

# Injector - INJ 1110-T

2703010

<https://www.phoenixcontact.com/pc/products/2703010>



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PoE injector, 60 W, two RJ45 jacks, 10/100/1000 Mbps, DIN rail mounting, IP20, expanded temperature range of -40°C ... 75°C, potential separation

## Product Description

The midspan injectors connect Ethernet devices without PoE (e.g., switches) to PoE-capable end devices (e.g., IP cameras). As power sourcing equipment (PSE), the injector supplies the required power to a powered device (PD) via the data cable. The injector and end device negotiate the electrical power requirements autonomously.

## Your advantages

- Extended temperature range of -40 °C ... +75 °C
- Extended supply voltage range of 18 V DC ... 57 V DC, redundant
- Electrical isolation of the internal power supply unit for protection against short circuits on the PoE side
- 10/100/1000 Mbps

## Commercial Data

Item number	2703010
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	DNC351
Catalog Page	Page 345 (C-6-2019)
GTIN	4055626462981
Weight per Piece (including packing)	459 g
Weight per Piece (excluding packing)	324.72 g
Customs tariff number	85176200
Country of origin	DE

# Injector - INJ 1110-T

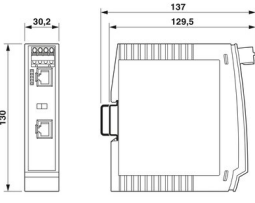
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## Technical Data

### Dimensions

Dimensional drawing	
Width	30.2 mm
Height	130 mm
Depth	120 mm

### 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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### Material specifications

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

### Mounting

Mounting type	DIN rail mounting
Mounting position	vertical

### Interfaces

Basic functions	PSE/Midspan, compliant with IEEE 802.3af, at
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#### Data: Power over Ethernet

Serial transmission speed	10/100/1000 Mbps
Frequency range	125 MHz
Connection method	RJ45 jack
No. of channels	1
Pin assignment	1:1
Transmission length	100 m (including patch cables)
Output nominal voltage	54 V DC (PoE)
Output power	60 W
Maximum output power	75 W (UL)

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Data: Ethernet

Connection method	RJ45 jack
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## Product properties

Product type	Injector
MTTF	3062 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	1397 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	558 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)

## Electrical properties

Electrical isolation	VCC // FE // PoE
Test voltage data interface/power supply	500 V (50 Hz, 1 min.)

## Supply

Supply voltage range	18 V DC ... 57 V DC
Nominal supply voltage	24 V DC (SELV/PELV, restrictions for ATEX applications)
	48 V DC
Max. current consumption	4.2 A
	2.73 A (24 V DC, Ex areas in accordance with UL-HazLoc)
	1.34 A (48 V DC, Ex areas in accordance with UL-HazLoc)
Power consumption	≤ 75 W
Protective circuit	Reverse polarity protection
Connection method	Push-in connection

## Function

Current	≤ 2 A
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## Connection data

### Supply

Connection method	Push-in connection
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible	0.20 mm <sup>2</sup> ... 2.50 mm <sup>2</sup>
Conductor cross section, rigid	0.20 mm <sup>2</sup> ... 2.50 mm <sup>2</sup>

## Ambient conditions

Degree of protection	IP20 (Manufacturer's declaration)
Ambient temperature (operation)	-40 °C ... 75 °C (observe derating)
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)

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Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Air pressure (operation)	80 kPa ... 110 kPa (Restrictions for ATEX applications)

## Approval data

### CE

Certificate	CE-compliant
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### ATEX

Identification	<input type="checkbox"/> II 3 G Ex ec IIC T4 Gc
Certificate	PxCIF19ATEX2703010X
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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### Power over Ethernet

Identification	IEEE 802.3af
	IEEE 802.3at

## 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)
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

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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) ± 2 kV (I/O cable on field side only, asymmetric)
Comments	Criterion B
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
Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

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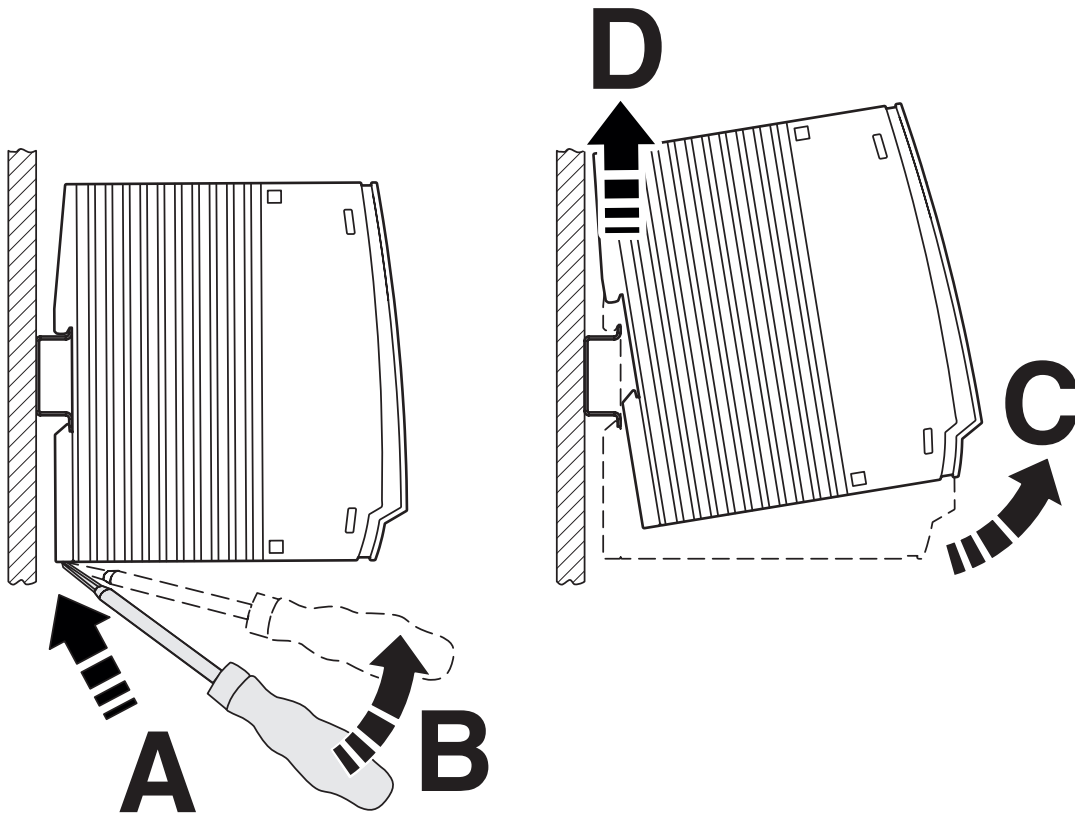
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## Drawings

Schematic diagram



Removal

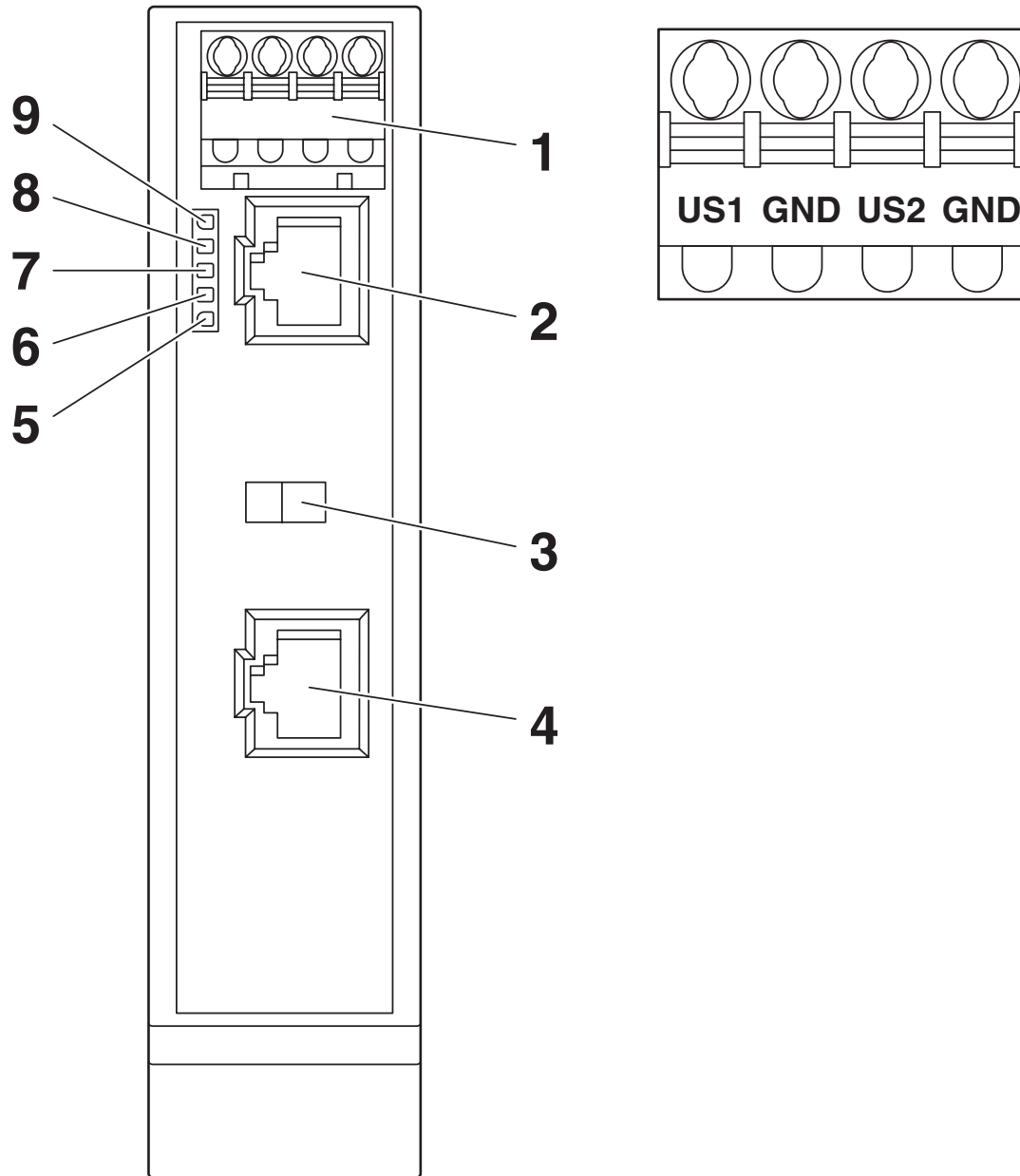
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Schematic diagram



Front view

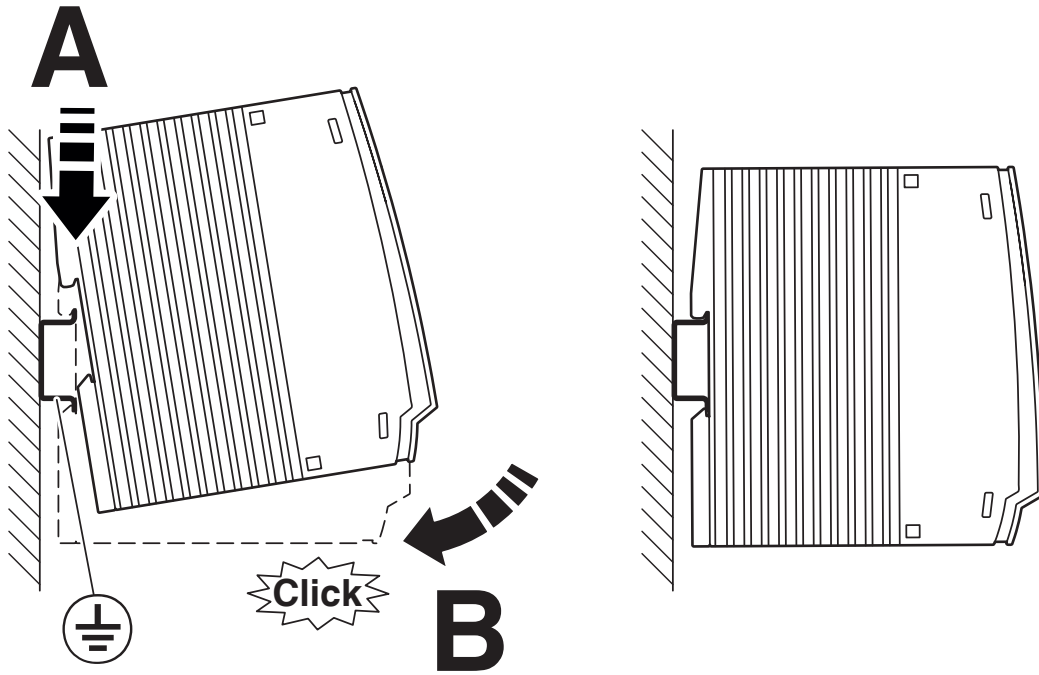
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Schematic diagram



Mounting



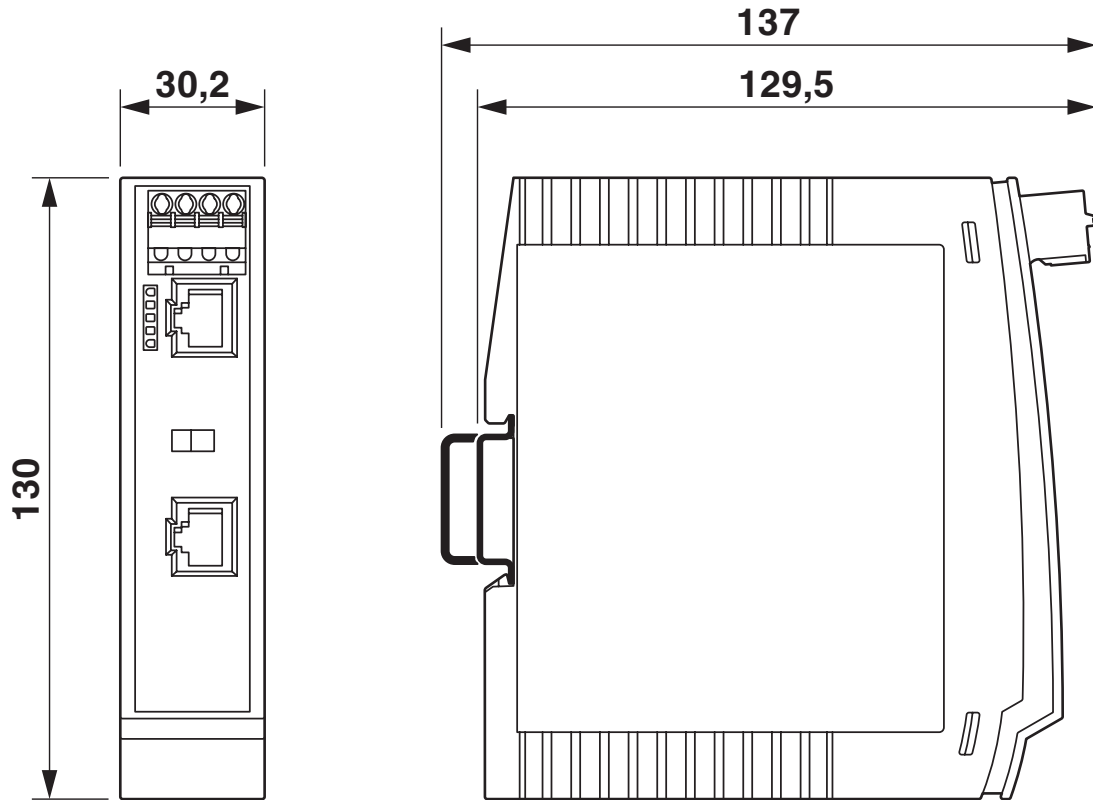
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Dimensional drawing



Housing dimensions

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## Approvals



**UL Listed**

Approval ID: FILE E 238705



**cUL Listed**

Approval ID: FILE E 238705



**cUL Listed**

Approval ID: FILE E 238705



**UL Listed**

Approval ID: FILE E 238705



**cUL Listed**

Approval ID: FILE E 366272



**UL Listed**

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**cULus Listed**

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## Classifications

### ECLASS

ECLASS-9.0	19170112
ECLASS-10.0.1	19170112
ECLASS-11.0	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

### Assembly tool

Assembly tool - FL CRIMPTOOL - 2744869

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

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



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### Network isolator

Network isolator - FL ISOLATOR 100-RJ/SC - 2313928

<https://www.phoenixcontact.com/pc/products/2313928>

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. Connection using RJ45 and COMBICON plug-in screw terminal block.



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<https://www.phoenixcontact.com/pc/products/2703010>



## Network isolator

Network isolator - FL ISOLATOR 100-RJ/RJ - 2313931

<https://www.phoenixcontact.com/pc/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.

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## Network isolator

Network isolator - FL ISOLATOR 1000-RJ/RJ - 2313915

<https://www.phoenixcontact.com/pc/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.

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## Network isolator

Network isolator - FL ISOLATOR 100-M12 - 2902985

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



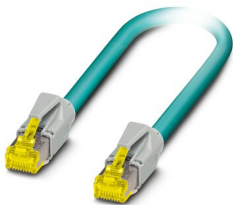
Passive network isolator for electrical isolation in Ethernet networks. For the protection of Ethernet devices against potential differences of up to 4 kV. Can be used for transmission speeds of up to 100 Mbps. Ethernet connection via two M12 sockets (D-coded).

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## Patch cable

Patch cable - NBC-R4AC-R4AC-IE8A/.../... - 1411854

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



Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6<sub>A</sub>, cable outlet: straight, Ethernet

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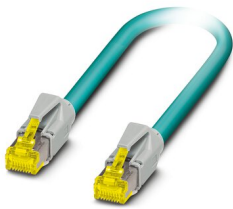
<https://www.phoenixcontact.com/pc/products/2703010>



## Patch cable

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/2,0 - 1408360

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



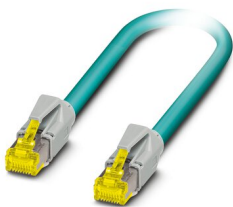
Patch cable, CAT6<sub>A</sub>, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

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## Patch cable

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/3,0 - 1408365

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



Patch cable, CAT6<sub>A</sub>, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 3.0 m



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## Patch cable

Patch cable - NBC-R4AC/1,0-93B/R4AC - 1408968

<https://www.phoenixcontact.com/pc/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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## Patch cable

Patch cable - NBC-R4AC/2,0-93B/R4AC - 1408969

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



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

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## Patch cable

Patch cable - FL CAT5 PATCH 0,3 - 2832250

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



Patch cable, CAT5, assembled, 0.3 m

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## Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263

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



Patch cable, CAT5, assembled, 0.5 m

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## Patch cable

Patch cable - FL CAT5 PATCH 1,0 - 2832276

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



Patch cable, CAT5, assembled, 1 m

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## Patch cable

Patch cable - FL CAT5 PATCH 1,5 - 2832221

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



Patch cable, CAT5, assembled, 1.5 m

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## Patch cable

Patch cable - FL CAT5 PATCH 2,0 - 2832289

<https://www.phoenixcontact.com/pc/products/2832289>



Patch cable, CAT5, assembled, 2 m

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## Patch cable

Patch cable - FL CAT5 PATCH 3,0 - 2832292

<https://www.phoenixcontact.com/pc/products/2832292>



Patch cable, CAT5, assembled, 3 m

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## RJ45 connector

RJ45 connector - VS-08-RJ45-10G/Q - 1419001

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



RJ45 connector, IP20, CAT6<sub>A</sub>, 8-pos., with QUICKON fast connection technology, for 26 ... 24 AWG 1-wire and 7-wire conductors, color: black

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## RJ45 connector

RJ45 connector - VS-PN-RJ45-5-Q/IP20 - 1658435

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



RJ45 connector, type: RJ45, degree of protection: IP20, number of positions: 4, 100 Mbps, CAT5 (IEC 11801:2002), material: PA, connection method: IDC fast connection, cable outlet: straight, color: traffic grey A RAL 7042, PROFINET

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## RJ45 connector

RJ45 connector - VS-08-RJ45-5-Q/IP20 - 1656725

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



RJ45 connector, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5 (IEC 11801:2002), material: PA, connection method: IDC fast connection, connection cross section: AWG 26- 23, cable outlet: straight, color: traffic grey A RAL 7042, Ethernet

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## RJ45 connector

RJ45 connector - VS-08-RJ45-5-Q/IP20 BK - 1658008

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



RJ45 connector, type: RJ45, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5 (IEC 11801:2002), material: PA, connection method: IDC fast connection, connection cross section: AWG 26- 23, cable outlet: straight, color: black, Ethernet

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## Stripping tool

Stripping tool - VS-CABLE-STRIP-VARIO - 1657407

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

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



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## Screwdriver

Screwdriver - SZF 0-0,4X2,5 - 1204504

<https://www.phoenixcontact.com/pc/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



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## Diagonal cutter

Diagonal cutter - MICROFOX-SP - 1212488

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



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

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## Network cable

Network cable - VS-OE-OE-94F/... - 1417359

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



Network cable, Ethernet CAT6<sub>A</sub> (10 Gbps), 8-position halogen-free, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)

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