



TPS-141TX-M12

TPS-141TX-M12 Series

➔ **EN50155 5-port unmanaged PoE Ethernet switch with 4x10/100Base-T(X) P.S.E. and 1x10/100Base-T(X), M12 connector**

Features

- Supports 4 x 10/100 Base-T(X) with P.S.E. PoE ports
- 4 port **P.S.E.** fully compliant with IEEE802.3at standard, provide up to 30 Watts per port
- Support auto-negotiation and auto-MDI/MDI-X
- Support store and forward transmission
- Support flow control
- Support broadcast storm protection
- Ultra-rugged enclosure M12 connector for toughest industrial usages
- Wall mounting enabled

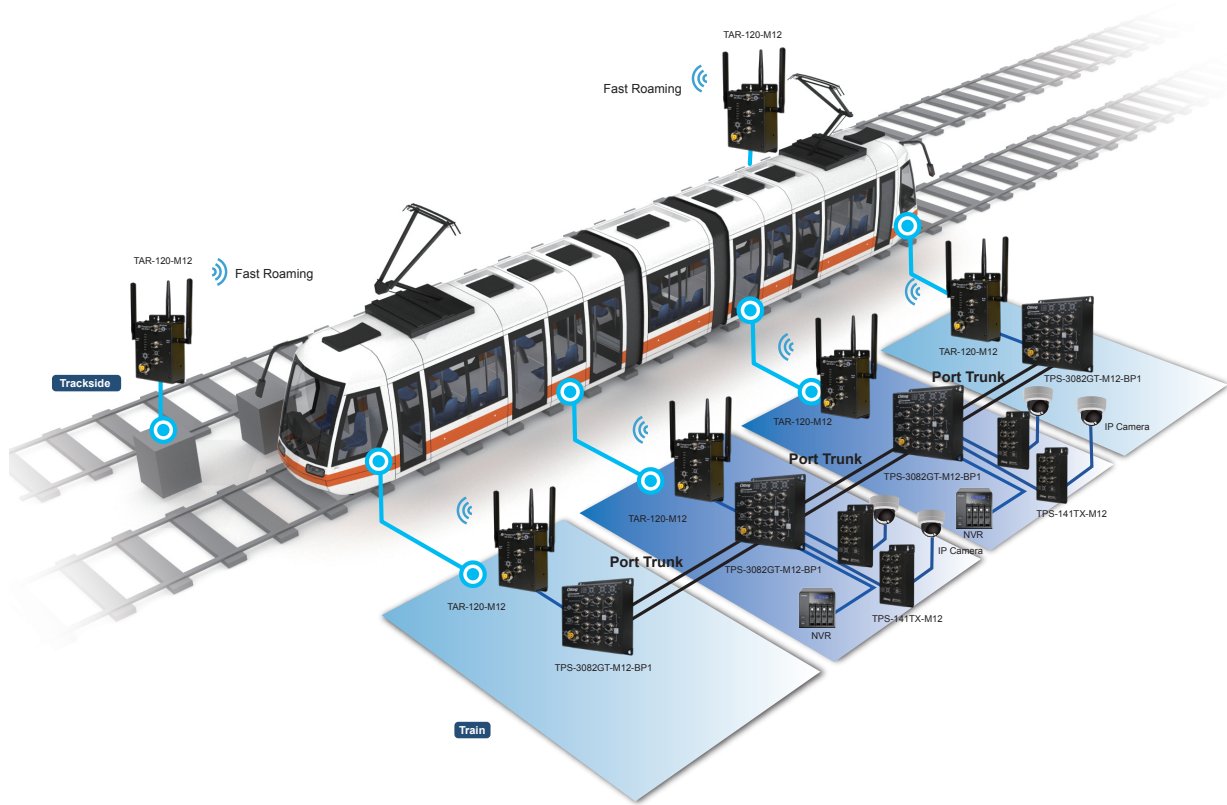


Introduction

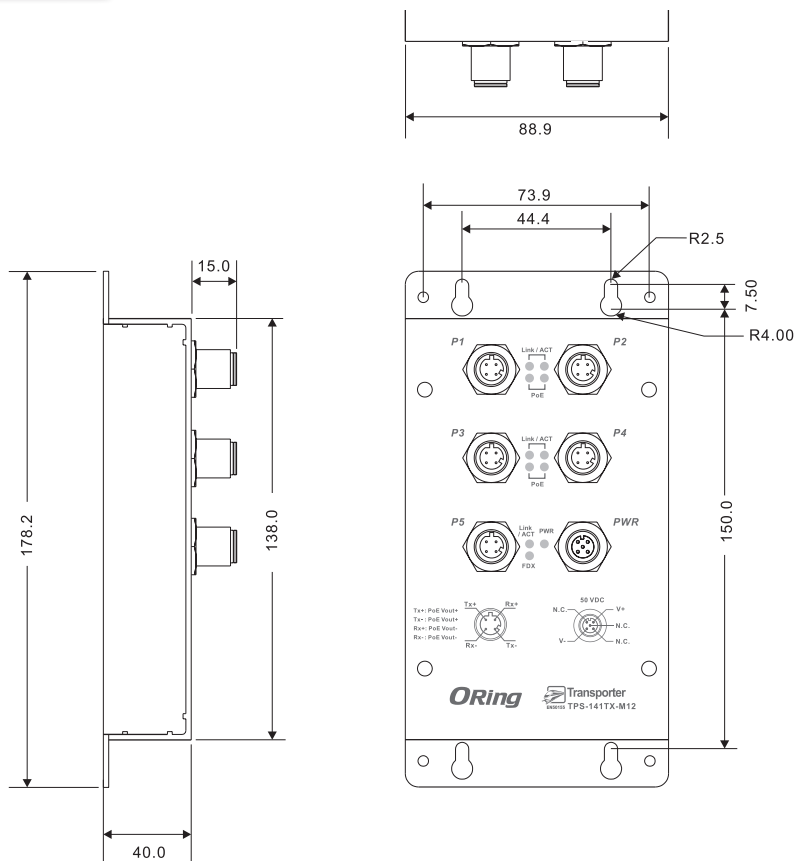
ORing's Transporter™ series Ethernet switches are designed for industrial applications, such as rolling stock, vehicle, and railway applications. TPS-141TX-M12 series are unmanaged PoE Ethernet switch with 4x10/100Base-T(X) P.S.E. ports and 1x10/100Base-T(X) port which is compliant with EN50155 requirement. It is specifically designed for the toughest industrial environments. TPS-141TX-M12 series EN50155 Ethernet switch use M12 connectors to ensure tight, robust connections, and guarantee reliable operation against environmental disturbances, such as vibration and shock. TPS-141TX-M12 series also support Power over Ethernet, a system to transmit electrical power up to **30 watts**, along with data, to remote devices over standard twisted-pair cable in an Ethernet network. TPS-141TX-M12 series switch has 4x10/100Base-T(X) P.S.E. (Power Sourcing Equipment) port to provide power in a PoE setup. The very wide operating temperature range from -40 oC to 70oC can satisfy most operating environment.

Practical Operation

TPS-141TX-M12 series can be used in connecting several Ethernet devices which need to operated under harsh environment requirement. The designs of rugged housing and wide operating temperature range form -40 ~ 70°C, makes TPS-141TX-M12 series reliably in any kinds of transporter applications.



Dimensions



TPS-141TX-M12

Industrial Ethernet Switch

Industrial Media Converter

Industrial Device Server

Industrial Wireless Access Point

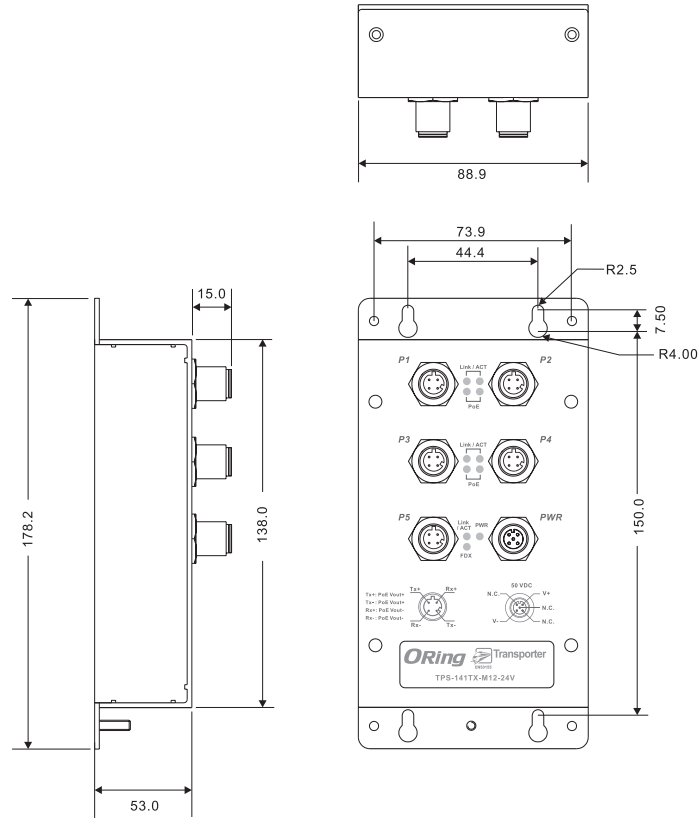
Industrial Cellular VPN Router

Industrial M2M Gateway

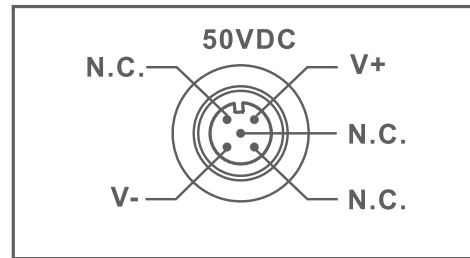
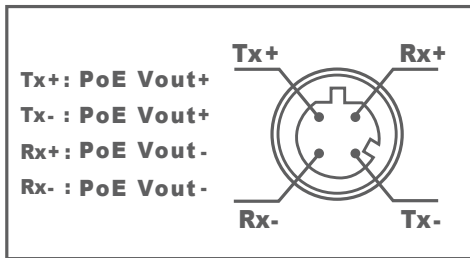
Accessories

Network Management Software

Dimensions



PoE Pin Definition



Specifications

ORing Switch Model	TPS-141TX-M12-24V	TPS-141TX-M12	TPS-141TX-M12-HV Preliminary
Physical Ports			
10/100 Base-T(X) with P.S.E. Ports in M12 Auto MDI/MDIX		4 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)	
Technology			
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3x for Flow control IEEE 802.3at PoE specification (up to 30 Watts per port for P.S.E.)		
Processing	Store-and-Forward		

LED Indicators			
Power Indicator	Green : Power LED x 1		
10/100Base-T(X) M12 port with P.S.E. indicator	Green for port Link/Act. Blue for PoE indicator		
10/100Base-T(X) M12 port indicator	Green for port Link/Act. Amber for port Duplex/Collision		
Power			
Input Power	24VDC voltage power input in M12 connector (5-pin M12 A-coding)	50 ~ 57 VDC voltage power input in M12 connector (5-pin M12 A-coding)	110VDC/220VAC voltage power input in M12 connector (5-pin M12 A-coding)
Power Consumption (Typ.)	3.8 Watts (PoE outputs not included)	3 Watts (PoE outputs not included)	TBD
Overload Current Protection	Present		
Reverse Polarity Protection	Not Present		
Physical Characteristics			
Enclosure	IP-40		
Dimensions (W x D x H)	88.9 x 53 x 178.2 mm	88.9 x 40 x 178.2 mm	TBD
Weight (g)	450g	363g	TBD
Environmental			
Storage Temperature	-40 to 85°C (-40 to 185°F)		
Operating Temperature	-40 to 70°C (-40 to 158°F)		
Operating Humidity	5% to 95% 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, EN61373		
Free Fall	IEC60068-2-32		
Vibration	IEC60068-2-6, EN61373		
Safety	EN60950-1		
Warranty	5 years		

Ordering Information

TPS-1 **A** **B** TX -M12

Code Definition	10/100Base-T(X) P.S.E. Port Number	Additional Port Number with 10/100Base-T(X)
Option	- 4 : 4 ports	- 1 : 1 port
Available Model	Model Name	Description
	TPS-141TX-M12-24V	EN50155 5-port unmanaged PoE Ethernet switch with 4x10/100Base-T(X) P.S.E. and 1x10/100Base-T(X), M12 connector, 24VDC power input
	TPS-141TX-M12	EN50155 5-port unmanaged PoE Ethernet switch with 4x10/100Base-T(X) P.S.E. and 1x10/100Base-T(X), M12 connector
	TPS-141TX-M12-HV Preliminary	EN50155 5-port unmanaged PoE Ethernet switch with 4x10/100Base-T(X) P.S.E. and 1x10/100Base-T(X), M12 connector, high-voltage power input

Packing List

- TPS-141TX-M12 x 1
- Quick Installation Guide

Optional Accessories

- M12 cables series