

Device coupler - FB-12SP ISO - 2316312

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Zone 1 installed device coupler for Foundation Fieldbus and PROFIBUS PA with terminal connections for 12 spurs connected to fieldbus end devices.




Your advantages

- ✓ Connect up to 12 Foundation Fieldbus or PROFIBUS PA field devices located in Zone 0/1
- ✓ Terminator preinstalled
- ✓ Provides current limiting short-circuit protection per spur
- ✓ Three isolation zones; Spurs 1-4, 5-8, and 9-12.
- ✓ Single-sided plug configuration eliminates cable bend radius issues



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 276991
GTIN	4055626276991

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
Depth	66 mm

Ambient conditions

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

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Technical data

Ambient conditions

Degree of protection	IP20
	IP30 ()

General

Mounting position	On horizontal and vertical DIN rail NS 35 in acc. with EN 60715
Net weight	1265 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	50 mA (trunk, no load)
	550 mA (maximum trunk current)
Conductor cross section flexible max.	0.20 mm ²
Conductor cross section flexible min.	2.50 mm ²
Conductor cross section solid max.	0.20 mm ²
Conductor cross section solid min.	2.50 mm ²
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	12
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 ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
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 _i	0 μH
Max. output voltage U _o	16.7 V

Safety data

Input voltage U _i	32 V
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Technical data

Safety data

Max. output voltage U_o	16.7 V
Max. output current I_o	250 mA
Max. output power P_o	1.05 W
Group	IIC
Max. external capacitance C_o	0.39 μ F
Group	IIB
Max. external capacitance C_o	2.33 μ F
Group	IIC
Max. external inductivity L_o	0.56 mH
Group	IIB
Max. external inductivity L_o	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_m	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
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

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Standards and Regulations

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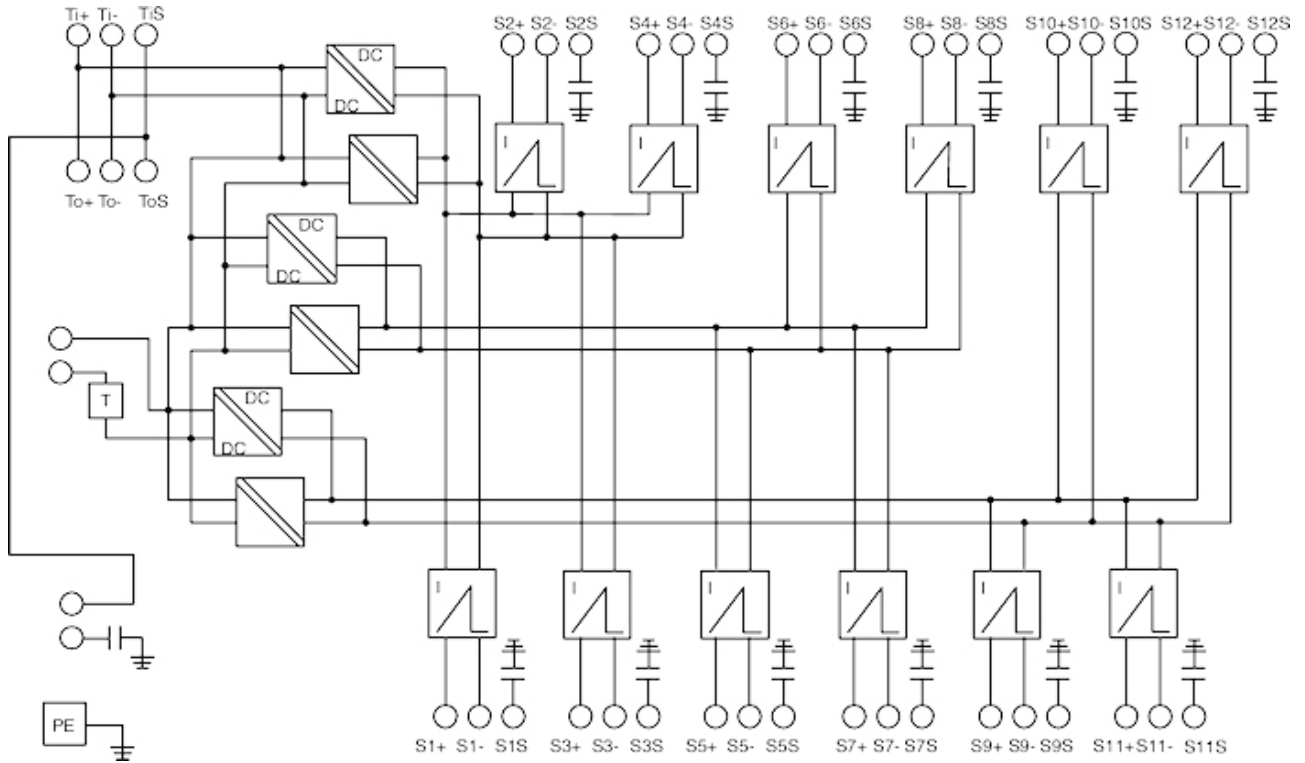
Environmental Product Compliance

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

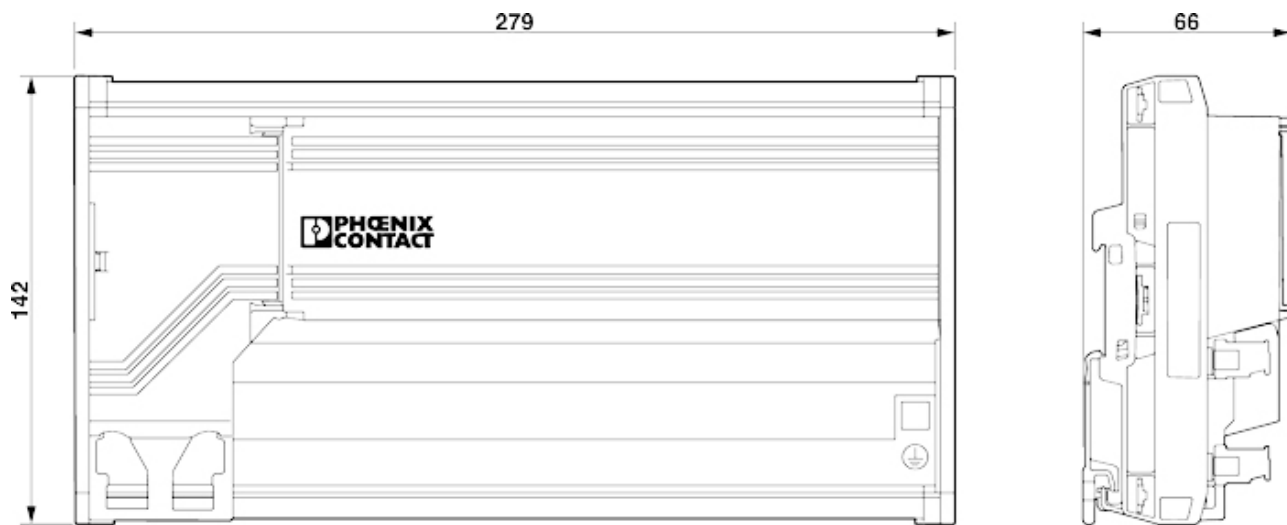
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Block diagram



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Dimensional drawing



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
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Classifications

UNSPSC

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

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

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.

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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Accessories

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.

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.

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

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.

Shield connection

Shield connection - AXL SHIELD SET - 2700518



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

Shield connection clamp

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Accessories

Shield connection clamp - SK 5 - 3025338



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

Surge protection for information technology

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



PLUGTRAB, plug-in surge protection for Foundation Fieldbus

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