

# 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

Ethernet



## Key commercial data

|                  |               |
|------------------|---------------|
| package_quantity | 1             |
| GTIN             | 4046356575089 |

## Technical data

### Dimensions

|        |         |
|--------|---------|
| Width  | 22.5 mm |
| Height | 99 mm   |
| Depth  | 92 mm   |

### Ambient conditions

|  |  |
|--|--|
| Ambient temperature (operation)          | -25 °C ... 75 °C   |
| Ambient temperature (storage/transport)  | -25 °C ... 85 °C   |
| Permissible humidity (operation)         | 10 % ... 95 % (no condensation)                          |
| Permissible humidity (storage/transport) | 5 % ... 95 % (no condensation)                           |
| Altitude                                 | 5000 m (For restrictions see manufacturer's declaration) |
| Degree of protection                     | IP20   |

### Serial interface

|             |  |
|-------------|--|
| Interface 1 | Ethernet interface, 10/100BASE-T(X) in acc. with IEEE 802.3u |
| Interface   | Ethernet   |

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## Technical data

### Serial interface

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

### General

|   |  |
|---|--|
| <b>Electrical isolation</b>                       | (Ethernet // Ethernet)   |
| <b>Test voltage data interface/data interface</b> | 4 kV AC (50 Hz, 1 min.)  |
| <b>Insulation voltage input/output</b>            | 250 V <sub>rms</sub>   |
| <b>Standards/regulations</b>                      | EN 50121 and EN 50155 (for railway applications)   |
| <b>Electromagnetic compatibility</b>              | Conformance with EMC Directive 2004/108/EC   |
| <b>Net weight</b>                                 | 86 g   |
| <b>Housing material</b>                           | PA 6.6-FR  |
| <b>Color</b>                                      | green  |
| <b>MTBF</b>                                       | 38062 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))     |
| <b>MTBF</b>                                       | 12264 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day)) |
| <b>UL, USA / Canada</b>                           | 508 listed   |

## classifications

### eCl@ss

|                   |          |
|-------------------|----------|
| <b>eCl@ss 4.0</b> | 27250591 |
| <b>eCl@ss 4.1</b> | 27230207 |
| <b>eCl@ss 5.0</b> | 27230207 |
| <b>eCl@ss 5.1</b> | 27061803 |
| <b>eCl@ss 6.0</b> | 27061803 |
| <b>eCl@ss 7.0</b> | 27061803 |
| <b>eCl@ss 8.0</b> | 27061803 |

### ETIM

|                 |          |
|-----------------|----------|
| <b>ETIM 3.0</b> | EC000313 |
| <b>ETIM 4.0</b> | EC000467 |
| <b>ETIM 5.0</b> | EC000467 |

### UNSPSC

|                      |          |
|----------------------|----------|
| <b>UNSPSC 6.01</b>   | 26121607 |
| <b>UNSPSC 7.0901</b> | 26121607 |
| <b>UNSPSC 11</b>     | 26121607 |

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## classifications

### UNSPSC

|              |          |
|--------------|----------|
| UNSPSC 12.01 | 26121607 |
| UNSPSC 13.2  | 26121607 |

## approvals

UL Listed / cUL Listed / UL Listed / cUL Listed / cULus Listed /

### Approval details



## accessories

### Patch panel

FL CAT5 TERMINAL BOX - 2744610



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

### accessories

FL-PP-RJ45-SCC - 2901642



FL-PP-RJ45-SC - 2901643



FL-PP-RJ45-LSA - 2901645



FL-PP-RJ45/RJ45 - 2901646



### Passive isolators

FL ISOLATOR 100-RJ/SC - 2313928



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## accessories

FL ISOLATOR 1000-RJ/RJ - 2313915



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### Patch cable

FL CAT5 PATCH 0,3 - 2832250



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FL CAT5 PATCH 0,5 - 2832263



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FL CAT5 PATCH 1,0 - 2832276



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FL CAT5 PATCH 1,5 - 2832221



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### accessories

FL CAT5 PATCH 2,0 - 2832289



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FL CAT5 PATCH 3,0 - 2832292



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FL CAT6 PATCH 0,3 - 2891181



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FL CAT6 PATCH 0,5 - 2891288



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FL CAT6 PATCH 1,0 - 2891385



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FL CAT6 PATCH 1,5 - 2891482



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accessories

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FL CAT6 PATCH 2,0 - 2891589



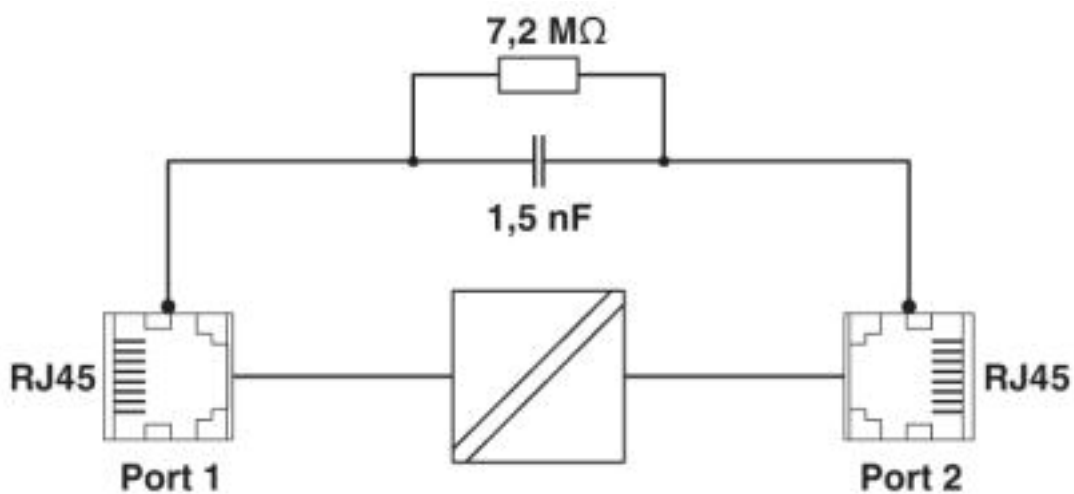
FL CAT6 PATCH 3,0 - 2891686



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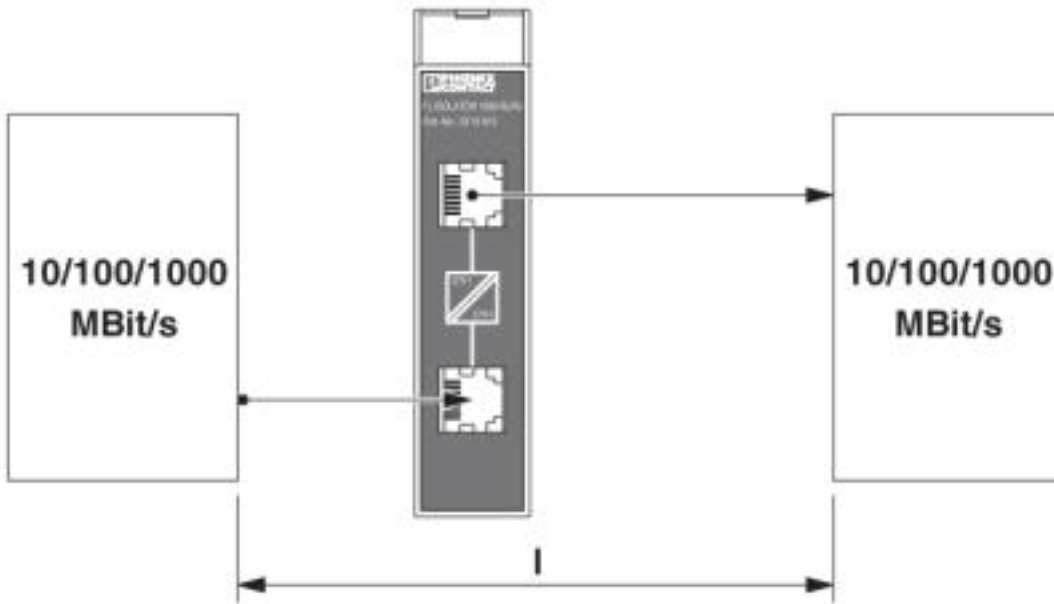
## Drawings

Block diagram



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

Schematic diagram



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