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## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## 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.

### Why buy this product

- ✓ 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 STK
GTIN	 4 046356 575089
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 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

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## Technical data

### Ambient conditions

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 2014/30/EU
Net weight	118.9 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
No. of ports	1
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
No. of ports	1
Connection method	RJ45 socket, shielded
Serial transmission speed	10/100 Mbps

### 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	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
Standards/regulations	EN 61000-4-2
Contact discharge	± 6 kV (Test Level 3)
Standards/regulations	EN 61000-4-3
Frequency range	26 MHz ... 3 GHz (Test Level 3)
Standards/regulations	EN 61000-4-4

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

## Technical data

### Standards and Regulations

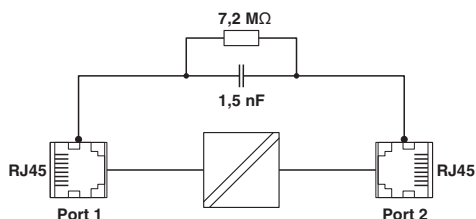
Comments	Criterion B
Standards/regulations	EN 61000-4-5
Signal	± 1 kV (Data line, asymmetrical)
Standards/regulations	EN 61000-6-4
	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Standards/regulations	EN 50121 and EN 50155 (for railway applications)
UL, USA/Canada	508 Listed
Noxious gas test	ISA-S71.04-1985 G3 Harsh Group A

### Environmental Product Compliance

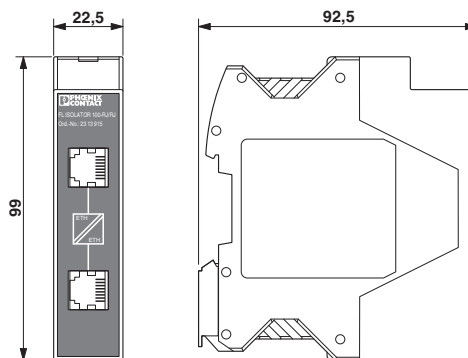
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

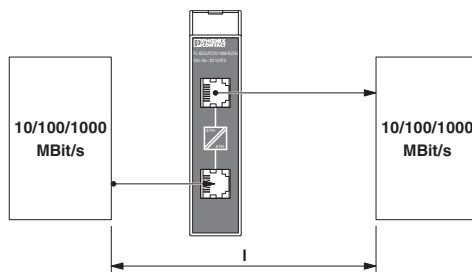
Block diagram



Dimensional drawing



Schematic diagram



## Approvals

Approvals



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

## Approvals

Approvals


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


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Ex Approvals

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### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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EAC			EAC-Zulassung
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DNV GL		<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>	TAA00001KR
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cULus Listed			
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PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>