



TINJ-101-M12 Series

TINJ-101-M12 Series

➔ **EN50155 Industrial 1-port FET PoE Injector with 30W output, M12 connector**

Features

- PoE + Injector for 1x10/100 Base-T(X)
- Fully compliant with IEEE802.3at/802.3af standard
- Auto protection for Over Voltage Power Input and over current output
- Supports Power Output up to 30Watts
- Supports Power wide Input range from 12Vdc to 57 Vdc
- Ultra-rugged enclosure M12 connector for toughest industrial usages
- Wall mounting enabled



Introduction

ORing's Transporter™ series PoE Injectors are designed for industrial applications, such as rolling stock, vehicle, and railway applications. The TINJ-101-M12 PoE Injector is an advanced IEEE802.3at compliant device with Intelligent Detection that provided 1-port 10/100 Base-T(X) PoE output which is compliant with EN50155 requirement. It is specifically designed for the toughest industrial environments. TINJ-101-M12 EN50155 PoE Injector use M12 connectors to ensure tight, robust connections, and guarantee reliable operation against environmental disturbances, such as vibration and shock. 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. Because of this intelligent detection, only an IEEE 802.3at/802.3af compliant device can be powered with the TINJ-101-M12 PoE Injector. Typically in Ethernet networks the maximum allowable CAT5 cable length is about 100 meters, due to the limitation of the Ethernet standards. The TINJ-101-M12 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 supplied on Ethernet pins 2/4 (V+) and 1/3 (V-).

Practical Operation

Non-PoE Ethernet Switch

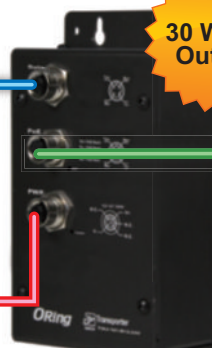


Data



Power

Power Supply



TINJ-101-M12-24V

30 Watts Output

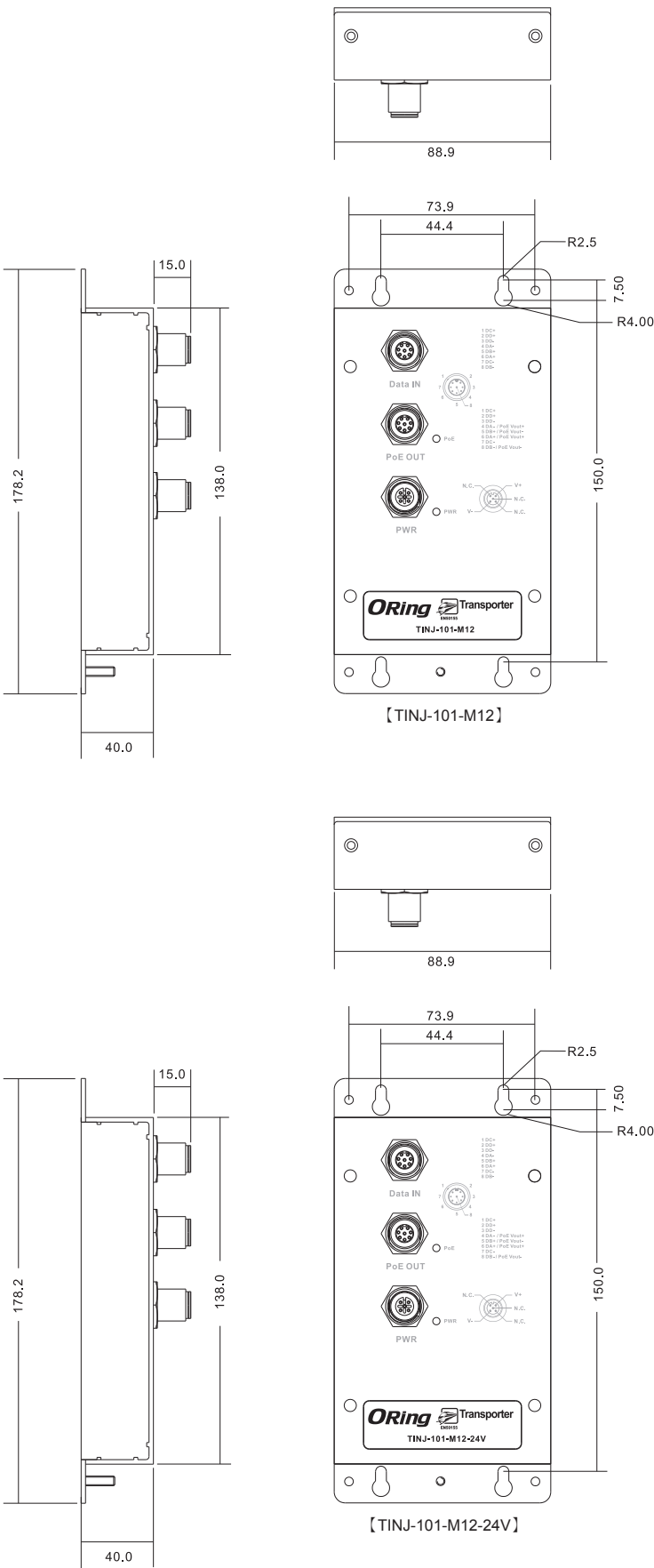
PoE

Data + Power



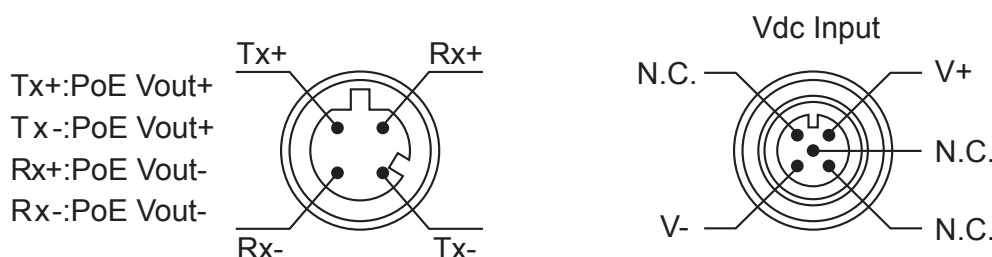
PoE P.D. device

Dimensions



(Unit=mm)

Pin Definition



Connector and Pin Definition

10/100 Base-T(X)				
M12 Input (Data Only)			M12 Output (Data and Power)	
Pin	Symbol	Description	Symbol	Description
1	Rx+	Data Receive	Rx+ (Vdc-)	Data Receive and Feeding power(-)
2	Tx+	Data Transmit	Tx+ (Vdc+)	Data Transmit and Feeding power(+)
3	Rx-	Data Receive	Rx- (Vdc-)	Data Receive and Feeding power(-)
4	Tx-	Data Transmit	Tx- (Vdc+)	Data Transmit and Feeding power(+)

Specifications

ORing Injector Model	TINJ-101-M12		TINJ-101-M12-24V
Physical Ports			
10/100 Base-T(X) with P.S.E. Ports in M12 Auto MDI/MDIX	1 x M12 connector (4-pin M12 D-coding)		
10/100 Base-T(X) Port in M12 Auto MDI/MDIX	1 x M12 connector (4-pin M12 D-coding)		
Operating Voltage			
Input Voltage	50 ~ 57 VDC on 4-pin M12 A-coding	12 ~ 57 VDC on 4-pin M12 A-coding	
Output Power	50V / 600mA, 30 Watts max.	12V / 2.5A, 30 Watts max.	
LED Indicators			
Power Indicator	PWR / Ready: 1 x LED Green On: Power is on and functioning Normally.		
PoE Indicators	1 x LED Blue On: PoE Device Link Blue Blinking: Detecting PoE Device Blue Off : None PoE Device Detected		
Protection			
Short Circuit Protection	Present		
Over Load Protection	Present		
Physical Characteristic			
Enclosure	IP-40		
Dimension (W x D x H)	88.9 (W) x 40 (D) x 178.2 (H)mm (3.5 x 1.57 x 7.0 inch)		
Weight (g)	385g	446g	
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, EN50155 (EN50121-3-2, EN55011, EN50121-4)
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	IEC60068-2-31
Vibration	IEC60068-2-6
Safety	EN60950-1
Warranty	5 years

Ordering Information

TINJ-10 **1** -M12- **24V**

Code Definition	10/100Base-T(X) P.S.E. Port Number	VDC Input
Option	-2: 1 port	None : 50 ~ 57VDC -24 : 12 ~ 57VDC

Available Model	Model Name	Description
	TINJ-101-M12	EN50155 Industrial 1-port FET PoE Injector with 30W output, 50V ~ 57VDC Input, M12 connector
	TINJ-101-M12-24V	EN50155 Industrial 1-port FET PoE Injector with 30W output, 12V ~ 57VDC Input, M12 connector
Packing List <ul style="list-style-type: none"> TINJ-101-M12 x 1 OIG x 1 		Optional Accessories <ul style="list-style-type: none"> M12 cable series