



INJ-102GT++ Series

# INJ-102GT++ Series

## Industrial 2-port Gigabit High Power Plus PoE++ Injector

### Features

- PoE++ Injector for 2x10/100/1000Base-T(X)
- 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 90** for all ports usage.
- High reliability and rigid IP-30 housing
- DIN-Rail and Wall Mount Design

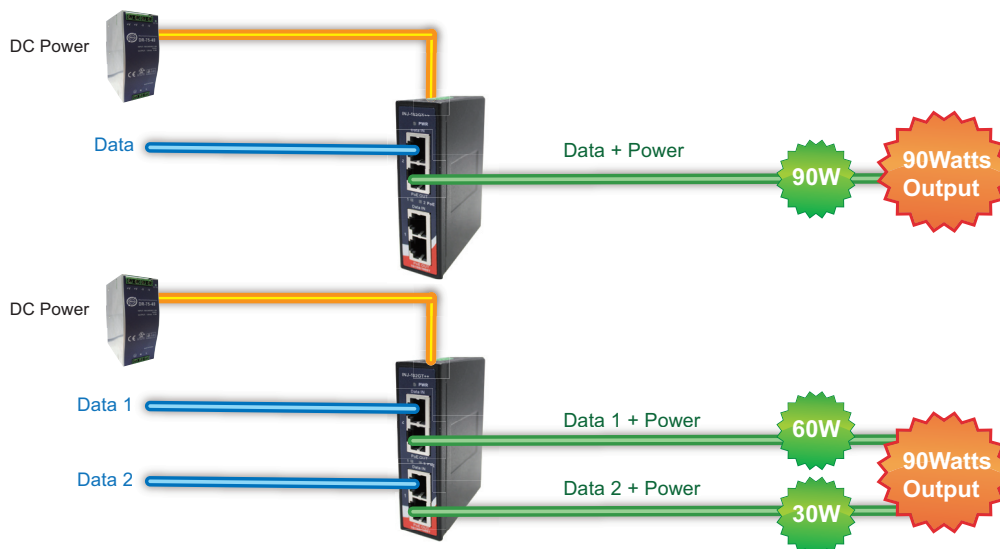


### Introduction

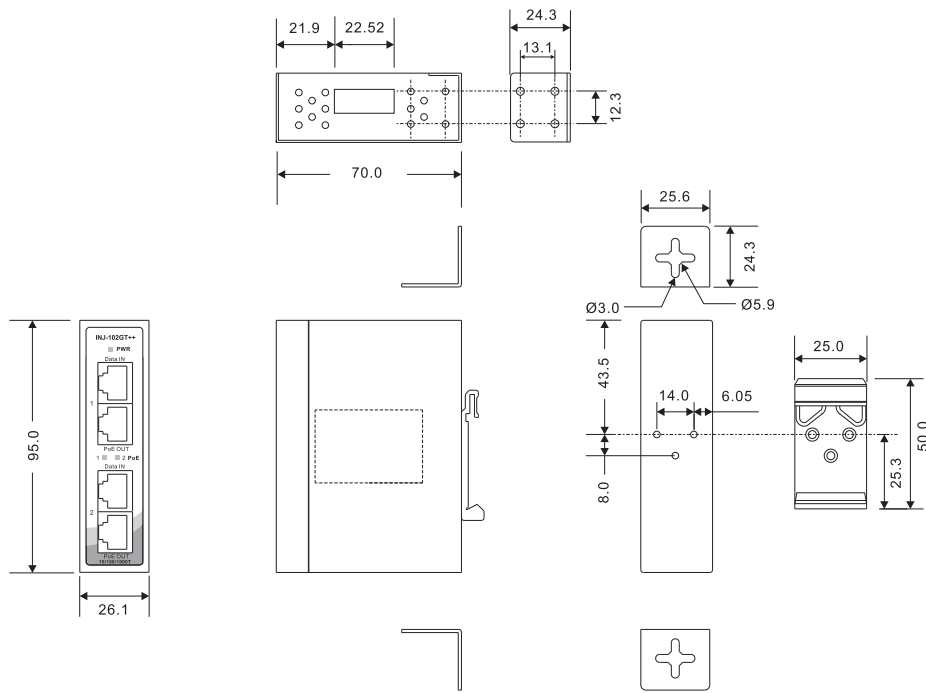
The INJ-102GT++ PoE Injector series is not only an IEEE802.3at compliant device but also an advanced high power PoE injector. It is intelligent detection that provided 2-ports 10/100/1000Base-T (X) PoE outputs. The device does not turn on power until it detects a valid PoE signature from the PoE devices 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++ PoE Injector. Typically in gigabit networks the maximum allowable CAT5 cable length is about 100 meters, due to the limitation of the Ethernet standards. 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.

**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 1/2/4/5 (V+) and 3/6/7/8 (V-).**

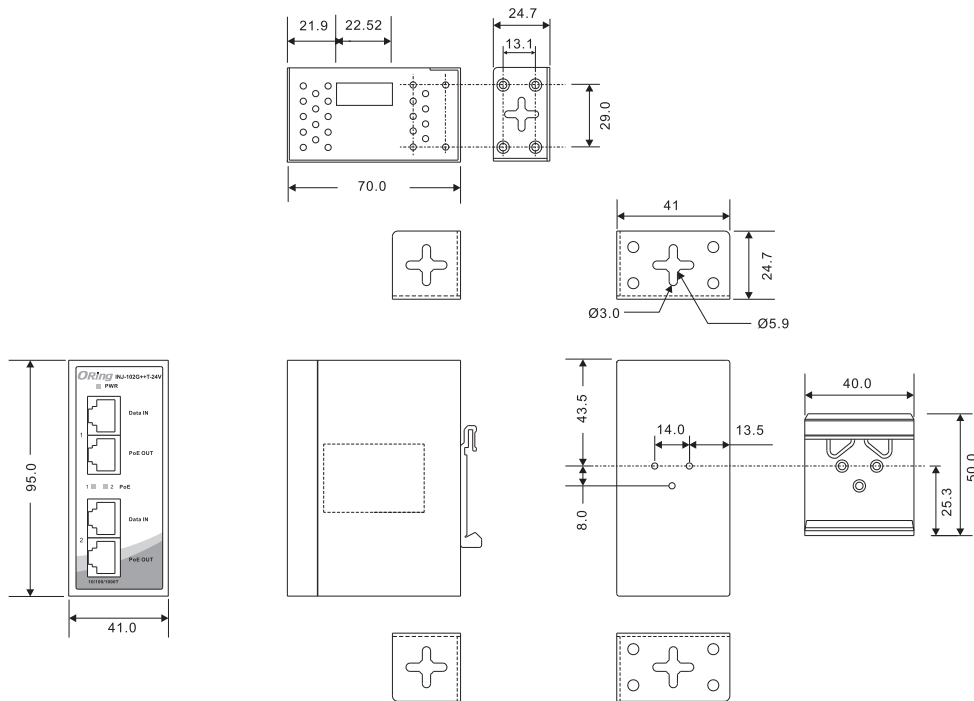
### Practical Operation



Dimensions



INJ-102GT++



INJ-102GT++-24V

## Connectors and Pin Definitions

### 1000 Base-T

Pin No.	RJ-45 Input (Data Only)		RJ-45 Output (Data and Power)	
	Symbol	Description	Symbol	Description
1	BI_DA+	Data BI_DA+	BI_DA+(Vdc1+)	Data BI_DA+ and Feeding Power(+)
2	BI_DA-	Data BI_DA-	BI_DA-(Vdc1+)	Data BI_DA- and Feeding Power(+)
3	BI_DB+	Data BI_DB+	BI_DB+(Vdc1-)	Data BI_DB+ and Feeding Power(-)
4	BI_DC+	Data BI_DC+	BI_DC+(Vdc2+)	Data BI_DC+ Feeding Power(+)
5	BI_DC-	Data BI_DC-	BI_DC-(Vdc2+)	Data BI_DC- Feeding Power(+)
6	BI_DB-	Data BI_DB-	BI_DB-(Vdc1-)	Data BI_DB- and Feeding Power(-)
7	BI_DD+	Data BI_DD+	BI_DD+(Vdc2-)	Data BI_DD+ Feeding Power(-)
8	BI_DD-	Data BI_DD-	BI_DD-(Vdc2-)	Data BI_DD- Feeding Power(-)

### 10/100 Base-TX

Pin No.	RJ-45 Input (Data Only)		RJ-45 Output (Data and Power)	
	Symbol	Description	Symbol	Description
1	Rx+	Data Receive	Rx+ (Vdc1+)	Data Receive and Feeding power(+)
2	Rx-	Data Receive	Rx- (Vdc1+)	Data Receive and Feeding power(+)
3	Tx+	Data Transmit	Tx+ (Vdc1-)	Data Transmit and Feeding power(-)
4	NC	Not Connected	NC (Vdc2+)	Not Connected Feeding power(+)
5	NC	Not Connected	NC (Vdc2+)	Not Connected Feeding power(+)
6	Tx-	Data Transmit	Tx- (Vdc1-)	Data Transmit and Feeding power(-)
7	NC	Not Connected	NC (Vdc2-)	Not Connected Feeding power(-)
8	NC	Not Connected	NC(Vdc2-)	Not Connected Feeding power(-)

## Specifications

ORing Injector Model	INJ-102GT++	INJ-102GT++-24V
<b>Physical Ports</b>		
RJ-45 Ethernet Port Input		2
RJ-45 Ethernet Port with P.S.E. Output		2
<b>Operating Voltage</b>		
Input Voltage	50 ~ 57 Vdc on 4-pin terminal block	12 ~ 57 VDC on 4-pin terminal block
Output Power	57V / 1.6A, 90 Watts per port max <sup>[Note2]</sup> <b>(Total of 2 ports)</b>	12 ~ 24VDC power input : 60 Watts totally 24 ~ 57VDC power input : 90 Watts totally <sup>[Note2]</sup> <b>(Total of 2 ports)</b>
<b>LED Indicator</b>		
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	
<b>Protection</b>		
Short Circuit Protection	Present	
Over Load Protection	Present	
<b>Physical Characteristics</b>		
Enclosure	IP-30	
Dimension (W x D x H)	26.1(W)x70(D)x95(H)mm (1.03 x 2.76 x 3.74 inch)	41(W)x70(D)x95(H) mm (1.61 x 2.75 x 3.74 inch.)
Weight (g)	300g	369g

Environmental	
Storage Temperature	-40 to 80°C (-40 to 176°F)
Operating Temperature	-20 to 70°C (-4 to 158°F)
Operating Humidity	5% to 90% Non-condensing
Regulatory Approvals	
EMC	CE EMC (EN 55024, EN 55032), FCC Part 15B
EMI	EN 55032, CISPR32, EN 61000-3-2, EN 61000-3-3, FCC Part 15B class A
EMS	EN 55024 (IEC/EN 61000-4-2 (ESD), IEC/EN 61000-4-3 (RS), IEC/EN 61000-4-4 (EFT), IEC/EN 61000-4-5 (Surge), IEC/EN 61000-4-6 (CS), 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	EN60950-1
MTBF	2947356 hrs <span style="float: right;">2255178 hrs</span>
Warranty	5 years

**Note 2: LTPoE++™ PSE technology is applied on this product. Only when an LTPoE++™ Powered Device (PD) is attached can the PSE port deliver up to 90W of output power.**

## Ordering Information

### INJ-102GT++

Available Model	Model Name	Description
	INJ-102GT++	Industrial 2-port Gigabit High Power PoE++ Injector
	INJ-102GT++-24V	Industrial 2-port Gigabit High Power PoE++ Injector, 24VDC power input
<b>Packing List</b>		<b>Optional Accessories (Can be purchased separately)</b>
<ul style="list-style-type: none"> <li>INJ-102GT++/24V x 1</li> <li>QIG x 1</li> <li>DIN-Rail Kit x 1</li> <li>Wall-mount Kit x 1</li> </ul>		<ul style="list-style-type: none"> <li>DR/SDR/DRP Series DIN-Rail power supply</li> </ul>

- Industrial Ethernet Switch
- Industrial Media Converter
- Industrial Device Server
- Industrial Wireless Access Point
- Industrial Cellular VPN Router
- Industrial M2M Gateway
- Accessories
- Network Management Software