

# TES-150-M12

► **EN50155 5-port unmanaged Ethernet switch with 5x10/100Base-T(X), M12 connector**

## Features

- Leading EN50155-compliant Ethernet switch for rolling stock applications
- Supports 5 ports 10/100 Base-T(X)
- Supports auto-negotiation and auto-MDI/MDI-X
- Supports store-and-forward transmission
- Supports flow control
- Ultra-rugged enclosure with M12 connectors for toughest industrial usages
- Wall mounting enabled

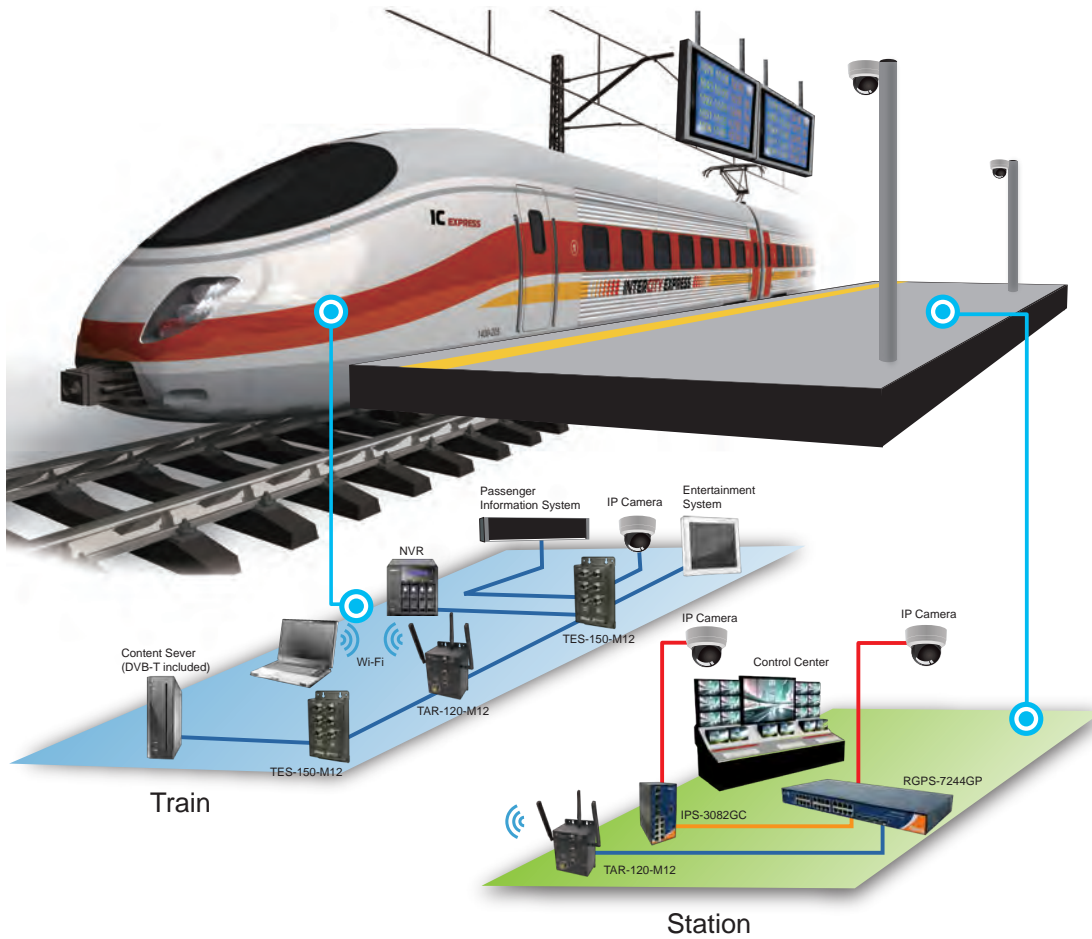


## Introduction

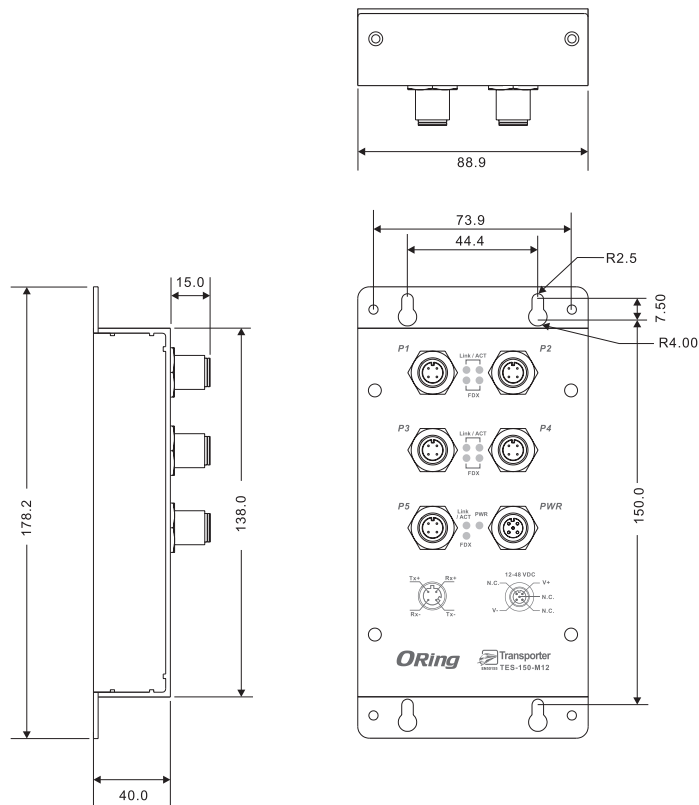
ORing's Transporter series Ethernet switches are designed for industrial applications, such as rolling stock, vehicle, and railway applications. TES-150-M12 is an unmanaged Ethernet switch with 5x10/100Base-T(X) ports which is compliant with EN50155 standard. It is specifically designed for the toughest industrial environments. TES-150-M12 EN50155 Ethernet switch uses 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 -40~70°C can satisfy most of operating environments. The TES-150-M12 can be easily adopted in almost all kinds of applications and can provides the most rugged solutions for your network. Therefore, the switch is one of the most reliable choices for rolling stock Ethernet applications.

## Practical Operation

TES-150-M12 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 TES-150-M12 reliably in any kinds of transporter applications.



Dimensions



## Specifications

ORing Switch Model	TES-150-M12
<b>Physical Ports</b>	
10/100 Base-T(X) Ports in M12 Auto MDI/MDIX	5 x M12 connector (D-coding)
<b>Technology</b>	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3x for Flow control
Processing	Store-and-Forward
<b>LED Indicators</b>	
Power Indicator	Green : Power LED x 1
10/100Base-T(X) RJ45 Port Indicator	Green for port Link/Act. Amber for duplex indicator
<b>Power</b>	
Input Power	12 ~ 48 VDC voltage power input in M12 connector (D-coding)
Power Consumption (Typ.)	3 Watts
Overload Current Protection	Present
Reverse Polarity Protection	Present
<b>Physical Characteristics</b>	
Enclosure	IP-40
Dimensions (W x D x H)	88.9 (W) x 40 (D) x 178.2 (H)mm
Weight (g)	360 g
<b>Environmental</b>	
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
<b>Regulatory Approvals</b>	
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

TES-1 **A** **B** -M12

Code Definition	10/100Base-T(X) Port Number	Additional Port Number
<b>Option</b>	- <b>5</b> : 5 ports	- <b>0</b> : 0 port

Company Information

2011 Product Overview

Vertical Market Applications

**Industrial Ethernet Switch**

Industrial Media Converter

Industrial Device Server

Industrial Wireless Access Point

Industrial Cellular VPN Router

Industrial USB-Over-IP Server

Accessories

Network Management Utility

	Model Name	Description
Available Model	TES-150-M12	EN50155 5-port unmanaged Ethernet switch with 5x10/100Base-T(X), M12 connector
<b>Packing List</b> <ul style="list-style-type: none"><li>• TES-150-M12</li><li>• Quick Installation Guide</li></ul>		<b>Optional Accessories (Can be purchased separately)</b> <ul style="list-style-type: none"><li>• DR-45 series : 45 Watts DIN-Rail power supply</li><li>• DR-75 series : 75 Watts DIN-Rail power supply</li><li>• DR-120 series : 120 Watts DIN-Rail power supply</li><li>• M12C series cables with M12 connectors</li></ul>