

Features

- Galvanic Isolation I.S. to non-I.S. Port
- 10/100 MBit/s according to IEEE 802.3/3u
- Installation in Zone 2, Ethernet in Zone 1 or Zone 0
- Standard Ethernet patch or crossover cable
- DIN-Rail mounted and OEM Version

Function

The Ethernet Isolator is an intrinsically safe isolated barrier. It enables cost effective and simple installation in hazardous areas up to Zone 0. It supports high-speed Ethernet and can be mounted in Zone 2.

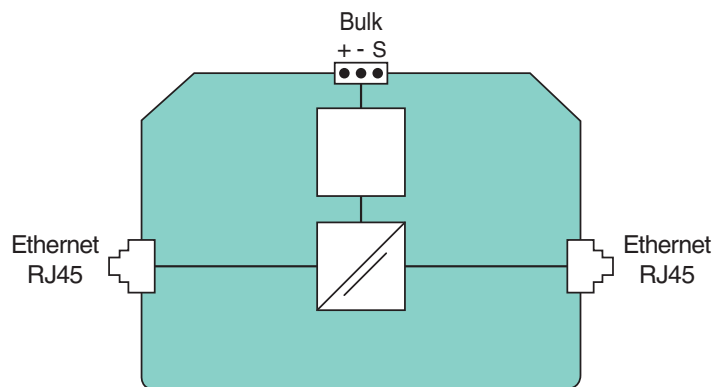
At each end of the trunk, an Ethernet Isolator is installed. In combination, they provide the intrinsically safe energy limitation. The Ethernet Isolator offers a wire-based alternative to wireless LAN, fiber optic solutions, and Ex e installations.

In safe area applications, a single Ethernet Isolator can be used for galvanic isolation. The Ethernet Isolator is compatible with all IEEE standards. It provides high noise immunity and low heat dissipation in a compact housing.

Assembly



Connection



Zone 2/Div. 2

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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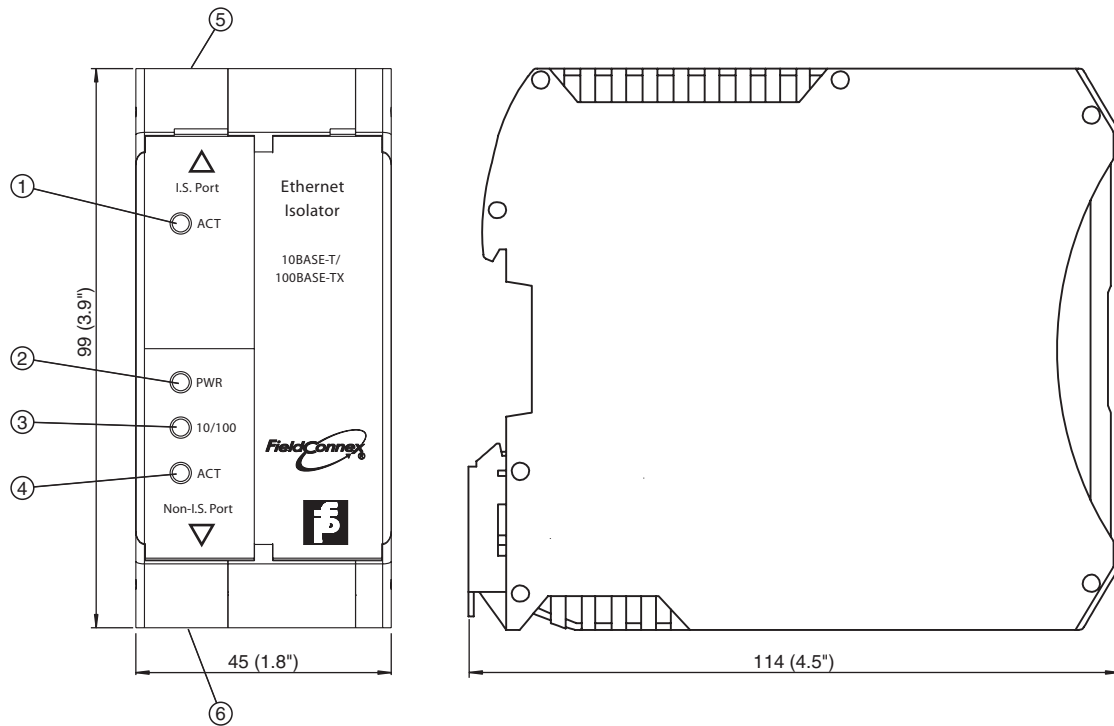
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Supply		
Rated voltage	U_n	19.2 ... 35 V DC
Rated current	I_n	150 ... 100 mA
Power loss		3 W
Ethernet Interface		
Intrinsically safe port		10 BASE-T/100 BASE-TX
Non-intrinsically safe port		10 BASE-T/100 BASE-TX
Connection type		2 x RJ-45 , IEC 60603-7
Connector pinout		socket ; TIA/EIA-568-B
Transfer rate		10/100 Mbit/s , Auto-Negotiation
Operating mode		Half/Full Duplex
Cable type		CAT5e S/FTP AWG 24, Installation cable, L/R ratio max. 10 μ H/ Ω of all strand combinations
I.S. cable length		typ. 100 m/20 °C
Total cable length		typ. 200 m/20 °C
Number of isolators		≤ 2 in series connection
Indicators/operating means		
LED PWR		green: Power on
LED ACT		yellow: communication active
LED 10/100		yellow ON: Transfer rate 100 MBit/s , OFF: 10 MBit/s
Directive conformity		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2013
Standard conformity		
Electrical isolation		EN 50020
Degree of protection		IEC 60529
Climatic conditions		DIN IEC 721
Shock resistance		EN 60068-2-27
Vibration resistance		EN 60068-2-6
Ethernet		IEEE 802.3 , IEEE 802.3u
Ambient conditions		
Ambient temperature		-40 ... 60 °C (-40 ... 140 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Relative humidity		≤ 95 % non-condensing
Shock resistance		15 g 11 ms
Vibration resistance		1 g 10 ... 150 Hz
Pollution Degree		max. 2, according to IEC 60664
Mechanical specifications		
Connection type		Terminals
Core cross-section		up to 2.5 mm ²
Housing material		Polyamide PA 66
Degree of protection		IP20 according to EN 60529
Mass		195 g
Mounting		DIN rail mounting
Data for application in connection with Ex-areas		
EC-Type Examination Certificate		PTB 07 ATEX 2025 X
Group, category, type of protection, temperature class		Ex II (1) G [Ex ia Ga] IIB , Ex II (1) D Ex [ia Da] IIIC , Ex II 3 (1) G Ex nA [ia Ga] IIB T4 Gc Ex II 3 (1D) G Ex nA [ia IIIC Da] IIB T4 Gc Ex I (M1) [Ex ia Ma] I
Supply		
Maximum safe voltage	U_m	253 V AC
Directive conformity		
Directive 94/9/EC		EN 60079-0:2012 , EN 60079-11:2012 , EN 60079-15:2010
International approvals		
CSA approval		CSA 15.70016295
Control drawing		116-B032
Approved for		Class I, Zone 2, AEx/Ex nA [ia Ga] IIB T4 Gc Class I, Zone 2, AEx/Ex nA [ia Da IIIC] IIB T4 Gc
General information		
Supplementary information		EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com .

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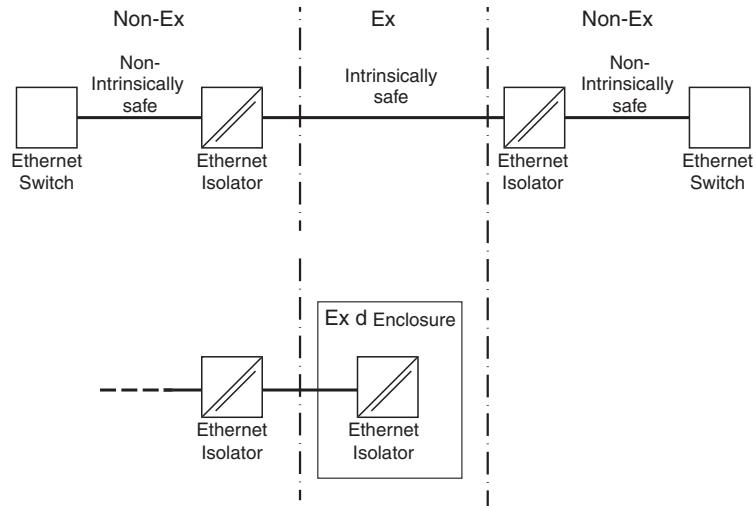
Dimensions



Description:

- | | |
|--|--|
| 1 LED Communication active intrinsically safe port | 4 LED Communication active non-intrinsically safe port |
| 2 LED Power | 5 Intrinsically safe connector female |
| 3 LED Transfer rate | 6 Non-Intrinsically safe connector female |

Installation examples



Installation notes see manual.

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Ethernet Cabel Overview for Interconnection

The cross-table below gives a general idea which Ethernet cable has to be used for interconnection of two Ethernet Isolators or an Ethernet Isolator to another device.

	Ethernet Isolator I.S.-port	Ethernet Isolator non-I.S.-port
Ethernet Isolator I.S.-port	Crossover cable	not allowed
Switched standard-port	not allowed	Crossover cable
Switch uplink-port	not allowed	Standard patch cable
Notebook	not allowed	Standard patch cable
Workstation	not allowed	Standard patch cable
Device with auto-crossover functionality	not allowed	Standard patch cable

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