ORing

TXPS-141XT-M12 Series

EN50155 5-port unmanaged PoE Ethernet switch with 4x10/100/500Base-T(X)

P.S.E. and 1x10/100/500Base-T(X), M12 connector

Features

➢ Supports 4 x 10/100/500 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
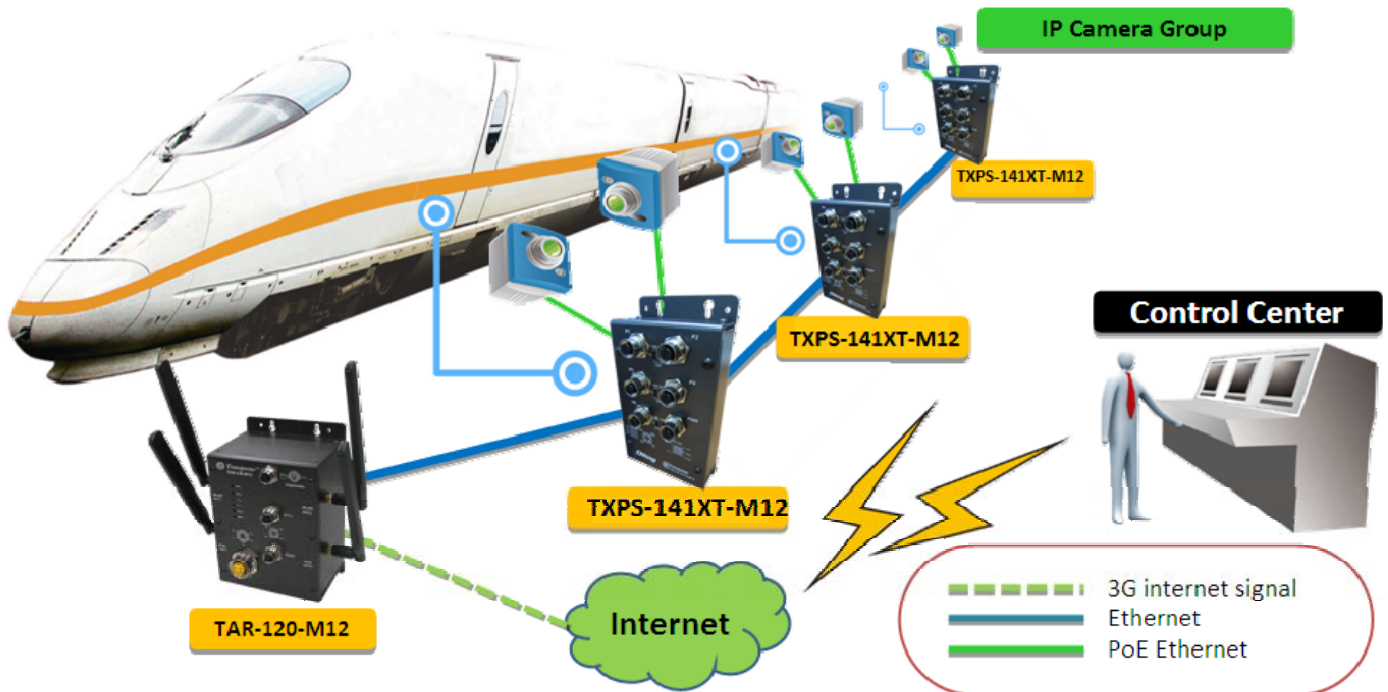
➢ Wall mounting enabled

Introduction

ORing's Transporter™ series Ethernet switches are designed for industrial applications, such as rolling stock, vehicle, and railway applications.   TXPS-141XT-M12 series are unmanaged PoE Ethernet switch with 4x10/100/500Base-T(X) P.S.E. ports and 1x10/100/500Base-T(X) port which is compliant with EN50155 requirement.   It is specifically designed for the toughest industrial environments.   TXPS-141XT-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. TXPS-141XT-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.   TXPS-141XT-M12 series switch has 4x10/100/500Base-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 75ºC can satisfy most operating environment.
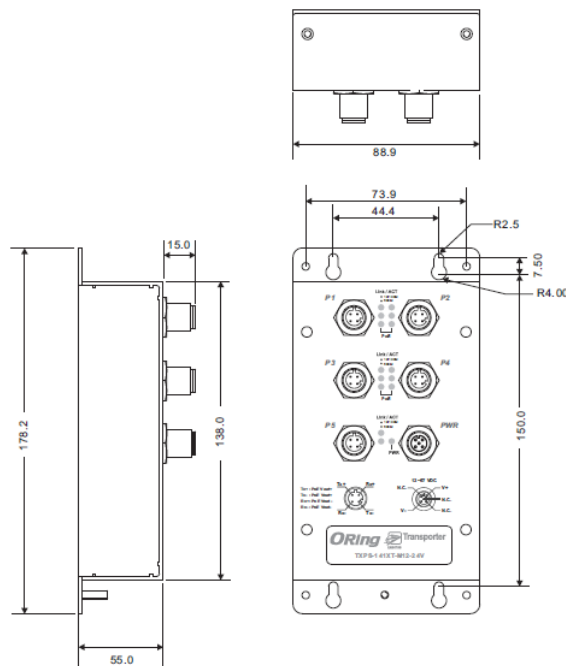
Practical Operation

TXPS-141XT-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 from -40 ~ 75°C, makes TXPS-141XT-M12 series reliably in any kinds of transporter applications.
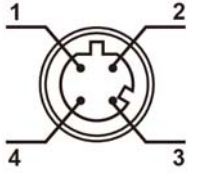

Dimension

Dimension (Unit =mm)

Pin Definition

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

D-Coding M12

Specifications

ORing Switch Model	TXPS-141XT-M12-24V	TXPS-141XT-M12-MV
Physical Ports		
10/100/500Base-T(X) with P.S.E. Ports in M12 Auto MDI/MDIX	4 x 4-pin D-coding M12 female connector	
10/100/500Base-T(X) Port in M12 Auto MDI/MDIX	1 x 4-pin D-coding M12 female connector	
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	
10/100/500Base-T(X) M12 port with P.S.E. indicator	Top Green for port Link/Act at 10/100Mbps Middle Green for port Link/Act at 500Mbps Bottom Blue for PoE indicator	
10/100/500Base-T(X) M12 port indicator	Top Green for port Link/Act at 10/100Mbps Bottom Green for port Link/Act at 500Mbps	
Power		
Input Power	24 (12~57) VDC power input on 5-pin A-coding M12 male connector	72/110 (50.4~137.5) VDC power input on 5-pin A-coding M12 male connector
Power Consumption (Typ.)	2 Watts	5 Watts
PoE Output Power	60 Watts	60 Watts
Overload Current Protection	Present	
Reverse Polarity Protection	Present	
Physical Characteristic		
Enclosure	IP-30	IP-30
Dimension (W x D x H)	88.9 x 55 x 178.2 mm	
Weight (g)	643 g	771 g
Environmental		
Storage Temperature	-40 to 85ºC (-40 to 185ºF)	
Operating Temperature	-40 to 75ºC (-40 to 167ºF)	
Operating Humidity	5% to 95% non-condensing	
Regulatory approvals		
EMI	FCC Part 15, CISPR (EN55032) class A, EN50155 (EN50121-3-2, EN55011, EN50121-4)	

EMS	EN 55024: 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
Safety	EN60950-1
Other	EN50155
Warranty	5 years

Ordering Information

TXPS-1**A****B**XT-M12

Code Definition	10/100/500Base-T(X) P.S.E. Port Number	Additional Port Number with 10/100/500Base-T(X)	
Option	**- 4:** 4 ports	**- 1:** 1 port	
	Model Name	**Description**	
Available Model	**TXPS-141XT-M12-24V**	EN50155 5-port unmanaged PoE Ethernet switch with 4x10/100/500Base-T(X) P.S.E. and 1x10/100/500Base-T(X), M12 connector, 24VDC power input	
	TXPS-141XT-M12-MV	EN50155 5-port unmanaged PoE Ethernet switch with 4x10/100/500Base-T(X) P.S.E. and 1x10/100/500Base-T(X), M12 connector, 110VDC power input	

Packing List

- TXPS-141XT-M12 series x 1
- Quick Installation Guide x 1

Optional Accessories

- M12 cable series