

FL ISOLATOR 100-M12 RMS - Network isolator



2904671

<https://www.phoenixcontact.com/us/products/2904671>

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.



The figure shows version

Passive network isolator with pre-installed adapter for mounting on a DIN rail. Electrical isolation in Ethernet networks. For protection against potential differences up to 4 kV. Transmission speed of up to 100 Mbps. M12 sockets (D-coded).

Your advantages

- Extended temperature range of -40 °C ... +75 °C
- Easy installation
- Approval for railway applications (rolling stock) in accordance with EN 50155 and EN 50121
- No power supply required
- Dielectric strength of up to 4 kV
- Protection against aggressive environmental influences, particularly harsh industrial environments, thanks to coated PCB

Commercial data

Item number	2904671
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DN07
Product key	DNC332
GTIN	4046356872898
Weight per piece (including packing)	343.6 g
Weight per piece (excluding packing)	343.6 g
Customs tariff number	85176200
Country of origin	DE

FL ISOLATOR 100-M12 RMS - Network isolator



2904671

<https://www.phoenixcontact.com/us/products/2904671>

Set consists of

FL ISOLATOR 100-M12 - Network isolator

2902985

<https://www.phoenixcontact.com/us/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).

FL EPA RMS - DIN rail adapter

2701133

<https://www.phoenixcontact.com/us/products/2701133>

Set for mounting devices with EPA design on a DIN rail



Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
----------	---

Product properties

Product type	Network isolator
MTTF	18372 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	13381 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	3348 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)
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))

Electrical properties

Electrical isolation	Port X1//port X2
Insulation voltage input/output	250 V _{rms}
Test voltage data interface/data interface	4 kV AC (50 Hz, 1 min.)

Supply

Supply voltage range	passive module, no supply voltage required
----------------------	--

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	M12 connector, D-coded (female)
No. of channels	1
Transmission length	≤ 100 m (Total length across both ports (dependent on data rate and cable used))
Protocols supported	Transparent protocol for IPv4 and IPv6

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

Connection method	M12 connector, D-coded (female)
No. of channels	1

Dimensions

FL ISOLATOR 100-M12 RMS - Network isolator



2904671

<https://www.phoenixcontact.com/us/products/2904671>

Dimensional drawing	
Width	66 mm
Height	91 mm
Depth	50 mm

Material specifications

Color (Housing)	black (RAL 9005)
Material Housing	FR 2010
Flammability rating according to UL 94	V0

Cable/line

Shielding	no connection to protective earth ground (PE) capacitive isolation between both shield connections
-----------	---

Mechanical tests

Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	: 5g, 10...150 Hz, 2.5 h, in XYZ direction
Vibration resistance according to IEC 61373, EN 61373	Vibration (operation): Category 1, Class B
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	Shock (operation): 15g, 11 ms period, half-sine shock pulse Shock (storage/transport): 30g, 18 ms period, half-sine shock pulse

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP54
Ambient temperature (operation)	-40 °C ... 75 °C
Ambient temperature (storage/transport)	-40 °C ... 75 °C (85°C for 10 min.; thereafter function can no longer be guaranteed - check device)
Permissible humidity (operation)	10 % ... 95 %
Permissible humidity (storage/transport)	5 % ... 95 %

Approvals

CE

Certificate	CE-compliant
-------------	--------------

Corrosive gas test

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

FL ISOLATOR 100-M12 RMS - Network isolator



2904671

<https://www.phoenixcontact.com/us/products/2904671>

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Fast transients (burst)	
Standards/regulations	EN 61000-4-4
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)
	IEC 60571

Mounting

Mounting type	DIN rail mounting
Mounting position	Alignable on DIN rail

FL ISOLATOR 100-M12 RMS - Network isolator

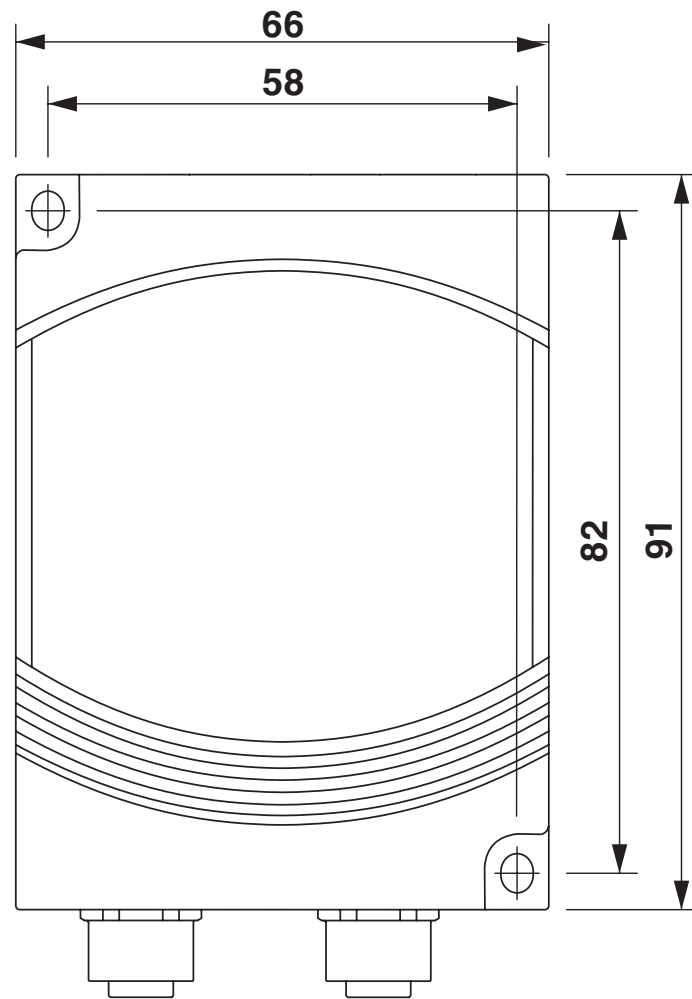


2904671

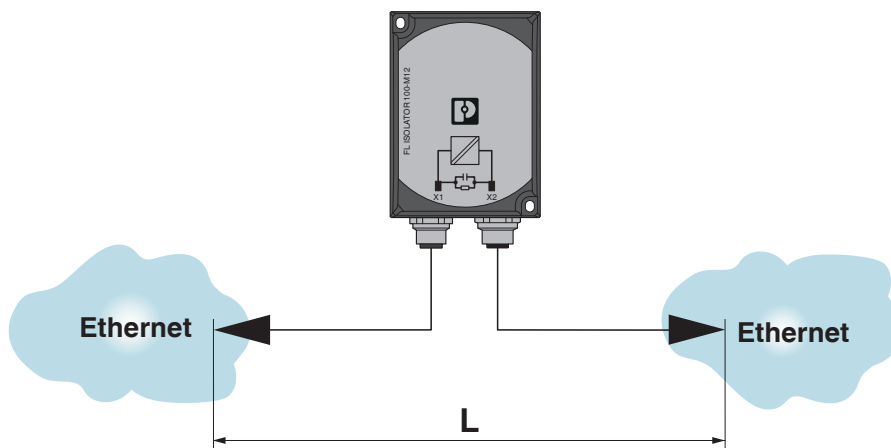
<https://www.phoenixcontact.com/us/products/2904671>

Drawings

Dimensional drawing



Application drawing



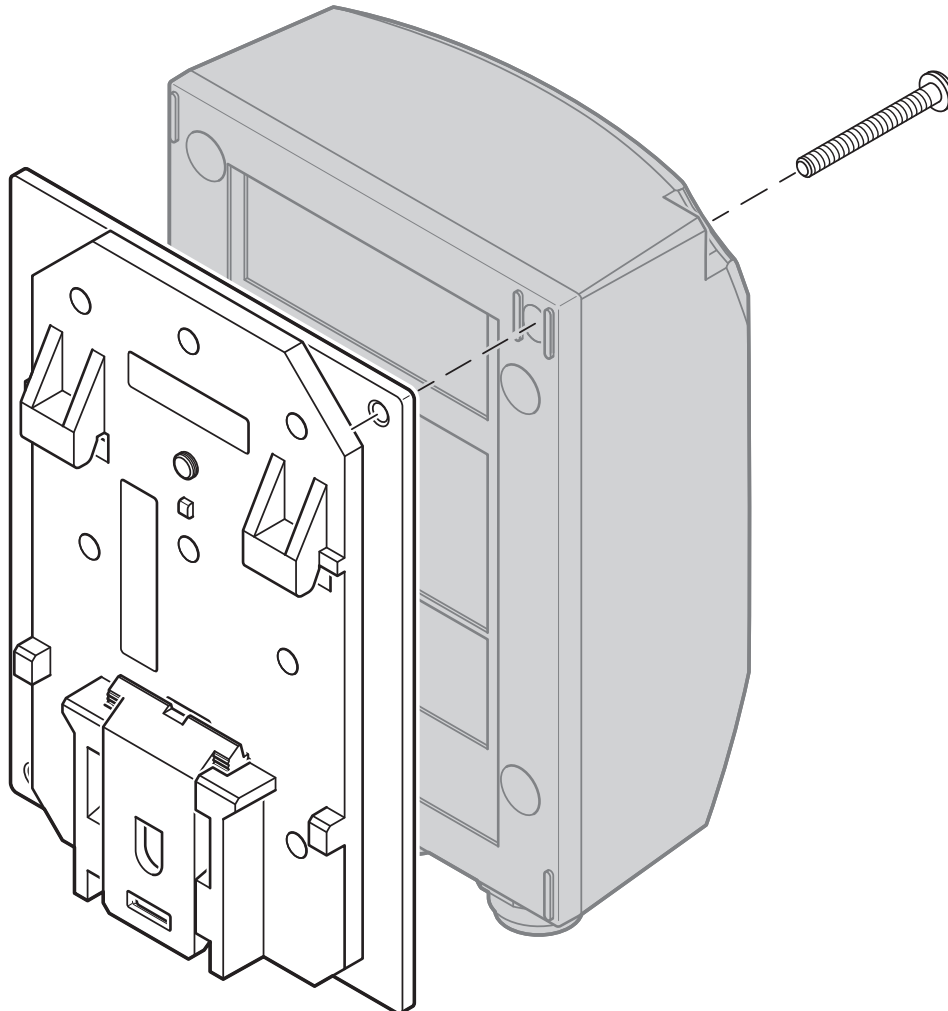
FL ISOLATOR 100-M12 RMS - Network isolator



2904671

<https://www.phoenixcontact.com/us/products/2904671>

Schematic diagram



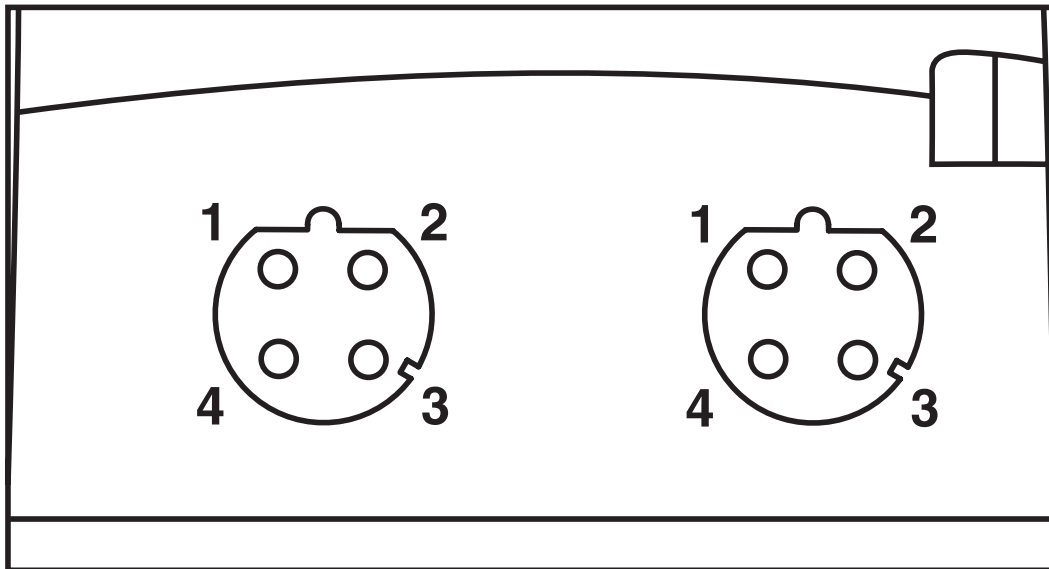
FL ISOLATOR 100-M12 RMS - Network isolator



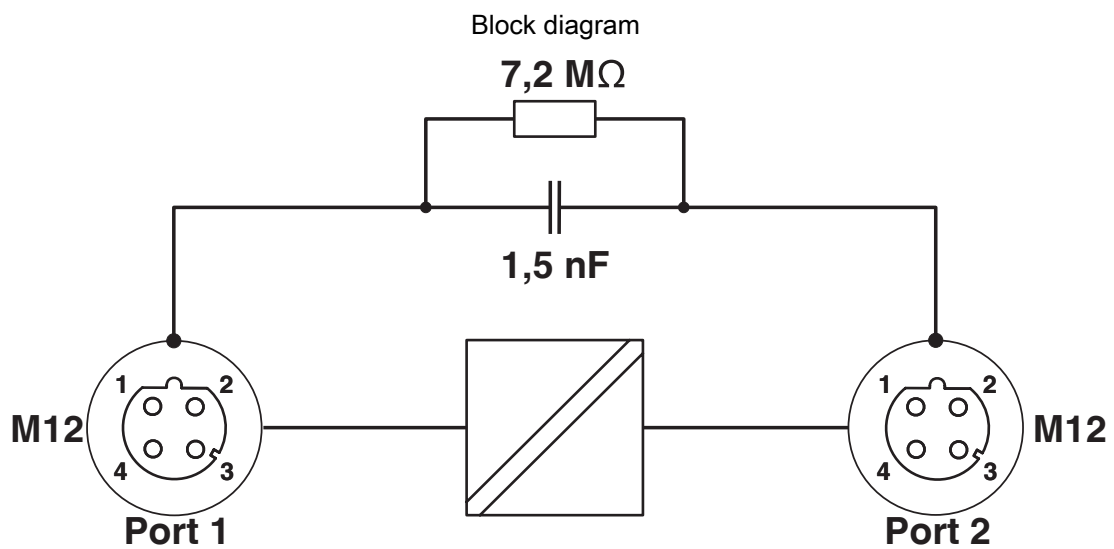
2904671

<https://www.phoenixcontact.com/us/products/2904671>

Schematic diagram



View from below



FL ISOLATOR 100-M12 RMS - Network isolator



2904671

<https://www.phoenixcontact.com/us/products/2904671>

Environmental product compliance

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com