# TN-5308-4PoE Series

## EN50155 8-port IEEE 802.3af PoE unmanaged Ethernet switches

**PoE**
Power over Ethernet

> M12 connectors and IP40 metal housing
> 4 IEEE 802.3af compliant PoE and Ethernet combo ports
> Provides up to 15.4 watts at 48 VDC per PoE port
> EN50155/50121-3-2/50121-4, and NEMA TS2 compliant
> -40 to 75°C operating temperature range (T models)

CE FC

## : Introduction

The ToughNet TN-5308-4PoE series M12 unmanaged Ethernet switches are designed for industrial applications in harsh environments. The M12 connectors ensure tight, robust connections, and guarantee reliable operation, even for applications that are subject to high vibration and shock. The TN-5308-4PoE series Ethernet switches provide 8 fast Ethernet M12 ports with 4 IEEE 802.3af compliant PoE (Power-over-Ethernet) ports. The switches are classified as power source equipment (PSE) and provide up to 15.4 watts of power per port.

The TN-5308-4PoE switches can be used to power IEEE 802.3af compliant powered devices (PDs), eliminating the need for additional wiring. The switches support IEEE 802.3/802.3u/802/3x with 10/100M, full/half-duplex, MDI/MDI-X auto-sensing, and provide an economical solution for your industrial Ethernet network. Models with an extended operating temperature range of -40 to 75°C are also available. The TN-5308-4PoE switches are compliant with EN50155/50121-3-2/50121-4 (railway applications) and NEMA TS2 (traffic control systems), making them suitable for a variety of industrial applications.

## : Specifications

### Technology
**Standards:**
IEEE 802.3 for 10BaseT
IEEE 802.3u for 100BaseT(X)
IEEE 802.3x for Flow Control
IEEE 802.3af for Power-over-Ethernet
**Processing Type:** Store and Forward
**Flow Control:** IEEE802.3x flow control, back pressure flow control

### Interface
**M12 Ports:** 10/100BaseT(X) auto negotiation speed, F/H duplex mode and auto MDI/MDI-X connection
**LED Indicators:** PWR, LNK/ACT, PoE

### Power Requirements
**Input Voltage:** 48 VDC (46 to 50 V)
**Input Current:** 1.6 A @ 48 VDC
**Overload Current Protection:** 3 A @ 48 VDC
**Connection:** M12 connector
**Reverse Polarity Protection:** Present

### PoE (per port)
**Max. Output Power:** 15.4 W
**Output Voltage:** 44 to 48.5 VDC
**Max. Output Current:** 350 mA
**Max. Overload Protection:** 400 mA

### Physical Characteristics
**Housing:** Metal, IP40 protection
**Dimensions:** 60 x 216.6 x 48.7 mm (2.36 x 8.53 x 1.91 in)
**Installation:** Panel mounting, DIN-Rail mounting (with optional kit)

### Environmental Limits
**Operating Temperature:**
Standard Models: 0 to 60°C (32 to 140°F)
Wide Temp. Models: -40 to 75°C (-40 to 167°F)
**Storage Temperature:** -40 to 85°C (-40 to 185°F)
**Operating Humidity:** 5 to 95% RH (non-condensing)

### Regulatory Approvals
**Safety:** UL508 (Pending)
**EMI:** FCC Part 15, CISPR (EN55022) class A
**EMS:**
EN61000-4-2 (ESD), level 3
EN61000-4-3 (RS), level 3
EN61000-4-4 (EFT), level 3
EN61000-4-5 (Surge), level 3
EN61000-4-6 (CS), level 3
EN61000-4-8
EN61000-4-11
EN61000-4-12
**Traffic Control:** NEMA TS2 (Pending)
**Rail Traffic:** (for panel mounting installations)
EN50155 (Pending), EN50121-3-2 (Pending),
EN50121-4 (Pending)
**Shock:** IEC61373
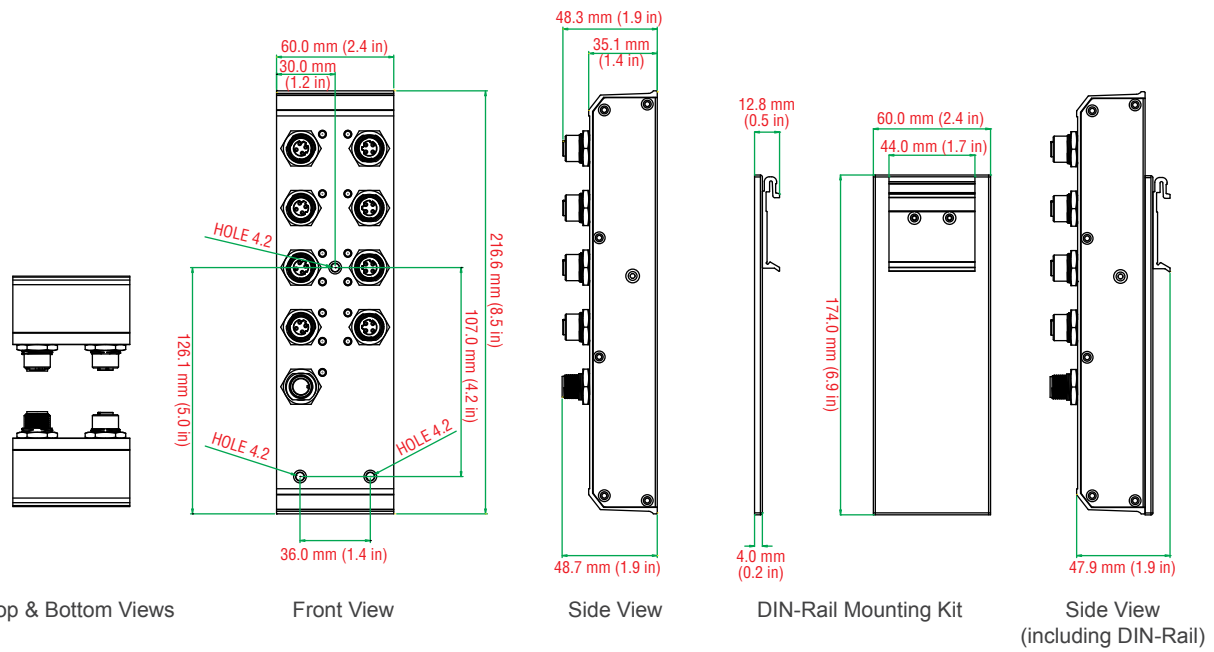**Freefall:** IEC60068-2-32
**Vibration:** IEC61373
Note: Please check Moxa's website for the most up-to-date certification status.

### Warranty
**Warranty Period:** 5 years
**Details:** See www.moxa.com/warranty

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## Dimensions

Top & Bottom Views    Front View    Side View    DIN-Rail Mounting Kit    Side View (including DIN-Rail)

60.0 mm (2.4 in)
30.0 mm (1.2 in)
HOLE 4.2
HOLE 4.2
HOLE 4.2
216.6 mm (8.5 in)
107.0 mm (4.2 in)
126.1 mm (5.0 in)
36.0 mm (1.4 in)
48.3 mm (1.9 in)
35.1 mm (1.4 in)
48.7 mm (1.9 in)
12.8 mm (0.5 in)
4.0 mm (0.2 in)
174.0 mm (6.9 in)
60.0 mm (2.4 in)
44.0 mm (1.7 in)
47.9 mm (1.9 in)

## : Ordering Information

| Available Models | | Port Interface | |
| --- | --- | --- | --- |
| Standard Temperature (0 to 60°C) | Wide Temperature (-40 to 75°C) | PoE, 10/100BaseT(X) M12 connector | 10/100BaseT(X) M12 connector |
| TN-5308-4PoE-48 | TN-5308-4PoE-48-T | 4 | 4 |

**Optional Accessories** (must be purchased separately)
**DR-75-48/DR-120-48:** 75/120 W DIN-Rail 48 VDC power supplies

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# Accessories

## M12/M23 Power Cords

### CBL-M12D(MM4P)/RJ45-100 IP67
1-meter M12-to-RJ45 Cat-5E UTP Ethernet cable with
IP67-rated 4-pin male D-coded M12 connector

### CBL-M12(FF5P)/OPEN-100 IP67
1-meter M12-to-5-pin power cable with IP67-rated
5-pin female A-coded M12 connector

### CBL-M23(FF5P)/Open-BK-100 IP67
1-meter M23-to-6-pin power cable with
IP67-rated female 6-pin M23 connector

## M12 Connectors

### M12D-4P-IP68
Field-installable M-12 D-coded screw-in
sensor connector, 4-pin male, IP68-rated

### M12A-5P-IP68
Field-installable M-12 A-coded screw-in
sensor connector, 5-pin female, IP68-rated

## M12 IP67 Protective Caps

### A-CAP-M12F-M
Metal cap for M12 female connector

### A-CAP-M12M-M
Metal cap for M12 male connector