## TES-1080-M12



## EN50155 8-port unmanaged Ethernet switch with 8x10/100BaseT(X), M12 connector

## Features

- Industry-leading EN50155-compliant Ethernet switch for railway applications
- Supports auto-negotiation and auto-MDI/MDI-X
- Supports store-and-forward transmission
- Supports flow control
- Warning system by relay output
- Ultra-rugged enclosure for toughest industrial usages
- M12 connectors to guarantee reliable operation against environmental disturbances
- Dual wide-range power inputs on the M23 connector: 12~48VDC
- Wall mounting enabled



## Introduction

ORing's Transporter ${ }^{\text {TM }}$ series Ethernet switches are designed for industrial applications, such as rolling stock, vehicle, and railway applications. The TES-1080-M12 is an unmanaged Ethernet switch with 8x10/100Base-T(X) ports with EN50155 certification.TES-1080-M12 rugged IP-40 aluminum enclosure. All Ethernet ports on TES-1080-M12 are implemented with M12 connectors to ensure dust-tight connection, and to guarantee reliable operation against environmental disturbances, such as vibration and shock. In addition, the wide operating temperature range from $-40^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ can satisfy most of tough operating environments. Therefore, the switch is one of the most reliable choices for rolling stock Ethernet application.

## Practical Operation



Dimensions

(Unit=mm)


## Specifications

| ORing Switch Model | TES-1080-M12 |
| :---: | :---: |
| Physical Ports |  |
| 10/100 Base-T(X) Ports in M12 (D-coding) Auto MDI/ MDIX | $8 \times$ 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 $\times 2$ |
| Fault Indicator | Amber : Indicate power failure event |
| 10/100Base-T(X) M12 Port Indicator | Green for port Link/Act. Amber for Duplex/Collision |
| Fault Contact |  |
| Relay | Relay output to carry capacity of 3A at 24VDC (M12 connector with A-coding) |
| Power |  |
| Redundant Input Power | Dual 12~48VDC on M23 connector |
| Power Consumption (Typ.) | 5 Watts |
| Overload Current Protection | Present |
| Reverse Polarity Protection | Present |
| Physical Characteristics |  |
| Enclosure | \|P-40 |
| Dimensions (W x D x H) | 125 (W) $\times 65$ (D) $\times 196$ (H)mm (4.92 $2.56 \times 7.72$ inch) |
| Weight (g) | 831 g |
| Environmental |  |
| Storage Temperature | -40 to $85^{\circ} \mathrm{C}\left(-40\right.$ to $\left.185^{\circ} \mathrm{F}\right)$ |
| Operating Temperature | -40 to $70^{\circ} \mathrm{C}\left(-40\right.$ to $\left.158^{\circ} \mathrm{F}\right)$ |
| 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

| Available <br> Model | Model Name |  |
| :---: | :---: | :---: |
|  | EN505cription |  |

Packing List
－TES－1080－M12
－Quick Installation Guide

Optional Accessories（Can be purchased separately）
－DR－45 series ： 45 Watts DIN－Rail power supply
－DR－75 series ： 75 Watts DIN－Rail power supply
－DR－120 series ： 120 Watts DIN－Rail power supply
－SDR－240－48，240W DIN－Rail power supply
－SDR－480－48，480W DIN－Rail power supply
－M12C ：M12 cable accessories

