



# 10-Port Industrial EN 50155 M12 Gigabit PoE+ Railway Switch

TI-XPG102 (v1.xR)

- 8 x M12 (X-code) Gigabit PoE+ ports
- 2 x M12 (X-code) Gigabit port with Bypass function
- 1 x M12 (A-code) power port
- PoE power budget: 200W @ 56V DC / 100W @ 24V DC
- EN 50155 compliant for rolling stock and railway applications
- Hardened IP40 rated metal housing
- 20Gbps switching capacity
- Operating temperature range of  $-40^{\circ} 75^{\circ}$  C ( $-40^{\circ} 167^{\circ}$  F)
- M12 cables sold separately (models: TI-CD02, TI-CD05, TI-CP02)
- Power supply sold separately (model: TI-S24052)
- Lifetime Warranty
- NDAA / TAA compliant (U.S. and Canada only)

TRENDnet's 10-Port Industrial EN 50155 M12 Gigabit PoE+ Railway Switch, model TI-XPG102, has eight M12 gigabit PoE+ ports, two M12 gigabit ports, and one M12 power port with a total PoE budget of up to 200W with 56VDC input. This M12 Ethernet switch is equipped with an IP40 rated metal enclosure, designed to withstand a high-degree of vibration and shock, while operating within an extreme temperature range of  $-40^{\circ} - 75^{\circ}$  C ( $-40^{\circ} - 167^{\circ}$  F) for industrial EN 50155 applications. The M12 Ethernet switch is designed and tested for bus, train, automobile, and telecom applications.

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# EN 50155 Compliant

This M12 Ethernet switch supports an input voltage range from 24 – 56V DC, with M12 interfaces for moving bus, train, automobile and other rolling stock applications.



## **Industrial Design**

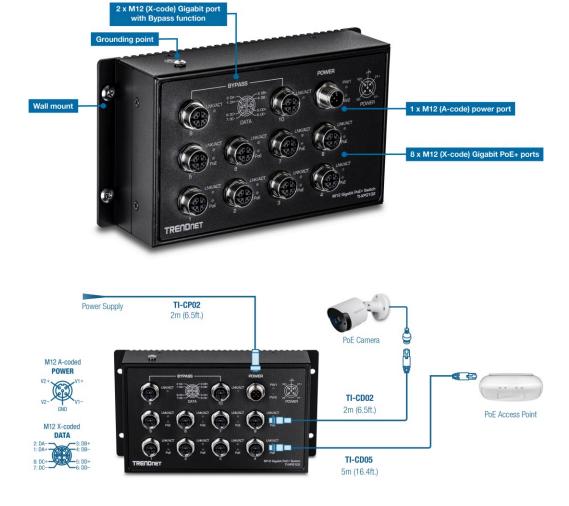
Equipped with an IP40 rated metal enclosure, the M12 switch is designed to withstand vibration and shock, with an extreme operating temperature range of  $-40^{\circ} - 75^{\circ}$  C (-40° - 167° F).



# Power over Ethernet (PoE+)

Eight M12 gigabit PoE+ ports deliver up to 30W of PoE+ power per port with a total power budget of 200W @ 56V DC.

# **NETWORKING SOLUTION**



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# **FEATURES**



### Power over Ethernet (PoE+)

Eight M12 gigabit PoE+ ports on this M12 PoE+ switch deliver up to 30W of PoE+ power per port with a total power budget of 200W @ 56V DC



# EN 50155 Compliance

This industrial EN 50155 Ethernet switch is certified for railway and rolling stock applications (EN 50155, EN 50121-3 / EN 50121-4)

Shock and Vibration Resistant

Rated for a high-degree of shock

(EN 60068-2-27), freefall (EN

60068-2-32), and vibration (EN



### **Extreme Temperature Range**

An extreme operating temperature range of  $-40^{\circ} - 75^{\circ}$  C  $(-40^{\circ} - 167^{\circ}$  F) allows for installations in extreme hot or cold environments\



## Wall Mount

Wall mounting design

Supports an input voltage range from 24 – 56V DC with M12 interfaces for moving bus, train, automobile, and other rolling stock applications



## DIN-Rail

Power

IP40 rated metal enclosure with included DIN-Rail



# Switching Capacity

60068-2-6)

20Gbps switching capacity



#### Jumbo Frame

Sends larger packets, or Jumbo Frames (up to 9KB), for increased performance



### **Grounding Point**

Grounding point protects the M12 Ethernet switch from external electrical surges

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# **SPECIFICATIONS**

#### Standards

- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3ab
- IEEE 802.3x
- IEEE 802.3af
- IEEE 802.3at

#### **Device Interface**

- 8 x M12 (X-code) Gigabit PoE+ ports
- 2 x M12 (X-code) Gigabit ports with Bypass function
- 1 x M12 (A-code) Power port
- LED indicators
- Wall mount
- DIN-Rail mount
- Grounding point

#### Data Transfer Rate

- Ethernet: 10Mbps (half duplex), 20Mbps (full duplex)
- Fast Ethernet: 100Mbps (half duplex), 200Mbps (full duplex)
- Gigabit: 2000Mbps (full duplex)

#### Performance

- Data RAM buffer: 4.1MB
- Switching fabric: 20Gbps
- MAC address table: 8K entries
- Jumbo Frame: 9KB
- Forwarding rate: 14.88Mpps (64-byte packet size)

#### **Special Features**

- Hardened components rated for extreme temperatures
- Gigabit bypass functionality
- EN 50155 railway compliant
- Secure M12 port connection
- Automatic address learning and address aging
- 6kV ESD protection
- Voltage booster

#### DC Power

- Redundant Input: 24 56V DC
- Max. consumption: 5.76W (without PoE)
- Optional power supply: TI-S24052 (with surge protector)

#### PoE Budget

- 200W @ 56V DC
- 100W @ 24V DC

#### MTBF

• 510,037 hours

#### Housing

- IP40 metal housing
- Wall mount
- DIN-Rail
- Grounding point
- 6kV ESD protection

#### Operating Temperature

• -40° – 75° C (-40° – 167° F)

#### **Operating Humidity**

• Max. 95% non-condensing

#### Dimensions

• 160 x 97 x 50mm (6.3 x 3.8 x 2 in.)

#### Weight

• 884g (31.2 oz.)

#### Certifications

- CE
- FCC
- IEC EN 60950-1
- Shock EN 60068-2-27
- Freefall EN 60068-2-32
- Vibration EN 60068-2-6
- RailRoad EN 50155 / EN 50121-3
- RailRoad EN 50155 / EN 50121-4

#### Warranty

Lifetime Warranty

#### Package Contents

- TI-XPG102
- Quick Installation Guide
- Wall mount and DIN-Rail kit

All references to speed are for comparison purposes only. Product specifications, size, and shape are subject to change without notice, and actual product appearance may differ from that depicted herein.

TRENDnet offers a lifetime warranty for all of its metal-enclosed network switches that have been purchased in the United States/Canada on or after 1/1/2015. Cooling fan and internal power supply carry a one-year warranty.

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