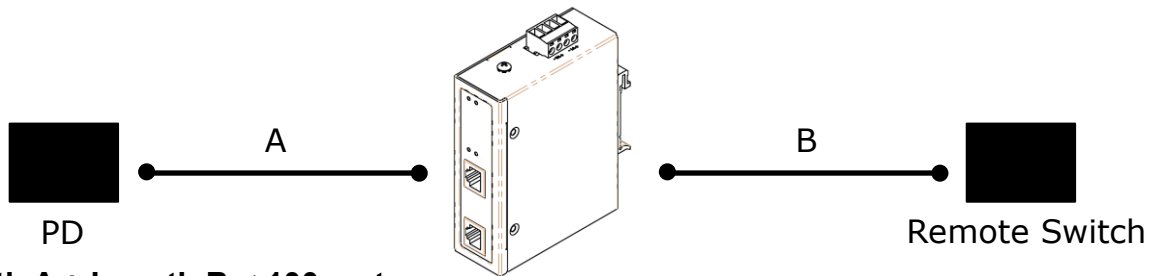# User Manual: PC-INJ-30-B Voltage Boosted Series

Version 1.2019

NOTE

Always make sure the total length of the TX cable DOES NOT exceed 100meter. Total length is defined as length A + length B

A

B

PD

Remote Switch

<u>Length A + Length B < 100 meters</u>

POE signal attenuates every meter, the built-in transformer allows the attenuation to reach 100 meters to follow IEEE802.3af/at standards. The higher quality PD you connect to, the more reliable the network will be. When connecting to a poor-quality PD, it cannot generate a strong enough signal for the remote switch. Always make sure you have a high-quality PD to perform your desired network.

Introduction

This rugged designed industrial PoE injector is equipped with a 30W PSE Port. The Injector can be powered by 24-56 VDC input voltage. With its multi-purpose design, it can also be Din-Rail or wall-mounted. It is an ideal unit for Mobile Base Station (BTS), IP surveillance, traffic monitoring and security applications in critical environments. It can tolerate -40°C to 75°C in harsh environments to perform a reliable network. This product has been rigorously tested in harsh environments for your security, transportation, and telco applications.

Installation package

This unit can be din-rail mounted or wall-mounted. Din-rail brackets and wall-mounted brackets are included.

Wall mount bracket x 2

4 pin Terminal Block x1

Philips Head Screw x 4

Din Rail Bracket x 1
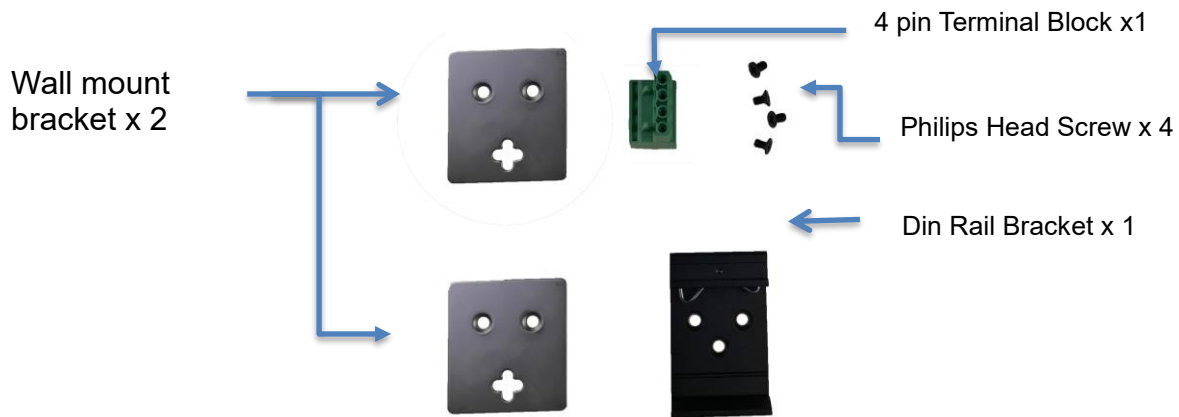
Power connection

This unit provides a 4 pin terminal block. It can be operated using 24-56VDC power source. Always make sure your input voltage is within this supported voltage range.

To connect power: This unit supports two power inputs. Follow the printed polarity for +V1-, +V2- and ground. Connect positive wires to V+, connect negative wires to V-, and connect a neutral wire to the ground screw.

+V1- is for power input one connection.
+V2- is for power input two connection.

Power connecting procedure:

+V1- +V2-
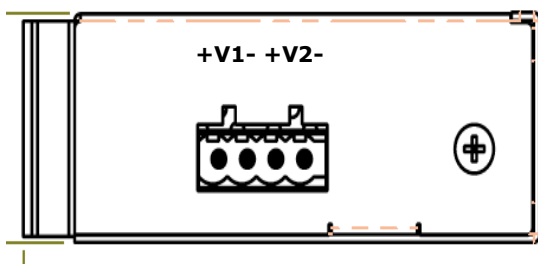
STEP 1 – Take out 4 pin terminal block located in the included mounting kit package.
STEP 2 – Connect power wires to +V1- or +V2- with corresponding polarity. Connect the grounding wire to the ground screw.
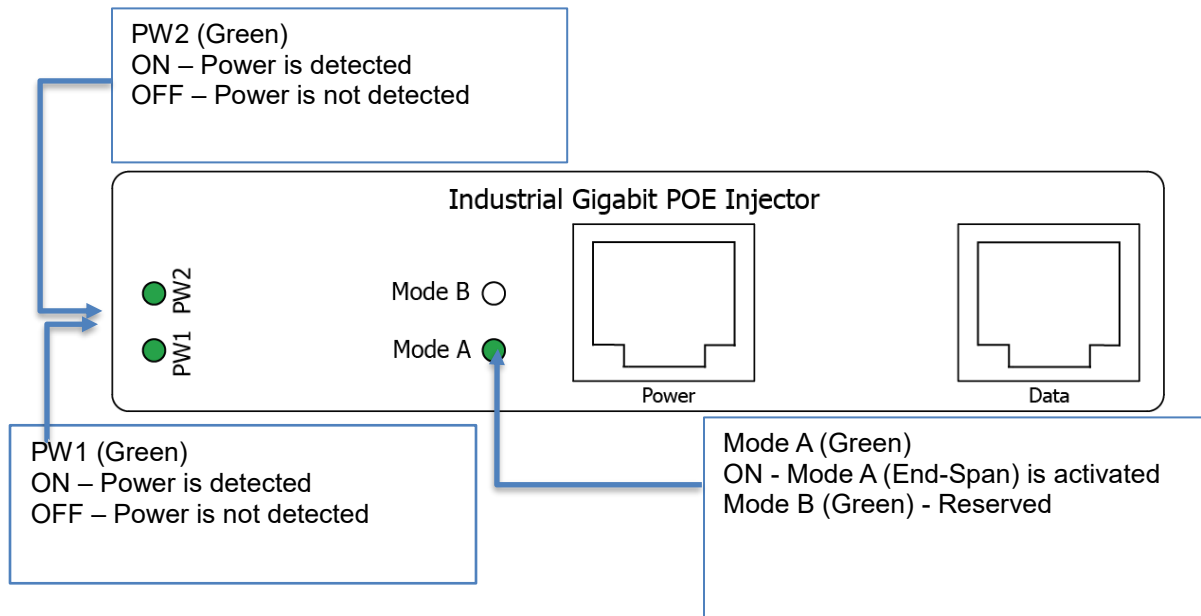STEP 3 – Plug into terminal block socket shown above. Polarity needs to match V+ and V-.

WARNING -- Always SHUT OFF power source to connect power wire.
WARNING -- Any exceeded input voltage will not make this unit function and may damage this unit.

LED indicator

PW2 (Green)
ON – Power is detected
OFF – Power is not detected

Industrial Gigabit POE Injector

PW2

PW1

Mode B ○

Mode A ●

Power

Data

PW1 (Green)
ON – Power is detected
OFF – Power is not detected

Mode A (Green)
ON - Mode A (End-Span) is activated
Mode B (Green) - Reserved

Specifications

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3af for POE IEEE 802.3at for POE+
Network Connector	1xRJ-45 10/100/1000BaseT(X) Data 1xRJ-45 10/100/1000BaseT(X) Data with PoE output power
Network Cable	UTP/STP above Cat.5e Cable
	EIA/TIA-568 10-ohm (100m)
Protocol	CSMA/CD
LED	**PC-INJ-30-BA-12/ PC-INJ-30-B-95W-24** PW1 (Green): ON－Power is detected PW2 (Green): ON－Power is detected Mode A (Green): For End-Span PoE power 1,2,3,6 Mode B (Green): Reserved **PC-INJ-30-B-60W-24** PW1 (Green): ON－Power is detected PW2 (Green): ON－Power is detected Mode A (Green): ON－End Span PD detected Mode B (Green): ON－Mid Span PD detected 4 Pair (Amber): ON－60W PSE is in active mode OFF－30W PSE is in active mode **PC-INJ-30-B-95W-BH-24** PW1 (Green): ON－Power is detected PW2 (Green): ON－Power is detected PoE: ON – 95W PSE is in active mode. OFF – PSE is in idle mode.
POE Pin Assignment	Default: Mode A for Pin 1 (V-), 2 (V-), 3 (V+), 6 (V+) Mode B for Pin 4 (V+), 5 (V+), 7 (V-), 8 (V-)
Reverse polarity protection	Present
Overload current protection	Present

Power Supply	Redundant Dual DC 24V-56V power input
Power Consumption	1 W@24/48 VDC full load, Without POE
POE power	Max total PoE power 36W
Removable Terminal Block	Provide 4 pin terminal block Wire range: 0.34mm^2 to 2.5mm^2 Solid wire (AWG):12-24/14-22

	Stranded wire (AWG): 12-24/14-22 Torque:5lb-In/0.5Nm/0.56Nm Wire Strip length: 7-8mm
Operating Temperature	-40°C to 75°C
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40°C to 85°C
MTBF (mean time between failure)	>500,000 hrs (MIL-HDBK-217F) at 25°C
Housing	Rugged Aluminum, IP30 Protection
Case Dimension (L X W X D)	103.5 x 32 x 81.5 mm (L x W x D)
Installation mounting	DIN Rail and Wall Mount options included

Certifications

Safety	UL 60950-1
Safety	IEC EN60950-1
EMC/EMS	CE, FCC, VCCI
EMI	FCC Part 15 Subpart B Class A
EN 60068-2-6	Vibration
EN 60068-2-27	Shock
EN 60068-2-32	Free Fall

Housing Dimension (mm)
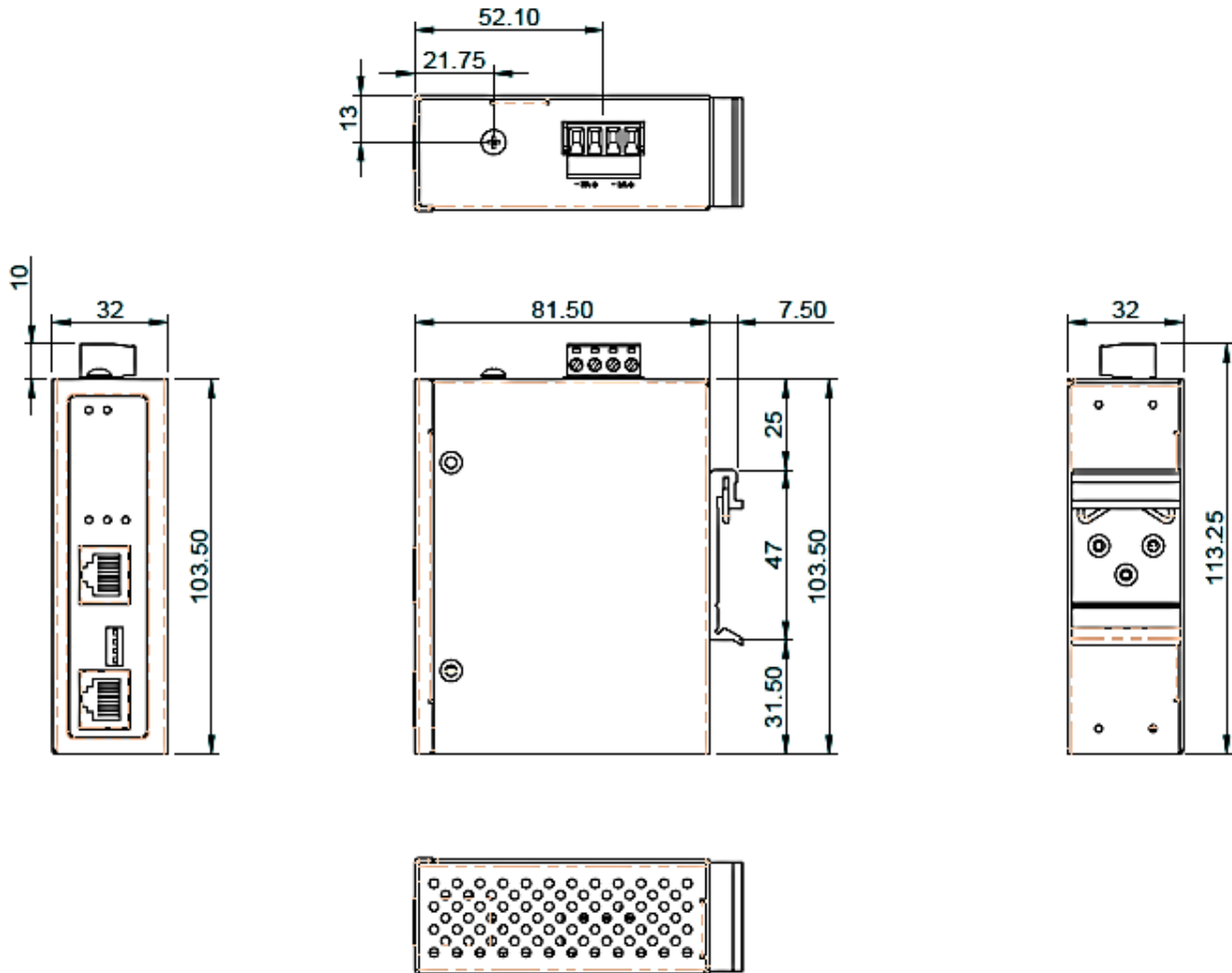
NOTE:
Housing dimension is for purpose of showing product Length, Width, Height, din-rail, and terminal block's position and dimension. Please reference the LED Indicator Page for correct port order.