

Network isolator - FL ISOLATOR 1000-RJ/RJ - 2313915

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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 1 Gbps. Possible to connect two RJ45 plugs.

Your advantages

- ✓ 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
- ✓ Electrical isolation of data cables and cable shielding
- ✓ Extended temperature range of -25°C to +85°C
- ✓ Mounting on EN DIN rails
- ✓ Transmission speed of up to 1000 Mbps
- ✓ Continuous insulation voltage of 250 VRMS
- ✓ Shipbuilding approval in accordance with DNV GL



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356574563

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

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Technical data

Ambient conditions

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 _{rms}
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Net weight	122.3 g
Housing material	PA 6.6-FR
Color	green
MTBF	25932 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	8640 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, 10/100/1000Base-T(X) according to 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	10/100/1000 Mbps
Interface 2	Ethernet interface, 10/100/1000Base-T(X) according to IEEE 802.3u
Interface	Ethernet
No. of ports	1
Connection method	RJ45 socket, shielded
Serial transmission speed	10/100/1000 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)

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Standards and Regulations

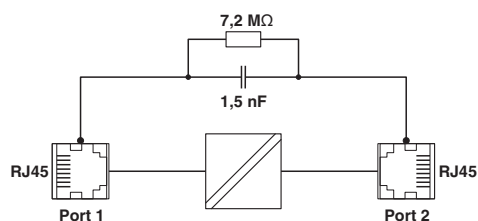
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-4-5
Signal	± 1 kV (Data line, asymmetrical)
Standards/regulations	EN 61000-6-4
	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Standards/regulations	EN 50121 and EN 50155 (for railway applications)
UL, USA/Canada	508 Listed
DNV GL-Temperature	B
DNV GL-Humidity	A
DNV GL-Vibration	A
DNV GL-EMC	B
DNV GL-Enclosure	Required protection according to the Rules shall be provided upon installation on board
Noxious gas test	ISA-S71.04-1985 G3 Harsh Group A
Shipbuilding approval	DNV GL

Environmental Product Compliance

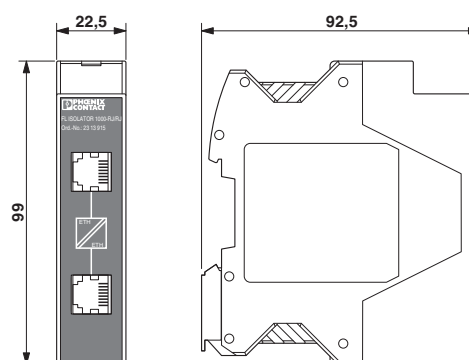
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Block diagram

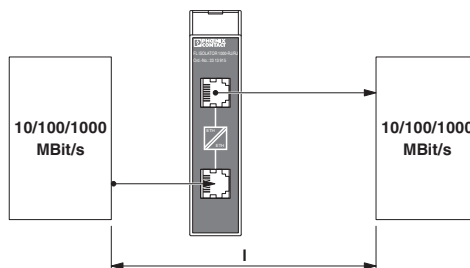


Dimensional drawing



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Schematic diagram



Approvals

Approvals

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

Ex Approvals

Approval details

DNV GL		http://exchange.dnv.com/tari/	TAA00001KR
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
EAC			RU *- DE.A*30.B.01735
cULus Listed			

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