TES-180-M12

EN50155 Compact Size 8-port unmanaged Ethernet switch with 8x10/100Base-T(X), M12 connector
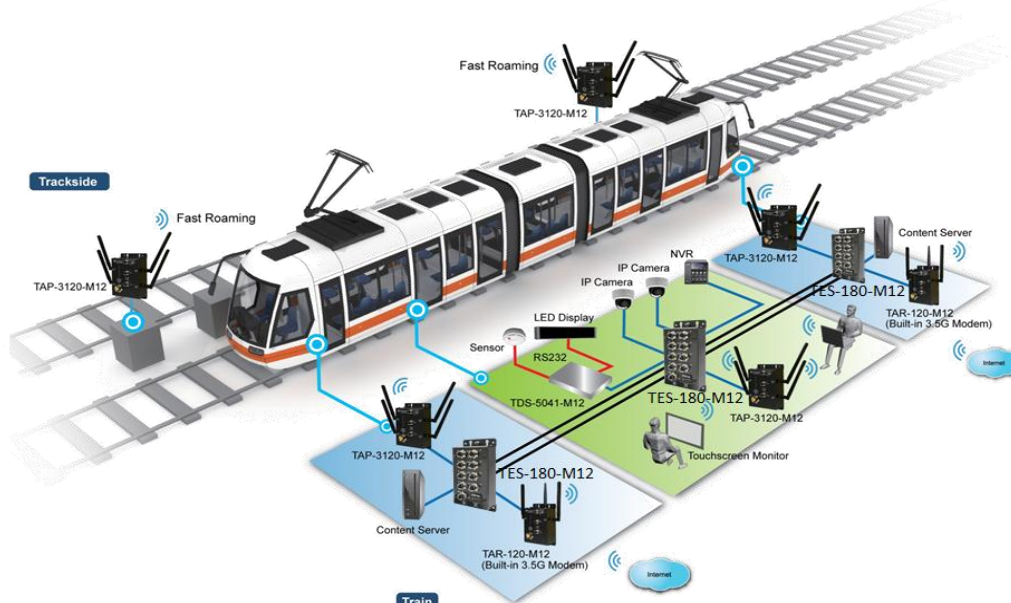
Features

- Leading EN50155-compliant Ethernet switch for rolling stock application
- Support auto-negotiation and auto-MDI/MDI-X
- Support store and forward transmission
- Support flow control
- Warning system by relay output
- Ultra-rugged enclosure for toughest industrial usages
- Wall mounting enabled

EN50155 | Redundant PWR | -40~70°C Temperature | ROHS | CE | FC

Introduction

ORing's Transporter™ series Ethernet switches are designed for industrial applications, such as rolling stock, vehicle, and railway applications. The TES-180-M12 is an unmanaged Ethernet switch with 8x10/100Base-T(X) ports which is passes through EN50155 certification. TES-180-M12 is constructed of a rugged aluminum case and designed with Ethernet ports (M12 type connector), which provide a dust-tight connection. TES-180-M12 EN50155 Ethernet switch use M12 connectors to ensure tight, robust connections, and guarantee reliable operation against environmental disturbances, such as vibration and shock. In addition, the wide operating temperature range from -40 °C to 70°C can satisfy most of operating environment. Therefore, the switch is one of the most reliable choices for rolling stock Ethernet application.
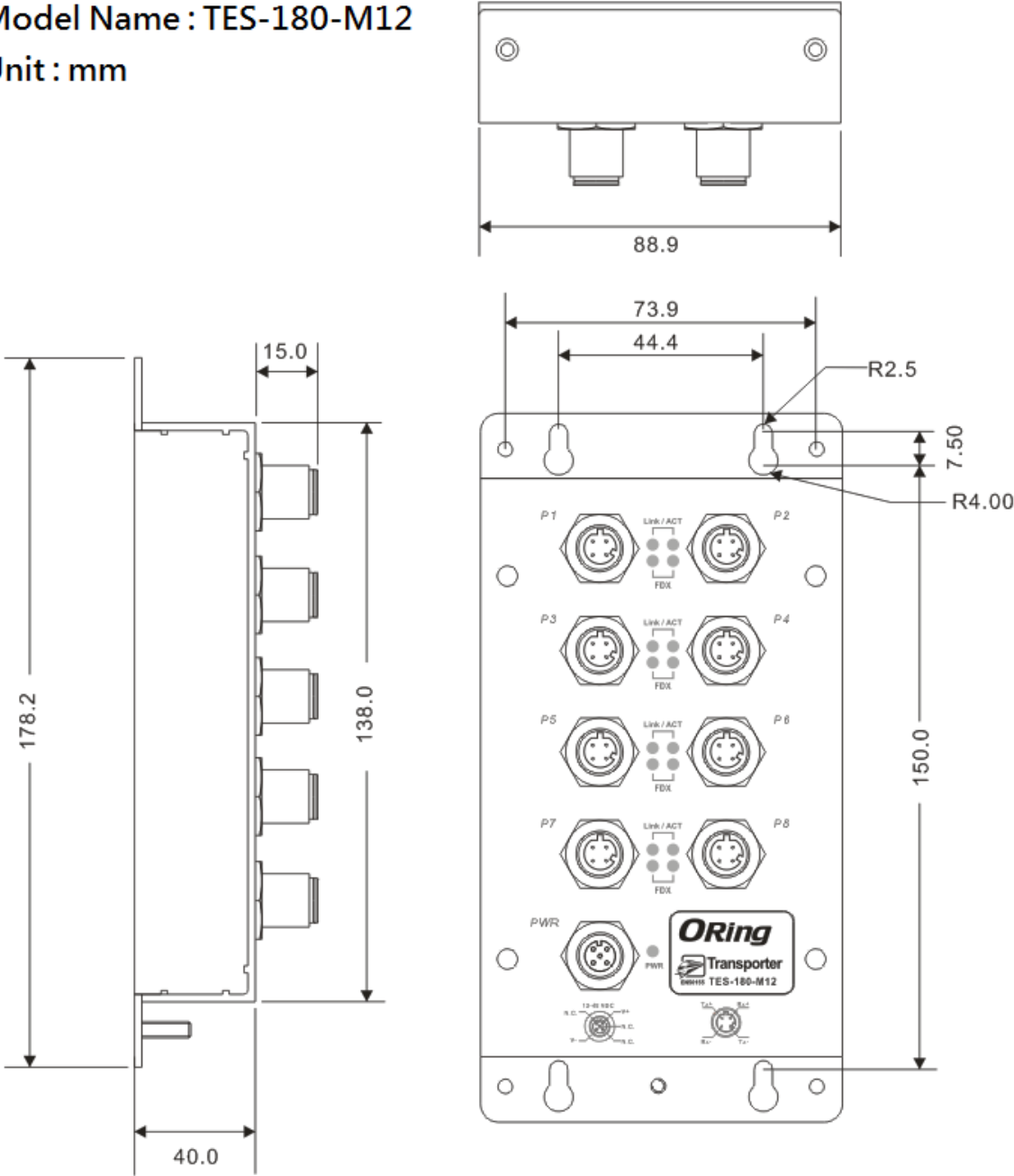

Network connection

Dimension

Model Name : TES-180-M12
Unit : mm

88.9

73.9

44.4

R2.5

7.50

R4.00

15.0

178.2

138.0

150.0

40.0

P1   Link / ACT   P2
FDX

P3   Link / ACT   P4
FDX

P5   Link / ACT   P6
FDX

P7   Link / ACT   P8
FDX

PWR

ORing
Transporter
TES-180-M12

PWR

Specifications

ORing Switch Model	TES-180-M12
Physical Ports	
10/100 Base-T(X) Ports in M12 Auto MDI/MDIX	**8 x M12 connector (D-coding)**
Technology	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3x for Flow control
MAC Table	8192 MAC addresses
Processing	Store-and-Forward
LED Indicators	
Power Indicator	Green : Power LED
Fault Indicator	Amber : Indicate power failure event
10/100Base-T(X) M12 Port Indicator	Green for port Link/Act. Amber for Duplex/Collision
Power	
Input Power	12~48VDC on M12 connector
Power Consumption (Typ.)	4.32 Watts
Overload Current Protection	Present
Reverse Polarity Protection	Present
Physical Characteristic	
Enclosure	IP-40
Dimension (W x D x H)	88.9 (w) x 40 (D) x178.2 (H) mm
Weight (g)	510 g
Environmental	
Storage Temperature	-40 to 85ºC (-40 to 185ºF)
Operating Temperature	-40 to 70ºC (-40 to 158ºF)
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, EN61000-4-9, 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

TES-1 AA – M12

Code Definition	10/100Base-T(X) Port Number
Option	**- 80:** 8 ports

Available Model	Model Name	Description
	TES-180-M12	EN50155 compact size 8-port unmanaged Ethernet switch with 8x10/100Base-T(X), M12 connector

Packing List

- **TES-180-M12 x 1**
- **Quick Installation Guide x 1**

Optional Accessories

- **DR-45 series : 45 Watts DIN-Rail power supply**
- **DR-120 series : 120 Watts DIN-Rail power supply**
- **DR-75 series : 75 Watts DIN-Rail power supply**