

# TES-W180-M12-WV-IP67

EN50155 8-port Unmanaged Ethernet Switch, IP-67 grade



## Features

- Supports 8 Fast Ethernet copper ports
- Features auto-negotiation and auto MDI/MDI-X
- Utilizes store-and-forward switching
- Operates reliably from  $-40^{\circ}\text{C}$  to  $75^{\circ}\text{C}$
- Accepts wide power input range
- Equipped with rugged M12 connectors for stable connections under environmental stress



**EN 50155**  
Railway Onboard

**EN 50121-4**  
Railway Trackside

**EN 61000-6-2**  
Industrial Immunity

**EN 61000-6-4**  
Industrial Emission

**EN 62368-1**  
Safety Certified

## Product Description

ORing's Transporter™ series Ethernet switches are engineered for demanding industrial environments, including rolling stock, railway systems, and automation applications. The TES-W180-M12-WV-IP67 fully complies with the EN50155 railway standard and is an unmanaged Ethernet switch featuring 8x 10/100Base-T(X) ports. It is housed in a rugged aluminum enclosure and equipped with standard, durable M12 connectors to provide dust-tight sealed Ethernet ports. The TES-W180-M12-WV-IP67 utilizes M12 connectors to ensure robust and vibration- and shock-resistant connections, coupled with an IP67 waterproof rating to withstand harsh climatic and environmental conditions. Its wide operating temperature range from  $-40^{\circ}\text{C}$  to  $75^{\circ}\text{C}$  accommodates most industrial operating environments. With its solid construction and stringent certifications, this switch stands as one of the most reliable choices for Ethernet applications in rolling stock and railway systems.

## Specifications

Ethernet Interface	
10/100BASE-T(X) M12 Ports	8 Ports Auto MDI/MDI-X
Standard	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3x for Flow control
Switch Properties	
Processing	Store-and-Forward
Switching Bandwidth	1.6Gbps
MAC Table	2K
Switching Latency	<7 us
LED Display	

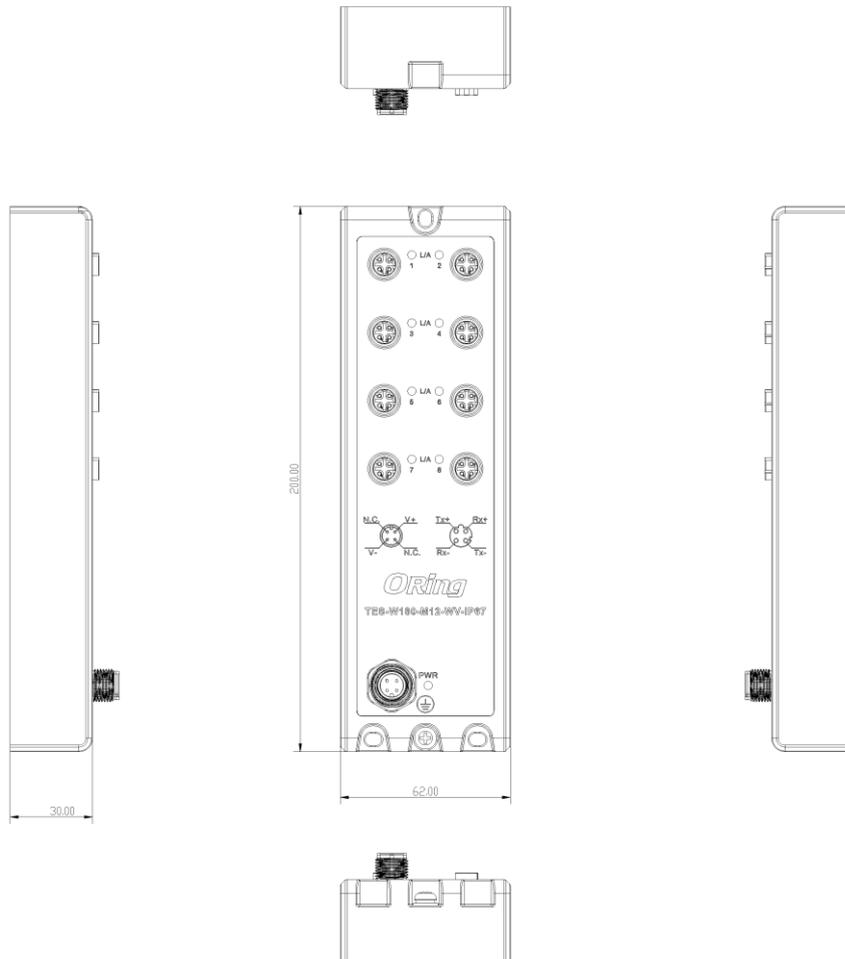
Power LED (PWR)	Green x 1
Port LED (L/A)	Green for Link/Act indicator: On for link-up, Off for link-down, Blinking for act.
<b>Power Parameters</b>	
Input Voltage	24/110VDC Power Inputs
Power Connection	4-pin M12 A-coding male connector
Power consumption (Typ.)	3 Watts
Overload current protection	Present
Reverse Polarity Protection	Present
<b>Physical Characteristic</b>	
Enclosure	IP-67
Housing	Aluminum
Installation	Wall-mounting
Dimension	62 (W) x 30 (D) x 200 (H) mm (2.44 x 1.18 x 7.874 inches)
Weight	N.W: 759g / G.W: 940g
<b>Regulatory Approvals</b>	
EMC	CE EMC (EN 55035, EN 55032), FCC Part 15B, EN 50155 (EN 50121-1, EN 50121-3-2), EN 61000-6-2&4
EMI	EN 55032, CISPR32, FCC Part 15B class A
EMS	EN 55035 IEC/EN 61000-4-2 ESD IEC/EN 61000-4-3 RS IEC/EN 61000-4-4 EFT IEC/EN 61000-4-5 Surge IEC/EN 61000-4-6 CS IEC/EN 61000-4-8 PFMF IEC/EN 61000-4-11 DIP
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-31
Vibration	IEC 60068-2-6
Railway	EN50155 (IEC 61373), EN 50121-4
Safety	EN 62368-1
<b>Environmental Limits</b>	
Operating Temperature	-40 to 75°C (-40 to 167°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Humidity	5% to 95% (non-condensing)
<b>MTBF and Warranty</b>	
MTBF Time	869,332 hrs.
MTBF Standard	Telcordia SR-332 Issue 2 Operating Temperature : 25°C
Warranty	5 Years

## Packing List

Device	1 x TES-W180-M12-WV-IP67
Others	1 x Quick Installation Guide, English 1 x Wall-mount screw kit

## Dimensions

Unit: mm



## Ordering Information

**TES-W180-M12-WV-IP67** EN50155 8-port unmanaged switch with 8x10/100Base-T(X), M12 connector, wide-range power input, IP-67 grade