

FL ISOLATOR 1000-RJ/RJ - Network isolator



2313915

<https://www.phoenixcontact.com/gb/products/2313915>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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.

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
- Approval for railway applications (rolling stock) in accordance with EN 50155 and EN 50121
- Electrical isolation of data cables and cable shielding
- Extended temperature range of -25 °C ... +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

Commercial data

Item number	2313915
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DNC332
Product key	DNC332
Catalog page	Page 364 (C-6-2019)
GTIN	4046356574563
Weight per piece (including packing)	121.3 g
Weight per piece (excluding packing)	119 g
Customs tariff number	85176990
Country of origin	DE

Technical data

Product properties

Product type	Network isolator
MTBF	5446 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	2959 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

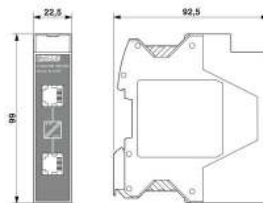
Data: Ethernet interface, 10/100/1000Base-T(X) in accordance with IEEE 802.3

Serial transmission speed	10/100/1000 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, 10/100/1000Base-T(X) in accordance with IEEE 802.3

Serial transmission speed	10/100/1000 Mbps
Connection method	RJ45 jack
No. of channels	1

Dimensions

Dimensional drawing	
Width	22.5 mm
Height	99 mm
Depth	92 mm

FL ISOLATOR 1000-RJ/RJ - Network isolator



2313915

<https://www.phoenixcontact.com/gb/products/2313915>

Material specifications

Material	PA 6.6-FR
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
-----------------------	--------------

FL ISOLATOR 1000-RJ/RJ - Network isolator



2313915

<https://www.phoenixcontact.com/gb/products/2313915>

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
---------------	-------------------

FL ISOLATOR 1000-RJ/RJ - Network isolator

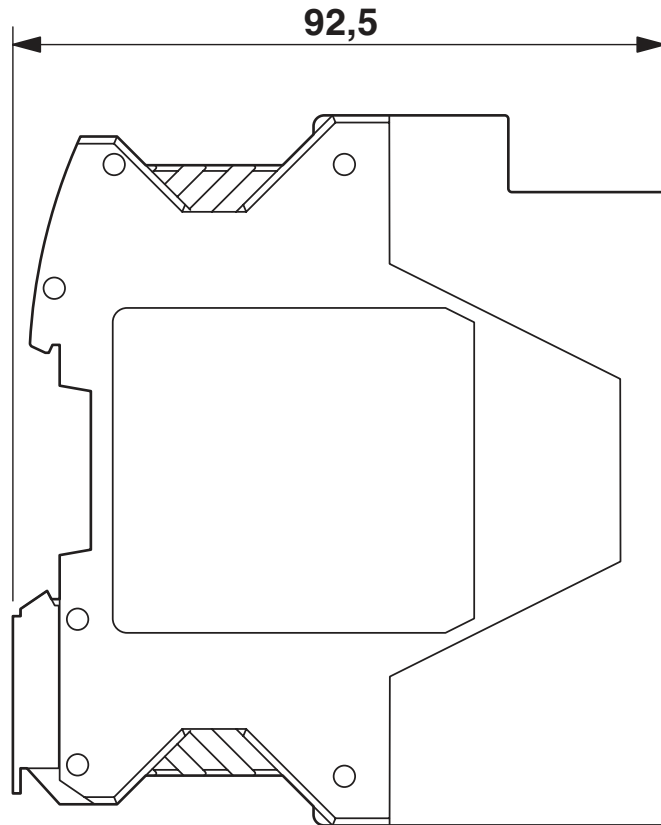
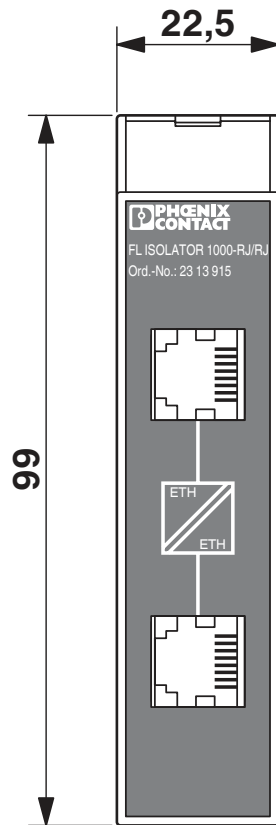


2313915

<https://www.phoenixcontact.com/gb/products/2313915>

Drawings

Dimensional drawing



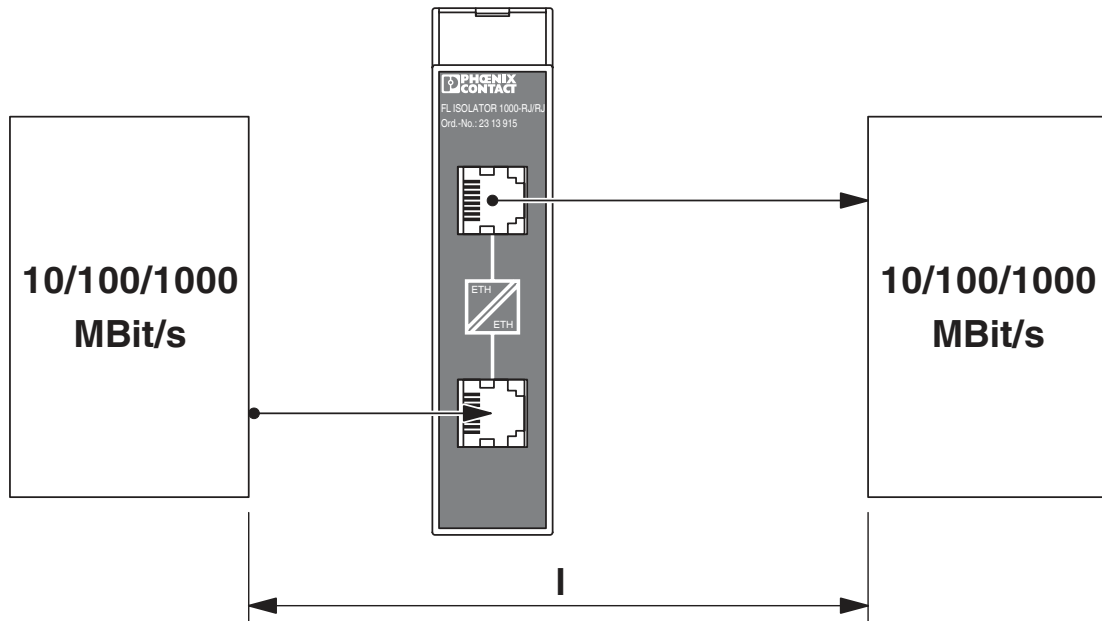
Housing dimensions

FL ISOLATOR 1000-RJ/RJ - Network isolator

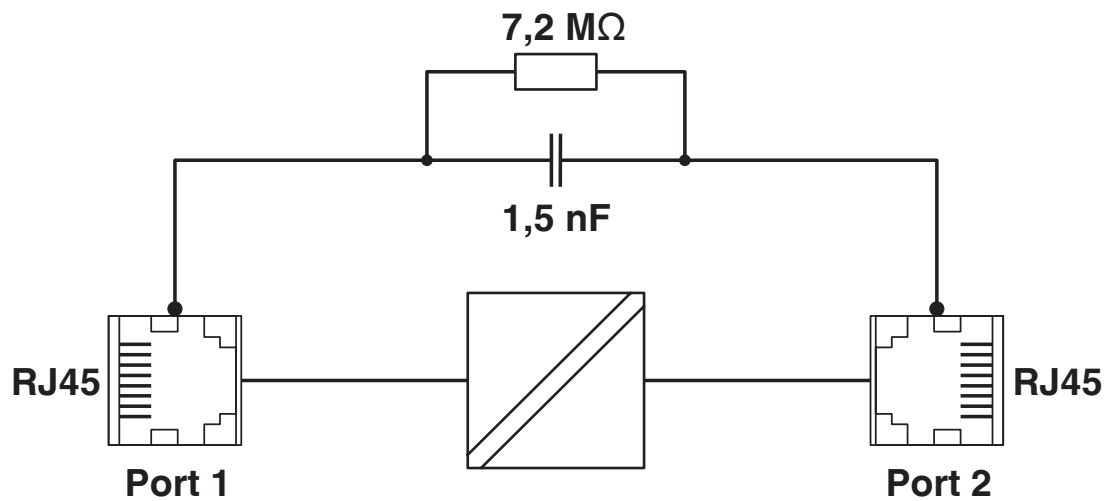
2313915

<https://www.phoenixcontact.com/gb/products/2313915>

Schematic diagram



Block diagram



FL ISOLATOR 1000-RJ/RJ - Network isolator



2313915

<https://www.phoenixcontact.com/gb/products/2313915>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2313915>



EAC

Approval ID: RU *-DE.A*30.B.01735



DNV GL

Approval ID: TAA00001KR



UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705

cULus Listed

FL ISOLATOR 1000-RJ/RJ - Network isolator



2313915

<https://www.phoenixcontact.com/gb/products/2313915>

Classifications

ECLASS

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

ETIM

ETIM 8.0	EC002584
----------	----------

UNSPSC

UNSPSC 21.0	39121400
-------------	----------

FL ISOLATOR 1000-RJ/RJ - Network isolator



2313915

<https://www.phoenixcontact.com/gb/products/2313915>

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"
------------	--

FL ISOLATOR 1000-RJ/RJ - Network isolator



2313915

<https://www.phoenixcontact.com/gb/products/2313915>

Accessories

FL CAT5 TERMINAL BOX - Patch panels

2744610

<https://www.phoenixcontact.com/gb/products/2744610>



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

FL ISOLATOR 100-RJ/RJ - Network isolator

2313931

<https://www.phoenixcontact.com/gb/products/2313931>



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.

FL ISOLATOR 1000-RJ/RJ - Network isolator

2313915

<https://www.phoenixcontact.com/gb/products/2313915>



FL ISOLATOR 100-M12 - Network isolator

2902985

<https://www.phoenixcontact.com/gb/products/2902985>



Passive network isolator for electrical isolation in Ethernet networks. For the protection of Ethernet devices against potential differences of up to 4 kV. Can be used for transmission speeds of up to 100 Mbps. Ethernet connection via two M12 sockets (D-coded).

PP-RJ-RJ - Patch panels

2703015

<https://www.phoenixcontact.com/gb/products/2703015>



Patch panel, two RJ45 jacks, 10/100/1000 MBps, DIN rail adapter, IP20

FL ISOLATOR 1000-RJ/RJ - Network isolator



2313915

<https://www.phoenixcontact.com/gb/products/2313915>

PP-RJ-SC - Patch panels

2703016

<https://www.phoenixcontact.com/gb/products/2703016>



Patch panel, RJ45 jack on screw terminal blocks, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief

PP-RJ-SCC - Patch panels

2703018

<https://www.phoenixcontact.com/gb/products/2703018>



Patch panel, RJ45 jack on Push-in terminal blocks, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief

FL ISOLATOR 1000-RJ/RJ - Network isolator



2313915

<https://www.phoenixcontact.com/gb/products/2313915>

PP-RJ-IDC - Patch panels

2703019

<https://www.phoenixcontact.com/gb/products/2703019>



Patch panel, RJ45 jack on IDC terminal blocks, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief

PP-RJ-RJ-F - Patch panels

2703020

<https://www.phoenixcontact.com/gb/products/2703020>



Patch panel, two RJ45 jacks, 10/100/1000 MBps, DIN rail adapter, IP20, shield current monitoring, surge protection

FL ISOLATOR 1000-RJ/RJ - Network isolator



2313915

<https://www.phoenixcontact.com/gb/products/2313915>

PP-RJ-SC-F - Patch panels

2703021

<https://www.phoenixcontact.com/gb/products/2703021>



Patch panel, RJ45 jack on screw terminal blocks, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief, shield current monitoring, surge protection

PP-RJ-SCC-F - Patch panels

2703022

<https://www.phoenixcontact.com/gb/products/2703022>



Patch panel, RJ45 jack on Push-in terminal blocks, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief, shield current monitoring, surge protection

FL ISOLATOR 1000-RJ/RJ - Network isolator



2313915

<https://www.phoenixcontact.com/gb/products/2313915>

PP-RJ-IDC-F - Patch panels

2703023

<https://www.phoenixcontact.com/gb/products/2703023>



Patch panel, RJ45 jack on IDC terminal blocks, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief, shield current monitoring, surge protection

FL-PP-RJ45-LSA - Patch panels

2901645

<https://www.phoenixcontact.com/gb/products/2901645>



Patch panel, one RJ45 jack to 8 LSA connection terminal blocks (1:1 assignment), CAT5e, 10/100/1000 Mbps, DIN rail adapter, IP20, option of shield contacting to the DIN rail via bridges

FL ISOLATOR 1000-RJ/RJ - Network isolator



2313915

<https://www.phoenixcontact.com/gb/products/2313915>

FL-PP-RJ45/RJ45-B - Patch panels

2904933

<https://www.phoenixcontact.com/gb/products/2904933>



Patch panel, narrow overall width, extended temperature range, two RJ45 jacks, 1:1 assignment, all-around shield, CAT5, 10/100 Mbps, DIN rail adapter, IP20

FL CAT5 PATCH 0,3 - Patch cable

2832250

<https://www.phoenixcontact.com/gb/products/2832250>



Patch cable, CAT5, assembled, 0.3 m

FL ISOLATOR 1000-RJ/RJ - Network isolator

2313915

<https://www.phoenixcontact.com/gb/products/2313915>

FL CAT5 PATCH 0,5 - Patch cable

2832263

<https://www.phoenixcontact.com/gb/products/2832263>

Patch cable, CAT5, assembled, 0.5 m



FL CAT5 PATCH 1,0 - Patch cable

2832276

<https://www.phoenixcontact.com/gb/products/2832276>

Patch cable, CAT5, assembled, 1 m



FL ISOLATOR 1000-RJ/RJ - Network isolator

2313915

<https://www.phoenixcontact.com/gb/products/2313915>



FL CAT5 PATCH 1,5 - Patch cable

2832221

<https://www.phoenixcontact.com/gb/products/2832221>



Patch cable, CAT5, assembled, 1.5 m

FL CAT5 PATCH 2,0 - Patch cable

2832289

<https://www.phoenixcontact.com/gb/products/2832289>



Patch cable, CAT5, assembled, 2 m

FL ISOLATOR 1000-RJ/RJ - Network isolator



2313915

<https://www.phoenixcontact.com/gb/products/2313915>

FL CAT5 PATCH 3,0 - Patch cable

2832292

<https://www.phoenixcontact.com/gb/products/2832292>



Patch cable, CAT5, assembled, 3 m

FL CAT6 PATCH 0,3 - Patch cable

2891181

<https://www.phoenixcontact.com/gb/products/2891181>



Patch cable, CAT6, preassembled, 0.3 m

FL ISOLATOR 1000-RJ/RJ - Network isolator

2313915

<https://www.phoenixcontact.com/gb/products/2313915>



FL CAT6 PATCH 0,5 - Patch cable

2891288

<https://www.phoenixcontact.com/gb/products/2891288>



Patch cable, CAT6, preassembled, 0.5 m

FL CAT6 PATCH 1,0 - Patch cable

2891385

<https://www.phoenixcontact.com/gb/products/2891385>



Patch cable, CAT6, preassembled, 1.0 m

FL ISOLATOR 1000-RJ/RJ - Network isolator

2313915

<https://www.phoenixcontact.com/gb/products/2313915>



FL CAT6 PATCH 1,5 - Patch cable

2891482

<https://www.phoenixcontact.com/gb/products/2891482>



Patch cable, CAT6, preassembled, 1.5 m

FL CAT6 PATCH 2,0 - Patch cable

2891589

<https://www.phoenixcontact.com/gb/products/2891589>



Patch cable, CAT6, preassembled, 2.0 m

FL ISOLATOR 1000-RJ/RJ - Network isolator

2313915

<https://www.phoenixcontact.com/gb/products/2313915>



FL CAT6 PATCH 3,0 - Patch cable

2891686

<https://www.phoenixcontact.com/gb/products/2891686>



Patch cable, CAT6, preassembled, 3.0 m

Phoenix Contact 2023 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd
Halesfield 13, Telford
Shropshire, TF7 4PG
01952 681700
info@phoenixcontact.co.uk