ORing

Preliminary

INJ-101GT++-90W-24V

Industrial 1-port Gigabit High Power PoE++ Injector, 9 to 57VDC
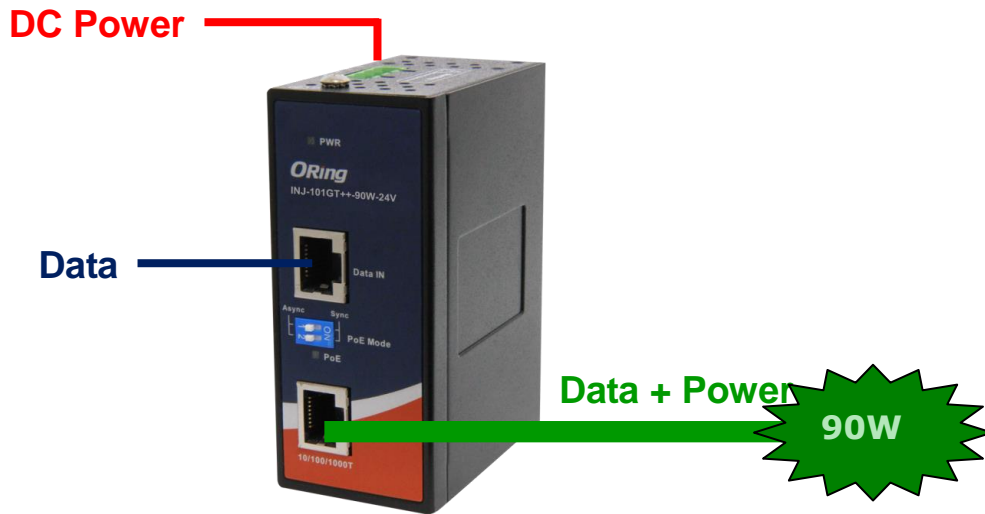
Features

- PoE++ Injector for 1x10/100/1000Base-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 Watts** for all ports usage.

- Support wide range power input from 9 to 57VDC

- Provided DIP switch configurator for PoE mode management

- High reliability and rigid IP-30 housing

- DIN-Rail and Wall Mount Design

Full Gigabit | **-40~75℃ Temperature** | **P.S.E. POE 90W IEEE 802.3bt** | **ROHS** | **CE** | **FC**

Introduction

The INJ-101GT++ 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 1-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-101GT++ 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-101GT++ PoE Injector can function with any PoE P.D. equipment which is fully compliant with the IEEE 802.3af/at PoE standards, and provide the DIP switch configurator for High power PoE management.

▶ Application

▶ Connector and Pin Definition

1000 Base-T

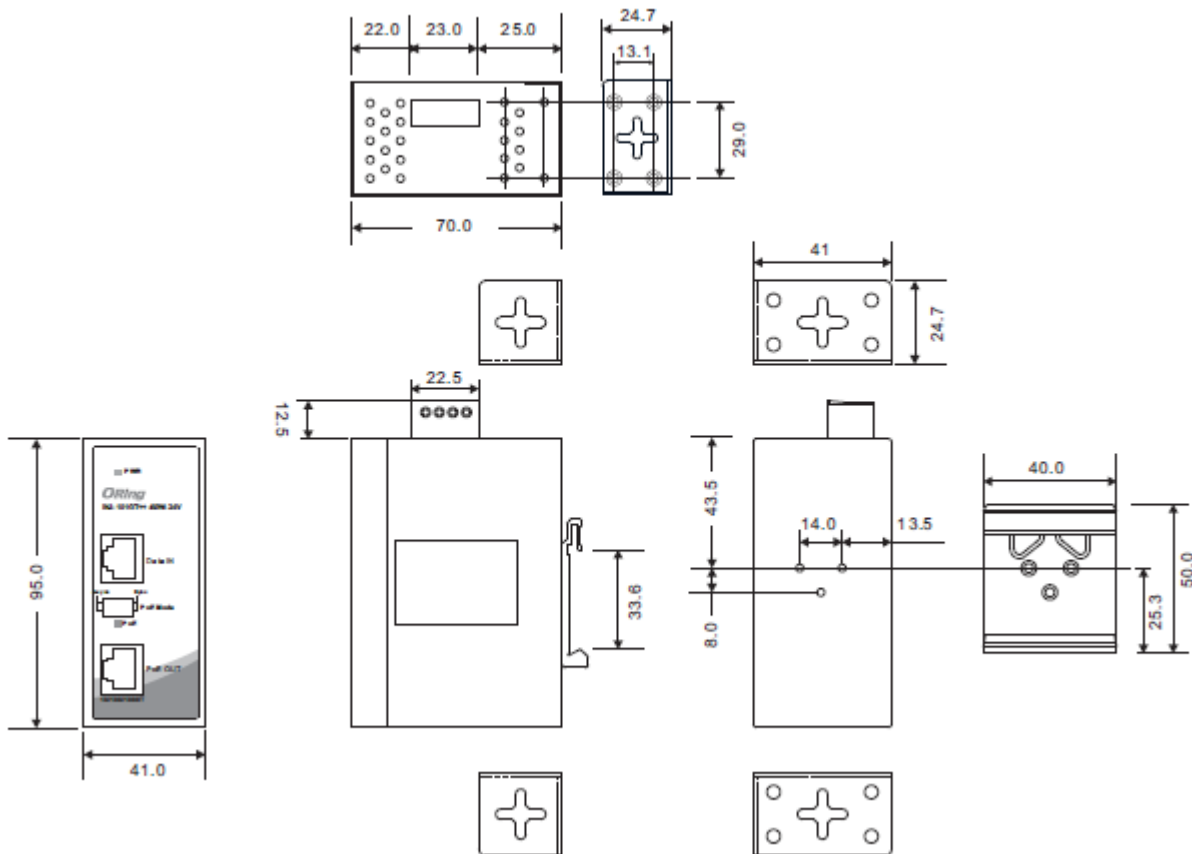| Pin	RJ-45 Input (Data Only)		RJ-45 Output (Data and Power)	
	Symbol	**Description**	**Symbol**	**Description**
1	BI_DA+	Data BI_DA+	BI_DA+ (**Vdc1+**)	Data BI_DA+ and Feeding Power(+)
2	BI_DA-	Data BI_DA-	BI_DA- (**Vdc1+**)	Data BI_DA- and Feeding Power(+)
3	BI_DB+	Data BI_DB+	BI_DB+ (**Vdc1-**)	Data 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	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(-)

Dimension

Dimension (Unit =mm)

Specifications

ORing Injector Model	INJ-101GT++-90W-24V
Physical Ports	
RJ-45 Ethernet Port Input	1
RJ-45 Ethernet Port with P.S.E. Output	1
Operating Voltage	
Input Voltage	**9 ~ 57 VDC on 4-pin terminal block**
LED Indicators	
Power Indicator	PWR: 1 x LED Green On: Power is on and functioning Normally.
PoE Indicators	1 x LED Blue On: PoE Device Link Off : None PoE Device Detected Blink (Blue) : Overload present
DIP Switch	
DIP Switch 1/2 *note1	DIP Switch 1/2 (OFF): PoE P.S.E set to master and Asyncronize mode. DIP Switch 1/2 (ON) : PoE P.S.E set to Syncronize mode(default)
Power	
Input Power	9 ~ 57 VDC on 4-pin terminal block
Power Consumption	1 Watts (Not include PD's device)
PoE Power Budget	30Watt at 9~24VDC, 90Watt at 24~57VDC
Protection	
Short Circuit Protection	Present
Over Load Protection	Present
Physical Characteristic	
Enclosure	IP-30
Dimension (W x D x H)	41(W)x70(D)x95(H)mm (1.03 x 2.76 x 3.74 inch)
Weight (g)	318g
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 95% Non-condensing
Regulatory Approvals	
EMC	CE EMC (EN55024,EN 55032), FCC Part 15 B
EMI	EN55032, CISPR 32, EN61000-3-2, EN61000-3-3, FCC Part 15 B class A
EMS	EN55024 (IEC/EN 61000-4-2 (ESD), IEC/EN 61000-4-3 (RS), IEC/EN 61000-4-4 (EFT), IEC/EN61000-4-5 (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	2067004hrs
Warranty	5 years

*Note1: (1) By default, the output value of the high power PoE++ is in Sync mode which supports PoE af/at-compliant P.D. devices.

(2) If you cannot enable the 90W PTZ camera, please set the DIP switch to Async mode and reconnect power. This mode only supports Dual P.D mode. You may not connect to an af/at-compliant P.D. device with this mode.

Ordering Information

INJ-101GT++-90W-24V

Available Model	Model Name	Description
	INJ-101GT++-90W-24V	Industrial 1-port Gigabit High Power PoE++ Injector, 9 to 57VDC

Packing List

- **INJ-101GT++-90W-24V x 1**
- **DIN-Rail Kit x 1**
- **Wall-mount Kit x 1**
- **QIG x 1**

Optional Accessories

- **DR/SDR/DRP series DIN-Rail power supply**