

Introduction

The INJ-102GT++ Series PoE Injector is not only an IEEE802.3at compliant device but also an advanced high power PoE injector. It is 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 downstream on the Ethernet cable. This protection against damage to non-PoE compliant equipment which may be connected to the Ethernet cable. Therefore, only an IEEE 802.3at/802.3af compliant device can be powered with the INJ-102GT++ Series 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 24~57Vdc power input with boosting circuit, the total output power can be up to 90Watts or 180Watts^[Note2]. The installer doesn't need to worry about voltage drops caused by cable length. The INJ-102GT++ Series PoE Injector can function with any PoE P.D. equipment which is fully compliant with the IEEE 802.3at/802.3af PoE standards.

***Note1: 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 supplied on Ethernet pins 1/2(V+) and 3/6 (V-)**

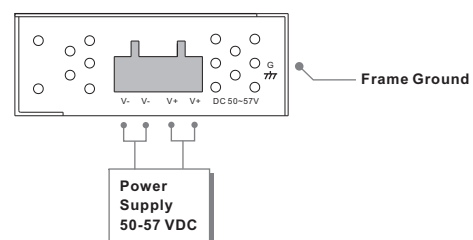
***Note2: LTPOE++™ PSE technology is applied on this product, only LTPOE++™ PD device attached can deliver more than 30 watts output power.**

Features

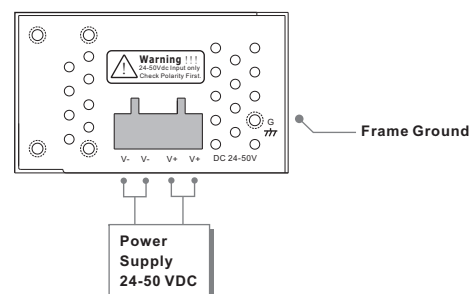
- > Supports 2x10/100/1000Base-T(X) for power and data Output
- > Fully compliant with IEEE802.3at/802.3af standard
- > Auto protection for Over Voltage Power Input and over current output
- > Supports totally Power Output up to 90Watts (24V model) and 180Watts
- > Supports Power Input range from 24Vdc to 50Vdc
- > High reliability and rigid IP-30 housing
- > DIN-Rail and wall-mount enabled

Power Connection Guide

INJ-102GT++



INJ-102GT++-24V



Specifications

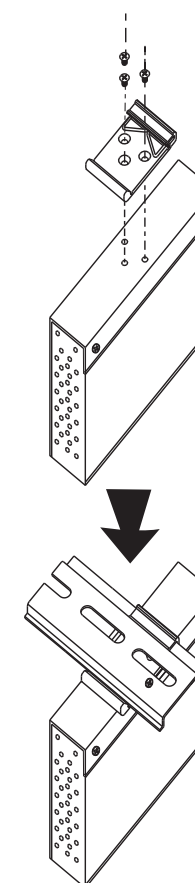
ORing PoE Injector Model	INJ-102GT++	INJ-102GT++-24V
Physical Ports		
10/100/1000 Base-T(X) Ports in RJ45 Auto MDI/MDIX	2	
10/100/1000Base-T(X) P.S.E. Port in RJ45 Auto MDI/MDIX	2	
Operating Voltage		
Input Voltage	50 ~ 57 Vdc	24 ~ 50 Vdc
Output Power	57V / 3157mA, 180 Watts max. ^[Note2] (Total of 2 ports)	50V / 1800mA, 90 Watts max. ^[Note2] (Total of 2 ports)
LED Indicators		
Power indicator	PWR: 1 x LED Green On: Power is on and functioning Normally.	
PoE Indicators	2 x LED Blue On: PoE Device Link Blue Off: None PoE Device Detected	
Protection		
Short Circuit Protection	Present	
Over Load Protection	Present	
High Voltage Protection	Present	
Physical Characteristic		
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.)	41(W) x 70(D) x 95(H)mm (1.61x 2.76 x 3.74inch.)
Weight (g)	300 g	369 g
Environmental		
Storage Temperature	-40 to 80°C (-40 to 176°F)	
Operating Temperature	-25 to 70°C (-13 to 158°F)	
Operating Humidity	5% to 90% Non-condensing	
Regulatory Approvals		
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	
Warranty	5 years	

***Note2: LTPOE++™ PSE technology is applied on this product, only when an LTPOE++™ Powered Device (PD) is attached can the PSE port deliver more than 30 watts output power.**

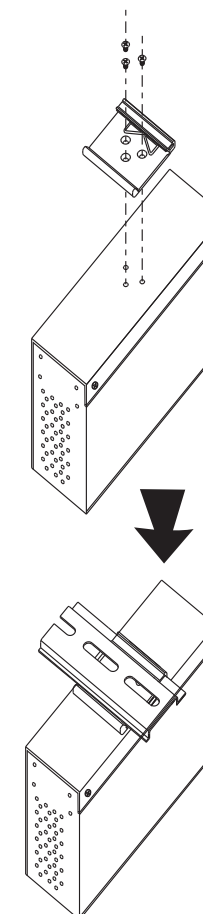
Installation

Din-Rail Install Step

INJ-102GT++

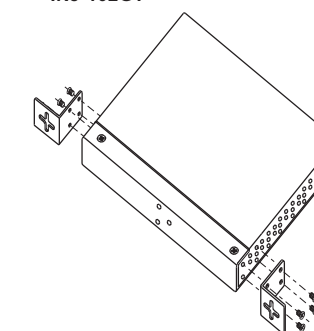


INJ-102GT++-24V

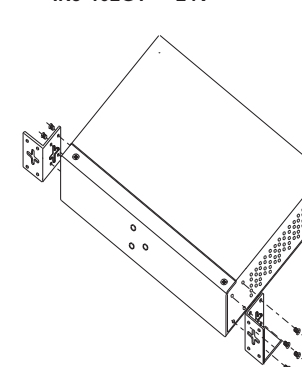


Wall-mounted Install Step

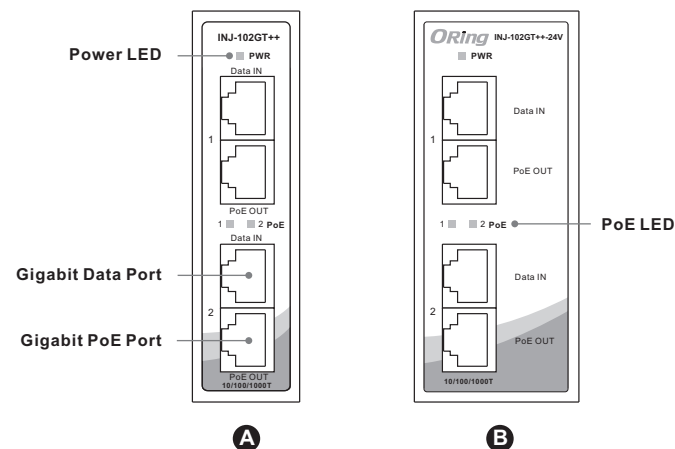
INJ-102GT++



INJ-102GT++-24V



Front Panel



Connector and Pin Definition

1000Base-T

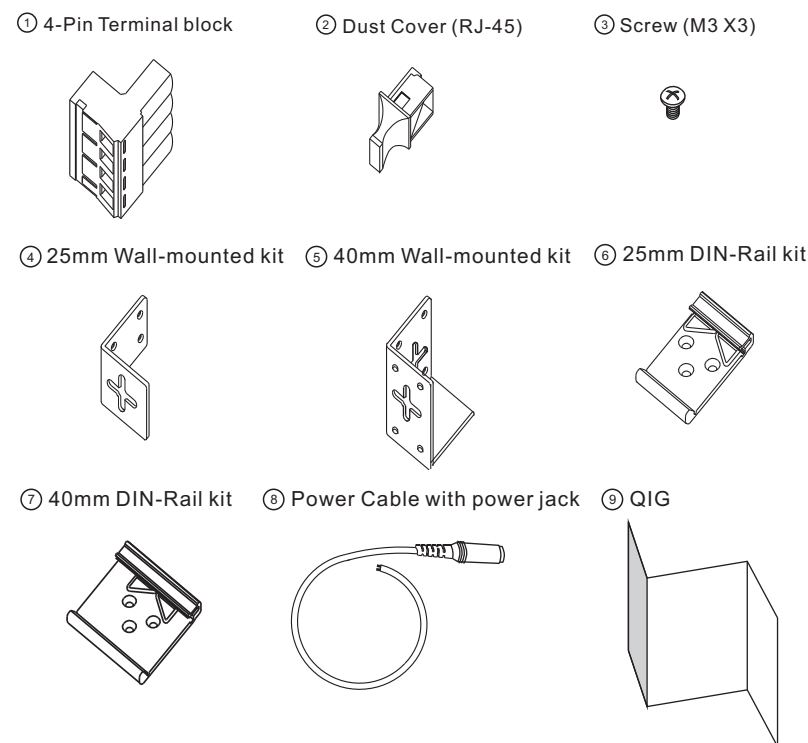
RJ-45 Input (Data Only)		RJ-45 Output (Data and Power)	
Symbol	Description	Symbol	Description
1	BI_DA+	BI_DA+	Data BI_DA+ and Feeding power(+)
2	BI_DA-	BI_DA-	Data BI_DA- and Feeding power(+)
3	BI_DB+	BI_DB+	Data BI_DB+ and Feeding power(-)
4	BI_DC+	BI_DC+	Data BI_DC+
5	BI_DC-	BI_DC-	Data BI_DC-
6	BI_DB-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

10/100Base-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

Accessory



Packing list

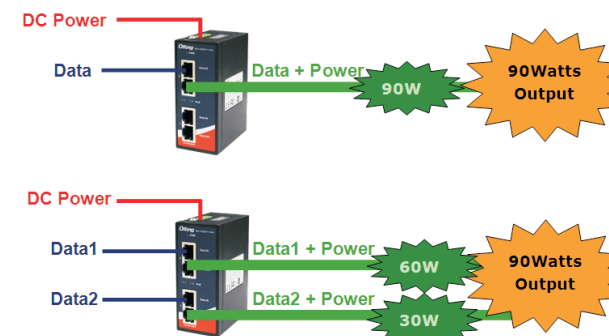
Model name	Model Description	Accessory
INJ-102GT++	Industrial 2-port Gigabit High Power PoE++ Injector	⊙X1, ⊙X4, ⊙X8, ⊙X2, ⊙X1, ⊙X1, ⊙X1
INJ-102GT++-24V	Industrial 2-port Gigabit High Power PoE++ Injector, 24VDC Input	⊙X1, ⊙X4, ⊙X8, ⊙X2, ⊙X1, ⊙X1, ⊙X1

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Application



Communication Connections

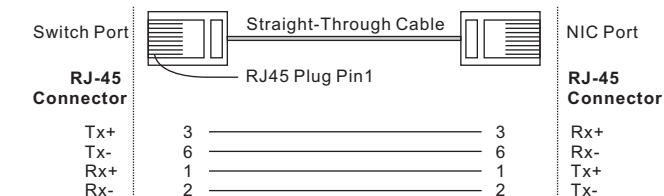
1000Base-T Ethernet Port Connection

RJ45 (8-pin, MDI) Port Pinouts		RJ45 (8-pin, MDI-X) Port Pinouts	
Pin	MDI	Pin	MDI-X
1	BI_DA+	1	BI_DB+
2	BI_DA-	2	BI_DB-
3	BI_DB+	3	BI_DA+
4	BI_DC+	4	BI_DD+
5	BI_DC-	5	BI_DD-
6	BI_DB-	6	BI_DA-
7	BI_DD+	7	BI_DC+
8	BI_DD-	8	BI_DC-

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

RJ45 (8-pin, MDI) Port Pinouts		RJ45 (8-pin, MDI-X) Port Pinouts	
Pin	Single	Pin	Single
1	Tx+	1	Rx+
2	Tx-	2	Rx-
3	Rx+	3	Tx+
6	Rx-	6	Tx-

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



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

