

Quick Installation Guide

INJ-102GT

Industrial Gigabit Injector

Introduction

The **INJ-102GT** PoE injector is an advanced IEEE 802.3af/at compliant device with intelligent detection that provided 2 port 10/100/1000Base-T(X) PoE outputs. The device does not turn on power until it detects a valid PoE signature from the PoE device attached downstream on the Ethernet cable. 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 802.3af/at 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 standard. 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 802.3af/at PoE standard.




Note: The equipment being powered must be fully IEEE 802.3af/at compliant in order for the power supply to be able to sense the PoE devices signature and apply power. Power is supplied on Ethernet pins 1/2(V+) and 3/6(V-). Ethernet pins 1/2/4/5 (V+) and 3/6/7/8 (V-).

Features

- > Support 2 ports 10/100/1000Base-T(X) P.S.E ports
- > Fully compliant with IEEE 802.3af/at standard
- > Auto protection for over voltage power input and over current output
- > Provide up to 30W per port PoE output
- > Power input from 50 to 57VDC
- > Rigid IP-30 housing design
- > DIN-rail and wall mounting enable

Package Contents





The device is shipped with the following items. If any of these items is missing or damaged, please contact your customer service representative for assistance.

Contents	Pictures	Number
INJ-102GT		X 1
DIN-rail Kit		X 1
Wall-mount Kit		X 2
QIG		X 1

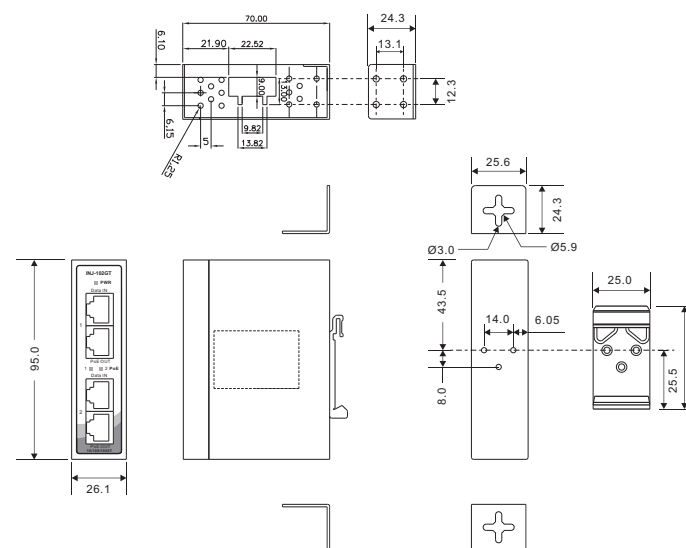
Preparation

Before installation, make sure you have all of the package contents available and a PC with Microsoft Internet Explorer 6.0 or later, for using web-based system management tools.

Safety & Warnings

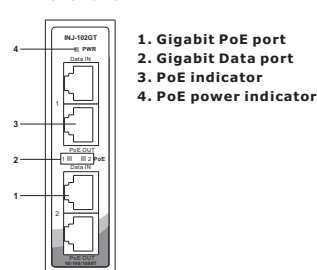
-  **Elevated Operating Ambient:** If installed in a closed environment, make sure the operating ambient temperature is compatible with the maximum ambient temperature (T_{ma}) specified by the manufacturer.
-  **Reduced Air Flow:** Make sure the amount of air flow required for safe operation of the equipment is not compromised during installation.
-  **Mechanical Loading:** Make sure the mounting of the equipment is not in a hazardous condition due to uneven mechanical loading.
-  **Circuit Overloading:** Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

Dimension Unit =mm (Tolerance ±0.5mm)

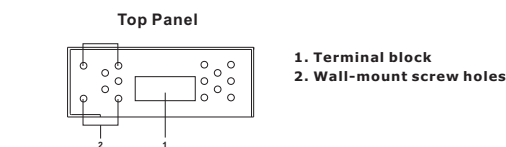
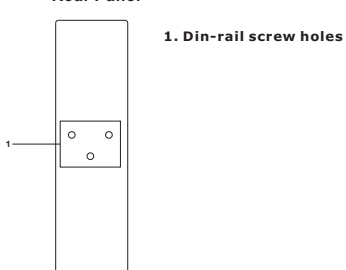


Panel Layouts

Front Panel



Rear Panel

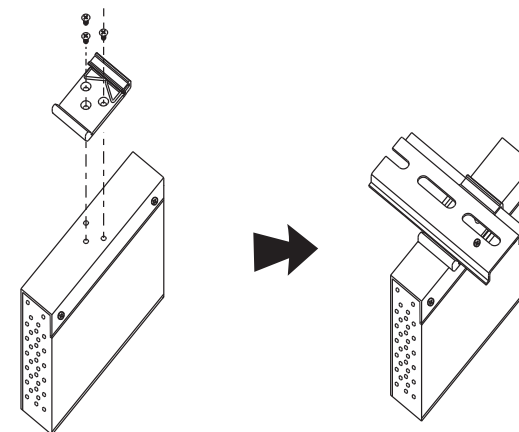


Installation

DIN-rail

Step 1: Slant the device and screw the Din-rail kit onto the back of the device, right in the middle of the back panel.

Step 2: Slide the device onto a DIN-rail from the Din-rail kit and make sure the device clicks into the rail firmly.

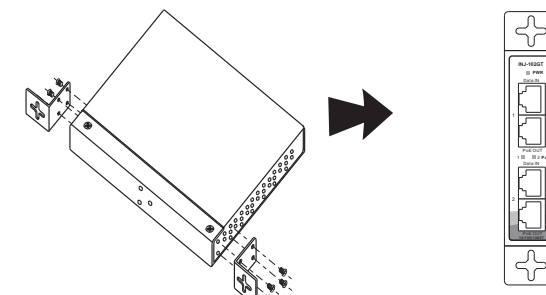


Wall-mounting

Step 1: Screw the two pieces of wall-mount kits onto both sides of the switch. A total of eight screws are required, as shown below.

Step 2: Use the switch, with wall mount plates attached, as a guide to mark the correct locations of the four screws.

Step 3: Insert four screw heads through the large parts of the keyhole-shaped apertures, and then slide the switch downwards. Tighten the four screws for added stability.



Network Connection

The device has standard Ethernet ports. According to the link type, the AP uses CAT 3, 4, 5, 5e, 6 UTP cables to connect to any other network device (PCs, servers, switches, routers, or hubs). Please refer to the following table for cable specifications.

Cable	Type	Max. Length	Connector
10BASE-TX	Cat. 3, 4, 5 100-ohm	UTP 100 m (328 ft)	RJ-45
100BASE-TX	Cat. 5 100-ohm UTP	UTP 100 m (328 ft)	RJ-45
1000BASE-T	Cat. 5/Cat. 5e 100-ohm UTP	UTP 100 m (328ft)	RJ-45

For pin assignments for different types of cables, please refer to the following tables.

1000 Base-T

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

10/100Base-TX

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

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

Configurations

After installing the device and connecting cables, the green power LED should turn on. Please refer to the following table for LED indication.

LED	Color	Status	Description
Power	Green	On	Power is on and functioning Normally
PoE	Blue	On	PoE Device Link
		Off	None PoE Device Detected

Specifications

Oring PoE Injector Model	INJ-102GT
Physical Ports	
RJ-45 10/100/1000Base-T(X) Port	2
RJ-45 10/100/1000Base-T(X) Port with P.S.E output	2
LED indicators	
Power indicator	PWR / Ready: 1 x LED
PoE Indicators	2 x Blue for PoE enable Indicator, Blink for PoE device detect, OFF for don't detect PoE device
Power	
Redundant Input power	Dual 50~57Vdc on 4-pin terminal block
Power consumption (Typ.)	<1W
PoE Power budget	50-57Vdc: 30Watts per port, total PoE 60 watts
Overload current protection	Present
Reverse Polarity Protection	Present
Physical Characteristic	
Enclosure	IP-30 Metal
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
Hardware Version	V2.0
Environmental	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-40 to 75°C (-40 to 167°F)
Operating Humidity	5% to 90% Non-condensing
Regulatory approvals	
EMC	CE EMC (EN 55024, EN 55032), FCC Part 15 B
EMI	EN 55032, CISPR32, EN 61000-3-2, EN 61000-3-3, FCC Part 15 B class A
EMS	EN 55024 (IEC/EN 61000-4-2 (ESD: Contact 4KV, Air 8KV), IEC/EN 61000-4-3 (RS: 3V), IEC/EN 61000-4-4 (EFT Power 0.5KV, Signal 0.5KV), IEC/EN 61000-4-5 (Surge: Power 0.5KV, Signal 1KV), IEC/EN 61000-4-6 (CS: 3V), IEC/EN 61000-4-8(PFMF), IEC/EN 61000-4-11 (DIP))
Shock	IEC60068-2-27
Free Fall	IEC60068-2-31
Vibration	IEC60068-2-6
Safety	EN 60950-1 (LVD)
MTBF	4,150,041hrs
Warranty	2 years

Copyright© 2014 ORing
All rights reserved.



ORing Industrial Networking Corp.

TEL: +886-2-2218-1066 Website: www.oringnet.com
FAX: +886-2-2218-1014 E-mail: support@oringnet.com