

EIPE-1



Skorpion PoE Injector for powering a single PoE end device

Installation Guide

The EIPE PoE Power Injector in the Skorpion family offers a simple method of connecting a PoE end-device to a non-PoE 10/100 Mbps Ethernet device. The EIPE is compliant to the IEEE 802.3af standard and is considered a mid-span PSE (Power Sourcing Equipment) in that it resides between the non-PoE device and the PD (Powered Device) delivering the required 15.4 watts of power at its output connector. There are two RJ-45 connectors on the unit. The top connector, labelled Ethernet, attaches to the non-PoE device while the bottom connector, labelled Power Over Ethernet, attaches to the PD. Transmit and receive signals are freely passed between the two connectors as if the injector were not present. However, 48 VDC power is injected into the spare pins on the bottom RJ-45 connector for use by the PD. The injector does not interfere with any communication between the non-PoE device and the PD.

The EIPE supports the 802.3af protocol for powering up devices. With the EIPE powered up, an Ethernet cable is attached to the PD. No power is applied to the PD until a valid 25 kΩ resistance, called the signature, is sensed by the Power Injector. Once this value is sensed, the Power Injector applies power to the unused pairs thereby powering the PD. Depending on cable length, the PD can assume that a minimum of 12.95 watts is available at its input pins.

The Power Injector is powered from a 24 VAC/VDC source using a 4-pin removable connector. Provisions exist for redundant power sources. The internal isolated power supply develops the required 48 VDC PoE power eliminating any concerns regarding grounded primary power.

Specifications

Electrical

INPUT	DC	AC
Voltage:	24 V	24 V
Power:	21 W	38 VA
Frequency:	N/A	47–63 Hz
Class 2 Circuits Only		

Environmental

Operating Temperature:	0°C to +60°C
Storage Temperature:	–40°C to +85°C
Humidity, non-cond.:	10% to 95%
Protection:	IP 30

Mounting

TS-35 DIN-rail

Shipping Weight

1 lb (0.45 kg)

Regulatory Compliance

CE Mark; CFR 47 Part 15, Class A

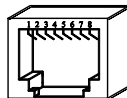
Functional

Compliance:	ANSI/IEEE 802.3af
Data Rates:	10 and 100 Mbps
Signalling:	100BASE-T and 100BASE-TX
Connectors:	Shielded RJ-45 SC and ST style
Segment length:	100 m (maximum)

LED Indicators

Power	green
Power Over Ethernet	green

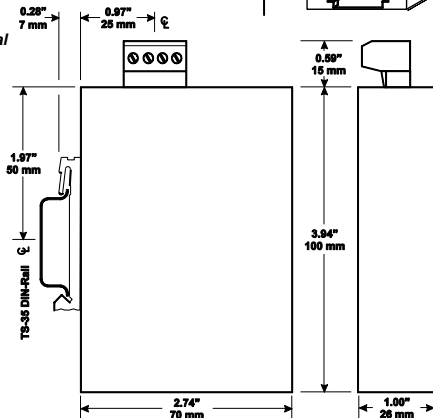
RJ-45 Pin Assignments



Pin	Function
1	TD+
2	TD–
3	RD+
4*	+48 VDC
5*	+48 VDC
6	RD–
7*	–48 VDC
8*	–48 VDC

* Used only on PoE port

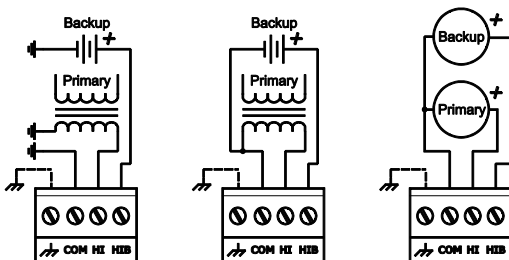
Mechanical



This device is
intended for use
with Class 2
circuits.

Power Options

Connecting chassis to earth or using a backup source is always optional.



Power Considerations

Voltage in the range of 24 VAC/DC $\pm 10\%$ must deliver current commensurate with 38 VA / 21 W power consumption. The recommended size for solid power conductors is 16–20 AWG; for stranded conductors, use 16–18 AWG. Zero volts (COM) is isolated from chassis (earth). Input connections are reverse-polarity protected.

Network Connections

Either straight-through or crossover cables can be used to connect to a non-PoE Ethernet device that supports Auto-MDI/X or to a PoE powered device. However, verify that the proper polarity of the PoE power on pins 4, 5, 7, and 8 remains intact.

LED Indicators

The **Power** LED glows solid green when the injector is properly powered. The **Power Over Ethernet** LED will be off if no PoE power is being applied — or solid green with PoE power being applied. This LED will flash under the following fault conditions:

- 1 flash — Low signature resistance received from the powered device
- 2 flashes — High signature resistance received from the powered device
- 5 flashes — Powered device drawing excessive current (overload fault)

Need More Help Installing this Product?

More information can be found in the Technical Support part of our web site at www.ccontrols.com. If contacting our office, ask for Technical Support.

Warranty

Contemporary Controls (CC) warrants this product to the original purchaser for two years from the shipping date. If it fails to operate in compliance with its specification during this period, CC will, at its option, repair or replace the product at no charge. Product returned to CC for repair is warranted for one year from the date that the repaired product is shipped back to the purchaser or for the remainder of the original warranty period, whichever is longer. The customer is responsible for shipping product; CC assumes no responsibility for product until received. This limited warranty covers products only as delivered. User modification may void the warranty. Damage from abuse, accident, disaster, misuse, or incorrect installation are not covered. This warranty in no way warrants suitability of the product for any specific application. More warranty information can be found at www.ccontrols.com.

<p>Warning: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.</p>

Returning Products for Repair

Return the product to the location where it was purchased by following the instructions at the URL below:

www.ccontrols.com/rma.htm

Declaration of Conformity

Additional compliance documentation can be found on our website.