

## Injector - INJ 1100-T - 2703009

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PoE injector, 30 W, two RJ45 sockets, 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 to +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

RoHS



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 462974
GTIN	4055626462974
Weight per Piece (excluding packing)	438.400 g
Custom tariff number	85176200
Country of origin	Germany

### Technical data

#### Note

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

Width	30.2 mm
Height	130 mm
Depth	120 mm

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## Technical data

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 75 °C (observe derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Altitude	≤ 5000 m (For restrictions, see the manufacturer's declaration for altitude operation)
	≤ 2000 m (Restrictions for ATEX applications)
Degree of protection	IP20 (Manufacturer's declaration)

### General

Electrical isolation	VCC // FE // PoE
External cable diameter	5.5 mm ... 6.5 mm
Test voltage data interface/power supply	500 V (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Mounting position	vertical
Net weight	438.4 g
Housing material	Plastic
Color	gray
MTTF	2342 Years (SN 29500 standard, temperature 25 °C, operating cycle 21 % (5 days a week, 8 hours a day))
	1167 Years (SN 29500 standard, temperature 40 °C, operating cycle 34.25 % (5 days a week, 12 hours a day))
	467 Years (SN 29500 standard, temperature 40 °C, operating cycle 100 % (7 days a week, 24 hours a day))

### Power supply

Nominal supply voltage	24 V DC (SELV/PELV, restrictions for ATEX applications)
	48 V DC
Supply voltage range	18 V DC ... 57 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
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 max.	2.50 mm²
Conductor cross section flexible min.	0.20 mm²
Conductor cross section solid max.	2.50 mm²
Conductor cross section solid min.	0.20 mm²
Conductor cross section AWG max.	12
Conductor cross section AWG min.	20

### Interfaces

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## Technical data

### Interfaces

Interface 1	Ethernet
Connection method	RJ45 socket
Transmission length	100 m (including patch cables)
Pin assignment	1:1
Basic functions	PSE/Midspan, compliant with IEEE 802.3af, at
Serial transmission speed	10/100/1000 Mbps
Output nominal voltage	54 V DC (PoE)
Output power	30 W
Maximum output power	40 W
Interface 2	Ethernet
Connection method	RJ45 CAT5e

### Function

Continuous shield current	≤ 2 A
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### Conformance/approvals

Designation	CE
Identification	CE-compliant
Designation	ATEX
Identification	# II 3 G Ex ec nC IIC T4 Gc
Certificate	PxCIF19ATEX2703009X
Additional text	Please follow the special installation instructions in the documentation!
Designation	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
Designation	UL, USA
Certificate	UL 60079-0 Ed. 6 / UL 60079-15 Ed. 4
Designation	UL, Canada
Certificate	CSA 22.2 No. 60079-0 Ed. 3 / CSA 22.2 No. 60079-15:16
Designation	Corrosive gas test
Identification	ISA-S71.04-1985 G3 Harsh Group A

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Type of test	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6
Test result	10 Hz ... 57 Hz, amplitude ±3.5 mm, 57 Hz ... 150 Hz, 5g
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	30g for 11 ms, three shocks in each spatial direction
Type of test	Continuous shock according to EN 60068-2-27/IEC 60068-2-27
Test result	10g for 16 ms, 1000 shocks in each spatial direction
Standards/regulations	EN 61000-4-2
Contact discharge	± 6 kV (Test Level 3)

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### Technical data

#### Standards and Regulations

Indirect discharge	± 6 kV
Standards/regulations	EN 61000-4-3
Frequency range	80 MHz ... 3 GHz (Test Level 3)
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-4-5
Signal	± 1 kV (Data line, asymmetrical)
	± 2 kV (I/O cable on field side only, asymmetric)
Standards/regulations	EN 61000-6-4
	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz

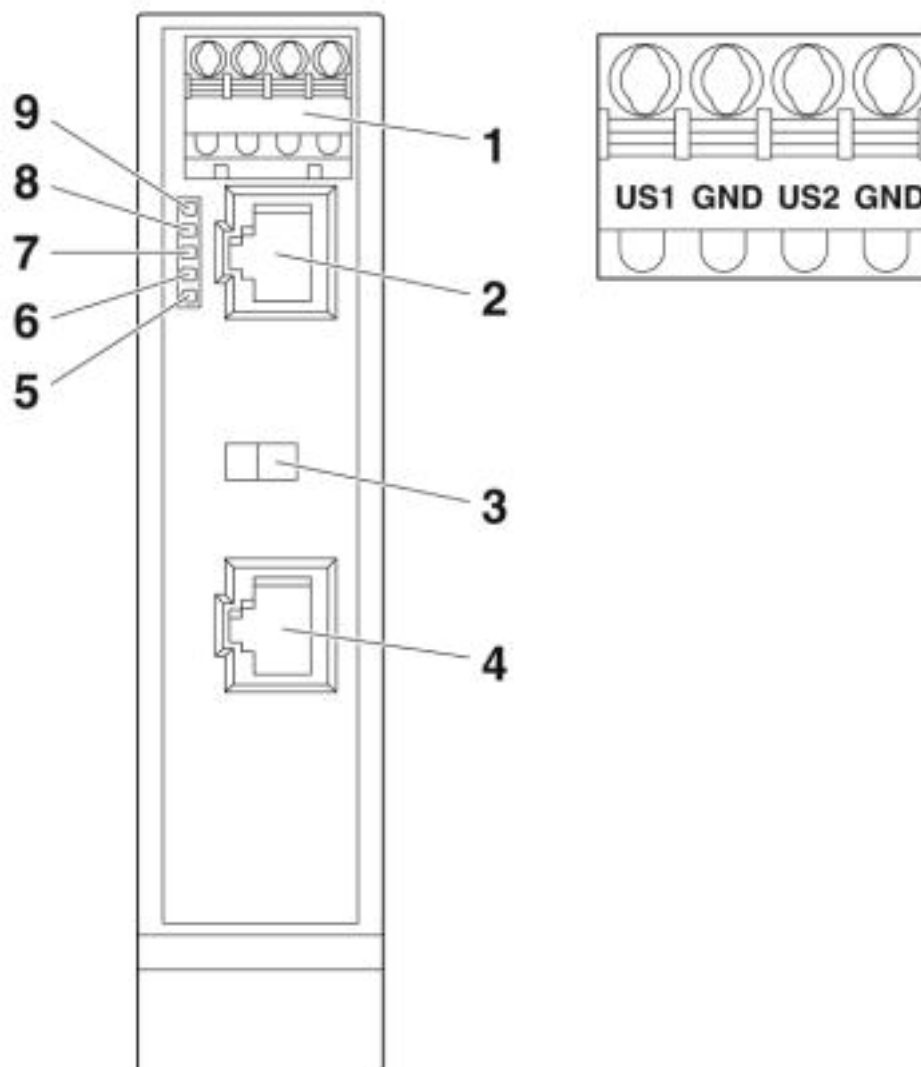
#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Drawings

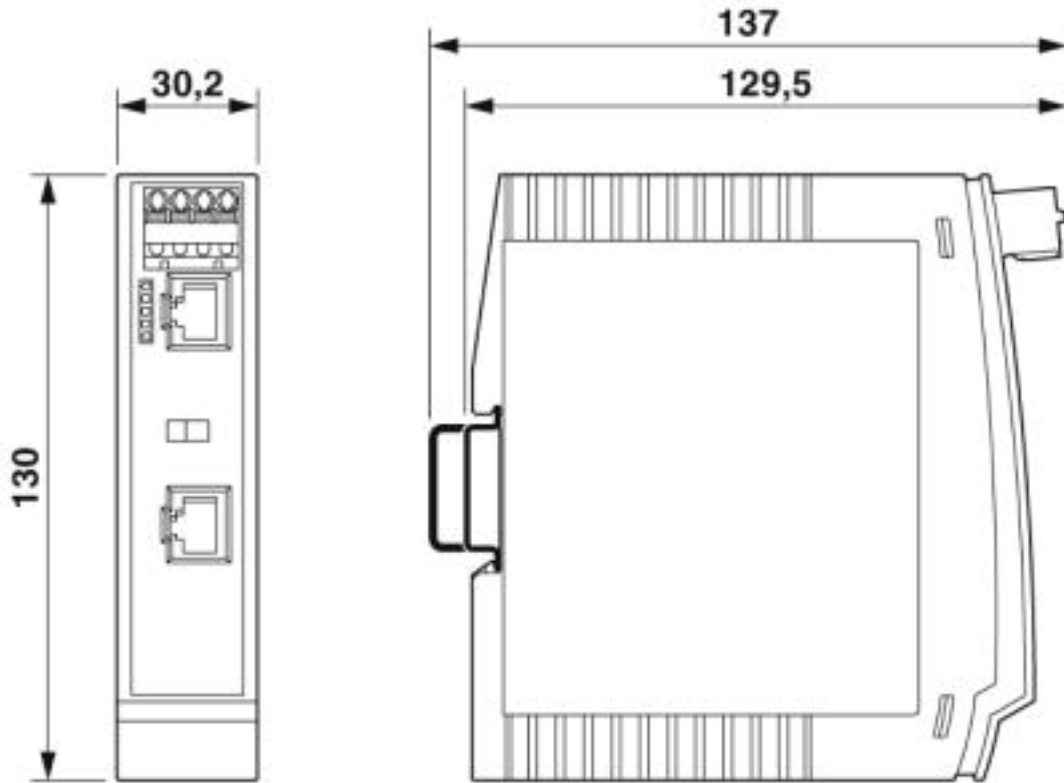
## Injector - INJ 1100-T - 2703009

Schematic diagram



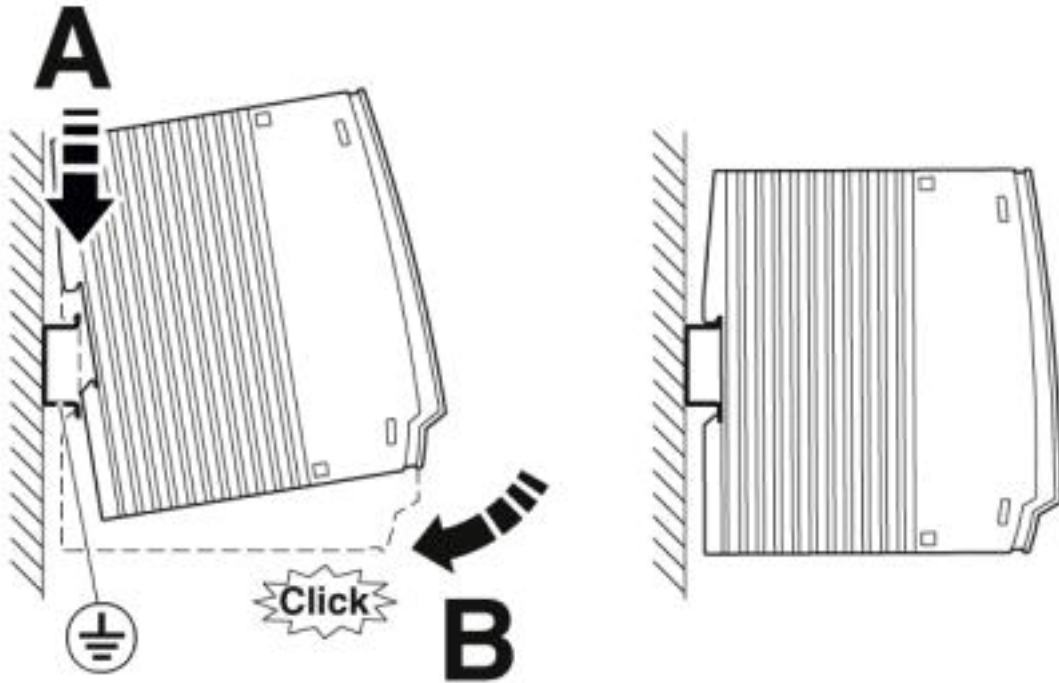
## Injector - INJ 1100-T - 2703009

Dimensional drawing



## Injector - INJ 1100-T - 2703009

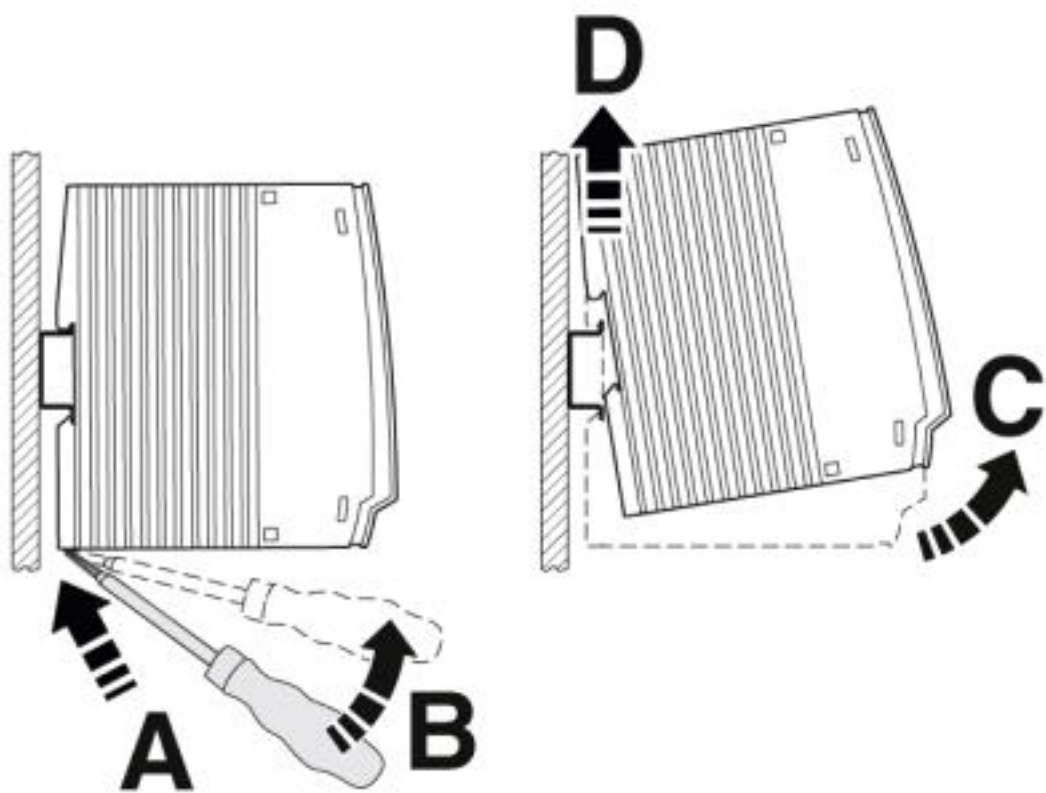
Schematic diagram



Mounting

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Schematic diagram



Removal

Classifications

eCl@ss

eCl@ss 6.0	19170100
eCl@ss 7.0	19170112
eCl@ss 8.0	19170112
eCl@ss 9.0	19170112

ETIM

ETIM 5.0	EC002599
ETIM 6.0	EC002599
ETIM 7.0	EC002599

Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed



## Injector - INJ 1100-T - 2703009

### Approvals

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Ex Approvals

UL Listed / cUL Listed / cULus Listed

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#### Approval details

UL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

cUL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

cULus Listed



### Accessories

#### Accessories

##### Data cable by the meter

##### Network cable - FL CAT5 HEAVY - 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

##### Network cable - FL CAT5 FLEX - 2744830



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

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### Accessories

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



Network 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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### Data cable preassembled

Network cable - FL CAT5 HEAVY CONF/ - 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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Network cable - FL CAT5 FLEX CONF/ - 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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### Data plug

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

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



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: black

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### Electronics pliers

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### Accessories

Diagonal cutter - MICROFOX-SP - 1212488



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

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### Network isolator

Network isolator - FL ISOLATOR 100-RJ/SC - 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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Network isolator - FL ISOLATOR 100-RJ/RJ - 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 - FL ISOLATOR 1000-RJ/RJ - 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 - FL ISOLATOR 100-M12 - 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

## Injector - INJ 1100-T - 2703009

### Accessories

Patch cable - FL CAT5 PATCH 0,3 - 2832250



Patch cable, CAT5, assembled, 0.3 m

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Patch cable - FL CAT5 PATCH 0,5 - 2832263



Patch cable, CAT5, assembled, 0.5 m

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Patch cable - FL CAT5 PATCH 1,0 - 2832276



Patch cable, CAT5, assembled, 1 m

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Patch cable - FL CAT5 PATCH 1,5 - 2832221



Patch cable, CAT5, assembled, 1.5 m

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Patch cable - FL CAT5 PATCH 2,0 - 2832289



Patch cable, CAT5, assembled, 2 m

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## Injector - INJ 1100-T - 2703009

### Accessories

Patch cable - FL CAT5 PATCH 3,0 - 2832292



Patch cable, CAT5, assembled, 3 m

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Patch cable - FL CAT6 PATCH 0,3 - 2891181



Patch cable, CAT6, pre-assembled, 0.3 m

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Patch cable - FL CAT6 PATCH 0,5 - 2891288



Patch cable, CAT6, pre-assembled, 0.5 m

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Patch cable - FL CAT6 PATCH 1,0 - 2891385



Patch cable, CAT6, pre-assembled, 1.0 m

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Patch cable - FL CAT6 PATCH 1,5 - 2891482



Patch cable, CAT6, pre-assembled, 1.5 m

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## Injector - INJ 1100-T - 2703009

### Accessories

Patch cable - FL CAT6 PATCH 2,0 - 2891589



Patch cable, CAT6, pre-assembled, 2.0 m

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Patch cable - FL CAT6 PATCH 3,0 - 2891686



Patch cable, CAT6, pre-assembled, 3.0 m

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Patch cable - FL CAT6 PATCH 5,0 - 2891783



Patch cable, CAT6, pre-assembled, 5.0 m

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Patch cable - FL CAT6 PATCH 7,5 - 2891880



Patch cable, CAT6, pre-assembled, 7.5 m

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Patch cable - FL CAT6 PATCH 10 - 2891877



Patch cable, CAT6, pre-assembled, 10 m

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## Injector - INJ 1100-T - 2703009

### Accessories

Patch cable - FL CAT6 PATCH 12,5 - 2891369



Patch cable, CAT6, pre-assembled, 12.5 m

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Patch cable - FL CAT6 PATCH 15,0 - 2891372



Patch cable, CAT6, pre-assembled, 15.0 m

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Patch cable - FL CAT6 PATCH 20,0 - 2891576



Patch cable, CAT6, pre-assembled, 20.0 m

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### Screwdriver tools

Screwdriver - SZF 0-0,4X2,5 - 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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Assembly tool - FL CRIMPTOOL - 2744869



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

## Injector - INJ 1100-T - 2703009

### Accessories

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



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

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