

# PP-RJ-SC-F - Patch panel



2703021

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Patch panel, RJ45 jack on screw terminal blocks, CAT5e, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief, shield current monitoring, surge protection

## Product description

This product is the successor to FL-PP-RJ45-SC, item no. 2901643. Ethernet patch panels enable quick and easy connection between the field cabling and control cabinet cabling. The passive termination panels are a convenient alternative to the on-site assembly of RJ45 connectors.

## Your advantages

- 10/100/1000 Mbps
- Extended temperature range of -40 °C ... +75 °C
- Fast connection of the field cable
- Wiring space covered with front panel cover
- Tool-free shield contacting with strain relief
- Integrated surge protection to ensure high system availability
- Shield current monitoring with visual display
- Shipbuilding approval in accordance with DNV GL
- PoE-capable in accordance with IEEE 802.3bt, type 4



## Commercial data

Item number	2703021
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN07

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Product key	DNC334
GTIN	4055626463339
Weight per piece (including packing)	149.6 g
Weight per piece (excluding packing)	124.2 g
Customs tariff number	85369010
Country of origin	DE

## Technical data

### Notes

#### Note on application

Note on application	Only for industrial use
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#### Utilization restriction

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

Product type	Patch panel
IEC test classification	C2
MTTF	3268 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	1238 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	468 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)

#### Insulation characteristics

Overvoltage category	II
Pollution degree	2

### Electrical properties

Electrical isolation	FE // Ethernet
Maximum power dissipation for nominal condition	0 W
Rated insulation voltage	85 V DC

#### Supply

Supply voltage range	36 V DC ... 52 V DC $\pm 10$ % (via PoE)
	42 V DC ... 57 V DC (in acc. with UL)

#### Function

Designation	Shield current monitoring
Switch-on threshold	$\geq 30$ mA
Local diagnostics	Yellow LED
Precision	$\pm 5$ %
Response time	3 s
Current	$\leq 1.5$ A
Power consumption	270 mW (Shield current monitoring)
Impedance	$\leq 1$ $\Omega$
Voltage	$\leq 10$ V

### Interfaces

Data: Ethernet interface, 10/100/1000Base-T(X) in accordance with IEEE 802.3

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Serial transmission speed	10/100/1000 Mbps
Frequency range	125 MHz
Connection method	Screw connection
Note on the connection method	CAT5e
Tightening torque	0.22 Nm ... 0.25 Nm
Pin assignment	1:1
Transmission length	100 m (including patch cables)
Single conductor/terminal point, rigid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Single-wire/terminal point, flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Max. AWG conductor cross-section, flexible	16
Min. AWG conductor cross-section, flexible	28
Single-wire/terminal point, rigid AWG max.	16
Single-wire/terminal point, rigid AWG min.	28
Stripping length	5 mm
Transmission medium	Copper
Maximum output power	60 W
Maximum output current	725 mA (PoE)
Current carrying capacity	≤ 1.5 A (≤ 60 W (PoE+))

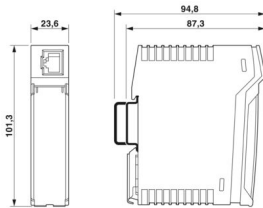
Data: Ethernet interface, 10/100/1000Base-T(X) in accordance with IEEE 802.3

Connection method	RJ45 jack
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## Signaling

Optical representation	Yellow LED
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## Dimensions

Dimensional drawing	
Width	23.8 mm
Height	101.3 mm
Depth	86 mm

## Material specifications

Color (Housing)	light gray (RAL 7035)
Material (Housing)	Plastic
Flammability rating according to UL 94	V0

## Cable/line

External cable diameter	5.5 mm ... 6.5 mm
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## Mechanical tests

Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	: 10 Hz ... 57 Hz, amplitude $\pm 3.5$ mm, 57 Hz ... 150 Hz, 5g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	: 30g for 11 ms, three shocks in each spatial direction
Continuous shock in accordance with EN 60068-2-27/IEC 60068-2-27	: 10g for 16 ms, 1000 shocks in each spatial direction

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20 (Manufacturer's declaration)
Ambient temperature (operation)	-40 °C ... 75 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	$\leq 5000$ m (For restrictions, see the manufacturer's declaration for altitude operation)
	$\leq 2000$ m (Restrictions for ATEX applications)
Permissible humidity (operation)	10 % ... 95 % (non-condensing)

## Approvals

### CE

Certificate	CE-compliant
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### ATEX

Identification	⊕ II 3 G Ex ec nC IIC T4 Gc
Certificate	PxCIF18ATEX2703020X
Note	Please follow the special installation instructions in the documentation!

### UL, USA/Canada

Identification	Class I, Zone 2, AEx nA IIC T4, Ex nA IIC Gc X T4
	Class I, Div. 2, Groups A, B, C, D

### UL, USA

Certificate	UL 60079-0 Ed. 6 / UL 60079-15 Ed. 4
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### UL, Canada

Certificate	CSA 22.2 No. 60079-0 Ed. 3 / CSA 22.2 No. 60079-15:16
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### Corrosive gas test

Identification	ISA-S71.04-1985 G3 Harsh Group A
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### Shipbuilding

Identification	DNV GL
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### Shipbuilding data

Temperature	D
Humidity	B
Vibration	B

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EMC	B
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## EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
	FCC Part 15B Class A
	CISPR 22

### Electrostatic discharge

Standards/regulations	EN 61000-4-2
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### Electrostatic discharge

Contact discharge	± 6 kV (Test Level 3)
Discharge in air	± 8 kV (Test Level 3)
Indirect discharge	± 6 kV
Comments	Criterion B

### Electromagnetic HF field

Standards/regulations	EN 61000-4-3
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### Electromagnetic HF field

Frequency range	80 MHz ... 3 GHz (Test Level 3)
Field intensity	10 V/m
Comments	Criterion A

### Fast transients (burst)

Standards/regulations	EN 61000-4-4
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### Fast transients (burst)

Input	± 2.2 kV (1 minute)
Signal	± 2.2 kV (1 minute)
Comments	Criterion B

### Surge current load (surge)

Standards/regulations	EN 61000-4-5
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### Surge current load (surge)

Input	± 0.5 kV
Signal	± 1 kV (Data line, asymmetrical)

### Conducted interference

Standards/regulations	EN 61000-4-6
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### Conducted interference

Frequency range	0.15 MHz ... 80 MHz
Comments	Criterion A
Voltage	10 V

### Emitted interference

Standards/regulations	EN 61000-6-4
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Comments	Class A, industrial applications
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## Emitted interference

Standards/regulations	EN 61000-6-3
Comments	Class B, domain of use: residential and small commercial

## Criteria

Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

## Standards and regulations

Standards/regulations	DIN EN 61643-21
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## Mounting

Mounting type	DIN rail mounting
Assembly note	The product can be snapped onto all 35 mm DIN rails in accordance with EN/IEC 60715.
Useable DIN rail type	DIN rail: 35 mm

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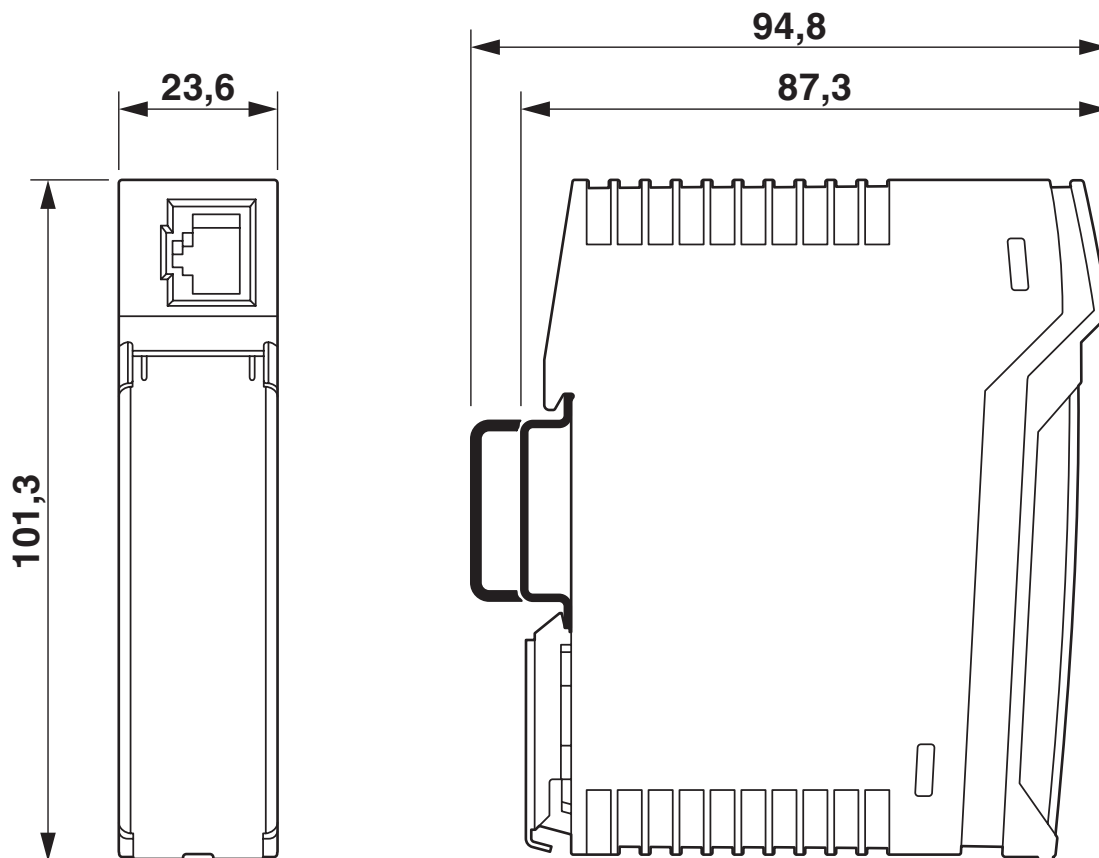
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## Drawings

Dimensional drawing



Housing dimensions

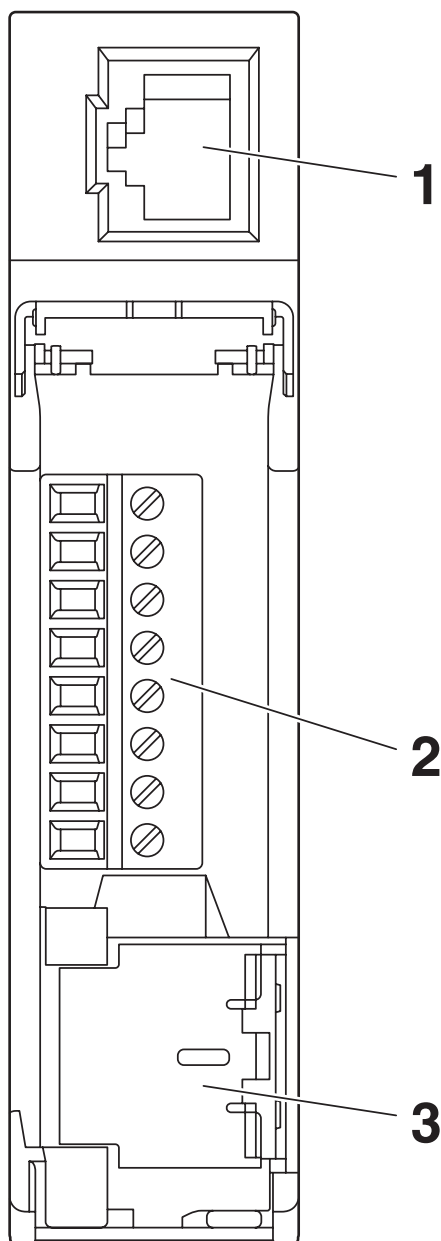
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Schematic diagram



Front view

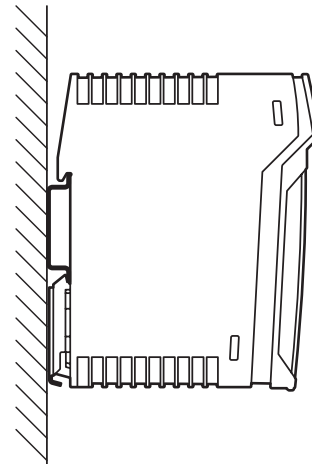
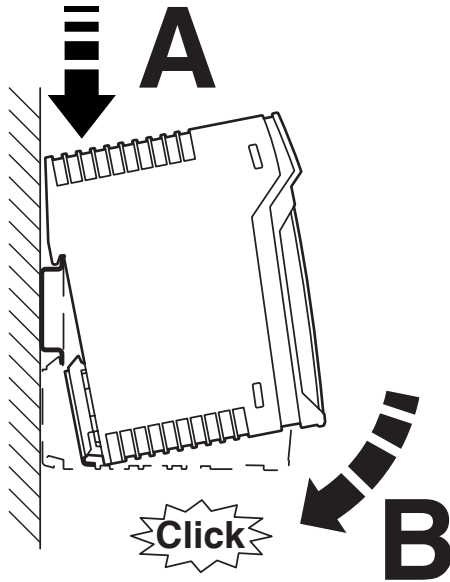
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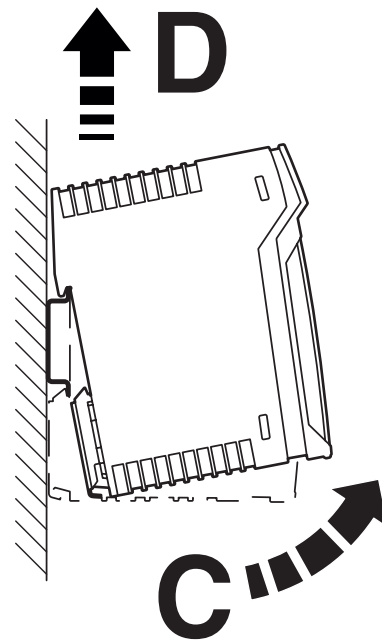
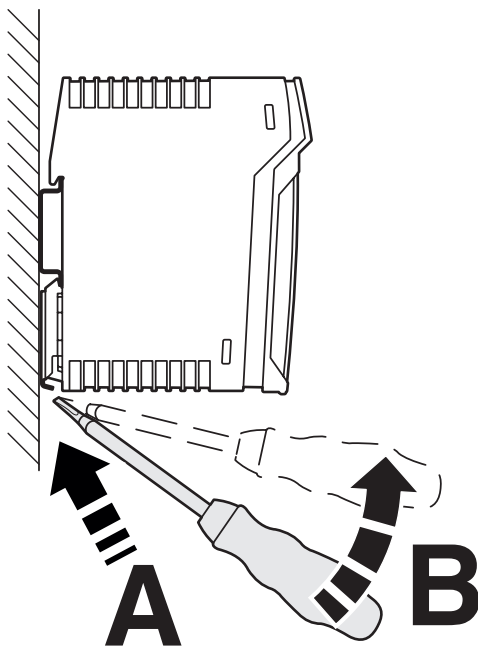


Schematic diagram



Mounting on a DIN rail

Schematic diagram



Removal

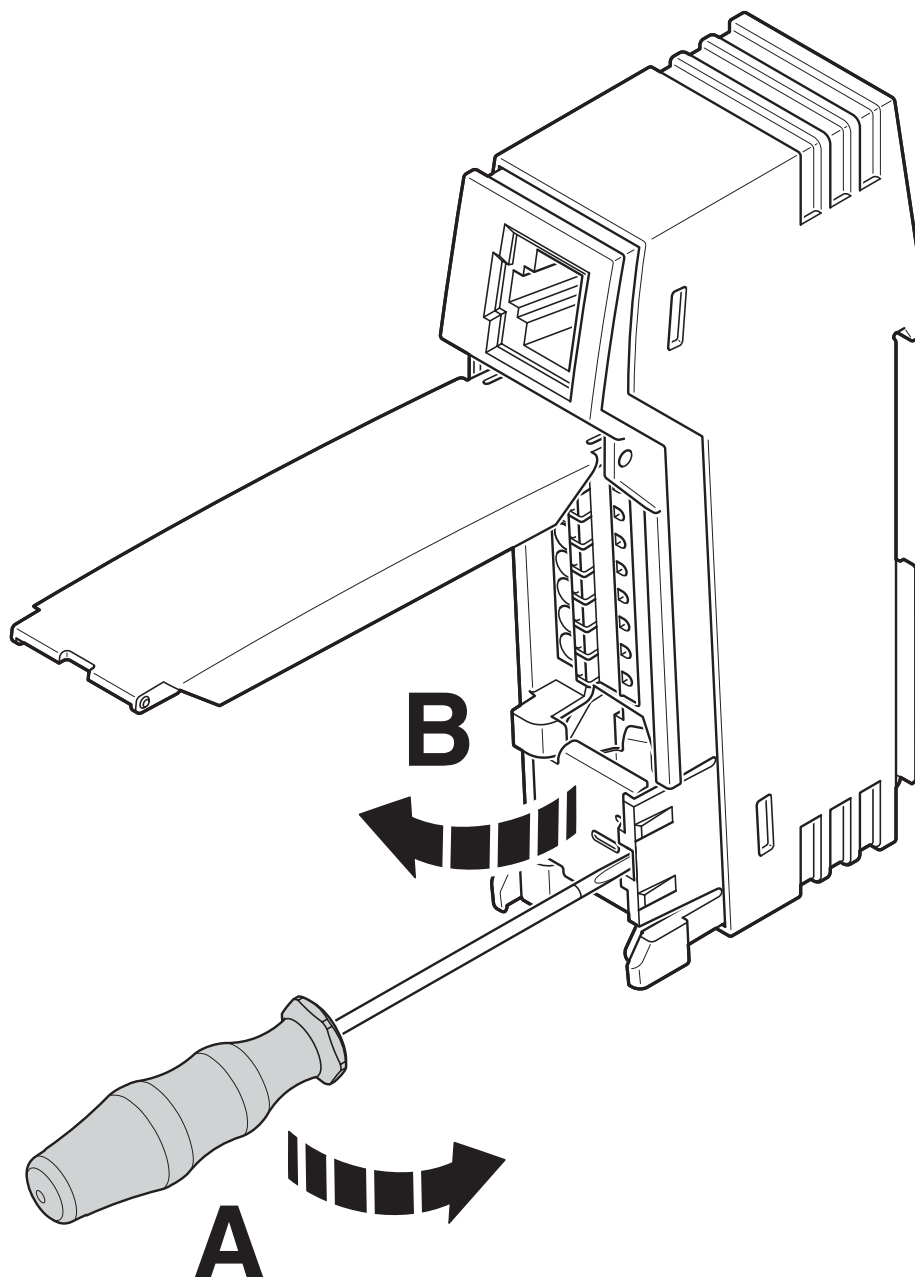
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Schematic diagram



Open shield contact spring

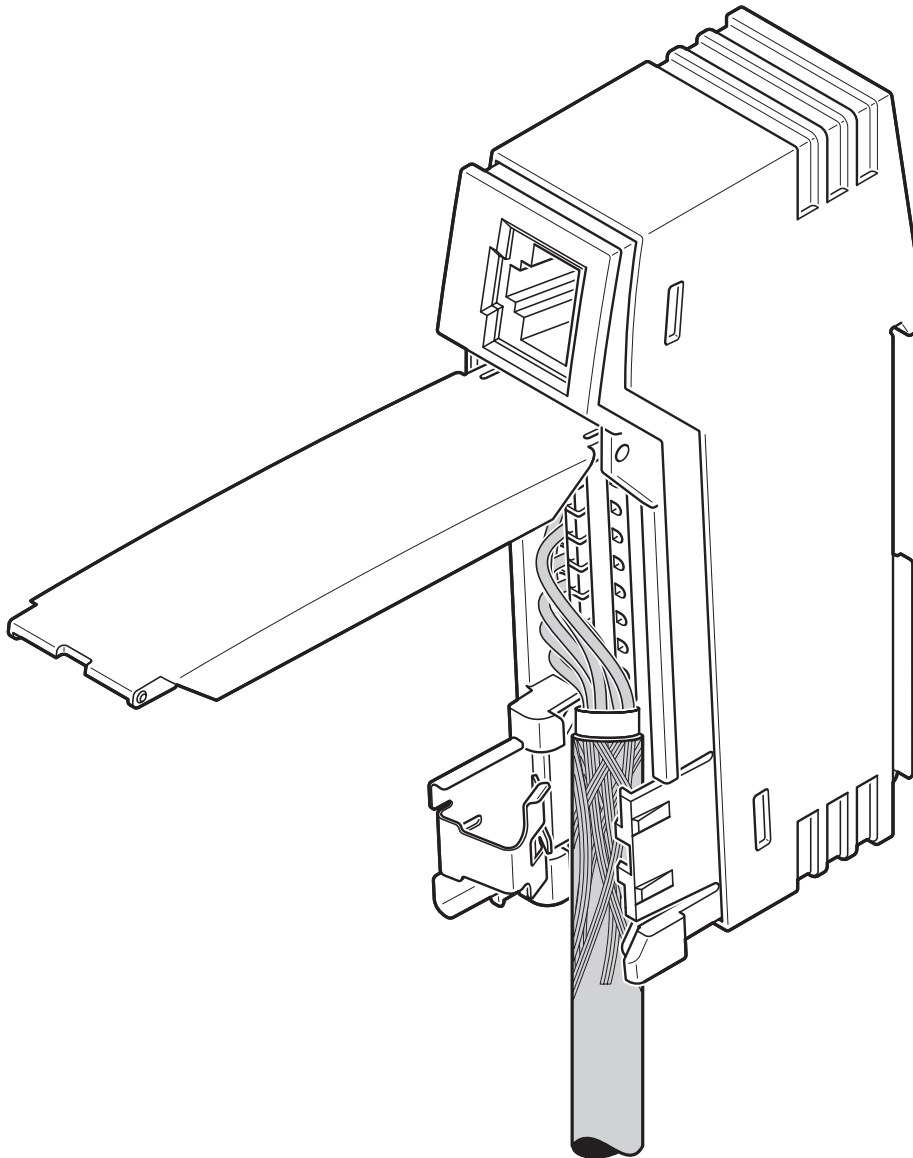
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## Schematic diagram



Inserting the cable

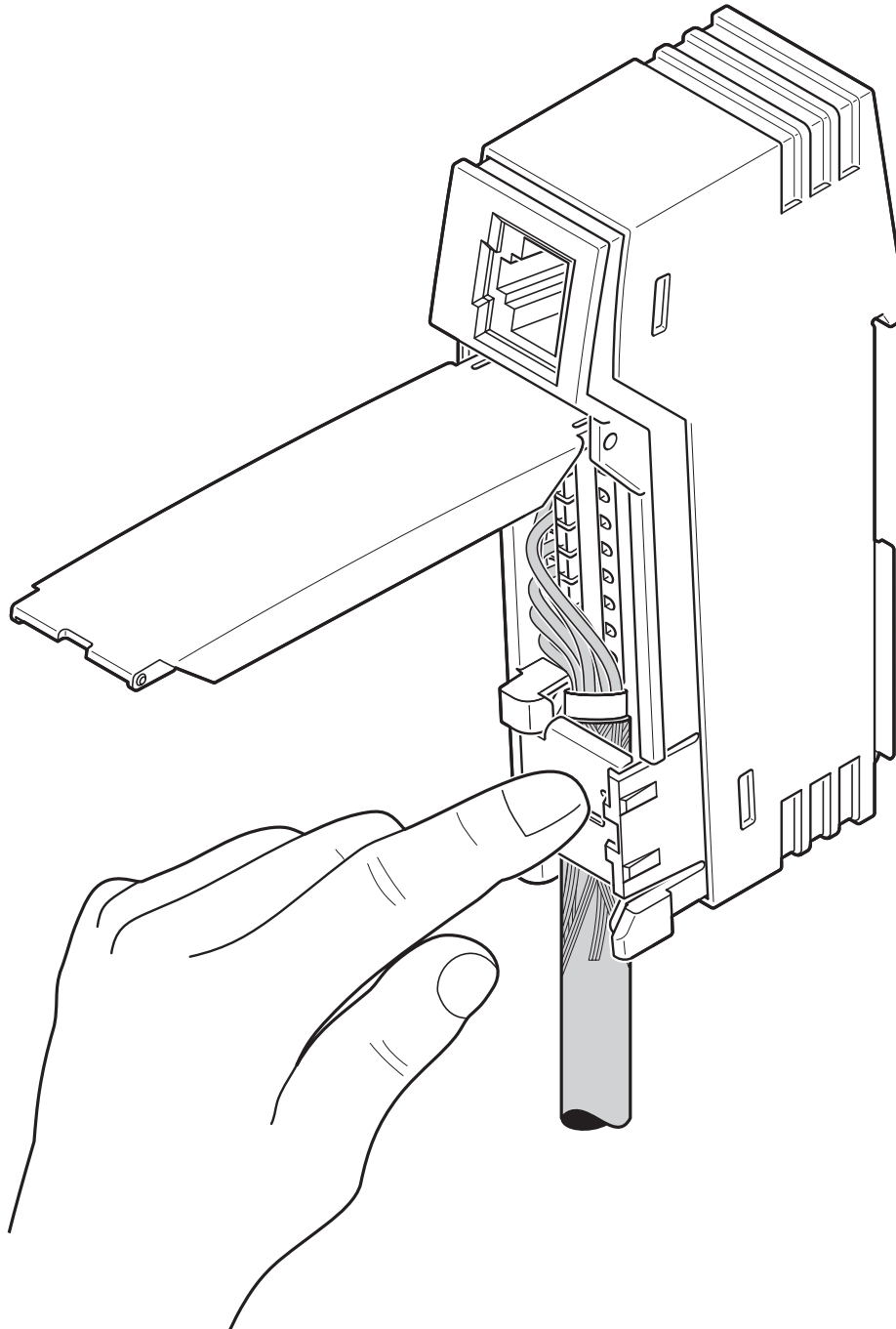
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Schematic diagram



Close shield contact spring

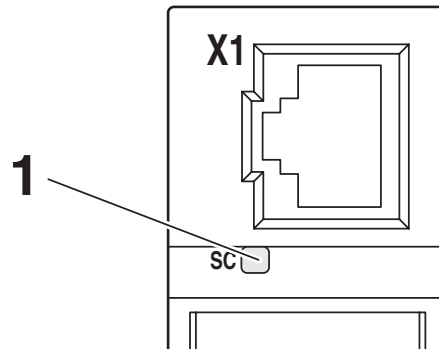
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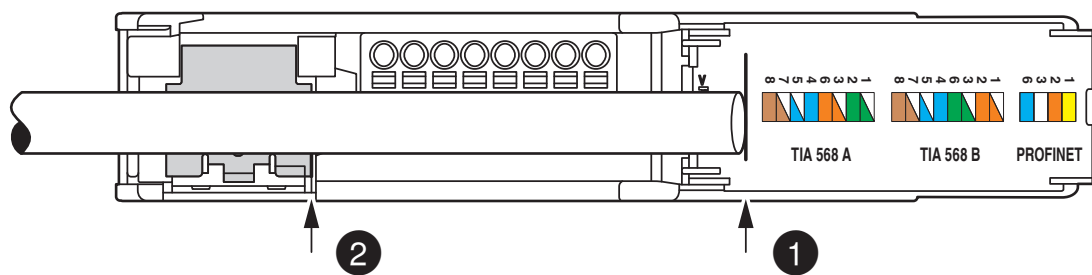


Schematic diagram



Shield current monitoring

Schematic diagram



Stripping length

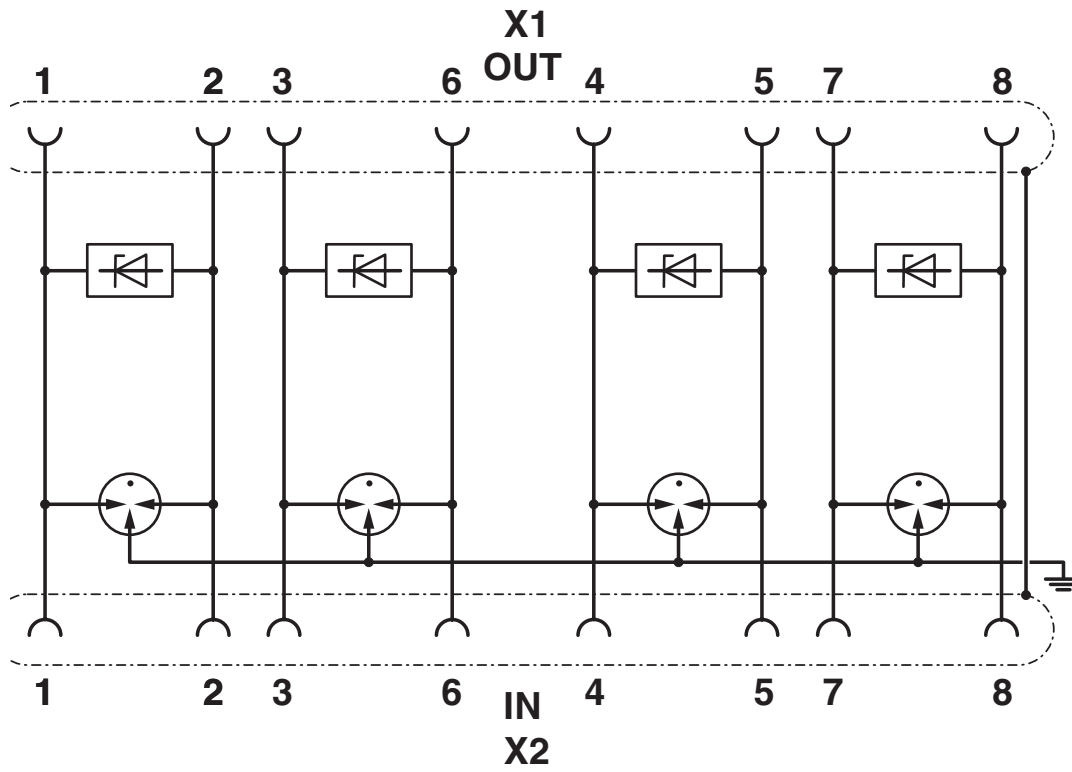
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Circuit diagram



Circuit diagram

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## Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2703021>



**cULus Listed**

Approval ID: E238705



**DNV GL**

Approval ID: TAA00001KR

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## Classifications

### ECLASS

ECLASS-13.0	19170112
ECLASS-15.0	19170112

### ETIM

ETIM 10.0	EC001128
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### UNSPSC

UNSPSC 21.0	43223300
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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	6d99384f-a6dc-4c60-b921-58c6b498ebf3

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