



GIGABIT  
PoE  
INJECTOR  
INDUSTRIAL

# Quick Installation Guide

## INJ-102GT

## Industrial Gigabit Injector

### Introduction

The INJ-102GT PoE Injector is an advanced IEEE802.3at compliant device with intelligent detection, that provided 2-ports 10/100/1000Base-T(X) PoE outputs. The device does not turn on power until it detects a valid PoE signature from the PoE devices attached. This protection against damage to non-PoE compliant equipment which may be connected to the Ethernet cable. Because of this intelligent detection, only an IEEE 802.3at/802.3af compliant device can be powered with the INJ-102GT PoE Injector. Typically in gigabit networks the maximum allowable CAT5 cable length is about 100 meters, due to the limitation of the Ethernet standards. Because of its 50~57V insertion, the installer doesn't need to worry about voltage drops caused by cable length. The INJ-102GT PoE Injector can function with any PoE P.D. equipment which is fully compliant with the IEEE 802.3at/802.3af PoE standards.

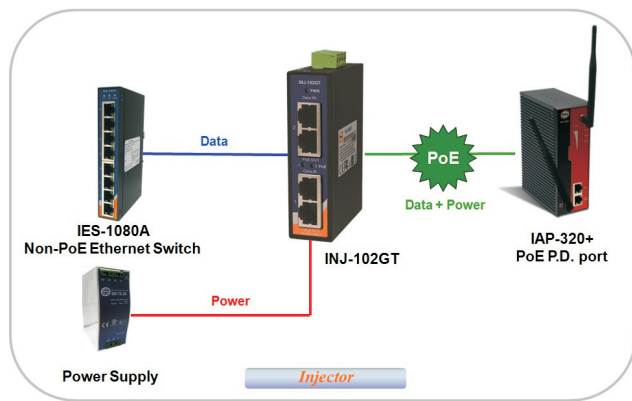
**Note:** The equipment being powered must be fully IEEE 802.3at/802.3af compliant in order for the power supply to be able to sense the PoE devices signature and apply power. Power is connected on Ethernet pins 1/2(V+) and 3/6(V-).



### Features

- > Supports 2x10/100/1000Base-T(X) for power and data Output
- > Fully compliant with IEEE802.3at/802.3af
- > Auto protection for Over Voltage Power Input and over current output
- > Supports Power Output up to 30Watts at 50VDC input
- > High reliability and rigid IP-30 housing
- > DIN-Rail and wall-mount enabled

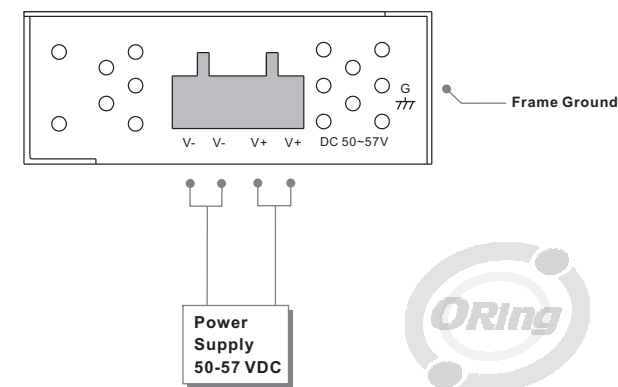
### Connections



### Specifications

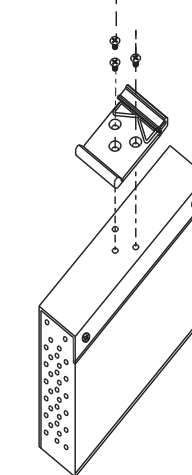
ORing PoE Injector Model	INJ-102GT
<b>Physical Ports</b>	
10/100/1000 Base-T(X) Ports in RJ45 Auto MDI/MDIX	2
10/100/1000Base-T(X) P.S.E. Port in RJ45 Auto MDI/MDIX	2
<b>Operating Voltage</b>	
Input Voltage	50 ~ 57 VDC on 4-pin terminal block
Output Power	50V / 600mA, 30 Watts max. Per port
<b>LED indicators</b>	
Power indicator	PWR / Ready: 1 x LED Green On: Power is on and functioning Normally.
PoE Indicators	2 x LED Blue On: PoE Device Link Blue Blinking: Detecting PoE Device Blue Off: None PoE Device Detected
<b>Protection</b>	
Short Circuit Protection	Present
Over Load Protection	Present
High Voltage Protection	Present
<b>Physical Characteristic</b>	
Enclosure	IP-30
Dimension (W x D x H)	26.1(W) x 70(D) x 95(H)mm (1.03x 2.76 x 3.74inch.)
Weight (g)	250 g
<b>Environmental</b>	
Storage Temperature	-40 to 80°C (-40 to 176°F)
Operating Temperature	-40 to 70°C (-40 to 158°F)
Operating Humidity	5% to 90% Non-condensing
<b>Regulatory approvals</b>	
EMI	FCC Part 15, CISPR (EN55022) class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Safety	EN60950-1
<b>Warranty</b>	2 years

### Power Connection Guide

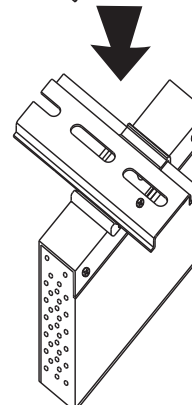
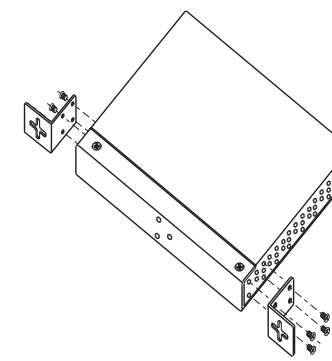


### Installation

#### Din-Rail Install Step



#### Wall-mounted Install Step



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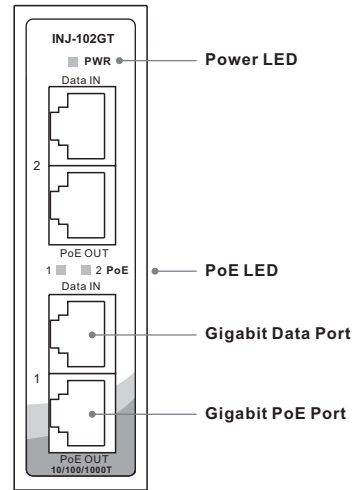


# Quick Installation Guide

# INJ-102GT

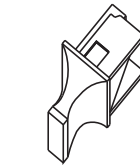
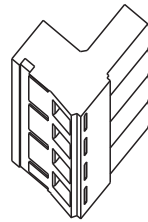
# Industrial Gigabit Injector

## Front Panel



## Accessory

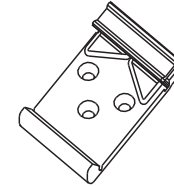
- ① 4-Pin Terminal block
- ② Dust Cover (RJ-45)
- ③ Screw (M3 X3)



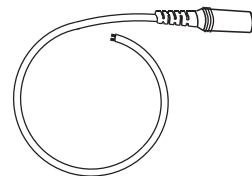
- ④ Wall-mounted kit



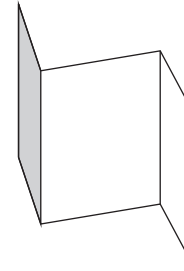
- ⑤ 25mm DIN-Rail kit



- ⑥ Power Cable with power jack



- ⑦ QIG



## Connector and Pin Definition

### 1000Base-T

RJ-45 Input (Data Only)		RJ-45 Output (Data and Power)	
Symbol	Description	Symbol	Description
1	BI_DA+	BI_DA+	Data BI_DA+ and Feeding power(+)
2	BI_DA-	BI_DA-	Data BI_DA- and Feeding power(+)
3	BI_DB+	BI_DB+	Data BI_DB+ and Feeding power(-)
4	BI_DC+	BI_DC+	Data BI_DC+
5	BI_DC-	BI_DC-	Data BI_DC-
6	BI_DB-	BI_DB-	Data BI_DB- and Feeding power(-)
7	BI_DD+	BI_DD+	Data BI_DD+
8	BI_DD-	BI_DD-	Data BI_DD-

### 10/100 Base-T(X)

RJ-45 Input (Data Only)		RJ-45 Output (Data and Power)	
Symbol	Description	Symbol	Description
1	Rx+	Rx+	Data Receive and Feeding power(+)
2	Rx-	Rx-	Data Receive and Feeding power(+)
3	Tx+	Tx+	Data Transmit and Feeding power(-)
4	NC	NC	Not Connected
5	NC	NC	Not Connected
6	Tx-	Tx-	Data Transmit and Feeding power(-)
7	NC	NC	Not Connected
8	NC	NC	Not Connected

Note: pins 3 and 6 (-Vdc) should not be shorted to ground

## Packing list

Model name	Model Description	Accessory
INJ-102GT	Industrial 2-port Gigabit High Power PoE Injector	⊙X1, ⊙X4, ⊙X8, ⊙X2, ⊙X1, ⊙X1, ⊙X1

## Communication Connections

### 1000Base-T Ethernet Port Connection

#### RJ45 (8-pin, MDI) Port Pinouts

Pin	MDI
1	BI_DA+
2	BI_DA-
3	BI_DB+
4	BI_DC+
5	BI_DC-
6	BI_DB-
7	BI_DD+
8	BI_DD-

#### RJ45 (8-pin, MDI-X) Port Pinouts

Pin	MDI-X
1	BI_DB+
2	BI_DB-
3	BI_DA+
4	BI_DD+
5	BI_DD-
6	BI_DA-
7	BI_DC+
8	BI_DC-

### 10/100Base-T(X) Ethernet Port Connection

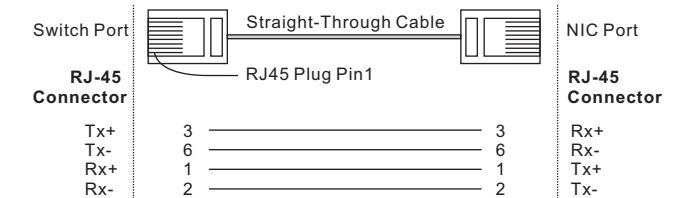
#### RJ45 (8-pin, MDI) Port Pinouts

Pin	Single
1	Tx+
2	Tx-
3	Rx+
6	Rx-

#### RJ45 (8-pin, MDI-X) Port Pinouts

Pin	Single
1	Rx+
2	Rx-
3	Tx+
6	Tx-

### RJ45 (8-pin) to RJ45 (8-Pin) Straight-Through Cable Wiring



### RJ45 (8-pin) to RJ45 (8-Pin) Cross-Over Cable Wiring

