FB-8SP ISO - Device coupler

2316311

https://www.phoenixcontact.com/us/products/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 8 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

Commercial data

Item number	2316311
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN11
Product key	DNC144
Catalog page	Page 456 (C-6-2019)
GTIN	4055626306803
Weight per piece (including packing)	1,200.5 g
Weight per piece (excluding packing)	1,190 g
Customs tariff number	85389099
Country of origin	US

Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area

Product properties

Product type	Device coupler

Insulation characteristics

Overvoltage category	II
Degree of pollution	2

Electrical properties

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)

Connection data

Supply

Conductor cross section, flexible	2.50 mm² ... 0.20 mm²
Conductor cross section, rigid	2.50 mm² ... 0.20 mm²
Conductor cross section, flexible [AWG]	24 ... 12
Conductor cross section AWG	24 ... 12

Ex data

Safety data

Input voltage U_i	32 V
Inductance Li	0 µH
Capacitance Ci	0 µF
Max. output voltage U_o	16.7 V
Max. output current I_o	250 mA
Max. output power P_o	1.05 W
Safety-related maximum voltage U_m	253 V
IIC: Max. external inductivity L_o / Max. external capacitance C_o	/ 0.39 µF
IIB: Max. external inductivity L_o / Max. external capacitance C_o	/ 2.33 µF
IIC: Max. external inductivity L_o / Max. external capacitance C_o	0.56 mH
IIB: Max. external inductivity L_o / Max. external capacitance C_o	2.27 mH

Interfaces

Signal	FOUNDATION Fieldbus

	PROFIBUS

Data: Foundation Fieldbus and PROFIBUS PA Segment

Connection method	Pluggable COMBICON screw connection for each spur
No. of channels	8
Termination resistor	Integrated termination, activated with bridge located in correct terminals
Conductor cross section flexible max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section, rigid max.	2.5 mm²
Conductor cross section, rigid min.	0.2 mm²
Conductor cross section AWG max.	12
Conductor cross section AWG min.	24
Output nominal voltage	≤ 14 V (each spur)
Output current	35 mA (per spur)

Dimensions

Dimensional drawing	
Width	279 mm
Height	142 mm
Depth	66 mm

Material specifications

Flammability rating according to UL 94	V0

Cable/line

Cable impedance	Recommend Type A fieldbus cable

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
	IP30 (over trunk connections)
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	< 95 % (non-condensing)
Permissible humidity (operation)	95 % (non-condensing)
Shock	15g for 11 ms
Vibration (operation)	2g, 10 Hz ... 150 Hz

Approvals

ATEX

Identification	II 2(1) G Ex eb ib mb [ia Ga] IIC T4 Gb II (1D) [Ex ia Da] IIIC FISCO power supply (spur)
Certificate	DEMKO 16ATEX 1689X

IECEx

Identification	Ex eb ib mb [ia Ga] IIC T4 Gb [Ex ia Da] IIIC FISCO power supply (spur)
Certificate	IECEx UL 16.0114X

UKCA Ex (UKEX)

Identification	II 2(1) G Ex eb ib mb [ia Ga] IIC T4 Gb II (1D) [Ex ia Da] IIIC FISCO power supply (spur)
Certificate	UL21UKEX2210X

CCC Ex

Identification	Ex eb ib mb [ia Ga] IIC T4 Gb [Ex ia Da] IIIC

Ex data

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)

Standards and regulations

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

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

Classifications

ECLASS

ECLASS-11.0	27242610
ECLASS-12.0	27242610
ECLASS-13.0	27242610

ETIM

ETIM 9.0	EC001600

UNSPSC

UNSPSC 21.0	32151600

Environmental product compliance

REACh SVHC	Lead 7439-92-1

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer’s declaration available under “Downloads”

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