ER52000 Series

Hardened Unmanaged 8-port 10/100BASE M12 (8 PoE) + 2-port 10/100/1000BASE M12 Ethernet Switch



Overview

EtherWAN's ER52000 series provides a hardened 10-port switching platform supporting IEEE802.3at Power over Ethernet. TheER52000 series provides high performance switching for mission-critical applications in harsh environments, where sustainedconnectivity is crucial.

The ER52000 is equipped with 8 10/100BASE-TX PoE ports, in combination with two gigabit M12 options and gigabit ports withbypass relay functionality. The ER52000 is feature rich, offering 9.6K Jumbo Frame support on gigabit ports, full wire speed gigabit throughput.

The IEEE802.3at PoE ports provide up to 30 watts per port, with a total power budget of 120 watts. This ensures maximumversatility for connection with PoE powered devices that have varying bandwidth and power consumption requirements, such as outdoor PTZ dome cameras, wireless access points, and wayside communication devices.

Spotlight

- **Railway Oriented**
  - Compliant with EN50155/EN50121-3-2 railway applications
- **Power over Ethernet**
  - Ports 1-8 provide PoE power up to 30 watts
- **M12 Connector**
  - Built-in 8-ports 10/100BASE M12 plus 2-ports gigabit M12
  - Provides two gigabit ports with bypass relay function
- **Jumbo Frame Support**
  - Up to 9.6K bytes on gigabit ports

Hardware Specifications

Technology

Standards
- IEEE802.3 10BASE-T
- IEEE802.3u 100BASE-TX/100BASE-FX
- IEEE802.3ab 1000BASE-T
- IEEE802.3z 1000BASE-SX/1000BASE-LX
- IEEE802.3x, Full duplex flow control
- IEEE802.3af/at Power of Ethernet (PoE)

Forward and Filtering Rate
- 14,880pps for 10Mbps
- 148,810pps for 100Mbps
- 1,488,100pps for 1000Mbps

Packet Buffer Memory
- 4M bits

Processing Type
- Store-and-Forward
- Auto Negotiation
- Half-duplex back-pressure and IEEE802.3x full-duplex flow control
- Auto MDI/MDIX

Jumbo Frame
- 9.6K bytes

Address Table Size
- 8192 MAC addresses

Power

Redundant Power Inputs
- M12: 72–110VDC

Power Consumption
- Device: 11.5W
- PoE Power Budget: 120W

Protection
- Reverse polarity protection

Mechanical

Casing
- Metal casting
- IP30

Dimensions
- 140mm x 228mm x 65.8mm (5.5" (W) x 2.59" (D) x 8.98" (H))

Weight
- 1.5Kg (3.31lbs)

Installation
- Wall mounting

Interface

Power Port
- M12 S-code, 4-pin Male

Ethernet Port
- 10/100BASE-TX: M12 D-code, 4-pin Female
- 10/100/1000BASE-T: M12 A-code, 8-pin Female

LED Indicators
- Per Unit: Power1, Power2 (Green)
- Per Port: Link/Activity (Green)
- PoE Port: PoE Status (Amber)

Environment

Operating Temperature
- -40°C to 75°C (-40°F to 167°F)

Storage Temperature
- -40°C to 85°C (-40°F to 185°F)

Ambient Relative Humidity
- 5% to 95% (non-condensing)

Regulatory Approvals

ISO
- Manufactured in an ISO 9001 facility

EMI

FCC Part 15B Class A

VCCI Class A

EN 61000-6-4

EN 50121-3-2

EMS

EN 50121-3-2

EN 61000-6-2
- EN 61000-4-2 (ESD Standards)
- EN 61000-4-3 (Radiated RFI Standards)
- EN 61000-4-4 (Burst Standards)
- EN 61000-4-5 (Surge Standards)
- EN 61000-4-6 (Induced RFI Standards)
- EN 61000-4-8 (Magnetic Field Standards)

Environmental Test Compliance

IEC 60068-2-6 Fc (Vibration)

IEC 60068-2-27 Ea (Shock)

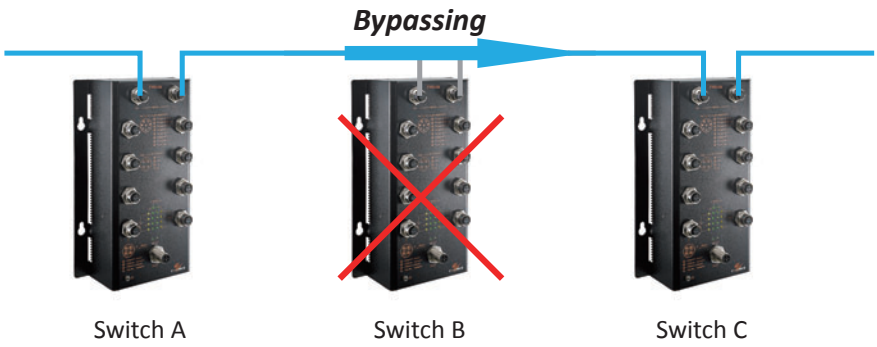
FED STD 101C Method 5007.1 (Free Fall w/ Package)

Rail Traffic

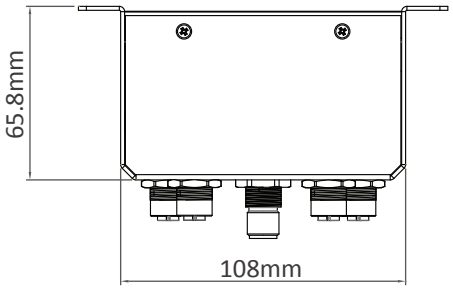
EN 50155

Bypass Relay Function

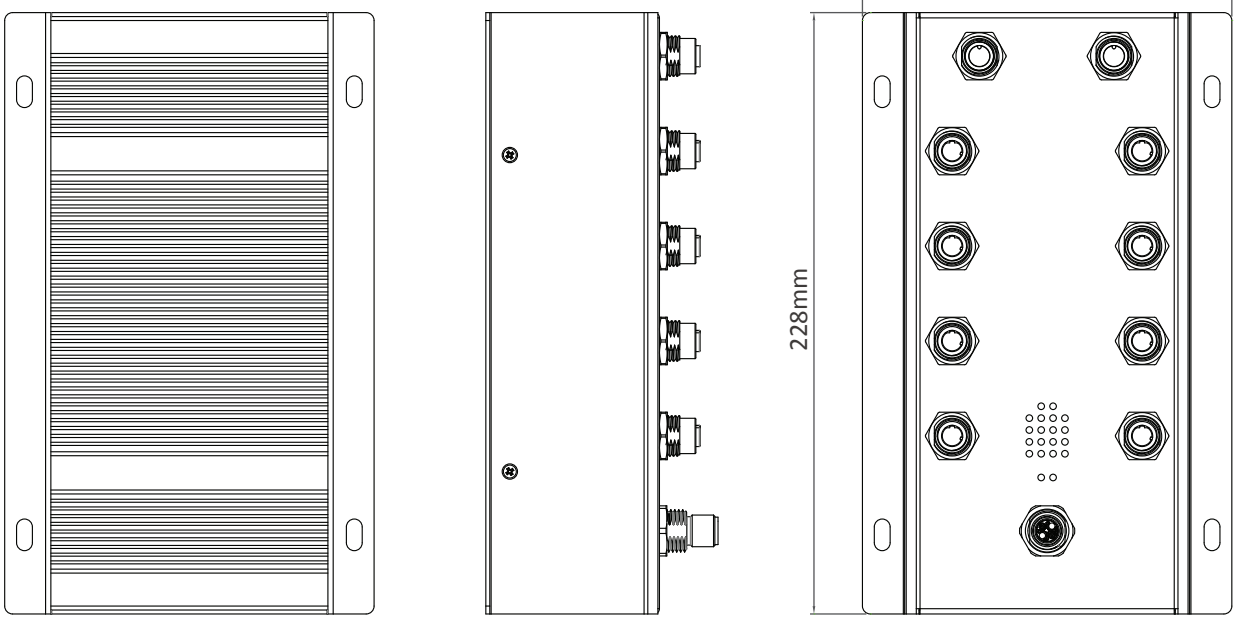
The ER52000 supports bypass relay function on bypass ports: When the switch is operating normally, these two bypass ports workin the same way as other ports, processing and forwarding frame ingressions. In the event the switch stops working due to a powerfailure, the bypass relay function will be triggered to ensure non-stop data flow.



Dimensions



Top



Back *Side* *Front*

Ordering Information

Model

ER52082-Z	Hardened Unmanaged 8-port 10/100BASE M12 (8 PoE) + 2-port 10/100/1000BASE M12 Ethernet Switch

Power Input Interface (Z)

I	72–110VDC
H	18–57VDC (Available in Q1 2017)

Optional Accessories

SDR-240-48		240W/5A DIN-Rail 240VDC Industrial Power Supply
SDR-480-48		480W/10A DIN-Rail 480VDC Industrial Power Supply
ER58000-RJ458P		M12 A-code (8-pin male) to 10/100/1000BASE-T RJ45 Interface, 3-meter Cable
ER58000-RJ454P		M12 D-code (4-pin male) to 10/100BASE-TX RJ45 Interface, 3-meter Cable
W96G-1543223XX		M12 D-code (4-pin male) Quick Connector
W96G-1543236XX		M12 A-code (8-pin male) Quick Connector
W96G-1404642XX		M12 S-code (4-pin female) Quick Connector