

ISO-IE1K

1000/100/10Mbps
Industrial Ethernet Isolation Protector



User's Manual

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1. Description

ISO-IE1K Ethernet isolation protector is used for electrical isolation of Ethernet port for various equipments, to protect Ethernet equipments and interfaces, and to eliminate interference caused by ground potential difference of two communication ends; built-in anti-lightning protector can effectively prevent damages of equipments caused by lightning and surge voltage. It is also used as isolation gate between equipment ports in safety area (such as central control room) and equipment ports in hazardous area (such as flammable and explosive site). Support all communication protocols, such as Ethernet, real-time Ethernet, EtherNet/IP, EtherCAT, PROFINET, and Modbus. It has the following features:

- Physically isolated, support all Ethernet

protocols

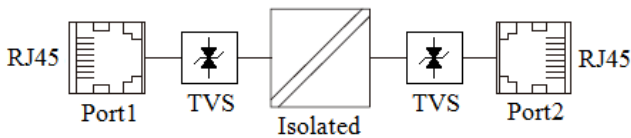
- Industrial-grade operating temperature range: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- 8-core network cable isolation and cable shielded layer isolation.
- Built-in anti-lightning and surge protective parts
- Isolation voltage between two ports reaches up to 5000Vrms
- Communication speed: 1000/100/10Mbps, self-adaption
- Auto MDI/MDI-X, self-adaptive to straight through cable and crossover cable
- The two ports of the protector is both input and output, allowing easy connection to the device or Ethernet cable
- Power supply not required, plug and play
- Installed with DIN35mm standard rails

2. Technical Parameters

Power supplied	Not required
Ethernet port	RJ45 port, in line with IEEE 802.3 standard
Transmission rate	1000/100/10Mbps, self-adaption
Grounding of shielded layer	No relationship with protective grounding (PE), no connection between shielded layers of two RJ45 ports
Communication protocol	Transparent
Isolation voltage	5000Vrms
Transient power of lightning stroke or surge voltage which can be withstood	200W
Electrostatic inhibition	$\pm 15\text{kV}$, in line with IEC 61000-4-2 standard

Dimension (L×W×H)	65mm×51mm×26mm
Weight	40g
Working temperature	-40℃~+85℃
Installation	35 mm DIN rail

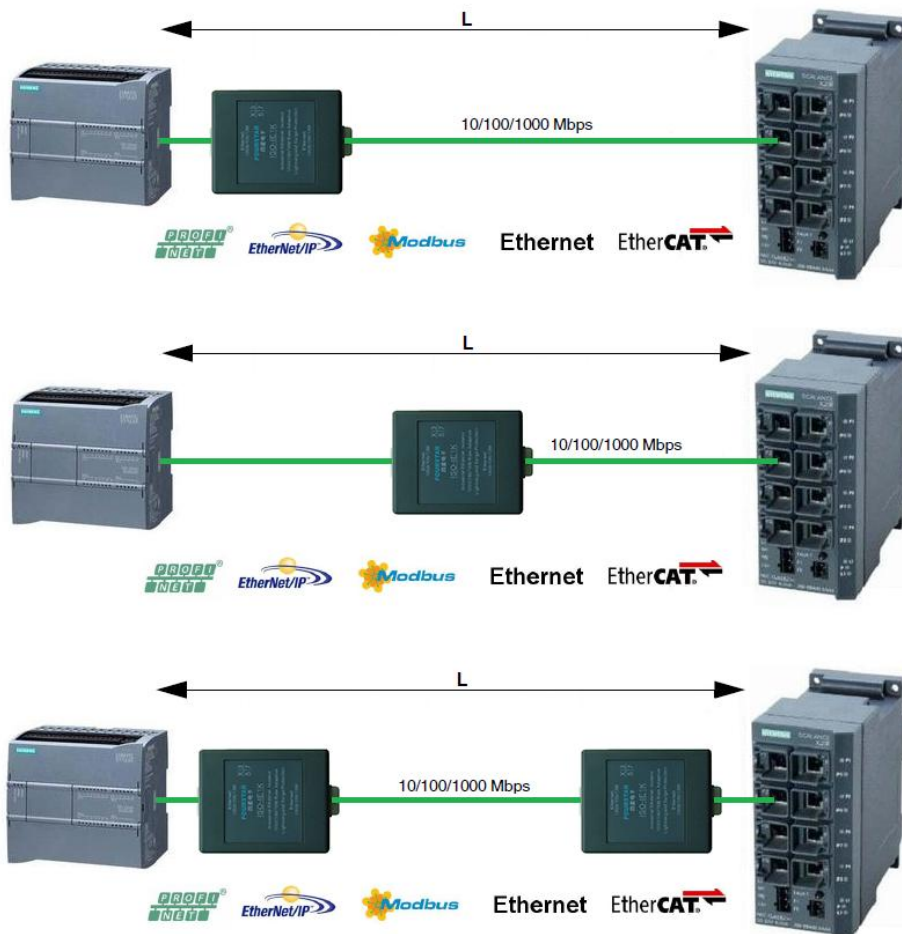
Schematic diagram:



Max. cable length under different transmission rates (L in the following table)

Cable length (L)	Transmission rate	Cable type
max.100m	10Mbps	CAT5
max.100m	100Mbps	CAT5/5e
max.60m	1000Mbps	CAT5 S/FTP CAT6a CAT6e U/UTP

3. Application



Various network isolation schemes by ISO-IE1K isolation protector