

# INJ 1100-T - Injector



2703009

<https://www.phoenixcontact.com/gb/products/2703009>

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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, 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	2703009
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DNC351
Product key	DNC351
Catalog page	Page 345 (C-6-2019)
GTIN	4055626462974
Weight per piece (including packing)	458.3 g
Weight per piece (excluding packing)	438.4 g
Customs tariff number	85176200
Country of origin	DE

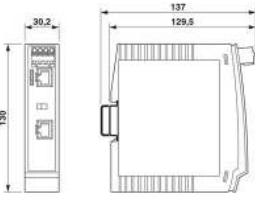
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## Technical data

### 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

Material	Plastic
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	30 W
Maximum output power	40 W (UL)

#### Data: Ethernet

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Connection method	RJ45 jack
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## Product properties

Product type	Injector
MTTF	2342 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	1167 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	467 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)

## Electrical properties

Electrical isolation	VCC // FE // PoE
Maximum power dissipation for nominal condition	7 W (at 18 V DC)
	5 W (24 V DC ... 48 V DC)
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	2.1 A
	1.4 A (24 V DC, Ex areas in accordance with UL-HazLoc)
	0.7 A (48 V DC, Ex areas in accordance with UL-HazLoc)
Power consumption	≤ 40 W
Protective circuit	Reverse polarity protection
Connection method	Push-in connection
Single conductor/terminal point, rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Single-wire/terminal point, flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>

## 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 [AWG]	20 ... 12

## Environmental and real-life conditions

### 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

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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)
Air pressure (operation)	80 kPa ... 110 kPa (Restrictions for ATEX applications)

## Approvals

### CE

Certificate	CE-compliant
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### ATEX

Identification	⊕ II 3G Ex ec nC IIC T4 Gc
Certificate	PxCIF19ATEX2703009X
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)
Indirect discharge	± 6 kV
Comments	Criterion B

### Electromagnetic HF field

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

## System properties

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

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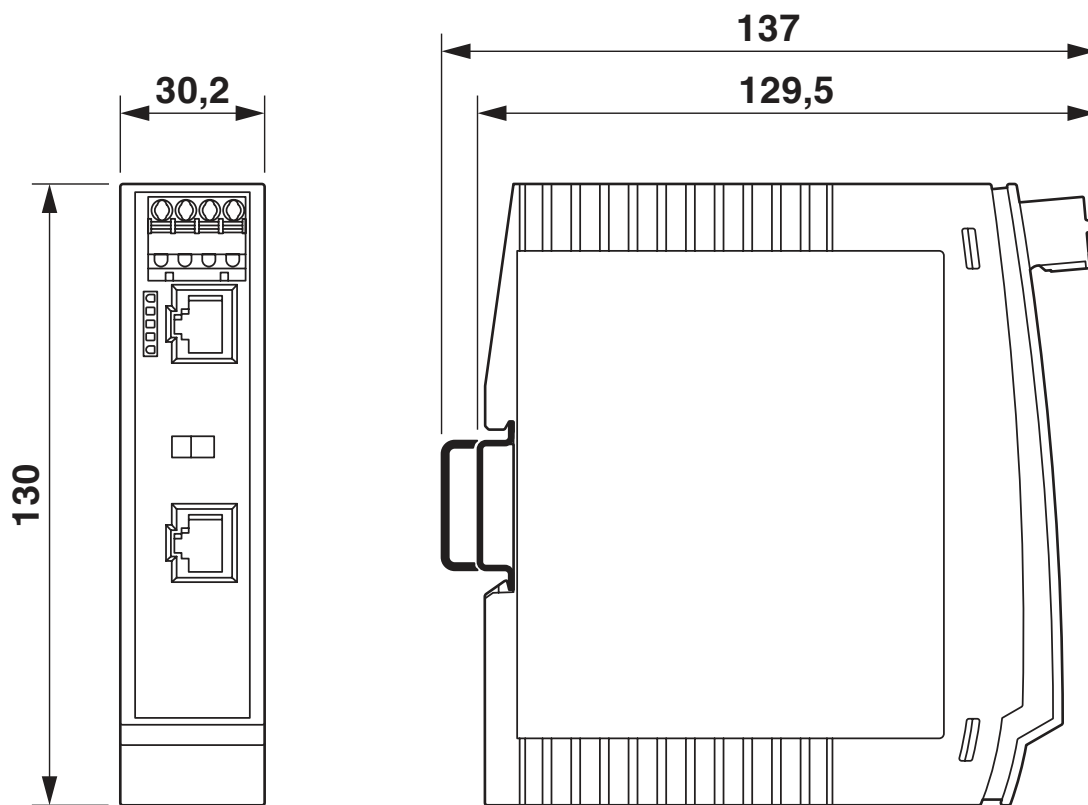
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## Drawings

Dimensional drawing



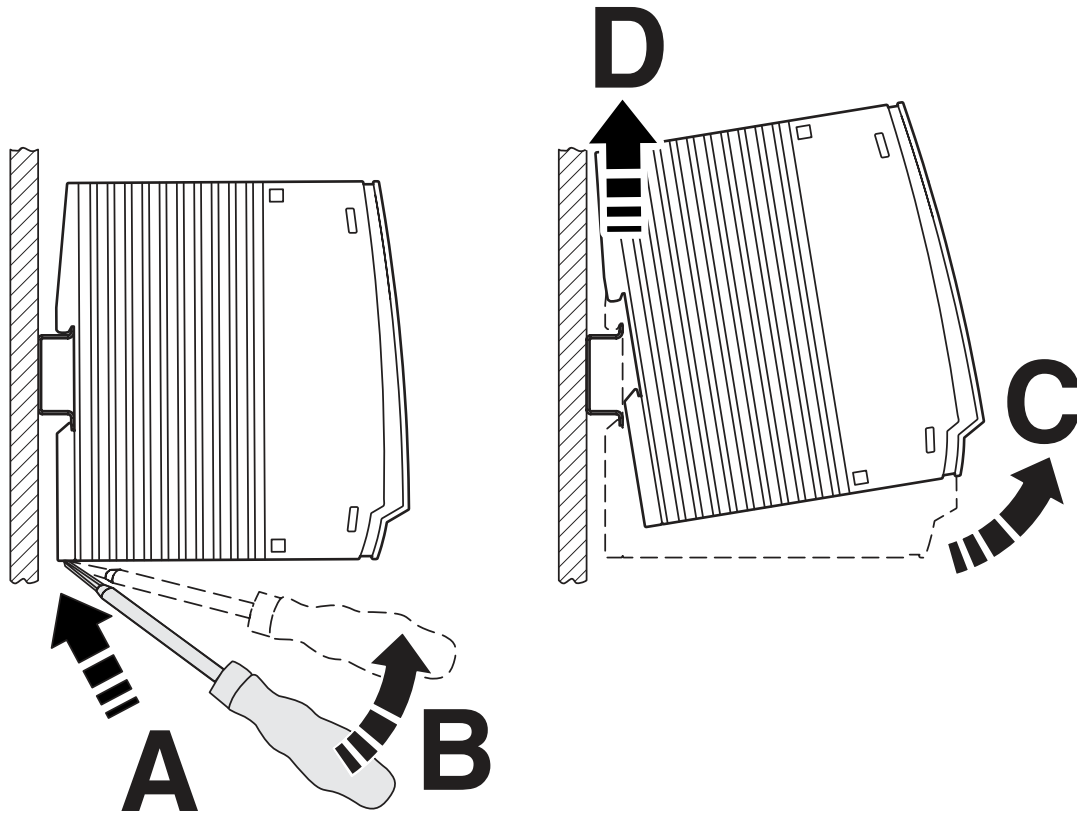
Housing dimensions

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Schematic diagram



Removal

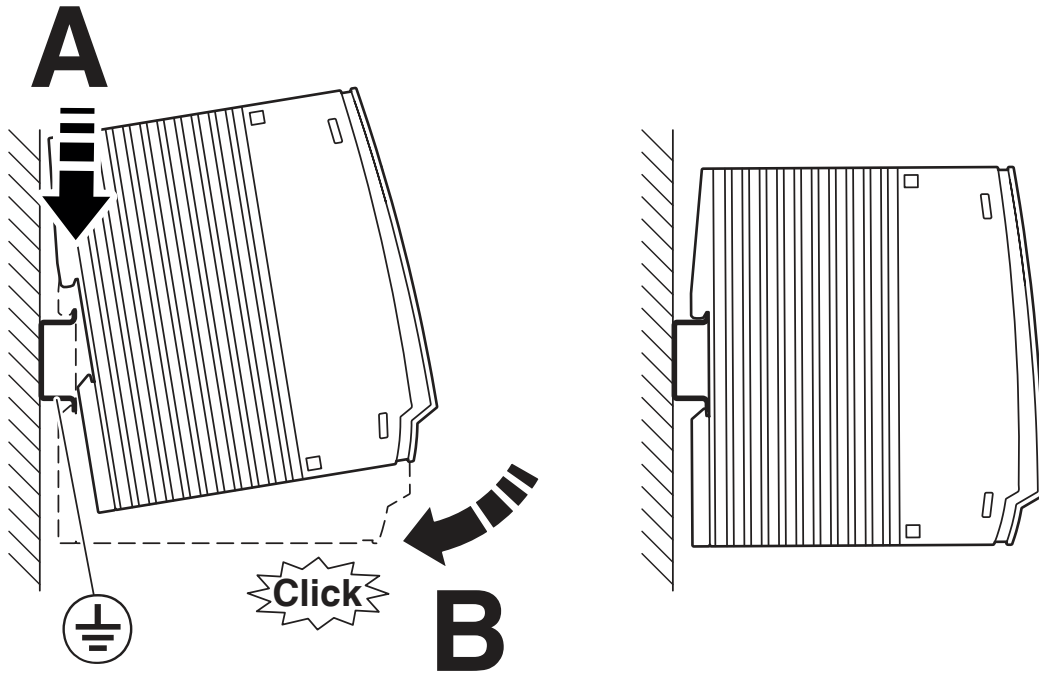
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Schematic diagram



Mounting

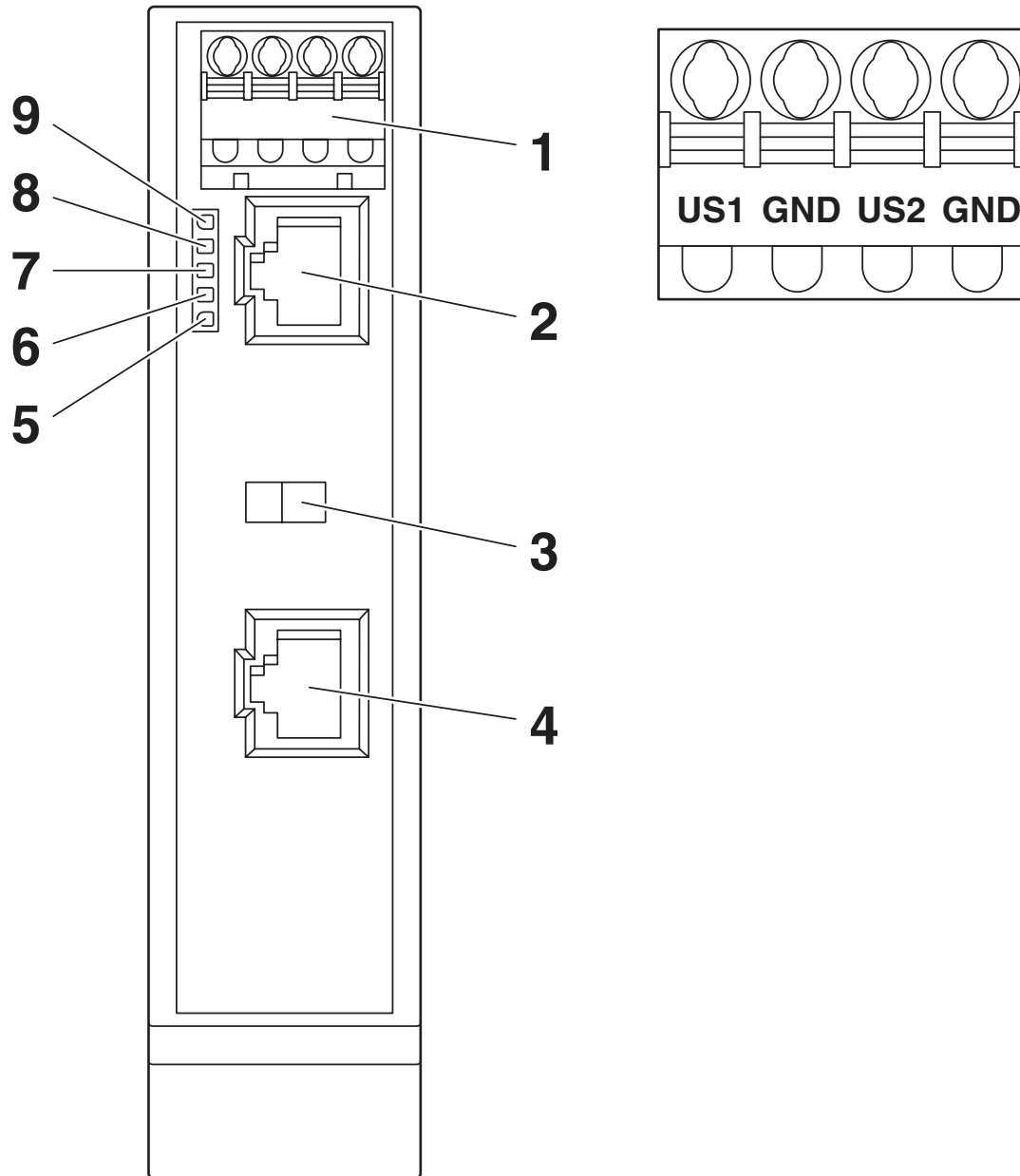
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Schematic diagram



Front view

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2703009>



**UL Listed**

Approval ID: FILE E 238705



**cUL Listed**

Approval ID: FILE E 238705



**ATEX**

Approval ID: PxCIF19ATEX2703009X



**cUL Listed**

Approval ID: FILE E 366272



**UL Listed**

Approval ID: FILE E 366272

**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

### 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



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### 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.



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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.

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## 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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## 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<sub>A</sub>, cable outlet: straight, Ethernet

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

1408360

<https://www.phoenixcontact.com/gb/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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## NBC-R4AC/10G-R4AC/10G-94F/3,0 - Patch cable

1408365

<https://www.phoenixcontact.com/gb/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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## 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

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## 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



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## 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



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## FL CAT5 PATCH 2,0 - Patch cable

2832289

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

Patch cable, CAT5, assembled, 2 m



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## FL CAT5 PATCH 3,0 - Patch cable

2832292

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



Patch cable, CAT5, assembled, 3 m

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## 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<sub>A</sub>, material: Plastic, connection method: Insulation displacement connection, connection cross section: AWG 26- 24, cable outlet: straight, color: black, Ethernet

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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

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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

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

1657407

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

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



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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

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

1417359

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



Data 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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