Network isolator - FL ISOLATOR 100-RJ/SC - 2313928

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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. Connection using RJ45 and COMBICON plug-in screw terminal block.

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 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	4 046356 575072
GTIN	4046356575072
Custom tariff number	85437090
Country of origin	Germany

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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)
Altitude	≤ 5000 m (For restrictions, see the manufacturer's declaration for altitude operation)
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
Mounting type	DIN rail mounting
Net weight	90 g
Housing material	PA 6.6-FR
Color	green
MTBF	5575 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	3094 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))

Interfaces

Interface 1	Ethernet interface, 10/100Base-T(X) in accordance with IEEE 802.3
Interface	Ethernet
No. of ports	1
Connection method	RJ45 jack, 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, 10/100/1000Base-T(X) in accordance with IEEE 802.3
Interface	Ethernet
No. of ports	1
Connection method	COMBICON screw terminal block

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Interfaces

Conductor cross section solid min.	0.14 mm²
Conductor cross section solid max.	1.5 mm²
Conductor cross section flexible min.	0.14 mm²
Conductor cross section flexible max.	1.5 mm²
Conductor cross section AWG min.	26
Conductor cross section AWG max.	16

Conformance/approvals

Designation	EAC
Identification	EAC
Designation	UL, USA/Canada
Identification	508 Listed
Designation	Corrosive gas test
Identification	ISA-S71.04-1985 G3 Harsh Group A
Designation	Shipbuilding
Identification	DNV GL
Temperature	B
Humidity	A
Vibration	A
EMC	B
Enclosure	Required protection according to the Rules shall be provided upon installation on board

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
	EN 61000-4-3
Frequency range	26 MHz ... 3 GHz (Test Level 3)
Standards/regulations	EN 61000-4-4
	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)

Environmental Product Compliance

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Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Classifications

eCl@ss

eCl@ss 10.0.1	27240692
eCl@ss 11.0	27240692
eCl@ss 4.0	27250500
eCl@ss 4.1	27230200
eCl@ss 5.0	27061800
eCl@ss 5.1	27061800
eCl@ss 6.0	27249200
eCl@ss 7.0	27249290
eCl@ss 9.0	27240692

ETIM

ETIM 3.0	EC000313
ETIM 4.0	EC000467
ETIM 6.0	EC002584
ETIM 7.0	EC002584

UNSPSC

UNSPSC 6.01	26121607
UNSPSC 7.0901	26121607
UNSPSC 11	26121607
UNSPSC 12.01	26121607
UNSPSC 13.2	39121552
UNSPSC 18.0	39121552
UNSPSC 19.0	39121552
UNSPSC 20.0	39121552
UNSPSC 21.0	39121552

Approvals

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Approvals

Approvals

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

Ex Approvals

Approval details

DNV GL	https://approvalfinder.dnvgl.com/	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		EAC-Zulassung
cULus Listed		