

# INJ 1000-T - Injector

2703006

<https://www.phoenixcontact.com/us/products/2703006>



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PoE injector, 30 W, two RJ45 jacks, 10/100/1000 Mbps, DIN rail mounting, IP20, expanded temperature range of -40°C ... 75°C

## 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
- 10/100/1000 Mbps
- Mounting on a DIN rail
- Extended supply voltage range of 18 V DC ... 57 V DC, redundant
- Safe shield connection to ground potential

## Commercial data

Item number	2703006
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN18
Product key	DNC351
Catalog page	Page 345 (C-6-2019)
GTIN	4055626462943
Weight per piece (including packing)	396.7 g
Weight per piece (excluding packing)	377.8 g
Customs tariff number	85176200
Country of origin	TW

# INJ 1000-T - Injector

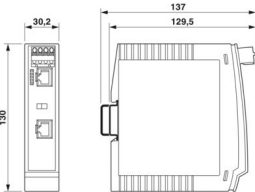
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## Technical data

### Dimensions

Dimensional drawing	
Width	30.2 mm
Height	130 mm
Depth	120 mm

### Notes

Note on application	
Note on application	Only for industrial use

### Material specifications

Color	gray
Housing material	Plastic

### 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
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	30 W

#### Data: Ethernet

Connection method	RJ45 CAT5e
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### Product properties

Product type	Injector
MTTF	110 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)

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## Data management status

Article revision	03
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## Electrical properties

Maximum power dissipation for nominal condition	33.6 W
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### Supply

Supply voltage range	18 V DC ... 57 V DC (Ordinary locations)
	24 V DC ... 48 V DC (Hazardous locations)
Nominal supply voltage	24 V DC
	48 V DC
Max. current consumption	2.1 A
	1.4 A (24 V DC)
	0.7 A (48 V DC)
Power consumption	≤ 36 W
Protective circuit	Reverse polarity protection

## Connection data

### Supply

Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 2.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 2.5 mm²
Conductor cross section, flexible	0.20 mm² ... 2.50 mm²
Conductor cross section, rigid	0.20 mm² ... 2.50 mm²
Conductor cross section AWG	20 ... 12

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20 (Non-certificated by UL)
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 (with UL approval)
Permissible humidity (operation)	10 % ... 95 % (non-condensing)

## Approvals

### CE

Identification	CE-compliant
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### UL, USA/Canada

Identification	Class I, Div. 2, Groups A, B, C, D T4
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### Corrosive gas test

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

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
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### 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) ± 2 kV (I/O cable on field side only, asymmetric)
Comments	Criterion B

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

## System properties

Functionality	
Basic functions	PSE/Midspan, compliant with IEEE 802.3af, at

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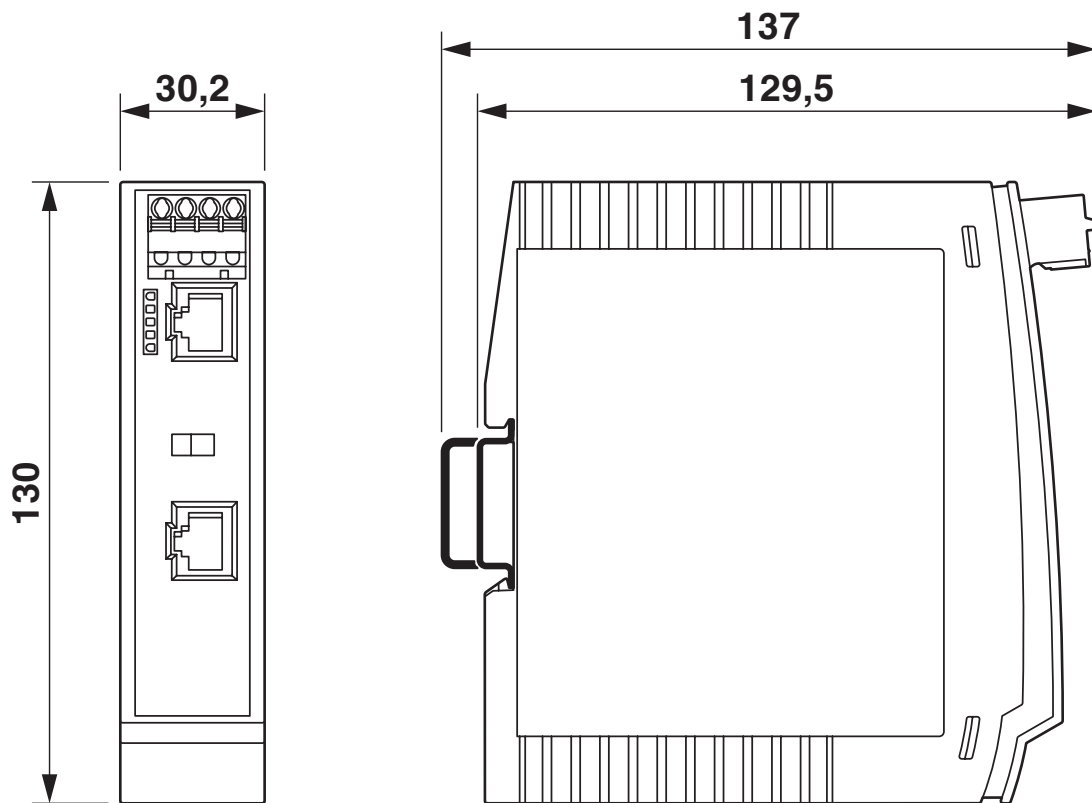
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## Drawings

Dimensional drawing



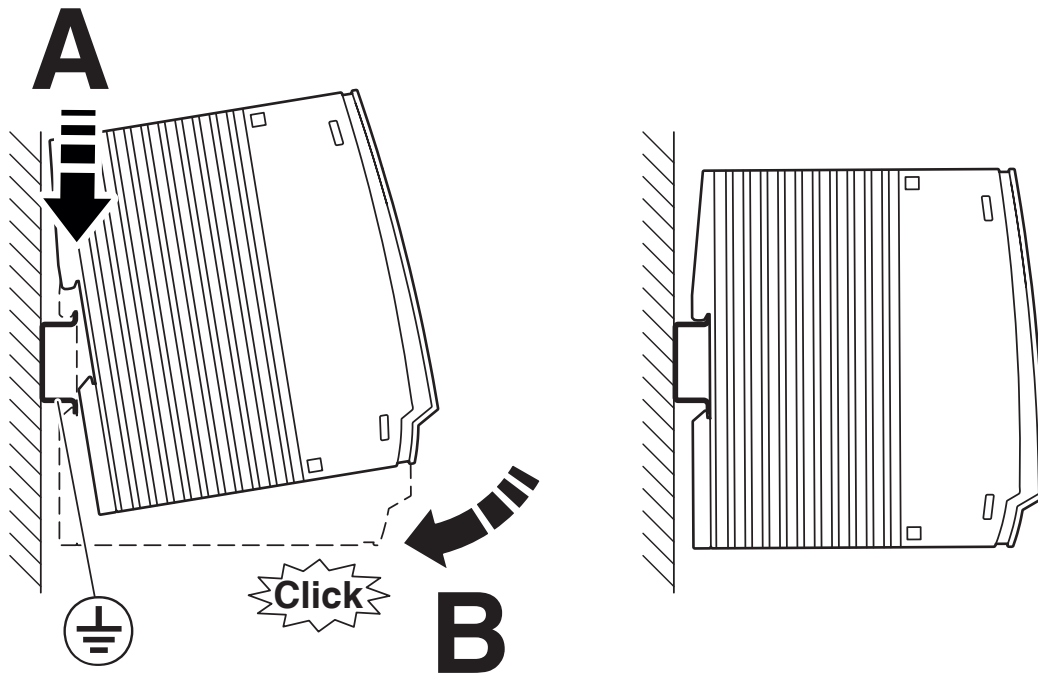
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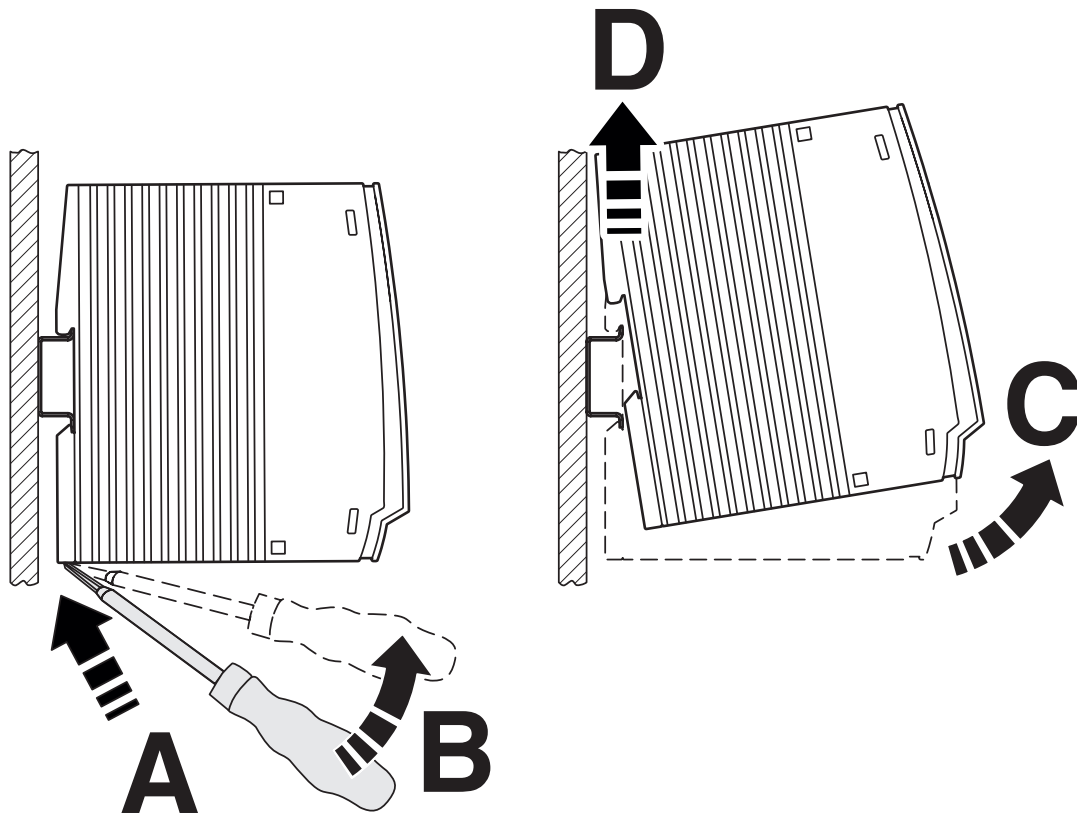


Schematic diagram



Mounting

Schematic diagram



Removal

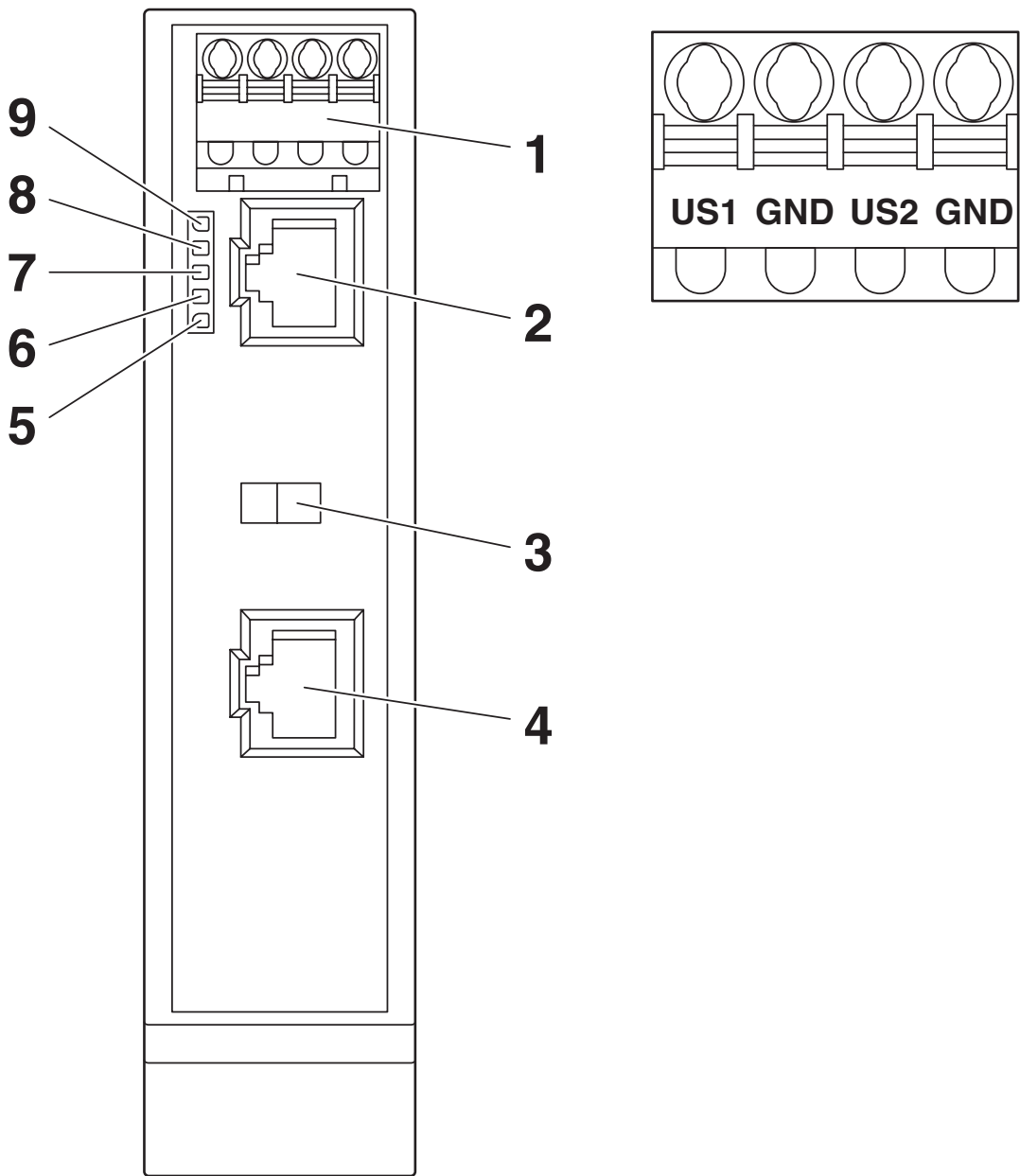


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Schematic diagram



Front view

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## Approvals


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2703006>



**EAC**  
Approval ID: RU \*-DE.A\*30.B.03171




**UL Listed**  
Approval ID: E238705



**cUL Listed**  
Approval ID: E238705

**UAE-RoHS**  
Approval ID: 23-09-84497



**cUL Listed**  
Approval ID: E196811



**UL Listed**  
Approval ID: E196811

**cULus Listed**

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## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC002697
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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	15, 15(a), 7(a), 7(c)-I
China RoHS	
Environment friendly use period (EFUP)	EFUP-10
	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	a0cc7e5a-a3b9-4dc4-9370-84a2c33ca404

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## Accessories

### FL CRIMPTOOL - Assembly tool

2744869

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



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### FL CAT5 HEAVY - Data cable

2744814

<https://www.phoenixcontact.com/us/products/2744814>



CAT5-SF/UTP cable (J-02YS(ST)C HP 2 x 2 x 24 AWG), heavy-duty installation cable, 2 x 2 x 0.22 mm<sup>2</sup>, solid conductor, shielded, outer sheath: 7.8 mm diameter, inner sheath: 5.75 mm ± 0.15 mm diameter

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## FL CAT5 HEAVY CONF/ - Network cable

2744827

<https://www.phoenixcontact.com/us/products/2744827>



CAT5-SF/UTP cable (J-02YS(ST)C HP 2 x 2 x 24 AWG), heavy-duty installation cable, 2 x 2 x 0.22 mm<sup>2</sup>, solid conductor, shielded, outer sheath: 7.8 mm diameter, inner sheath: 5.75 mm ± 0.15 mm diameter, preassembled on both sides with RJ45 plug, crossover or line

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## FL CAT5 FLEX - Installation cable

2744830

<https://www.phoenixcontact.com/us/products/2744830>



By the meter, Installation cable, Ethernet CAT5 (100 Mbps), shielded, PUR halogen-free, water blue RAL 5021, 4-wire (2x2xAWG26/7, SF/UTP), color single wire: white/orange-orange, white/green-green, cable length: Free entry (1.0 ... 1000.0 m)

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## FL CAT5 FLEX CONF/ - Network cable

2744843

<https://www.phoenixcontact.com/us/products/2744843>



CAT5-SF/UTP cable (J-LI02YS(ST)C H 2 x 2 x 26 AWG), light-duty, flexible installation cable 2 x 2 x 0.14 mm<sup>2</sup>, stranded, shielded, outer sheath: 5.75 mm ± 0.15 mm diameter, preassembled on both sides with RJ45 plug, crossover or line assignment

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

2313928

<https://www.phoenixcontact.com/us/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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## FL ISOLATOR 100-RJ/RJ - Network isolator

2313931

<https://www.phoenixcontact.com/us/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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## FL ISOLATOR 1000-RJ/RJ - Network isolator

2313915

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



## INJ 1000-T - Injector

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## FL ISOLATOR 100-M12 - Network isolator

2902985

<https://www.phoenixcontact.com/us/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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## FL CAT5 PATCH 0,3 - Patch cable

2832250

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



Patch cable, CAT5, assembled, 0.3 m

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<https://www.phoenixcontact.com/us/products/2703006>



## FL CAT5 PATCH 0,5 - Patch cable

2832263

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



Patch cable, CAT5, assembled, 0.5 m

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## FL CAT5 PATCH 1,0 - Patch cable

2832276

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



Patch cable, CAT5, assembled, 1 m

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## FL CAT5 PATCH 1,5 - Patch cable

2832221

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



Patch cable, CAT5, assembled, 1.5 m

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## FL CAT5 PATCH 2,0 - Patch cable

2832289

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



Patch cable, CAT5, assembled, 2 m

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## FL CAT5 PATCH 3,0 - Patch cable

2832292

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



Patch cable, CAT5, assembled, 3 m

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## FL CAT6 PATCH 0,3 - Patch cable

2891181

<https://www.phoenixcontact.com/us/products/2891181>



Patch cable, degree of protection: IP20, cable length: 0.3 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

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## FL CAT6 PATCH 0,5 - Patch cable

2891288

<https://www.phoenixcontact.com/us/products/2891288>



Patch cable, degree of protection: IP20, cable length: 0.5 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

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## FL CAT6 PATCH 1,0 - Patch cable

2891385

<https://www.phoenixcontact.com/us/products/2891385>



Patch cable, degree of protection: IP20, cable length: 1 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

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## FL CAT6 PATCH 1,5 - Patch cable

2891482

<https://www.phoenixcontact.com/us/products/2891482>



Patch cable, degree of protection: IP20, cable length: 1.5 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

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## FL CAT6 PATCH 2,0 - Patch cable

2891589

<https://www.phoenixcontact.com/us/products/2891589>



Patch cable, degree of protection: IP20, cable length: 2 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

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## FL CAT6 PATCH 3,0 - Patch cable

2891686

<https://www.phoenixcontact.com/us/products/2891686>



Patch cable, degree of protection: IP20, cable length: 3 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

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## FL CAT6 PATCH 5,0 - Patch cable

2891783

<https://www.phoenixcontact.com/us/products/2891783>



Patch cable, degree of protection: IP20, cable length: 5 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

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## FL CAT6 PATCH 7,5 - Patch cable

2891880

<https://www.phoenixcontact.com/us/products/2891880>



Patch cable, degree of protection: IP20, cable length: 7.5 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

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## FL CAT6 PATCH 10 - Patch cable

2891877

<https://www.phoenixcontact.com/us/products/2891877>



Patch cable, degree of protection: IP20, cable length: 10 m, number of positions: 8, 1 Gbps, CAT6, Ethernet



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## FL CAT6 PATCH 12,5 - Patch cable

2891369

<https://www.phoenixcontact.com/us/products/2891369>



Patch cable, degree of protection: IP20, cable length: 12.5 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

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## FL CAT6 PATCH 15,0 - Patch cable

2891372

<https://www.phoenixcontact.com/us/products/2891372>



Patch cable, degree of protection: IP20, cable length: 15 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

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## FL CAT6 PATCH 20,0 - Patch cable

2891576

<https://www.phoenixcontact.com/us/products/2891576>



Patch cable, degree of protection: IP20, cable length: 20 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

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## VS-CABLE-STRIP-VARIO - Stripping tool

1657407

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

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



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

1656725

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

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

1658008

<https://www.phoenixcontact.com/us/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/us/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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## MICROFOX-SP - Diagonal cutter

1212488

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



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

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

1417359

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



Data cable, Ethernet CAT6<sub>A</sub> (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)

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## UNO-PS/1AC/24DC/ 60W - Power supply unit

2902992

<https://www.phoenixcontact.com/us/products/2902992>



Primary-switched UNO POWER power supply for DIN rail mounting, input: 1-phase, output: 24 V DC/60 W

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## TRIO-PS-2G/1AC/24DC/3/C2LPS - Power supply unit

2903147

<https://www.phoenixcontact.com/us/products/2903147>



Primary-switched TRIO POWER power supply with push-in connection for DIN rail mounting, input: 1-phase, output: 24 V DC/3 A C2LPS

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## QUINT4-PS/1AC/24DC/2.5/PT - Power supply unit

2909576

<https://www.phoenixcontact.com/us/products/2909576>



Primary-switched power supply unit QUINT POWER, Push-in connection, DIN rail mounting, input: 1-phase, output: 24 V DC / 2.5 A

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## FL DIN RA - DIN rail adapter

2891053

<https://www.phoenixcontact.com/us/products/2891053>

The FL DIN RA is installed in a standard, 19-inch rack (EIA-310-D, IEC 60297-3-100) to allow DIN rail mounted equipment to be rack mounted.



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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)