

PP-RJ-IDC-F - Patch panels

2703023

<https://www.phoenixcontact.com/gb/products/2703023>

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

Product description

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. The IDC fast connection terminal blocks enable tool-free connection without stripping the single-core wires. The terminal blocks with inserted wires are simply pressed shut by hand. Observe the permissible single-core wire diameter and the permissible insulation material.

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	2703023
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DNC334
Product key	DNC334
Catalog page	Page 361 (C-6-2019)
GTIN	4055626463353
Weight per piece (including packing)	139.1 g
Weight per piece (excluding packing)	124.2 g
Customs tariff number	85369010
Country of origin	DE

Technical data

Notes

Utilization restriction

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

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

IEC test classification	C2
Product type	Patch panel
MTTF	3281 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	1245 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	472 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	≥ 30 mA
Local diagnostics	Yellow LED
Precision	$\pm 5\%$
Response time	3 s
Current	≤ 1.5 A
Power consumption	270 mW (Shield current monitoring)
Impedance	≤ 1 Ω
Voltage	≤ 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	IDC connection
Pin assignment	1:1
Transmission length	100 m (including patch cables)
Conductor cross section flexible max.	0.34 mm ²
Conductor cross section flexible min.	0.14 mm ²
Conductor cross section, rigid max.	0.34 mm ²
Conductor cross section, rigid min.	0.14 mm ²
Max. AWG conductor cross section, flexible	22
Min. AWG conductor cross section, flexible	26
Single-wire/terminal point, rigid AWG max.	22
Single-wire/terminal point, rigid AWG min.	26
Wire diameter incl. insulation	1.6 mm (Terminal block is tested with PVC insulation - other insulation materials available on request)
Frequency of connections between conductors of the same cross section	10
Transmission medium	Copper
Maximum output power	60 W
Maximum output current	725 mA (PoE)
Current carrying capacity	≤ 1.5 A (≤ 60 W (PoE+))

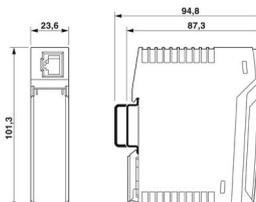
Data: Ethernet interface, 10/100/1000Base-T(X) in accordance with IEEE 802.3

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

Material	Plastic
Flammability rating according to UL 94	V0

Cable/line

External cable diameter ()	5.5 mm ... 6.5 mm
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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	≤ 5000 m (For restrictions, see the manufacturer's declaration for altitude operation)
	≤ 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 nA nC IIC T4 Gc X
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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DNV GL data

Temperature	D
Humidity	B
Vibration	B
EMC	B

EMC data

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

Electrostatic discharge

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Standards/regulations	EN 61000-4-2
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
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
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
Surge current load (surge)	
Input	± 0.5 kV
Signal	± 1 kV (Data line, asymmetrical)
Conducted interference	
Standards/regulations	EN 61000-4-6
Conducted interference	
Frequency range	0.15 MHz ... 80 MHz
Comments	Criterion A
Voltage	10 V
Emitted interference	
Standards/regulations	EN 61000-6-4
Comments	Class A, industrial applications
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.

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Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.
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Standards and regulations

Standards/regulations	DIN EN 61643-21
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Mounting

Mounting type	DIN rail mounting, stationary
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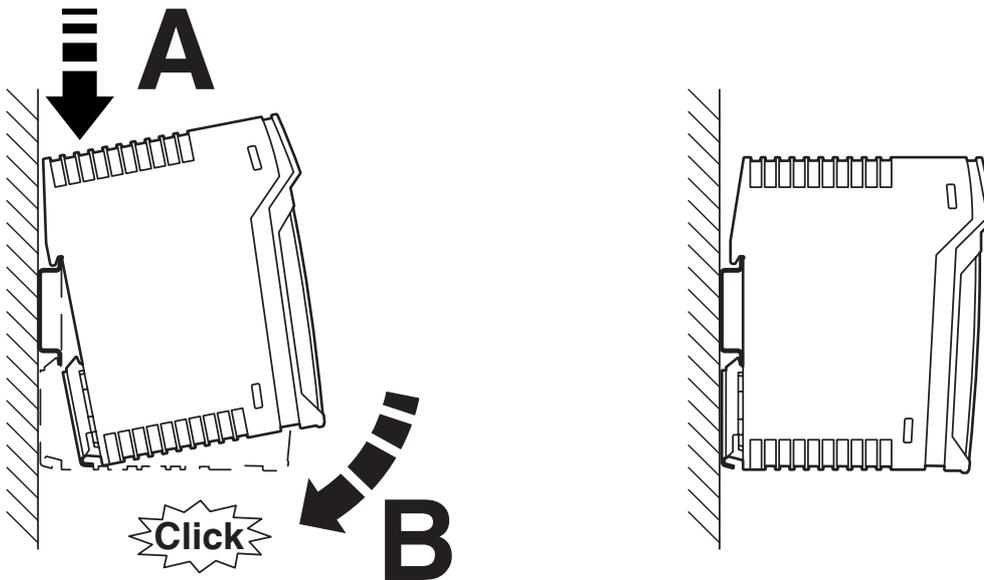
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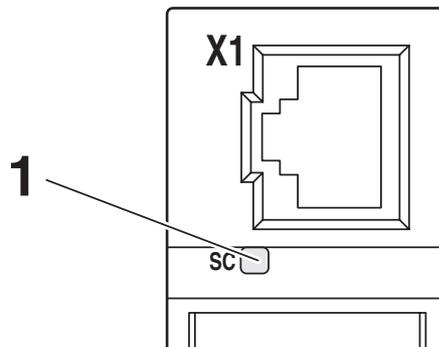
Drawings

Schematic diagram



Mounting on a DIN rail

Schematic diagram



Shield current monitoring

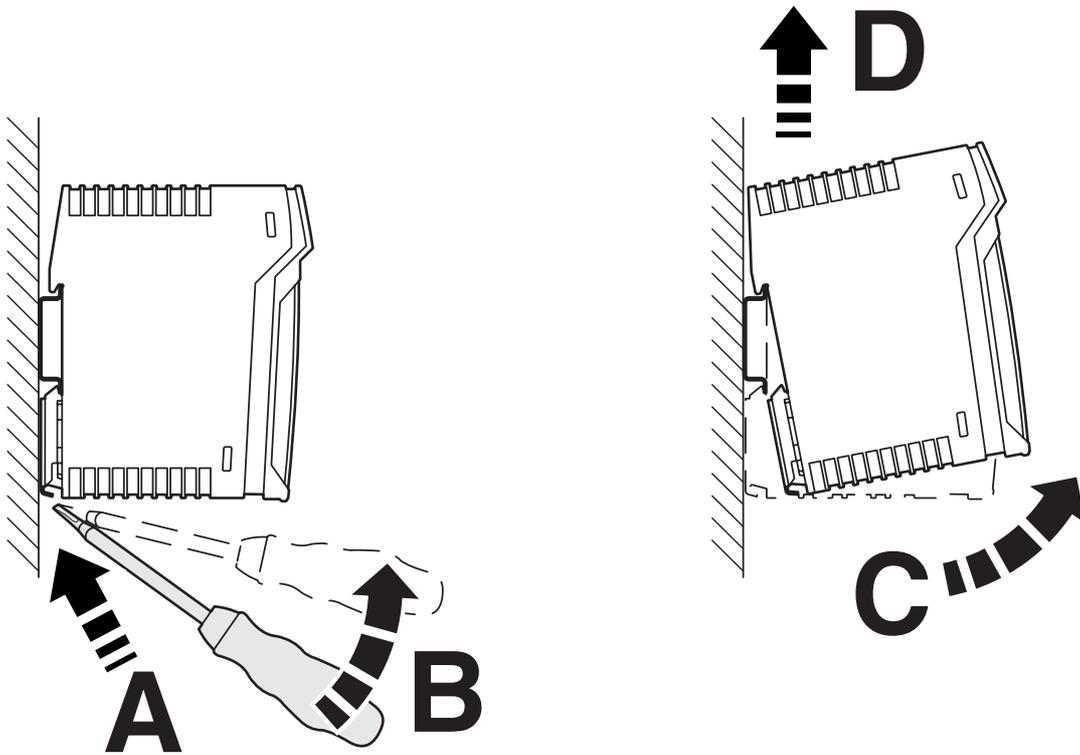
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Schematic diagram



Removal

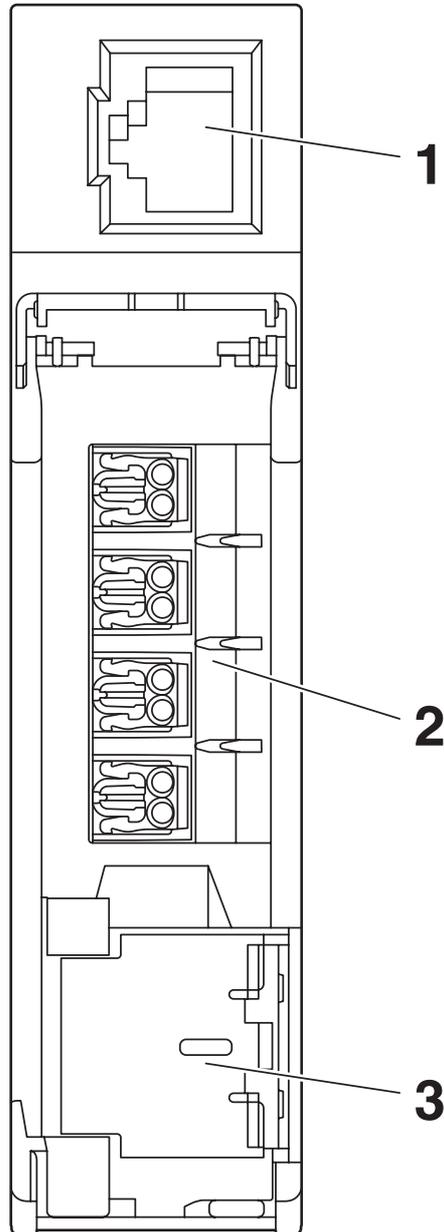
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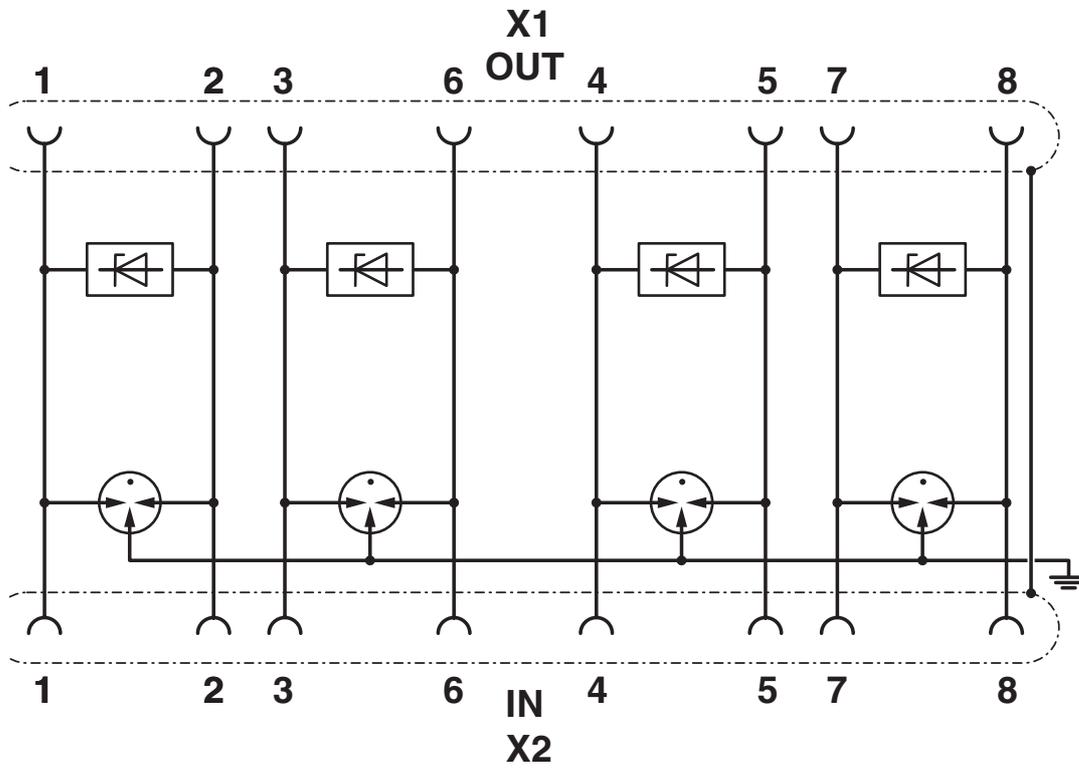


Schematic diagram

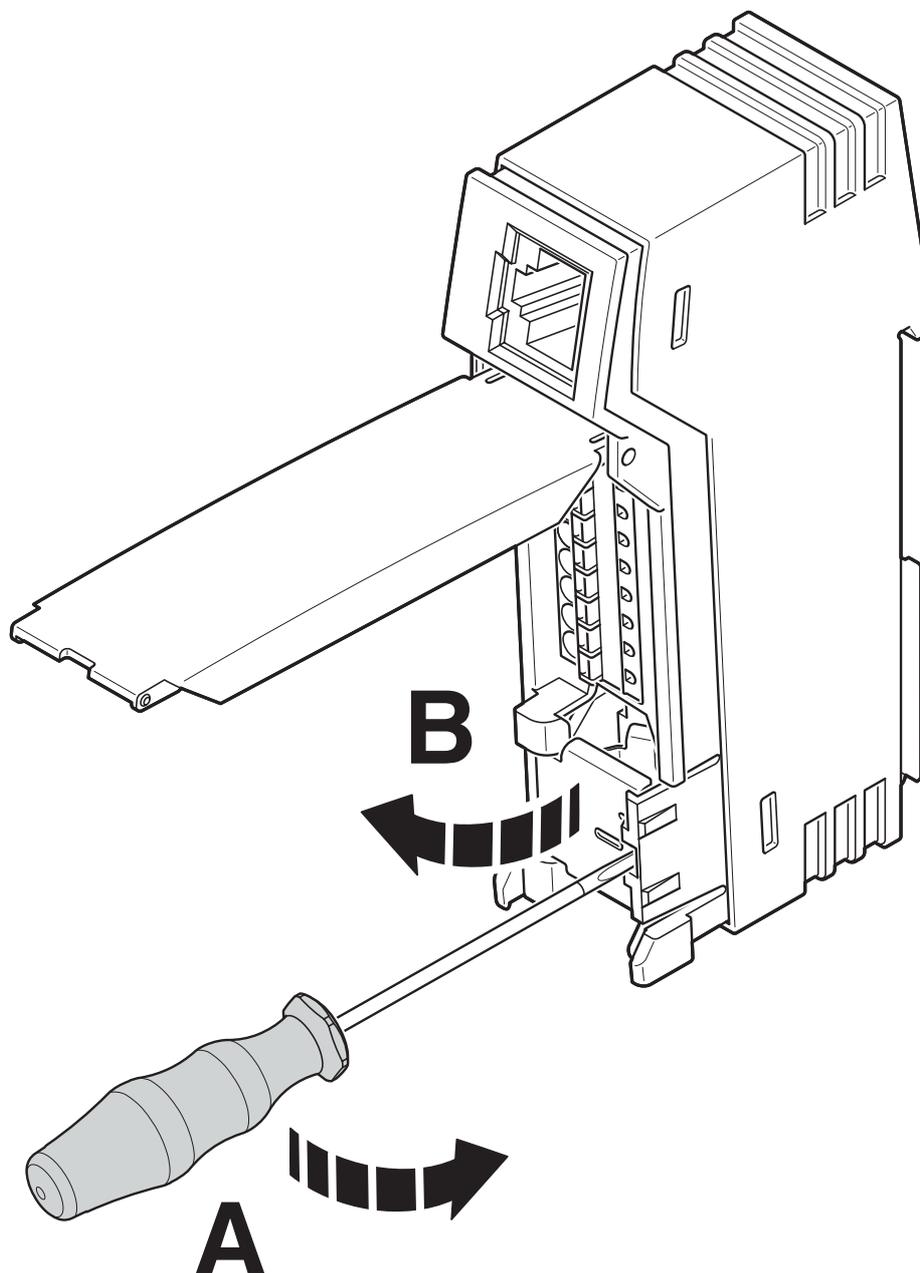


Front view

Circuit diagram



Schematic diagram



Open shield contact spring

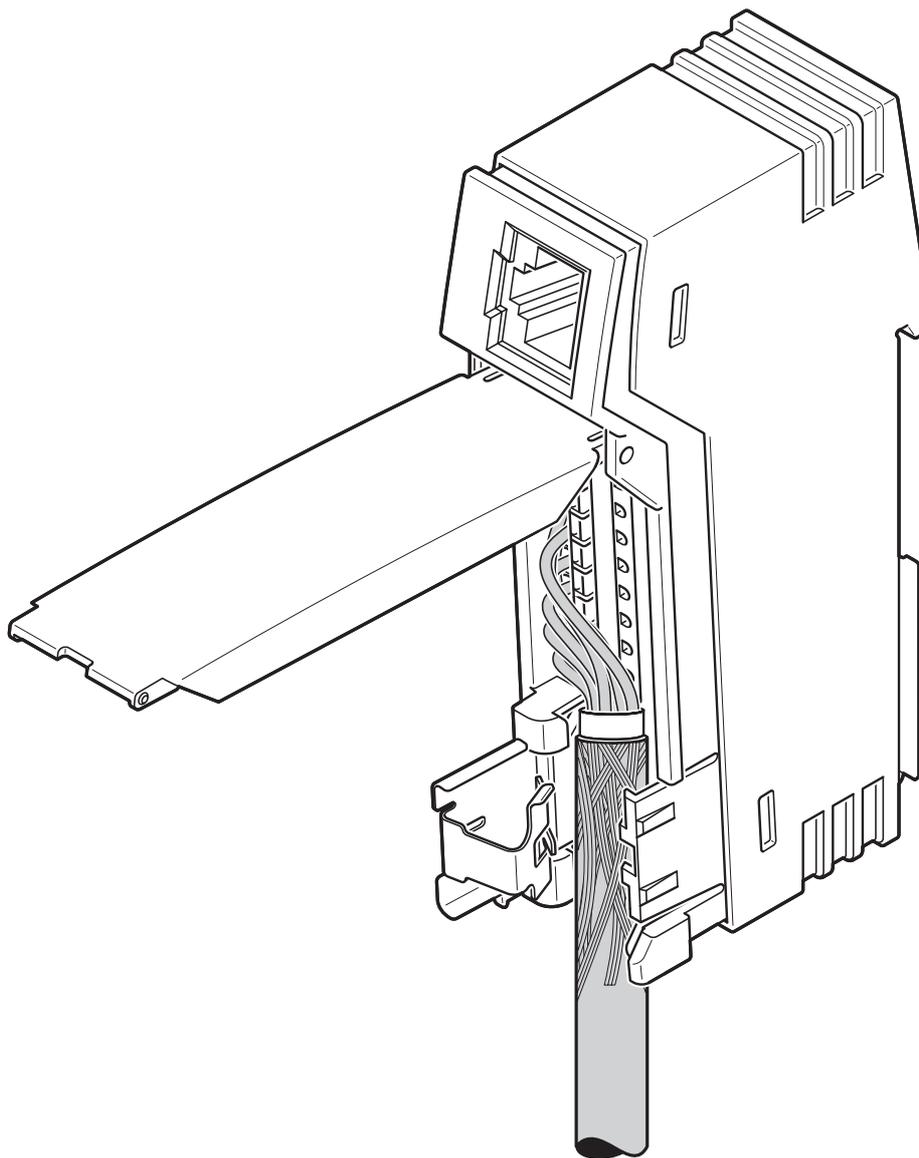
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Schematic diagram



Inserting the cable

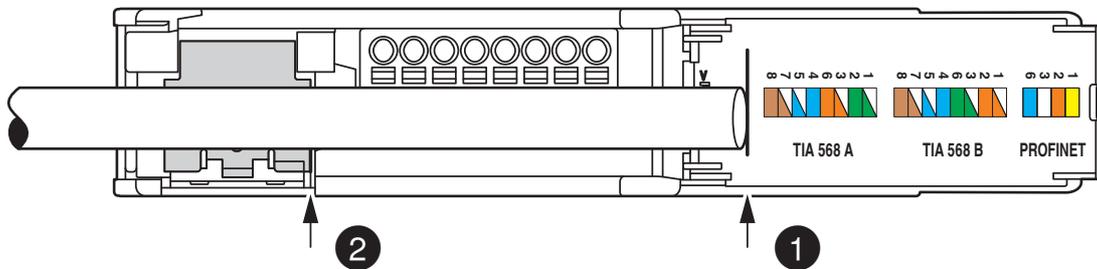
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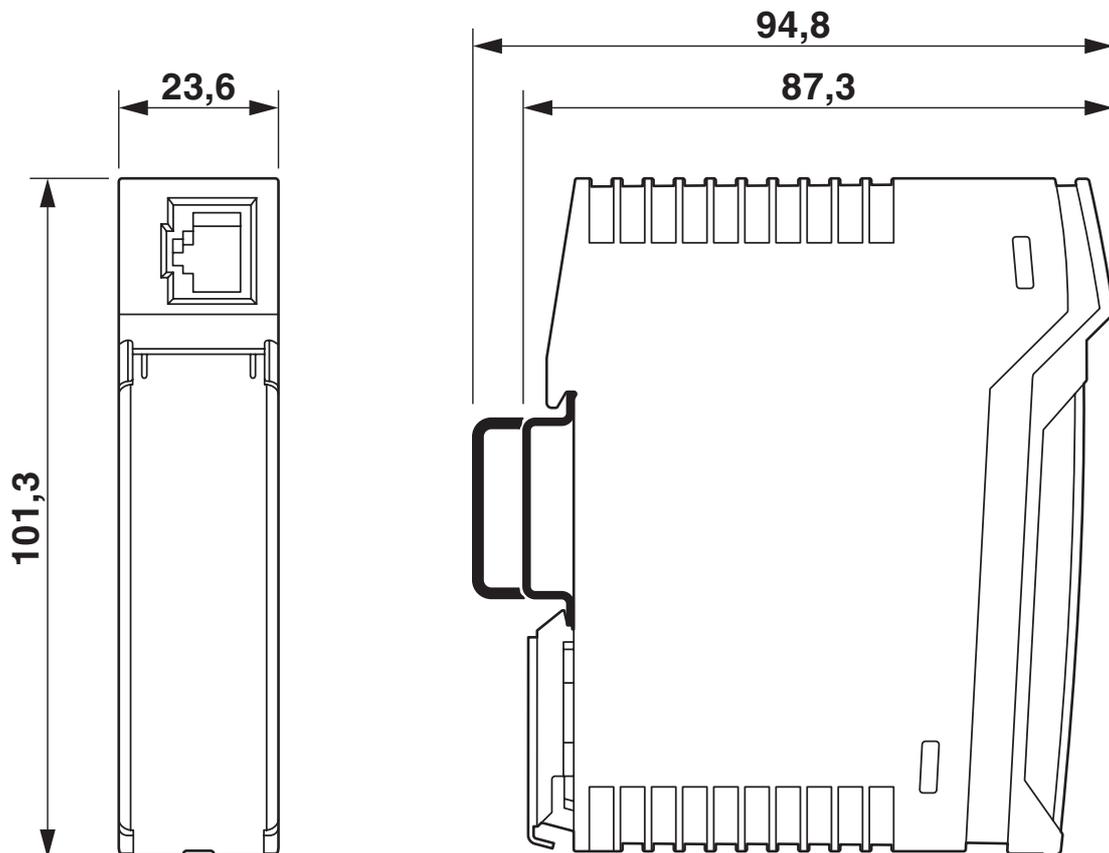
<https://www.phoenixcontact.com/gb/products/2703023>

Schematic diagram



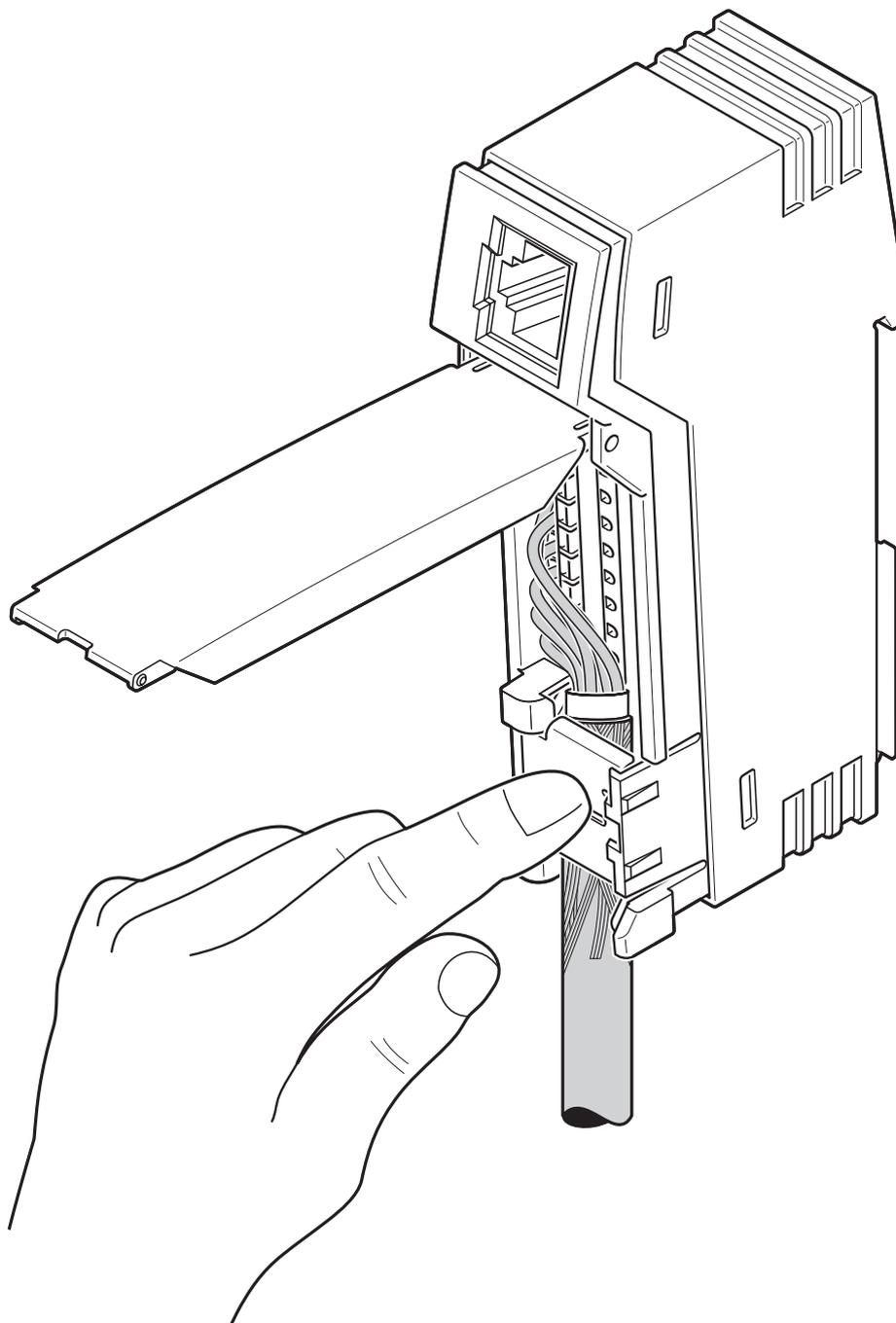
Stripping length

Dimensional drawing



Housing dimensions

Schematic diagram



Close shield contact spring

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2703023>



DNV GL

Approval ID: TAA00001KR



UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705



ATEX

Approval ID: PxCIF18ATEX2703020X

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	19170112
ECLASS-12.0	19170112
ECLASS-13.0	19170112

ETIM

ETIM 8.0	EC002697
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UNSPSC

UNSPSC 21.0	43223300
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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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Accessories

PP-RJ-RJ - Patch panels

2703015

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Patch panel, two RJ45 jacks, 10/100/1000 MBps, DIN rail adapter, IP20

PP-RJ-SC - Patch panels

2703016

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

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PP-RJ-SCC - Patch panels

2703018

<https://www.phoenixcontact.com/gb/products/2703018>



Patch panel, RJ45 jack on Push-in terminal blocks, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief

PP-RJ-IDC - Patch panels

2703019

<https://www.phoenixcontact.com/gb/products/2703019>



Patch panel, RJ45 jack on IDC terminal blocks, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief

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FL CRIMPTOOL - Assembly tool

2744869

<https://www.phoenixcontact.com/gb/products/2744869>

Crimping pliers, for assembling the RJ45 plugs FL PLUG RJ45..., for assembly on site



FL ISOLATOR 100-RJ/RJ - Network isolator

2313931

<https://www.phoenixcontact.com/gb/products/2313931>

Passive network isolator for electrical isolation in Ethernet networks. This protects Ethernet devices from potential differences of up to 4 kV. Can be used for transmission speeds of up to 100 Mbps. Possible to connect two RJ45 plugs.



PP-RJ-IDC-F - Patch panels

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FL ISOLATOR 1000-RJ/RJ - Network isolator

2313915

<https://www.phoenixcontact.com/gb/products/2313915>



Passive network isolator for electrical isolation in Ethernet networks. This protects Ethernet devices from potential differences of up to 4 kV. Can be used for transmission speeds of up to 1 Gbps. Possible to connect two RJ45 plugs.

FL ISOLATOR 100-M12 - Network isolator

2902985

<https://www.phoenixcontact.com/gb/products/2902985>



Passive network isolator for electrical isolation in Ethernet networks. For the protection of Ethernet devices against potential differences of up to 4 kV. Can be used for transmission speeds of up to 100 Mbps. Ethernet connection via two M12 sockets (D-coded).

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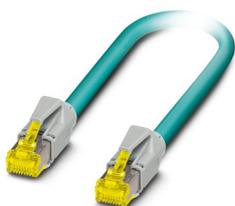
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NBC-R4AC-R4AC-IE8A/.../... - Patch cable

1411854

<https://www.phoenixcontact.com/gb/products/1411854>

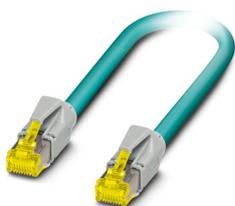


Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight, Ethernet

NBC-R4AC/10G-R4AC/10G-94F/2,0 - Patch cable

1408360

<https://www.phoenixcontact.com/gb/products/1408360>



Patch cable, CAT6_A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

PP-RJ-IDC-F - Patch panels

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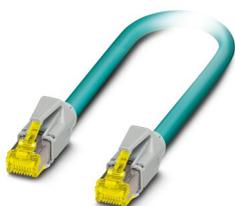
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NBC-R4AC/10G-R4AC/10G-94F/3,0 - Patch cable

1408365

<https://www.phoenixcontact.com/gb/products/1408365>



Patch cable, CAT6_A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 3.0 m

NBC-R4AC/1,0-93B/R4AC - Patch cable

1408968

<https://www.phoenixcontact.com/gb/products/1408968>



Patch cable, degree of protection: IP20, cable length: 1 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

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NBC-R4AC/2,0-93B/R4AC - Patch cable

1408969

<https://www.phoenixcontact.com/gb/products/1408969>



Patch cable, degree of protection: IP20, cable length: 2 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

FL CAT5 PATCH 0,3 - Patch cable

2832250

<https://www.phoenixcontact.com/gb/products/2832250>



Patch cable, CAT5, assembled, 0.3 m

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FL CAT5 PATCH 0,5 - Patch cable

2832263

<https://www.phoenixcontact.com/gb/products/2832263>

Patch cable, CAT5, assembled, 0.5 m



FL CAT5 PATCH 1,0 - Patch cable

2832276

<https://www.phoenixcontact.com/gb/products/2832276>

Patch cable, CAT5, assembled, 1 m



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FL CAT5 PATCH 1,5 - Patch cable

2832221

<https://www.phoenixcontact.com/gb/products/2832221>

Patch cable, CAT5, assembled, 1.5 m



FL CAT5 PATCH 2,0 - Patch cable

2832289

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Patch cable, CAT5, assembled, 2 m



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FL CAT5 PATCH 3,0 - Patch cable

2832292

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Patch cable, CAT5, assembled, 3 m

VS-08-RJ45-10G/Q - RJ45 connector

1419001

<https://www.phoenixcontact.com/gb/products/1419001>



RJ45 connector, design: RJ45, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, material: Plastic, connection method: Insulation displacement connection, connection cross section: AWG 26- 24, cable outlet: straight, color: black, Ethernet

PP-RJ-IDC-F - Patch panels

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VS-PN-RJ45-5-Q/IP20 - RJ45 connector

1658435

<https://www.phoenixcontact.com/gb/products/1658435>



RJ45 connector, design: RJ45, degree of protection: IP20, number of positions: 4, 100 Mbps, CAT5, material: Plastic, connection method: Insulation displacement connection, cable outlet: straight, color: traffic grey A RAL 7042, PROFINET

VS-CABLE-STRIP-VARIO - Stripping tool

1657407

<https://www.phoenixcontact.com/gb/products/1657407>

Stripping tool, for the multi-level stripping of shielded cables



PP-RJ-IDC-F - Patch panels

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VS-08-RJ45-5-Q/IP20 - RJ45 connector

1656725

<https://www.phoenixcontact.com/gb/products/1656725>



RJ45 connector, design: RJ45, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5, material: Plastic, connection method: Insulation displacement connection, connection cross section: AWG 26- 23, cable outlet: straight, color: traffic grey A RAL 7042, Ethernet

VS-08-RJ45-5-Q/IP20 BK - RJ45 connector

1658008

<https://www.phoenixcontact.com/gb/products/1658008>



RJ45 connector, design: RJ45, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5, material: Plastic, connection method: Insulation displacement connection, connection cross section: AWG 26- 23, cable outlet: straight, color: black, Ethernet

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SZF 0-0,4X2,5 - Screwdriver

1204504

<https://www.phoenixcontact.com/gb/products/1204504>



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.4 x 2.5 x 75 mm, 2-component grip, with non-slip grip

MICROFOX-SP - Diagonal cutter

1212488

<https://www.phoenixcontact.com/gb/products/1212488>



Electronic diagonal cutter, tapered head, angled (21°), without chamfer, with opening spring

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<https://www.phoenixcontact.com/gb/products/2703023>



VS-OE-OE-94F/... - Data cable

1417359

<https://www.phoenixcontact.com/gb/products/1417359>



Data cable, Ethernet CAT6_A (10 Gbps), 8-position halogen-free, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)

FL-PP-RJ45-SC - Patch panels

2901643

<https://www.phoenixcontact.com/gb/products/2901643>



Patch panel, one RJ45 jack to 8 screw connection terminal blocks (1:1 assignment), CAT5e, 10/100/1000 Mbps, DIN rail adapter, IP20, option of shield contacting to the DIN rail via jumpers

PP-RJ-IDC-F - Patch panels

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FL-PP-RJ45-LSA - Patch panels

2901645

<https://www.phoenixcontact.com/gb/products/2901645>



Patch panel, one RJ45 jack to 8 LSA connection terminal blocks (1:1 assignment), CAT5e, 10/100/1000 Mbps, DIN rail adapter, IP20, option of shield contacting to the DIN rail via bridges

FL-PP-RJ45/RJ45 - Patch panels

2901646

<https://www.phoenixcontact.com/gb/products/2901646>



Patch panel, two RJ45 jacks (1:1 assignment), CAT5e, 10/100/1000 Mbps, DIN rail adapter, IP20, option of shield contacting to the DIN rail via jumpers

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