



# **User Manual Industrial Injector**

**PC-INJ-30W  
PC-INJ-30W-B  
PC-INJ-60W  
PC-INJ-60W-B  
PC-INJ-95-B**

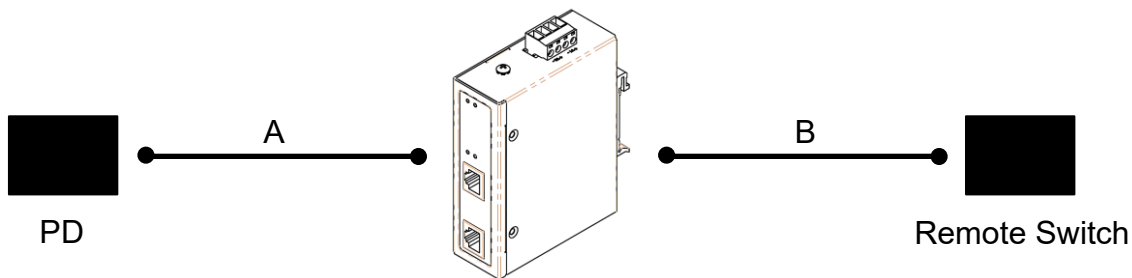
Version 11.2019

## Introduction

This rugged designed industrial PoE injector is equipped with a 30W/60W/95W PSE port. This PSE port can be powered by 48-56 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  $-40^{\circ}\text{C}$  to  $75^{\circ}\text{C}$  in harsh environments to perform a reliable network. This product has been rigorously tested in harsh environments for your security, transportation, and telco applications.

## Note

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

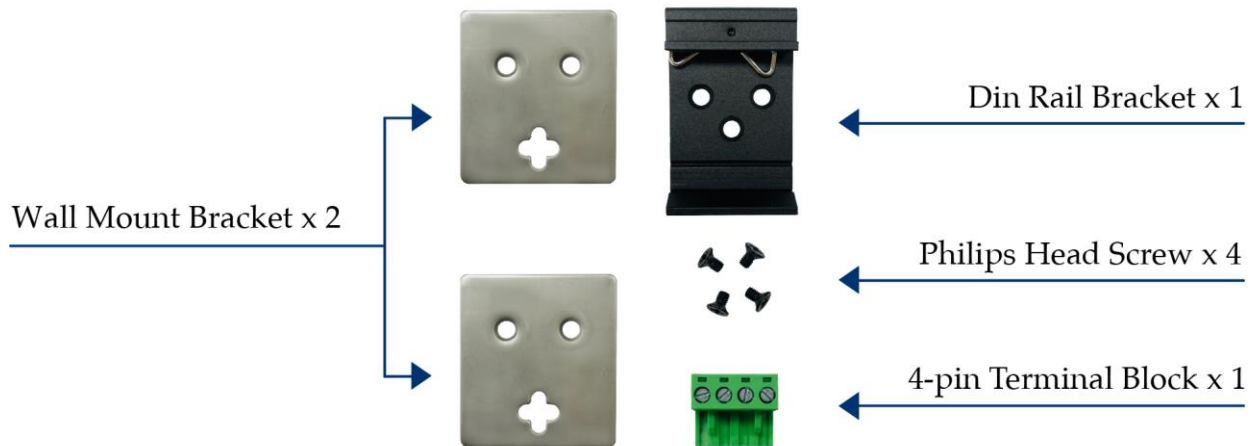


### Length A + Length B < 100 meters

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.

## Installation package

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



## Power connection

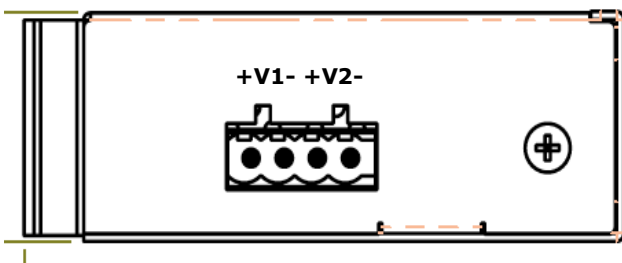
This unit provides a 4 pin terminal block. It can be operated using 48-56VDC power source. Always make sure your input voltage is within this supported voltage range.

**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.

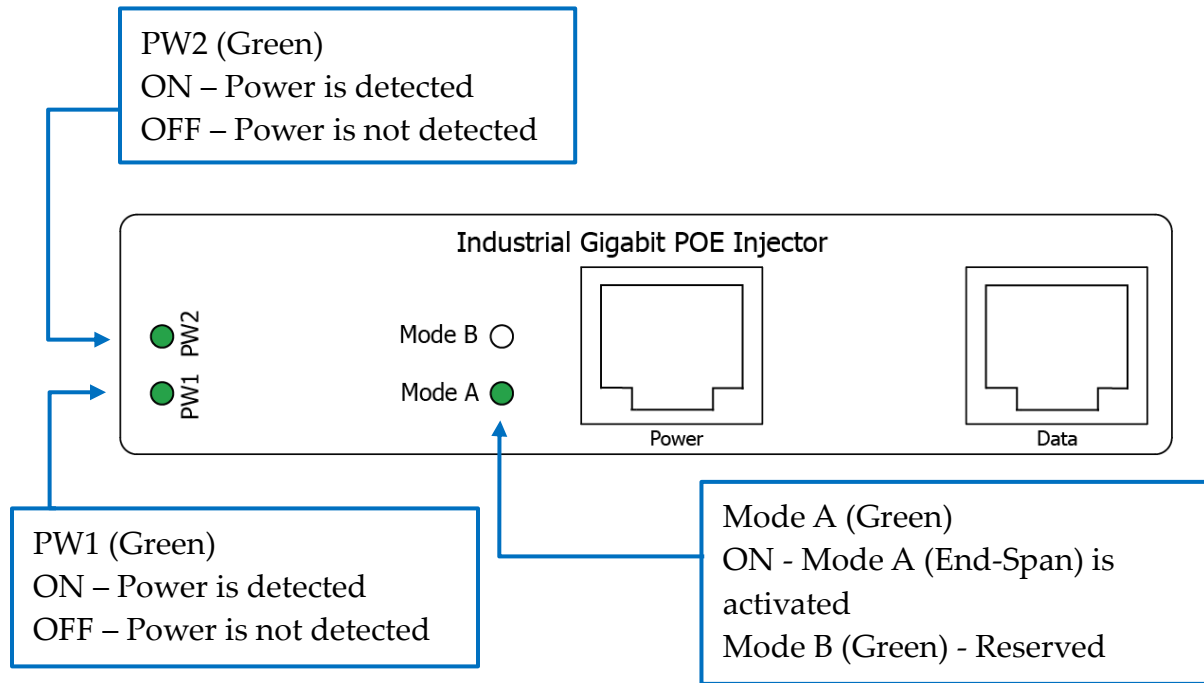
STEP 2 – Connect power wires to +V1- or +V2- with corresponding polarity. Connect the grounding wire to the ground screw.

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

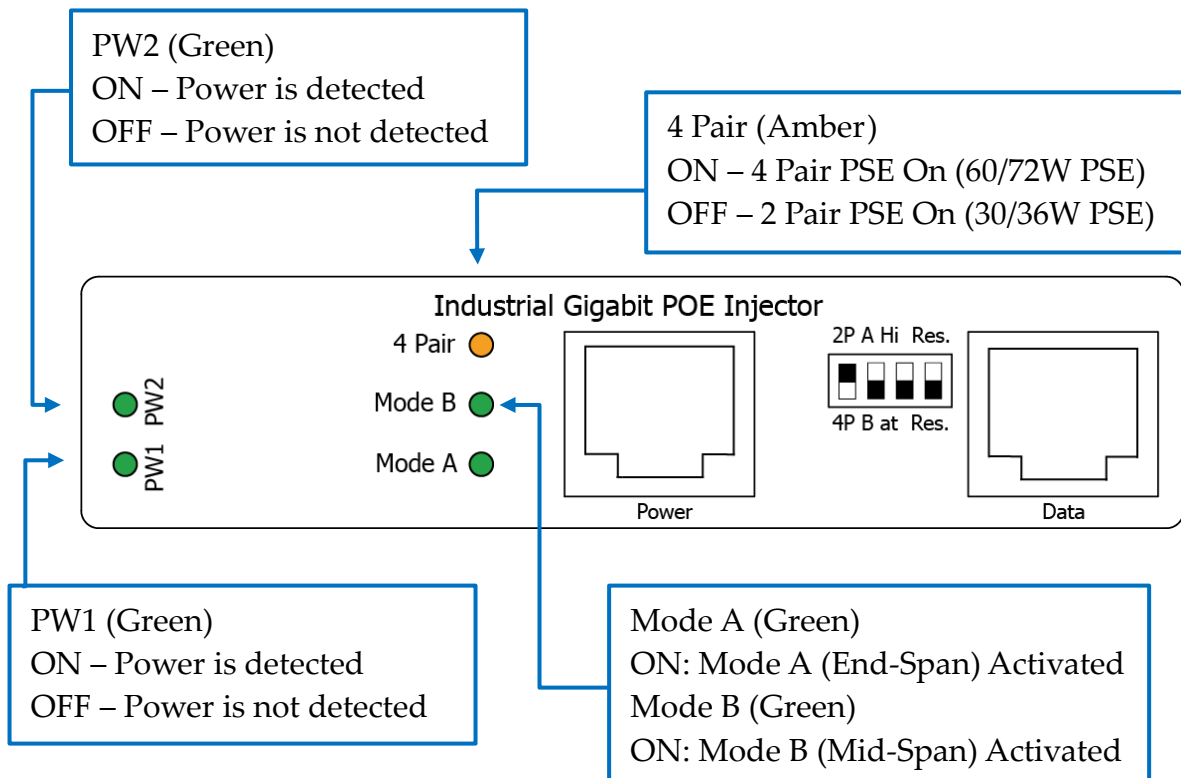
**WARNING** -- Always SHUT OFF power source to connect power wire.

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

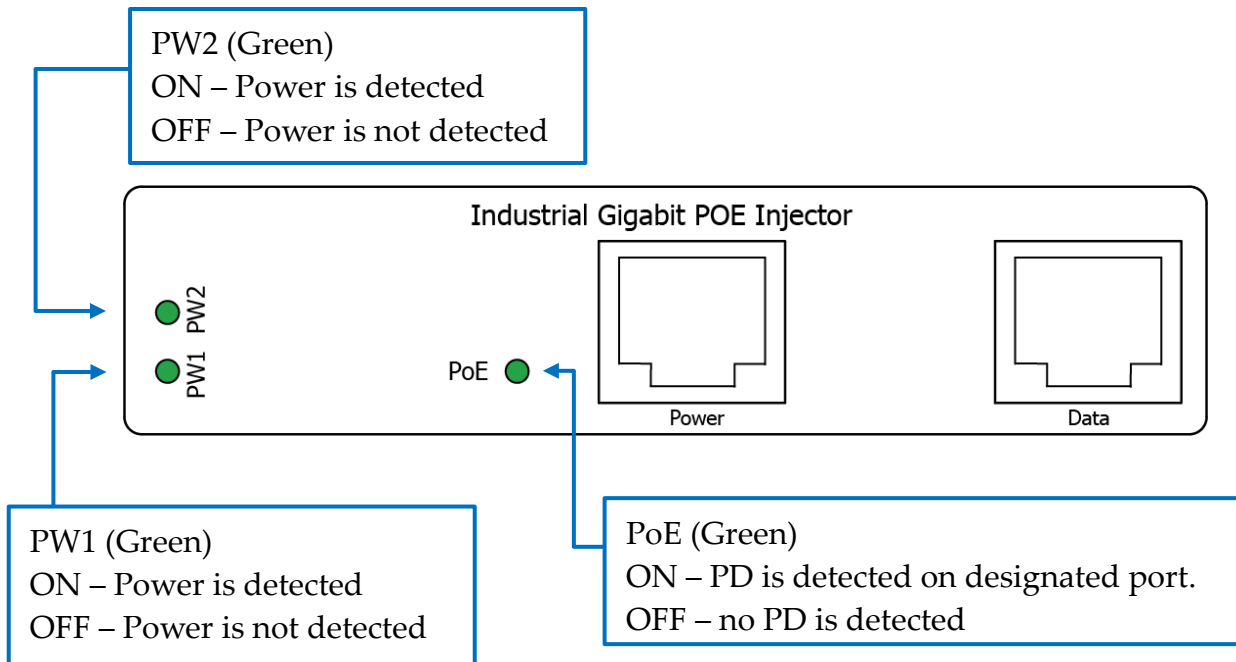
## LED indicator – PC-INJ-30W



## LED indicator – PC-INJ-60W



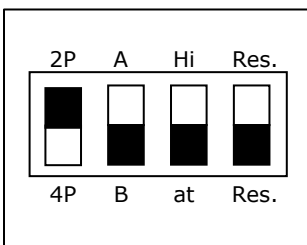
## LED indicator – PC-INJ-95-B



## Dip Switch function (For PC-INJ-60W only)

This unit is equipped with 4 pin Dip-Switch located on the front panel. Adjust the Dip-Switch setting will change the default function of this unit.

Table shown as below is the features of these Dip-Switch function. You may change the Dip-Switch setting to your desired environment.



DIP 1	2P	2 Pair (30/36Watts)
	4P	4 Pair (60/72Watts) (default)
DIP 2	A	Mode A End-Span (default)
	B	Mode B Mid-Span
DIP 3	Hi	High power 36W (default)
	at	IEEE802.3at 30W
DIP 4	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+ <b>PC-INJ-95-B</b> only: Compliant with 95W Power over HDBaseT (PoH) standard (Microsemi)
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	<b>PC-INJ-30W</b> 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 <b>PC-INJ-60W</b> 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 <b>PC-INJ-95-B</b> 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-) <b>PC-INJ-60W</b> only: DIP switch setting can be changed to Mode B (Mid-Span), V+, V+, V-, V- for pin 4, 5, 7, 8
Reverse polarity protection	Present
Overload current protection	Present
Power Supply	Redundant Dual DC 48V-56V power input
Power Consumption	1 W@48 VDC full load, Without POE
POE power	Max total PoE power 36/72/95watts at 56VDC input
Removable Terminal Block	Provide 4 pin terminal block Wire range: 0.34mm <sup>2</sup> to 2.5mm <sup>2</sup> 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

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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

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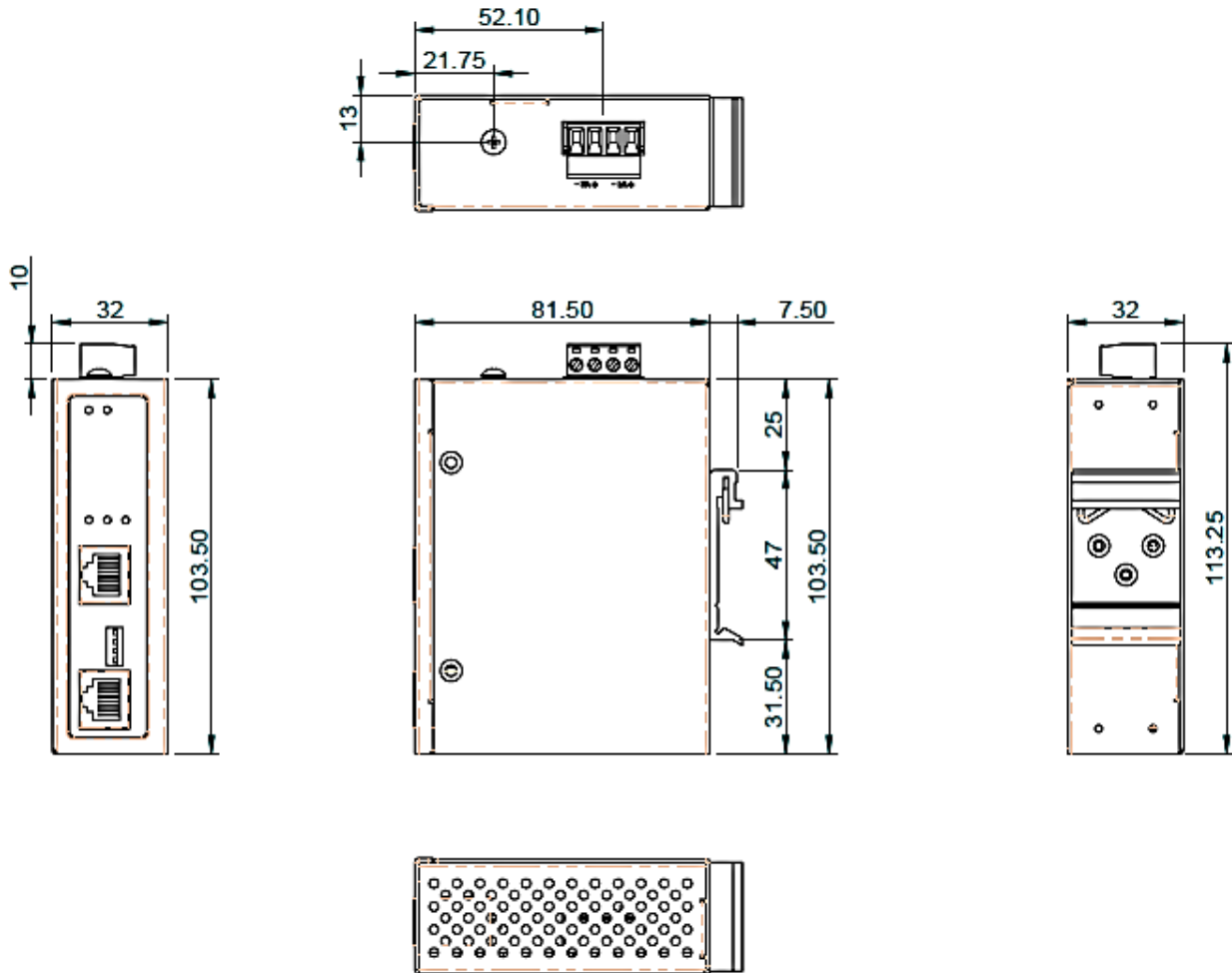
## Certifications

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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

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## 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.