FL ISOLATOR 100-RJ/RJ - Network isolator

2313931

https://www.phoenixcontact.com/us/products/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 description

The FL ISOLATOR is used for electrical isolation in copper-based Ethernet networks. In industrial environments, potential differences pose a constant problem with regard to interference-free data transmission. The high-quality isolation for up to 4 kV provides reliable protection for Ethernet devices and interfaces. This results in considerably higher immunity to interference in industrial applications.

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

Commercial data

Item number	2313931
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN07
Product key	DNC332
Catalog page	Page 365 (C-6-2019)
GTIN	4046356575089
Weight per piece (including packing)	116.8 g
Weight per piece (excluding packing)	116.8 g
Customs tariff number	85176990
Country of origin	DE

Technical data

Product properties

Product type	Network isolator
MTBF	7993 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	4201 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))

Electrical properties

Electrical isolation	Ethernet // Ethernet
Insulation voltage input/output	250 V_{rms}
Test voltage data interface/data interface	4 kV AC (50 Hz, 1 min.)

Connection data

Supply

Tightening torque	0.56 Nm ... 0.79 Nm

Interfaces

Signal	Ethernet
	PROFINET

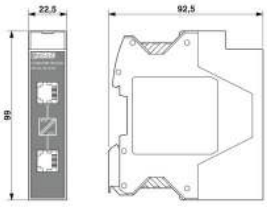
Data: Ethernet interface, 10/100Base-T(X) in accordance with IEEE 802.3

Serial transmission speed	10/100 Mbps
Connection method	RJ45 jack
No. of channels	1
Transmission length	≤ 100 m (Total length across both ports (dependent on data rate and cable used))

Data: Ethernet interface, 10/100Base-T(X) in accordance with IEEE 802.3

Serial transmission speed	10/100 Mbps
Connection method	RJ45 jack
No. of channels	1

Dimensions

Dimensional drawing	
Width	22.5 mm
Height	99 mm
Depth	92 mm

Material specifications

Material	PA 6.6-FR

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 75 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Altitude	≤ 5000 m (For restrictions, see the manufacturer's declaration for altitude operation)
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

Approvals

CE

Certificate	CE-compliant

EAC

Identification	EAC

UL, USA/Canada

Identification	508 Listed

Corrosive gas test

Identification	ISA-S71.04-1985 G3 Harsh Group A

Shipbuilding

Identification	DNV GL

DNV GL data

Temperature	B
Humidity	A
Vibration	A
EMC	B
Enclosure	Required protection according to the Rules shall be provided upon installation on board

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU

Electrostatic discharge

Standards/regulations	EN 61000-4-2

Electromagnetic HF field

Standards/regulations	EN 61000-4-3

Electromagnetic HF field

Frequency range	26 MHz ... 3 GHz (Test Level 3)
Field intensity	20 V/m
Comments	Criterion A

Fast transients (burst)

Standards/regulations	EN 61000-4-4

Conducted interference

Standards/regulations	EN 61000-4-6

Conducted interference

Frequency range	0.15 MHz ... 80 MHz
Comments	Criterion A
Voltage	10 V

Emitted interference

Standards/regulations	EN 61000-6-4
Radio interference voltage in acc. with EN 55011	Class B, area of application: Industry and residential
Emitted radio interference in acc. with EN 55011	Class B, area of application: Industry and residential

Standards and regulations

Standards/regulations	EN 50121 and EN 50155 (for railway applications)

Mounting

Mounting type	DIN rail mounting

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2313931

EAC
Approval ID: RU D-DE.GB09.B.00312

DNV GL
Approval ID: TAA00001KR

UL Listed
Approval ID: FILE E 238705

cUL Listed
Approval ID: FILE E 238705

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Classifications

ECLASS

ECLASS-11.0	27240692
ECLASS-12.0	27240692
ECLASS-13.0	27240692

ETIM

ETIM 8.0	EC002584

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer’s declaration available under “Downloads”

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