

INJ 1000 - Injector

2703005

<https://www.phoenixcontact.com/us/products/2703005>



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PoE injector, 30 W, two RJ45 jacks, 10/100/1000 Mbps, DIN rail mounting, IP20



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

Commercial data

Item number	2703005
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	DN18
Product key	DNC351
Catalog page	Page 345 (C-6-2019)
GTIN	4055626462936
Weight per piece (including packing)	396.6 g
Weight per piece (excluding packing)	396.6 g
Customs tariff number	85176200
Country of origin	TW

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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

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 mm ² ... 2.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross section, flexible	0.20 mm ² ... 2.50 mm ²
Conductor cross section, rigid	0.20 mm ² ... 2.50 mm ²
Conductor cross section AWG	20 ... 12

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20 (Non-certificated by UL)
Ambient temperature (operation)	0 °C ... 60 °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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EAC

Identification	EAC
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UL, USA/Canada

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

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

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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

System properties

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

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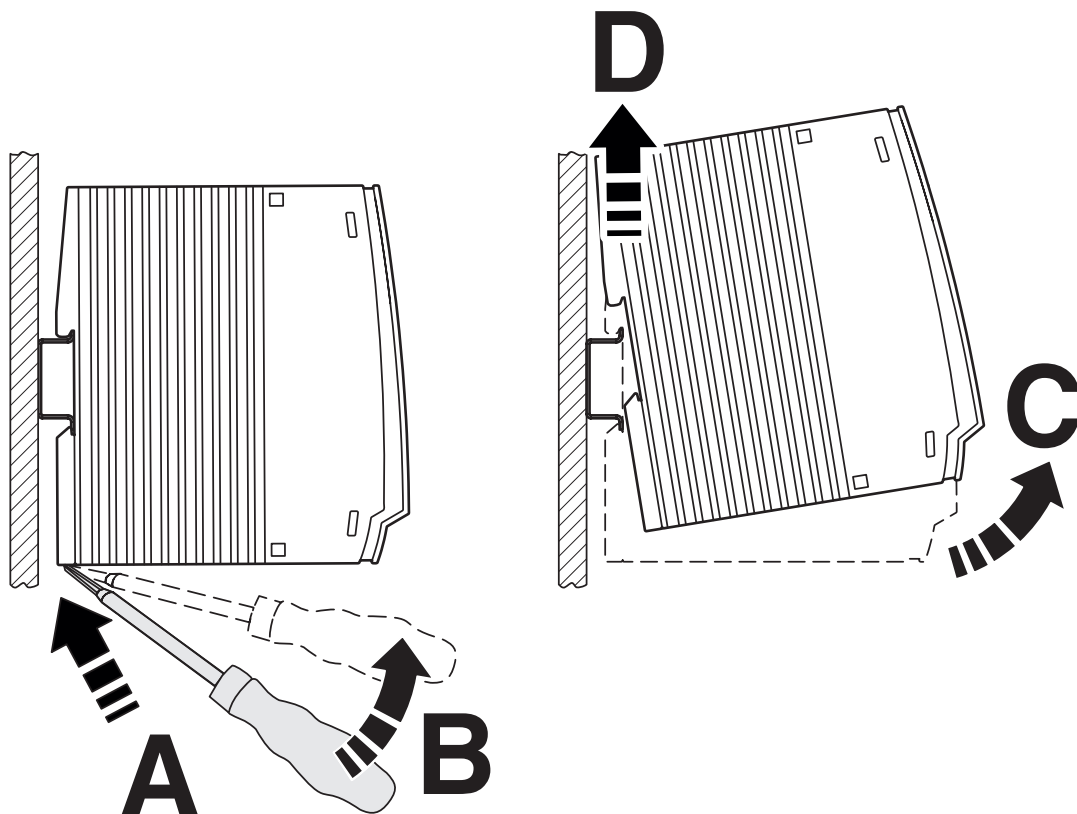
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Drawings

Schematic diagram



Removal

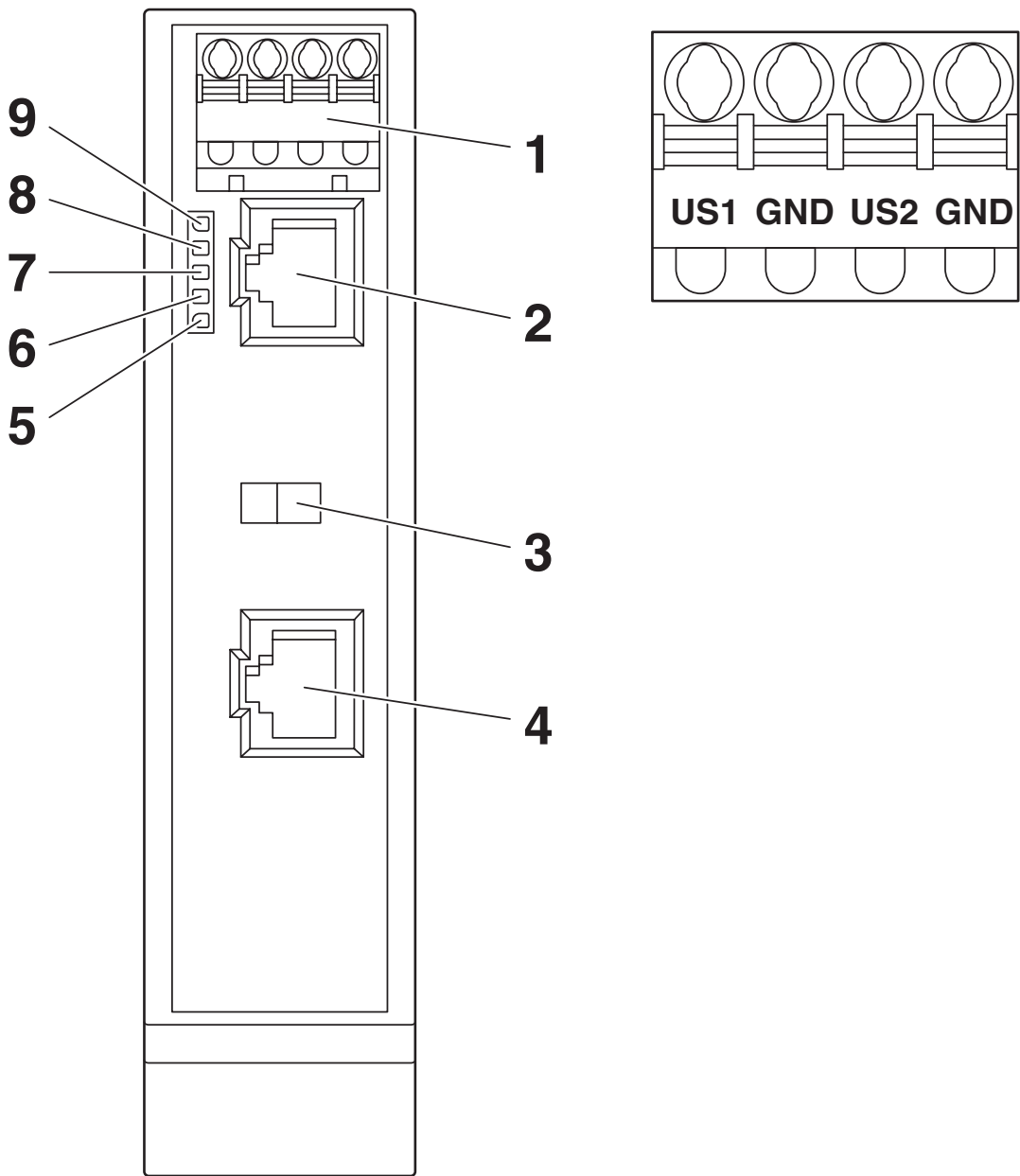
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Schematic diagram



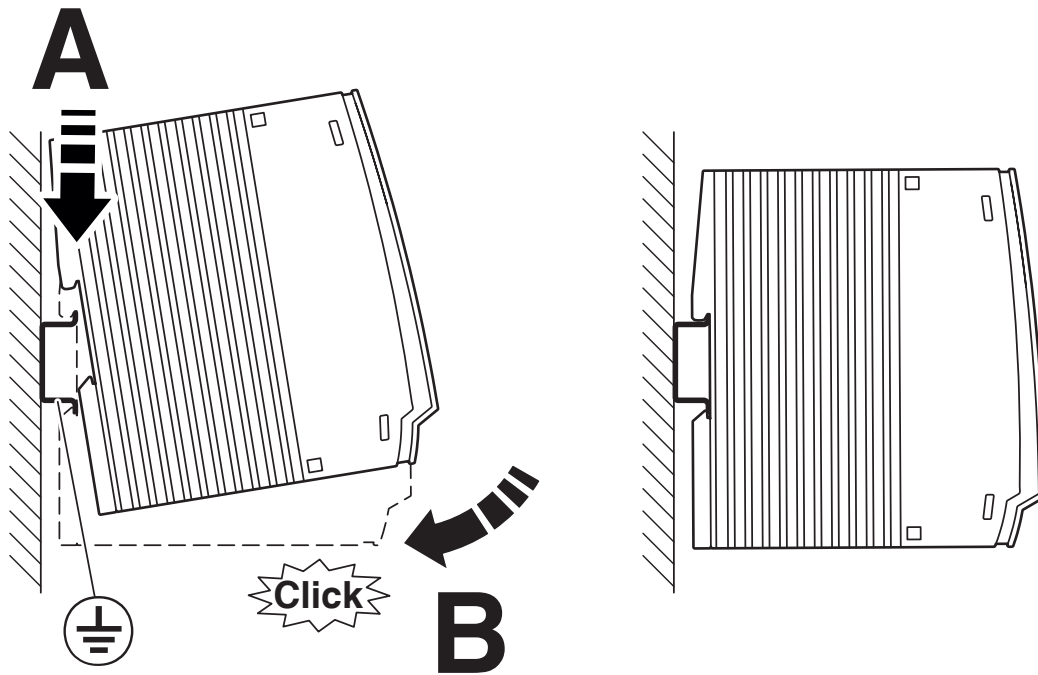
Front view

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Schematic diagram



Mounting

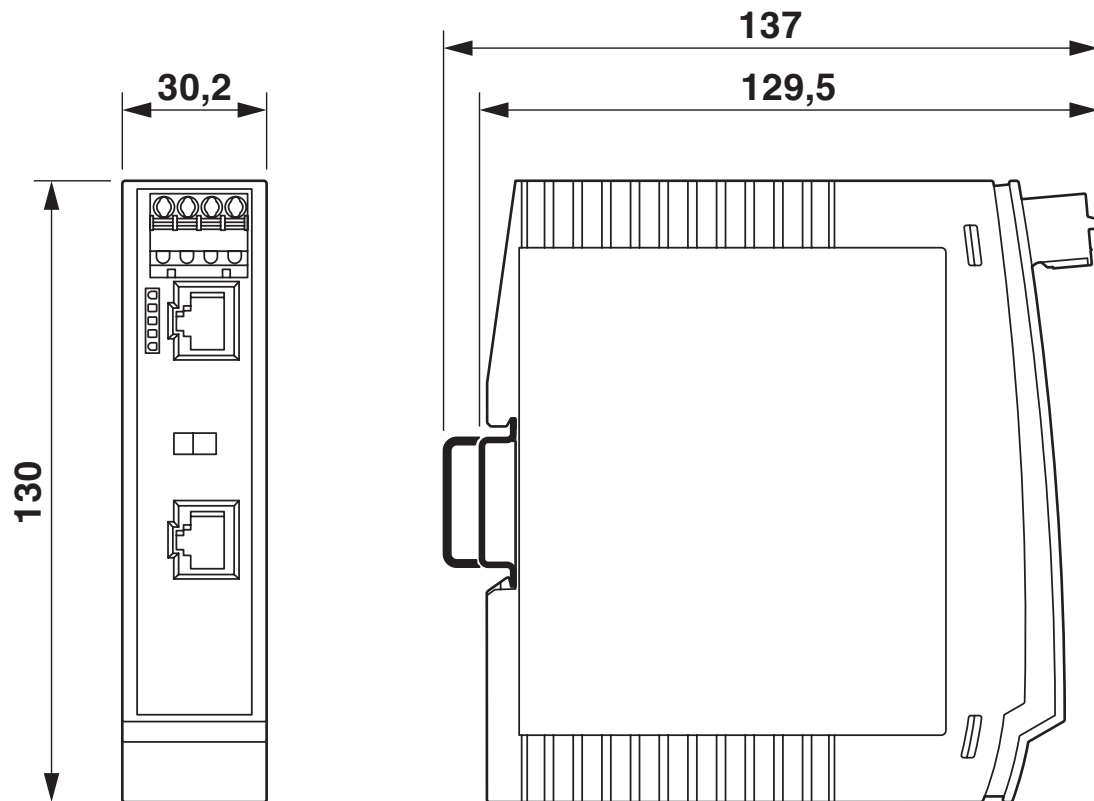
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Dimensional drawing



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2703005>



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

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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	bdc48bcc-83f2-4552-a027-840f8b713ab7

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Accessories

PP-RJ-RJ - Patch panel

2703015

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Patch panel, two RJ45 jacks, CAT6, 10/100/1000 Mbps, DIN rail adapter, IP20

PP-RJ-SC - Patch panel

2703016

<https://www.phoenixcontact.com/us/products/2703016>



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

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PP-RJ-SCC - Patch panel

2703018

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Patch panel, RJ45 jack on Push-in terminal blocks, CAT5e, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief

PP-RJ-IDC - Patch panel

2703019

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



Patch panel, RJ45 jack on IDC terminal blocks, CAT6, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief

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PP-RJ-RJ-F - Patch panel

2703020

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Patch panel, two RJ45 jacks, CAT5e, 10/100/1000 Mbps, DIN rail adapter, IP20, shield current monitoring, surge protection

PP-RJ-SC-F - Patch panel

2703021

<https://www.phoenixcontact.com/us/products/2703021>



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

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PP-RJ-SCC-F - Patch panel

2703022

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

PP-RJ-IDC-F - Patch panel

2703023

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



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

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FL CRIMPTOOL - Assembly tool

2744869

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

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



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 mm², 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 mm², 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

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 mm², stranded, shielded, outer sheath: 5.75 mm ± 0.15 mm diameter, preassembled on both sides with RJ45 plug, crossover or line assignment

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.

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.

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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).

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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FL CAT5 PATCH 0,5 - Patch cable

2832263

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



Patch cable, CAT5, assembled, 0.5 m

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

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

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

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

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

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

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

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

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

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

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_A (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)

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

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