preinstalled
- Provides current limiting short-circuit protection per spur
- Two isolation zones; Spurs 1-4 and 5-8
- Single-sided plug configuration eliminates cable bend radius issues



### Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4055626306803
Weight per Piece (excluding packing)	1,200.000 g
Custom tariff number	85389099
Country of origin	United States

### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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#### Dimensions

Width	279 mm
Height	142 mm

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## Technical data

### Dimensions

Depth	66 mm
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### Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	95 % (non-condensing)
Degree of protection	IP20
	IP30 ()

### General

Mounting position	On horizontal and vertical DIN rail NS 35 in acc. with EN 60715
Net weight	1190 g
Degree of pollution	2
Overvoltage category	II
Conformance	EMC 2014/30/EU
	ATEX 2014/34/EU
Fieldbus Foundation	FF-846

### Power supply

Supply voltage range	16 V DC ... 32 V DC (input on trunk line side)
Max. current consumption	35 mA (trunk, no load)
	350 mA (maximum trunk current)
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

### Interfaces

Interface 1	Foundation Fieldbus and PROFIBUS PA Segment
No. of ports	8
Connection method	Pluggable COMBICON screw connection for each spur
Termination resistor	Integrated termination, activated with bridge located in correct terminals
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>

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## Technical data

### Interfaces

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	≤ 14 V (each spur)
Output current	35 mA (per spur)
Inductance L <sub>i</sub>	0 μH
Max. output voltage U <sub>o</sub>	16.7 V

### Safety data

Input voltage U <sub>i</sub>	32 V
Max. output voltage U <sub>o</sub>	16.7 V
Max. output current I <sub>o</sub>	250 mA
Max. output power P <sub>o</sub>	1.05 W
Group	IIC
Max. external capacitance C <sub>o</sub>	0.39 μF
Group	IIB
Max. external capacitance C <sub>o</sub>	2.33 μF
Group	IIC
Max. external inductivity L <sub>o</sub>	0.56 mH
Group	IIB
Max. external inductivity L <sub>o</sub>	2.27 mH
ATEX	DEMKO 16ATEX 1689X II 2(1) G Ex eb ib mb [ia Ga] IIC T4 Gb II (1D) [Ex ia Da] IIIC FISCO power supply (spur)
IECEX	IECEX UL 16.0114X Ex eb ib mb [ia Ga] IIC T4 Gb [Ex ia Da] IIIC FISCO power supply (spur)
Safety-related maximum voltage U <sub>m</sub>	253 V

### Standards and Regulations

Type of test	Corrosive resistance in acc. to ANSI-ISA 71.04-1985 - Severity level G3
Designation	Standards/regulations
Standards/regulations	Ring wave noise immunity in acc. with IEC 61000-4-12
Designation	Standards/regulations
Standards/regulations	Dry heat in acc. with IEC 61131-2
Designation	Standards/regulations
Standards/regulations	Damp heat in acc. with IEC 61131-2
Designation	Standards/regulations

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### Standards and Regulations

Standards/regulations	Shock and vibration in acc. with EN 61131-2 and EN 50178
	IEC 61158-2
Flammability rating according to UL 94	V0
Shock	15g for 11 ms
Vibration (operation)	2g, 10 Hz ... 150 Hz
Conformance	EMC 2014/30/EU
	ATEX 2014/34/EU
Fieldbus Foundation	FF-846
Group	IIC
	IIB
	IIC
	IIB
ATEX	DEMKO 16ATEX 1689X II 2(1) G Ex eb ib mb [ia Ga] IIC T4 Gb II (1D) [Ex ia Da] IIIC FISCO power supply (spur)
IECEX	IECEX UL 16.0114X Ex eb ib mb [ia Ga] IIC T4 Gb [Ex ia Da] IIIC FISCO power supply (spur)
UL, USA/Canada	Install in Class I, Div. 2, Groups A, B, C, D Entity/FISCO spur to: Class I, Groups A, B, C, D; Class II, Groups E, F, G; Class III; Group IIIC Class I, Zone 1 AEx eb ib mb [ia Ga] IIC T4 Gb [AEx ia Da] IIIC FISCO power supply (spur) Ex eb ib mb [ia Ga] IIC T4 Gb [Ex ia Da] IIIC FISCO power supply (spur)

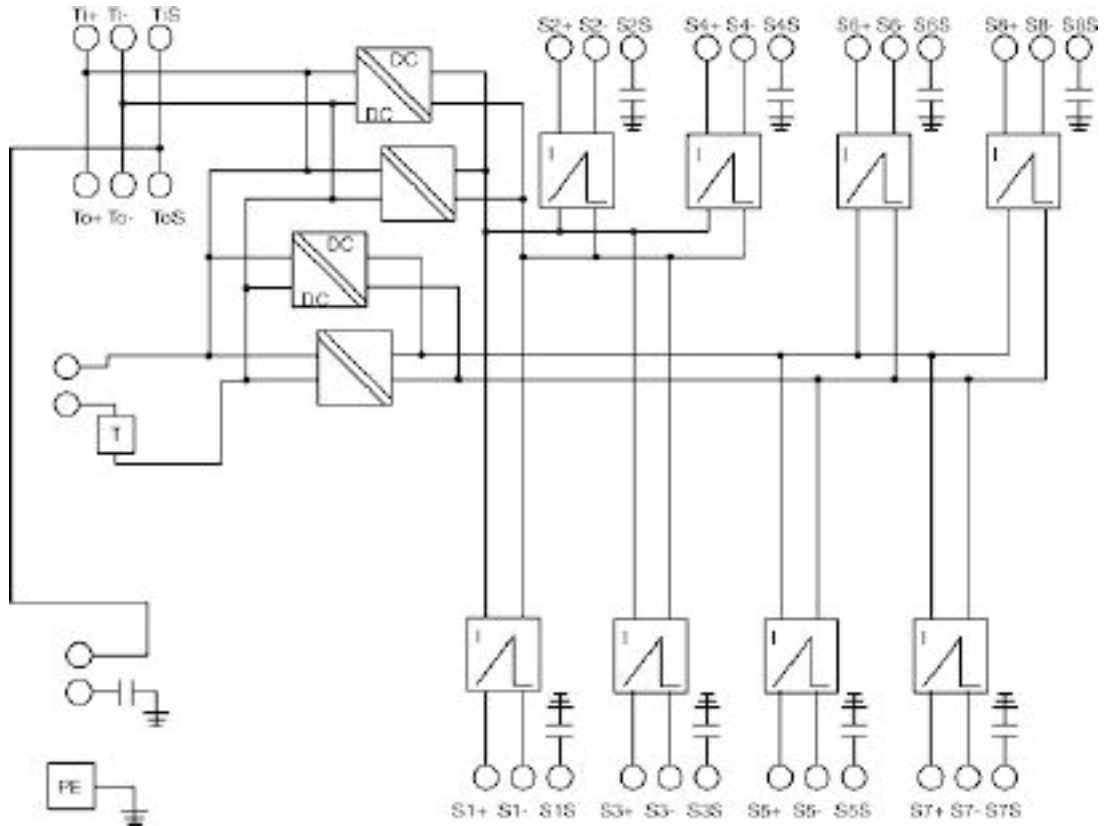
### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

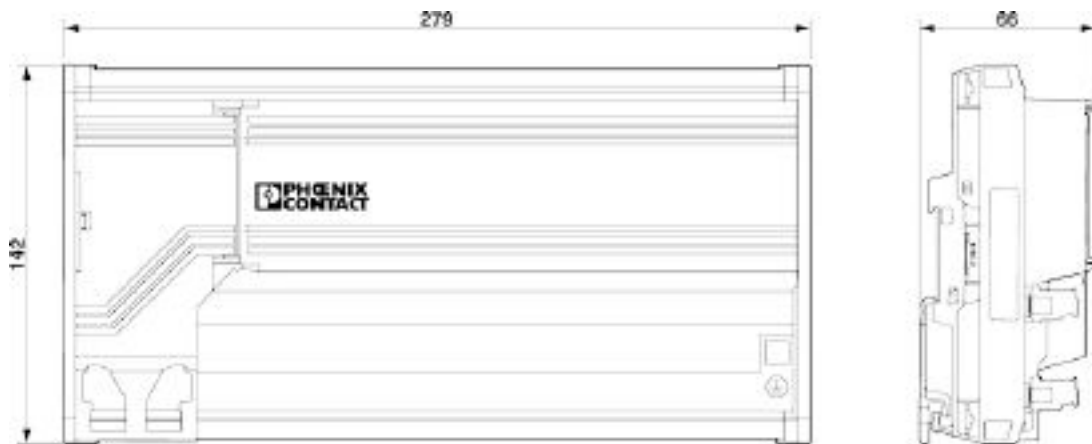
## Drawings

# Device coupler - FB-8SP ISO - 2316311

Block diagram



Dimensional drawing



## Device coupler - FB-8SP ISO - 2316311

### Classifications

#### eCl@ss

eCl@ss 10.0.1	27242610
eCl@ss 4.0	27250203
eCl@ss 4.1	27250203
eCl@ss 5.0	27250203
eCl@ss 5.1	27259205
eCl@ss 6.0	27242600
eCl@ss 7.0	27242610
eCl@ss 8.0	27242610
eCl@ss 9.0	27242610

#### ETIM

ETIM 2.0	EC001423
ETIM 3.0	EC001600
ETIM 4.0	EC001600
ETIM 5.0	EC001600
ETIM 6.0	EC001600
ETIM 7.0	EC001600

#### UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

### Accessories

Accessories

Base element

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### Accessories

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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### Device coupler

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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Power supply unit - FB-PS-MB-Y/EX - 2316148



Four-channel redundant fieldbus power supply base. Host connections are for two Yokogawa AKB336 20-pin cables.

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Power supply unit - FB-PS-MB-I/EX - 2316149



Four-channel, redundant fieldbus power supply base. Host connection is for an Invensys® D-SUB 25 cable.

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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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### Accessories

#### Neutral conductor rail

Neutral busbar - NLS-CU 3/10 SN 2000MM - 0402006



Neutral busbar, width: 10 mm, height: 3 mm, DIN VDE 0611-4: 1991-02, material: Copper, tin-plated, length: 2000 mm, color: silver

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#### 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.

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#### Shield connection

Shield connection - AXL SHIELD SET - 2700518



Axiline shield connection set (contains 2 shield bus holders and 2 SK 5 shield connection clamps)

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#### Shield connection clamp

Shield connection clamp - SK 5 - 3025338



Shield connection clamp, for shield on busbars, contact resistance < 1 mΩ

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#### Surge protection for information technology

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### Accessories

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



PLUGTRAB, plug-in surge protection for Foundation Fieldbus