

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

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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.

### Product Features

- No power supply required
- Dielectric strength of up to 4 kV
- Protection against aggressive environmental influences, particularly harsh industrial environments, thanks to coated PCB
- Approval for railway applications (rolling stock) according to EN 50155 and EN 50121
- Extended temperature range of -25°C to +85°C
- Continuous insulation voltage of 250 VRMS
- Electrical isolation of data cables and cable shielding
- Mounting on EN DIN rails



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	119.4 g
Custom tariff number	85437090
Country of origin	Germany

### Technical data

#### Dimensions

Width	22.5 mm
Height	99 mm
Depth	92 mm

#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 75 °C
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# Network isolator - FL ISOLATOR 100-RJ/RJ - 2313931

## Technical data

### Ambient conditions

Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Altitude	5000 m (For restrictions see manufacturer's declaration)
Degree of protection	IP20

### General

Electrical isolation	Ethernet // Ethernet
Test voltage data interface/data interface	4 kV AC (50 Hz, 1 min.)
Insulation voltage input/output	250 V <sub>rms</sub>
Standards/regulations	EN 50121 and EN 50155 (for railway applications)
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC (valid until 19.04.2016) / 2014/30/EU (valid from 20.04.2016)
Net weight	119.4 g
Housing material	PA 6.6-FR
Color	green
MTBF	38062 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	12264 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
UL, USA / Canada	508 listed

### Serial interface

Interface 1	Ethernet interface, 10/100BASE-T(X) in acc. with IEEE 802.3u
Interface	Ethernet
Connection method	RJ45 socket, shielded
Transmission length	≤ 100 m (Total length across both ports (dependent on data rate and cable used))
Serial transmission speed	10/100 Mbps
Interface 2	Ethernet interface, 10/100BASE-T(X) in acc. with IEEE 802.3u
Interface	Ethernet
Connection method	RJ45 socket, shielded
Serial transmission speed	10/100 Mbps

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC (valid until 19.04.2016) / 2014/30/EU (valid from 20.04.2016)
Type of test	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6
Test result	5g, 10-150 Hz, 2.5 h, in XYZ direction
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	25g, 11 ms period, half-sine shock pulse

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### Technical data

#### Standards and Regulations

Standards/regulations	EN 61000-4-3
	EN 61000-4-4
	EN 61000-4-6
	EN 50121 and EN 50155 (for railway applications)
UL, USA / Canada	508 listed

### Classifications

#### eCl@ss

eCl@ss 4.0	27250591
eCl@ss 4.1	27230207
eCl@ss 5.0	27230207
eCl@ss 5.1	27061803
eCl@ss 6.0	27061803
eCl@ss 7.0	27061803
eCl@ss 8.0	27249290
eCl@ss 9.0	27240692

#### ETIM

ETIM 3.0	EC000313
ETIM 4.0	EC000467
ETIM 5.0	EC002584

#### UNSPSC

UNSPSC 6.01	26121607
UNSPSC 7.0901	26121607
UNSPSC 11	26121607
UNSPSC 12.01	26121607
UNSPSC 13.2	26121607

### Approvals

#### Approvals

#### Approvals

UL Listed / cUL Listed / DNV / EAC / cULus Listed

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

### Approvals

Ex Approvals

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Approvals submitted

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### Approval details

UL Listed 

cUL Listed 

DNV

EAC

cULus Listed 

### Accessories

Accessories

Passive isolators

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.

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

### Accessories

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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### Patch cable

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, 1.0 m

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Patch cable - FL CAT5 PATCH 1,5 - 2832221



Patch cable, CAT5, assembled, 1.5 m

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

### Accessories

Patch cable - FL CAT5 PATCH 2,0 - 2832289

Patch cable, CAT5, assembled, 2.0 m



Patch cable - FL CAT5 PATCH 3,0 - 2832292

Patch cable, CAT5, assembled, 3.0 m



Patch cable - FL CAT6 PATCH 0,3 - 2891181

Patch cable, CAT6, pre-assembled, 0.3 m



Patch cable - FL CAT6 PATCH 0,5 - 2891288

Patch cable, CAT6, pre-assembled, 0.5 m



Patch cable - FL CAT6 PATCH 1,0 - 2891385

Patch cable, CAT6, pre-assembled, 1.0 m



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

### Accessories

Patch cable - FL CAT6 PATCH 1,5 - 2891482



Patch cable, CAT6, pre-assembled, 1.5 m

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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 panel

Patch panels - FL CAT5 TERMINAL BOX - 2744610



Patch panel, one RJ45 socket to 4 screw connection terminal blocks (assignment 1, 2, 3, 6), CAT5e, 10/100 Mbps, DIN rail mounting, IP20, shield contacting on DIN rail

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Patch panels - FL-PP-RJ45-SCC - 2901642



Patch panel, one RJ45 socket to 8 spring-cage connection terminal blocks (1:1 assignment), CAT5e, 10/100/1000 Mbps, DIN rail mounting, IP20, option of shield contacting on DIN rail via jumpers

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

### Accessories

Patch panels - FL-PP-RJ45-SC - 2901643



Patch panel, one RJ45 socket to 8 screw connection terminal blocks (1:1 assignment), CAT5e, 10/100/1000 Mbps, DIN rail mounting, IP20, option of shield contacting on DIN rail via jumpers

Patch panels - FL-PP-RJ45-LSA - 2901645



Patch panel, one RJ45 socket to 8 IDC connection terminal blocks (1:1 assignment), CAT5e, 10/100/1000 Mbps, DIN rail mounting, IP20, option of shield contacting on DIN rail via jumpers

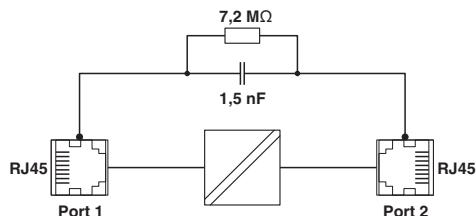
Patch panels - FL-PP-RJ45/RJ45 - 2901646



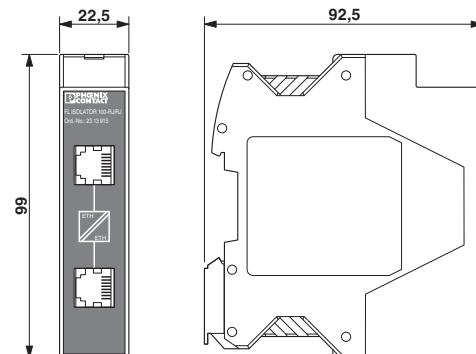
Patch panel, two RJ45 sockets (1:1 assignment), CAT5e, 10/100/1000 Mbps, DIN rail mounting, IP20, option of shield contacting on DIN rail via jumpers

### Drawings

Block diagram

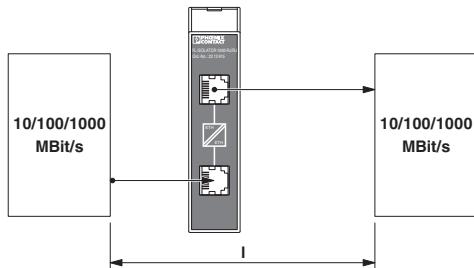


Dimensional drawing



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

Schematic diagram



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