

# FB-2SP/24DC - Device coupler



2316352

<https://www.phoenixcontact.com/us/products/2316352>

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Foundation Fieldbus isolator for Zone 2 installation using the intrinsically safe [ic] protection method.

## Product description

The FB-2SP/24DC has terminal blocks for two spur connections to each device coupler. The device coupler provides short-circuit protection to the fieldbus trunk. Voltage and communication are routed via the TBUS connection system to multiple installed device couplers.

## Commercial data

Item number	2316352
Packing unit	1 pc
Sales key	DN11
Product key	DNC144
Catalog page	Page 455 (C-6-2019)
GTIN	4055626088716
Weight per piece (including packing)	111.5 g
Weight per piece (excluding packing)	111.5 g
Customs tariff number	85389099
Country of origin	US

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## Technical data

### Notes

#### Utilization restriction

CCCex note	Use in potentially explosive areas is not permitted in China.
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### Product properties

Product type	Device coupler
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### Electrical properties

#### Supply

Supply voltage range	9 V DC ... 30 V DC
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### Connection data

#### Supply

Conductor cross section, flexible	2.50 mm <sup>2</sup> ... 0.20 mm <sup>2</sup>
Conductor cross section, rigid	2.50 mm <sup>2</sup> ... 0.20 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	24 ... 12
Conductor cross section AWG	24 ... 12

### Ex data

#### Safety data

Inductance L <sub>i</sub>	4 μH (spurs)
Capacitance C <sub>i</sub>	0 nF (spurs)
Max. output voltage U <sub>o</sub>	23.56 V DC (spurs)
Max. output current I <sub>o</sub>	40.9 mA (spurs)
Max. output power P <sub>o</sub>	0.964 W (spurs)
Max. external inductivity L <sub>o</sub> / Max. external capacitance C <sub>o</sub>	/ 60 nF 250 μH

### Interfaces

Signal	PROFIBUS FOUNDATION Fieldbus
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#### Data: Foundation Fieldbus and PROFIBUS PA Segment

Connection method	Pluggable COMBICON screw connection for each spur
No. of channels	2
Tightening torque	0.5 Nm ... 0.6 Nm
Termination resistor	via FB-ET/E
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section, rigid max.	2.5 mm <sup>2</sup>

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Conductor cross section, rigid min.	0.2 mm <sup>2</sup>
Conductor cross section AWG max.	12
Conductor cross section AWG min.	24
Output nominal voltage	≤ 32 V (each spur)
Maximum output current	35 mA (per channel) 50 mA (per module)

## Dimensions

Width	17.5 mm
Height	89.7 mm
Depth	70.4 mm

## Material specifications

Color	green
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## Mechanical tests

Corrosive resistance in acc. to 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)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Shock	15g, 11 ms
Vibration (operation)	1g, 10 Hz ... 150 Hz

## Approvals

### Conformity/Approvals

IEC	IEC 60079-0:2011; IEC 60079-11:2011; IEC 60079-15:2010
Fieldbus Foundation	FF-846
EN	EN 60079-0:2011; EN 60079-11:2011; EN 60079-15:2010
NE	NAMUR NE 21

### Ex data

ATEX	Sira 13ATEX4016; II 3(3)G Ex nA [ic] IIC T4 Gc
IECEX	IECEX SIR 13.0001X; Ex nA [ic] IIC T4 Gc
CSA, USA/Canada	Class I, Div. 2, Groups A, B, C, D; Ex nA[ic] IIC T4 Gc Class I, Zone 2; AEx nA[ic] IIC T4 Gc

## Standards and regulations

### Standards/regulations

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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
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## Standards/regulations

Standards/regulations	Shock and vibration in acc. with EN 61131-2 and EN 50178
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Standards/regulations	IEC 61158-2
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## Mounting

Mounting type	DIN rail mounting
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Assembly note	on standard DIN rail NS 35 in accordance with EN 60715
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Mounting position	On horizontal DIN rail NS 35 in acc. with EN 60715
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## Classifications

### ECLASS

ECLASS-11.0	27242610
ECLASS-12.0	27242610

### ETIM

ETIM 8.0	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	a46ff661-aa35-41ed-b47c-09103e9383e5

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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)