



**Ethernet Isolator with intrinsically safe Ethernet**

- 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
- For Standard Ethernet cable
- DIN-Rail mounted and OEM Version

**Function**

The Ethernet Isolator\* is used to generate a galvanically isolated intrinsically safe Ethernet signal from a non-intrinsically Ethernet signal. Two Ethernet Isolators mounted within the Zone 2 in combination are bridging the hazardous area Zone 1 or Zone 0. By using an proper enclosure the Ethernet Isolator can be installed into the hazardous area directly. Standard Ethernet cable conforming to IEEE specification can be used for linking at full performance. The Ethernet Isolator is DIN rail mountable.

The Ethernet Isolator bridges the gap between often expensive, cumbersome Wireless LAN, fragile fibre optic solutions and inflexible Ex e installations. It provides a cost-effective and robust way of placing Ethernet into and passing through the hazardous area. The galvanic isolation eliminates the requirements for equipotential bonding along the intrinsically safe Ethernet installation.

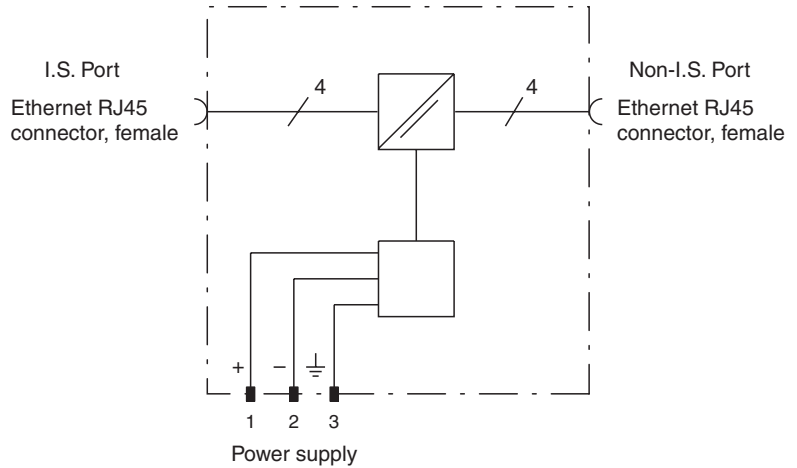
Pepperl+Fuchs, the experts in fieldbus technology and explosion protection, offer their support and products for OEM integration of Ethernet isolating technology into your machinery and equipment.

\*patent pending

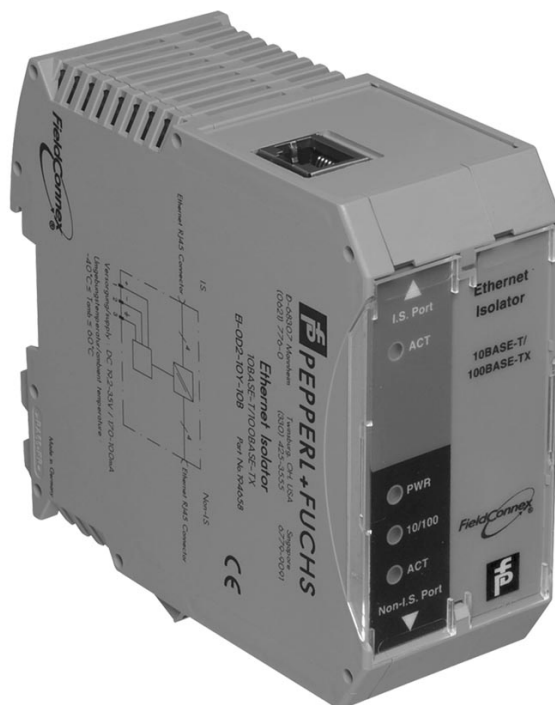
**Connection**

Intrinsically safe

Non-Intrinsically safe



**Composition**



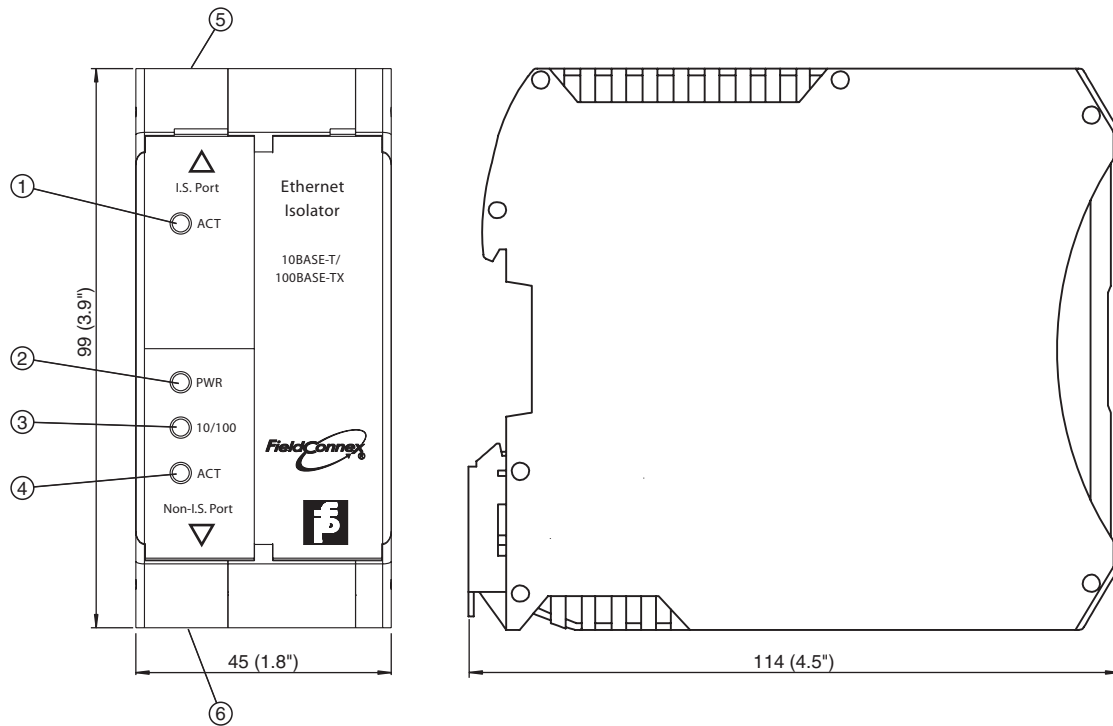
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<b>Supply</b>	
Rated voltage	19.2 ... 35 V
Rated current	150 ... 100 mA
Power loss	3 W
<b>Ethernet Interface</b>	
Intrinsically safe port	10 BASE-T/100 BASE-TX
Non-intrinsically safe port	10 BASE-T/100 BASE-TX
Connection type	2 x RJ-45 , IEC 60603-7
Connector pinout	Connector, female ; TIA/EIA-568-B
Transfer rate	10/100 MBit/s , Auto-Negotiation
Operating mode	Half/Full Duplex
Cabel type	CAT5e S/FTP, installation cable , L/R-Ratio ≤ 10 μH/Ω
Total cable length	typ. 200 m/20 °C
Number of isolators	≤ 2 in series connection
<b>Indicators/operating means</b>	
LED PWR	green: Power on
LED ACT	yellow: communication active
LED 10/100	yellow ON: Transfer rate 100 MBit/s , OFF: 10 MBit/s
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 89/336/EC	EN 61326
<b>Standard conformity</b>	
Electrical isolation	EN 50020
Protection degree	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
<b>Ambient conditions</b>	
Ambient temperature	-40 ... 60 °C (233 ... 333 K)
Storage temperature	-40 ... 85 °C (233 ... 358 K)
Relative humidity	≤ 95 % non-condensing
Shock resistance	15 g 11 ms
Vibration resistance	1 g 10 ... 150 Hz
Degree of soiling	max. 2, according to IEC 60664
<b>Mechanical specifications</b>	
Connection type	terminals
Core cross-section	up to 2.5 mm <sup>2</sup>
Housing material	Polyamide PA 6.6
Protection degree	IP20 according to EN 60529
Mass	195 g
Mounting	DIN rail mounting
<b>Data for application in conjunction with hazardous areas</b>	
EC-Type Examination Certificate	PTB 07 ATEX 2025 X
Group, category, type of protection, temperature classification	⊕ II (1) GD [Ex ia] IIB , ⊕ II 3 (1GD) G Ex nA [ia IIB] II T4
Directive conformity	
Directive 94/9 EC	EN 60079-0 , EN 60079-11 , EN 60079-15

**Supplementary information**

EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity and instructions have to be observed. For information see [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

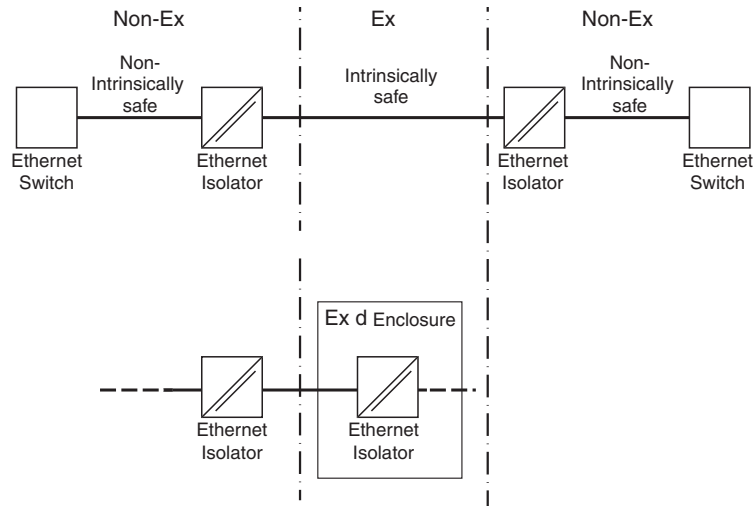
Dimensions



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.