FB-12SP ISO - Device coupler

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

- 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
- Connect up to 12 Foundation Fieldbus or PROFIBUS PA field devices located in Zone 0/1
- Terminator preinstalled

ELEKTROGERÄTE RÜCKNAHME

Commercial data

Item number	2316312
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN11
Product key	DNC144
GTIN	4055626276991
Weight per piece (including packing)	1,220.5 g
Weight per piece (excluding packing)	1,265 g
Customs tariff number	85369095
Country of origin	US

Technical data

Notes

Note on application

Note on application	Only for industrial use

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	50 mA (trunk, no load)
	550 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

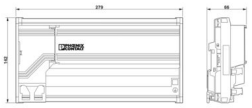
Interfaces

Signal	FOUNDATION Fieldbus
	PROFIBUS

Data: Foundation Fieldbus and PROFIBUS PA Segment

Connection method	Pluggable COMBICON screw connection for each spur
No. of channels	12
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 (per spur)
Output current	35 mA (per spur)

Dimensions

Dimensional drawing	
Width	279 mm
Height	142 mm
Depth	66 mm

Material specifications

Color (Housing)	black (RAL 9005)
Flammability rating according to UL 94	V0

Cable/line

Cable impedance	Recommend Type A fieldbus cable

Mechanical tests

Corrosive resistance in accordance with ANSI-ISA 71.04-1985 - Severity level G3	:

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

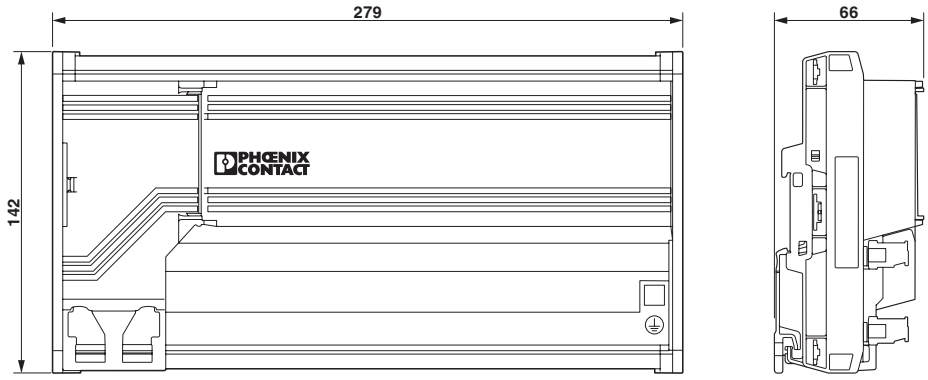
Standards/regulations	IEC 61158-2

Mounting

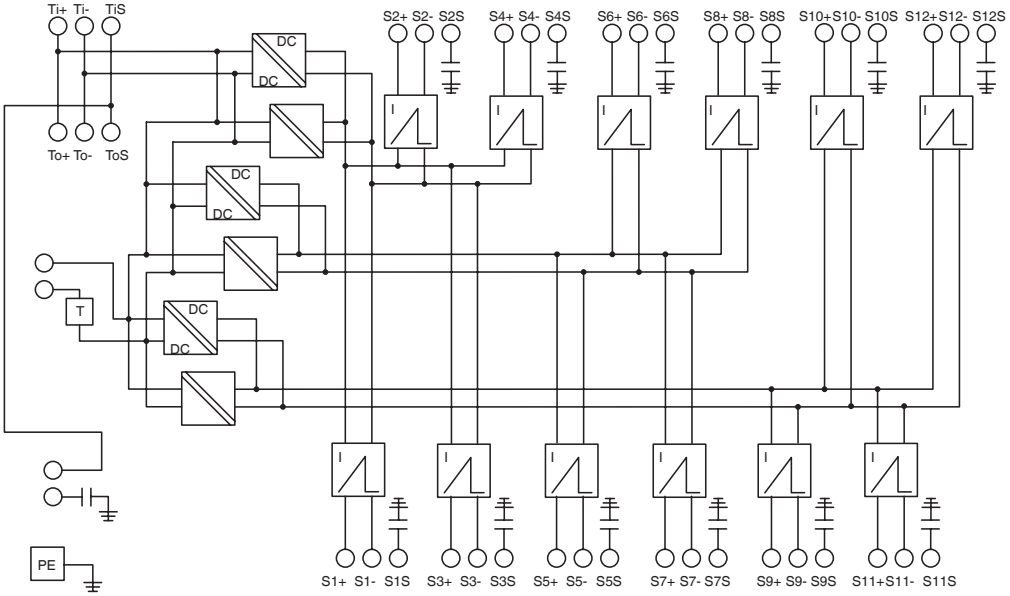
Mounting type	DIN rail mounting
Mounting position	On horizontal and vertical DIN rail NS 35 in acc. with EN 60715
Useable DIN rail type	DIN rail: 35 mm

Drawings

Dimensional drawing



Block diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2316312

UKCA-EX
Approval ID: UL21UKEX2210X

IECEx
Approval ID: IECEx UL 16.0114X

CCC
Approval ID: 2022122310115622

cUL Listed
Approval ID: E199827

UL Listed
Approval ID: E199827

ATEX
Approval ID: DEMKO 16 ATEX 1689X

CCC
Approval ID: 2022122310115622

Classifications

ECLASS

ECLASS-13.0	27242610
ECLASS-15.0	27242610

ETIM

ETIM 10.0	EC001600

UNSPSC

UNSPSC 21.0	32151600

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)
	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)(CAS: 3147-75-9)
SCIP	d993f4ee-2127-409b-9bcb-ffba51a2e796

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