



ORing WEB-site

TINJ-101-M12 Series

➤ **EN50155 Industrial 1-port 10/100 PoE Injector with 30W output, M12 connector**

Features

- Supports 1x10/100Base-T(X) for power and data output
- Fully compliant with IEEE 802.3at/af
- Auto protection for over voltage power input and over current output
- Supports power output up to 30Watts
- Supports power input range from 12 to 57VDC
- Ultra-rugged enclosure M12 connector for toughest industrial usages
- Wall mounting enabled

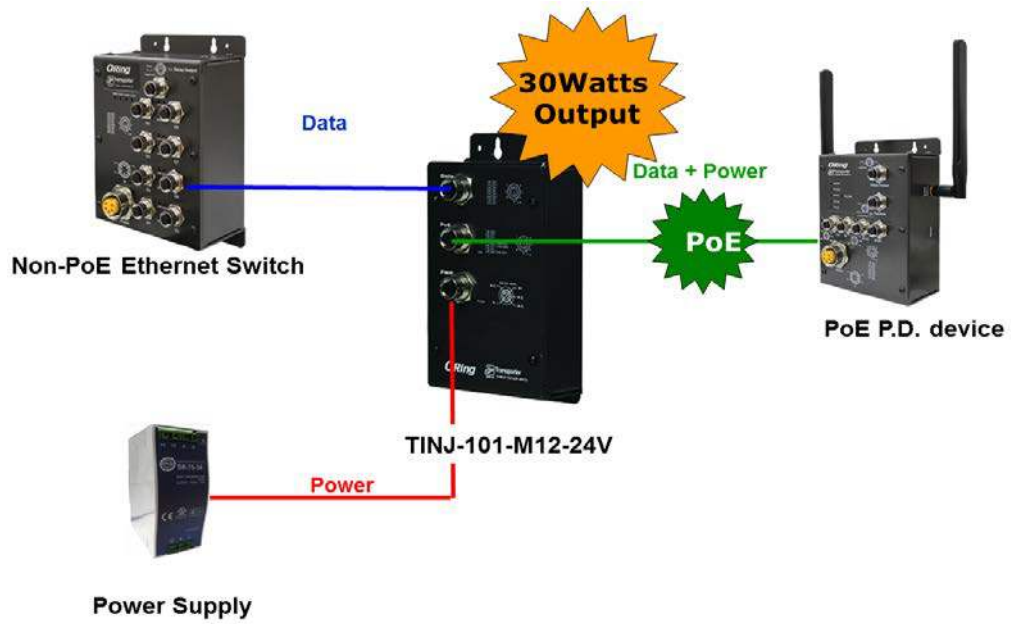


Introduction

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. Because of its 50V insertion, the installer doesn't need to worry about voltage drops caused by cable length. 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.

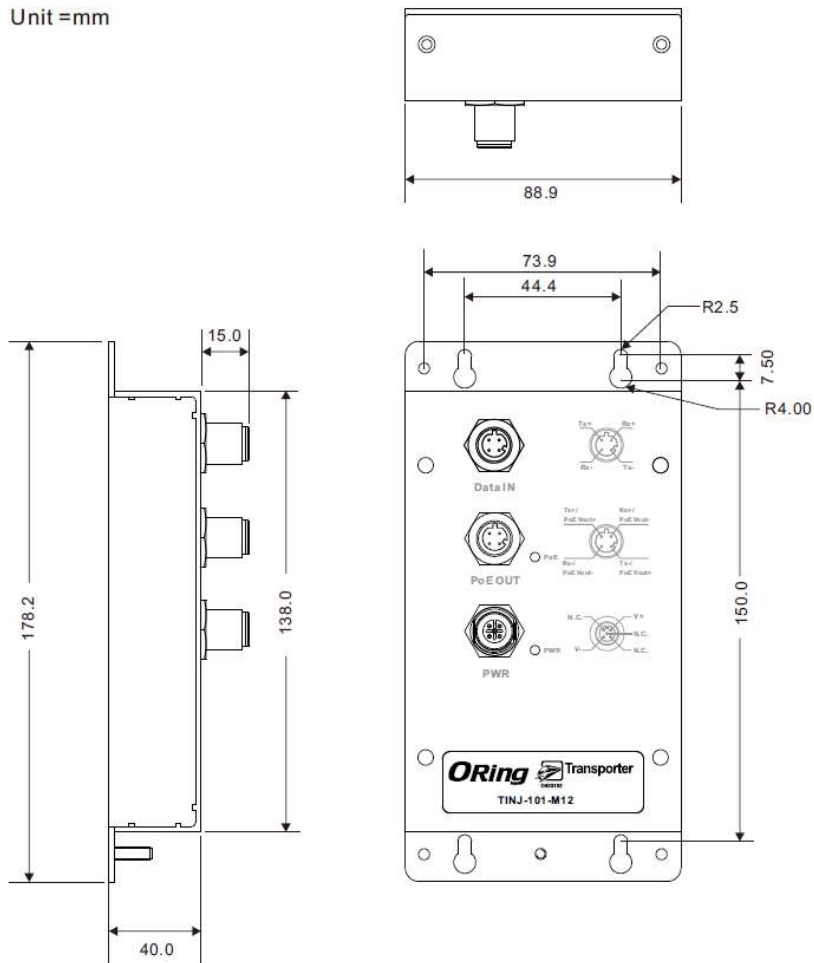
Note: The equipment being powered must be fully IEEE 802.3at/802.3af compliant in order for the power supply to be able to sense the PoE devices signature and apply power. Power is supplied on Ethernet pins 2/4 (V+) and 1/3 (V-).

Connection

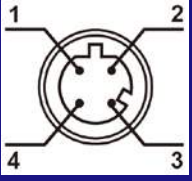


Dimensions

Unit =mm



Pin Definition

 D-Coding M12	10/100Base-T(X) M12 port w/ Data IN		10/100Base-T(X) P.S.E. M12 port w/ PoE OUT	
	Pin No.	Description	Pin No.	Description
	#1	Tx+	#1	Tx+ / PoE Vout+
	#2	Rx+-	#2	Rx+ / PoE Vout-
	#3	Tx-	#3	Tx- / PoE Vout+
#4	Rx--	#4	Rx- / PoE Vout-	

Note: pins 1 and 3 (-Vdc) should not be shorted to ground.

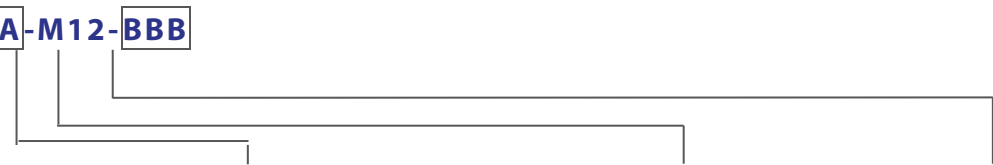
Specifications

ORing Switch Model	TINJ-1010-M12	TINJ-101-M12-24V
Physical Ports		
10/100Base-T(X) with P.S.E. Ports in M12 Auto MDI/MDIX (PoE OUT Connector)		1 (4-pin female D-coding)
10/100Base-T(X) Ports in M12 Auto MDI/MDIX (Data IN Connector)		1 (4-pin female D-coding)
LED Indicators		
Power Indicator (PWR)	Power / Ready: Green LED x 1	
PoE Indicator (PoE)	Blue LED x 1 On for PoE device link, Off for none PoE device detected, Blinking for detecting PoE device	
Power		
Input Power	50 ~ 57VDC on 5-pin male A-coding connector	12 ~ 57VDC on 5-pin male A-coding connector
PoE Output Power	IEEE 802.3af: 15.4 Watts / IEEE 802.3at: 30 Watts Max.	
Short Circuit Protection	Present	
Overload 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 (W) x 1.57 (D) x 7.0 (H) inch	
Weight (g)	385 g	446 g
Environmental		
Storage Temperature	-40 to 80°C (-40 to 176°F)	
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Operating Humidity	5% to 90% Non-condensing	
Regulatory Approvals		
EMC	CE EMC (EN 55024, EN 55032), FCC Part 15 B, EN 50155(EN 50121-1, EN 50121-3-2)	
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 80MHz to 1GHz: 3V/m 1kHz 80% AM), IEC/EN 61000-4-4 (EFT Power 0.5kV, Signal 0.5kV), IEC/EN 61000-4-5 (Surge: Power 0.5kV, RJ45 1kV), IEC/EN 61000-4-6 (CS 150K-80MHz: 3Vrms 1kHz 80% AM), 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)	
Other	EN 50155 (IEC 61373)	
MTBF	5,287,222 hrs	4,449,756 hrs
Warranty	5 years	

Ordering Information

TINJ-10A-M12-BBB



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

Available Model	Model Name	Description
	TINJ-101-M12	EN50155 Industrial 1-port FET PoE Injector with 30W output, 50~57VDC Input, M12 connector
	TINJ-101-M12-24V	EN50155 Industrial 1-port FET PoE Injector with 30W output, 12~57VDC Input, M12 connector

Packing List <ul style="list-style-type: none"> TINJ-101-M12/24Vx 1 Quick Installation Guide x 1 	Optional Accessories <ul style="list-style-type: none"> M12 cable series
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