

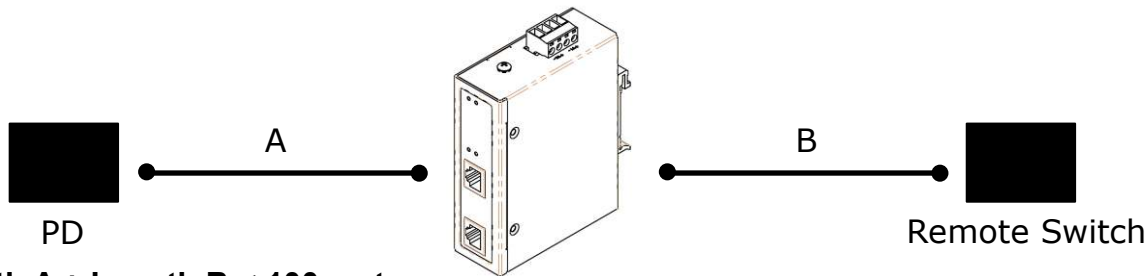


## **User Manual: PC-INJ-30-B Voltage Boosted Series**

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



**Length A + Length B < 100 meters**

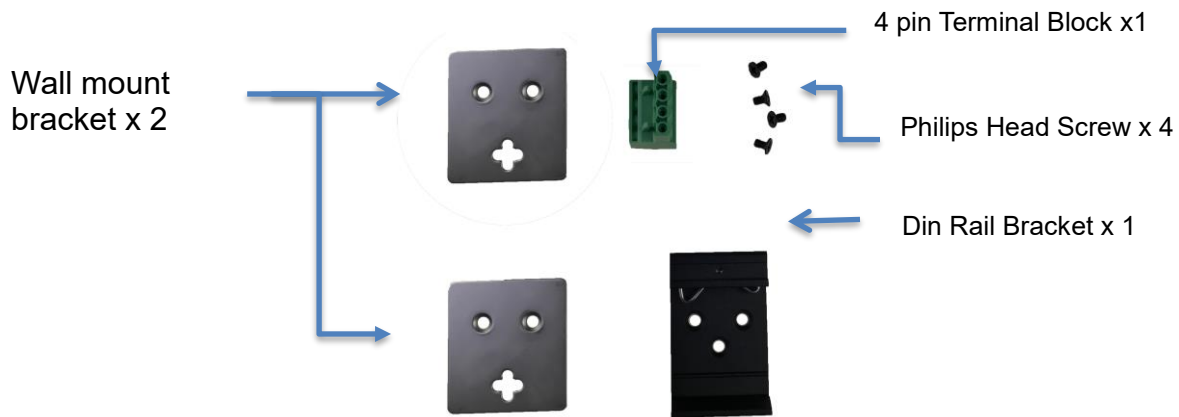
POE signal attenuates every meter, the built-in transformer allows the attenuation to reach 100 meters to follow IEEE802.3af/at standards. The higher quality PD you connect to, the more reliable the network will be. When connecting to a poor-quality PD, it cannot generate a strong enough signal for the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



## Power connection

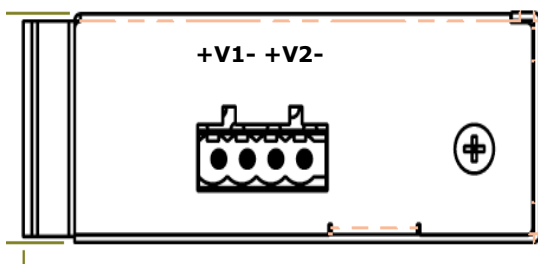
This unit provides a 4 pin terminal block. It can be operated using 24-56VDC power source. Always make sure your input voltage is within this supported voltage range.

**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:



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.

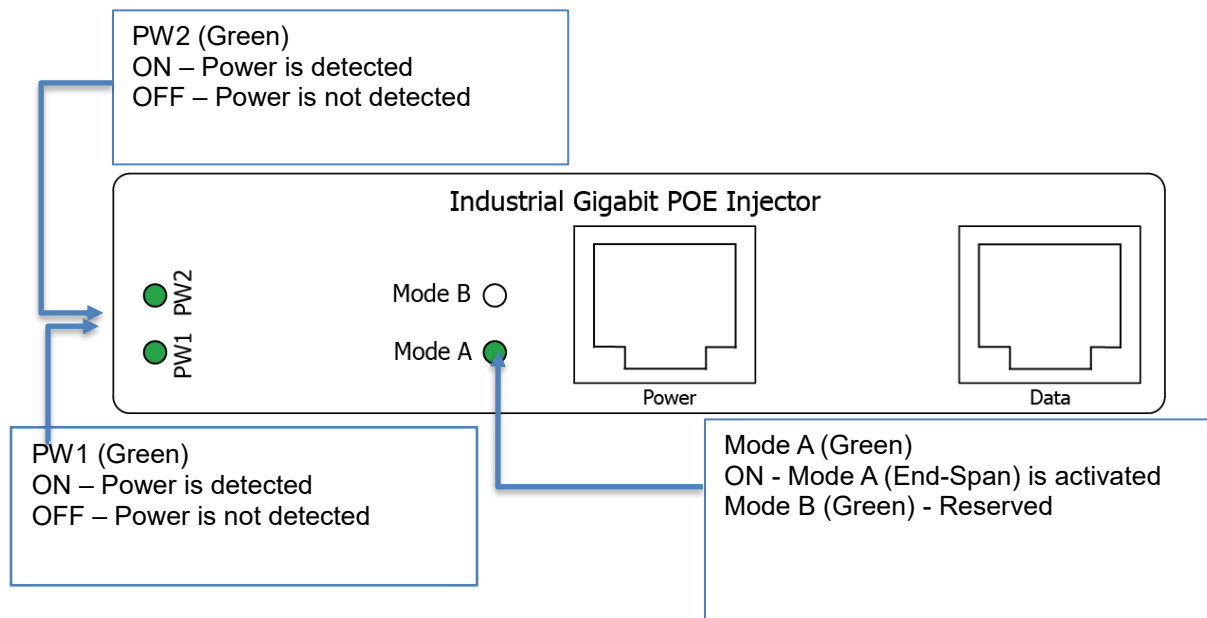
STEP 3 – Plug into terminal block socket shown above. Polarity needs to match V+ and V-.

connect power wire.

**WARNING** -- Any exceeded input voltage will not make this unit function and may damage this unit.

**WARNING** -- Always SHUT OFF power source to

## LED indicator



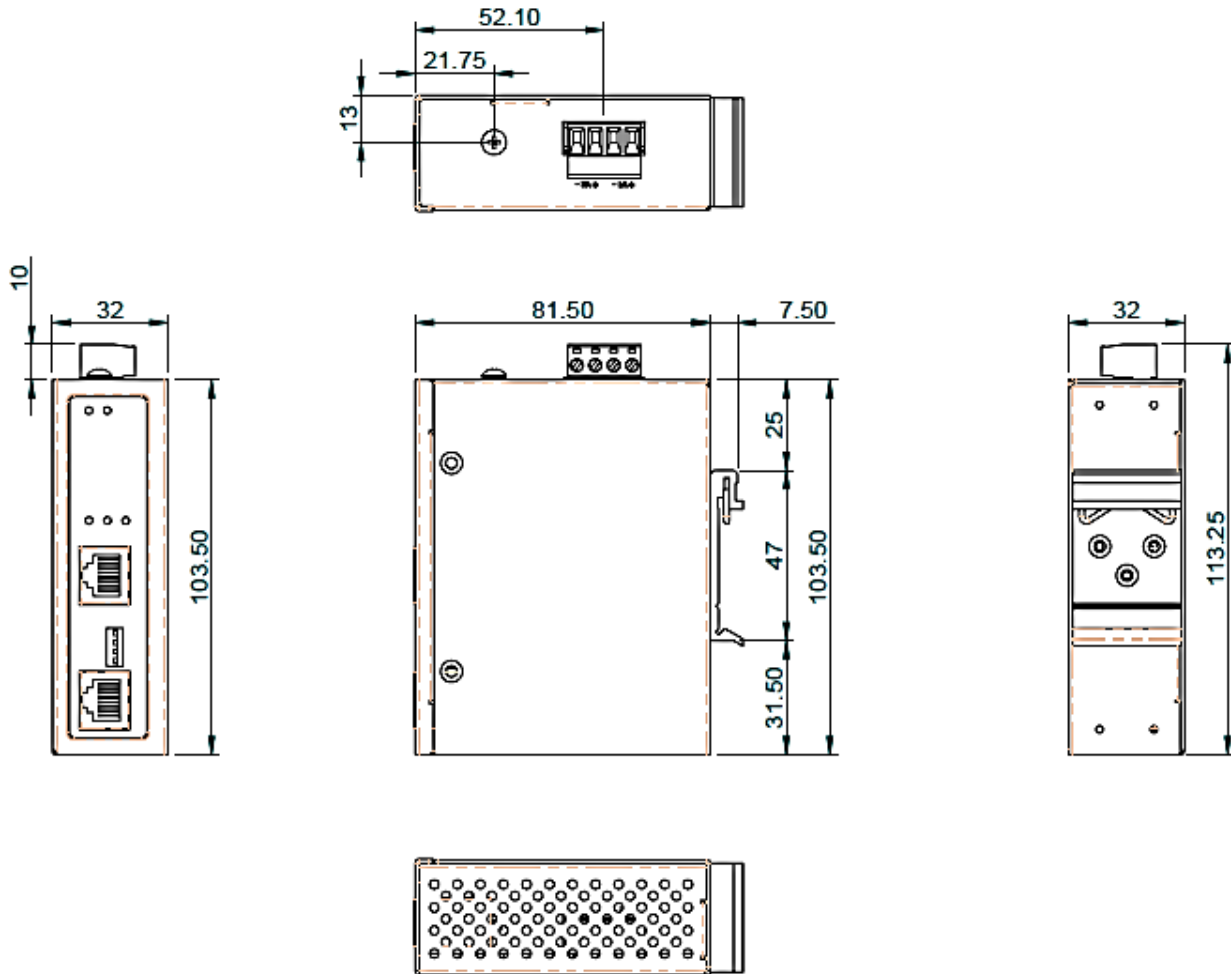
## Specifications

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

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

|                                         |                                                                                             |
|-----------------------------------------|---------------------------------------------------------------------------------------------|
|                                         | Stranded wire (AWG): 12-24/14-22<br>Torque: 5lb-In/0.5Nm/0.56Nm<br>Wire Strip length: 7-8mm |
| <b>Operating Temperature</b>            | -40°C to 75°C                                                                               |
| <b>Operating Humidity</b>               | 5% to 95% (Non-condensing)                                                                  |
| <b>Storage Temperature</b>              | -40°C to 85°C                                                                               |
| <b>MTBF (mean time between failure)</b> | >500,000 hrs (MIL-HDBK-217F) at 25°C                                                        |
| <b>Housing</b>                          | Rugged Aluminum, IP30 Protection                                                            |
| <b>Case Dimension (L X W X D)</b>       | 103.5 x 32 x 81.5 mm (L x W x D)                                                            |
| <b>Installation mounting</b>            | DIN Rail and Wall Mount options included                                                    |
| <b>Certifications</b>                   |                                                                                             |
| <b>Safety</b>                           | UL 60950-1                                                                                  |
| <b>Safety</b>                           | IEC EN60950-1                                                                               |
| <b>EMC/EMS</b>                          | CE, FCC, VCCI                                                                               |
| <b>EMI</b>                              | FCC Part 15 Subpart B Class A                                                               |
| <b>EN 60068-2-6</b>                     | Vibration                                                                                   |
| <b>EN 60068-2-27</b>                    | Shock                                                                                       |
| <b>EN 60068-2-32</b>                    | 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.