

TN-5308 Series

8-port M12 unmanaged Ethernet switches



- > Universal 12/24/36/48 or 72/96/110 VDC power supply range
- > M12 connectors and IP40 metal housing
- > Supports IEEE 802.3/802.3u/802.3x
- > EN50155/50121-3-2/50121-4, NEMA TS2, and e-mark compliant
- > -40 to 75°C operating temperature range (T models)



Introduction

The ToughNet TN-5308 series M12 unmanaged Ethernet switches are designed for industrial applications in harsh environments. The TN series switches use M12 connectors to ensure tight, robust connections, and guarantee reliable operation against environmental disturbances, such as vibration and shock. The TN-5308 series Ethernet switches provide 8 fast Ethernet M12 ports, 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 series Ethernet switches are compliant with EN50155/50121-3-2/50121-4 (railway applications), NEMA TS2 (traffic control systems), and e-mark (vehicles) requirements, making the switches 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

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, 10/100M

Power Requirements

Input Voltage:

- TN-5308-LV: 12/24/36/48 VDC (7 to 60 VDC)
- TN-5308-MV: 72/96/110 VDC (50.4 to 154 VDC)

Input Current:

- TN-5308-LV: 0.19A @ 12 VDC,
0.10A @ 24 VDC, 0.054A @ 48 VDC
- TN-5308-MV: 0.033A @ 72 VDC,
0.024A @ 96 VDC, 0.021A @ 110 VDC

Overload Current Protection: Present

Connection:

- TN-5308-LV: M12 A-coding, 5-pin male connector
- TN-5308-MV: M23 A-coding, 5-pin male connector

Reverse Polarity Protection: Present

Physical Characteristics

Housing: Metal, IP40 protection

Dimensions:

- TN-5308-LV: 60 x 216.6 x 36.1 mm (2.36 x 8.53 x 1.42 in)
- TN-5308-MV: 60 x 216.6 x 53.8 mm (2.36 x 8.53 x 2.11 in)

Weight: 485 g

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 4
- 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

Road Traffic: NEMA TS2 (Pending), e-mark (Pending)

Rail Traffic: EN50155 (Environmental, 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.

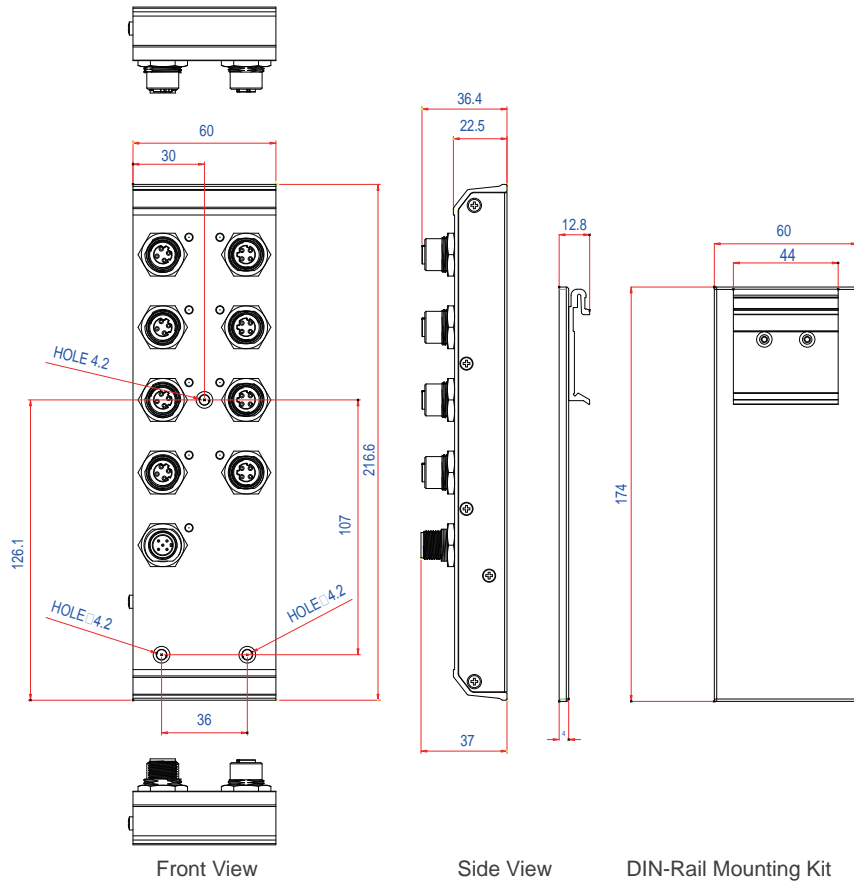
Warranty

Warranty Period: 5 years

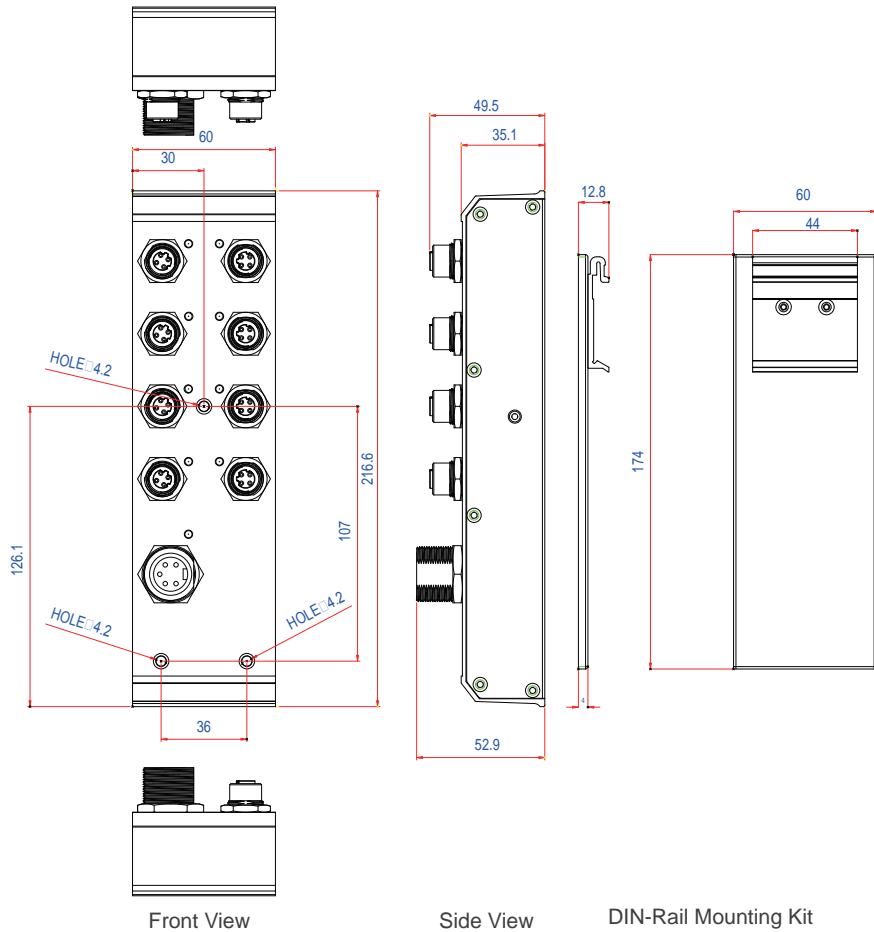
Details: See www.moxa.com/warranty

Dimensions (unit = mm)

TN-5308-LV Series



TN-5308-MV Series



Ordering Information

Available Models		Power Supply	
Standard Temperature (0 to 60°C)	Wide Temperature (-40 to 75°C)	LV	MV
		12/24/36/48 VDC (7 to 60 V)	72/96/110 VDC (50.4 to 154V)
TN-5308-LV	TN-5308-LV-T	√	---
TN-5308-MV	TN-5308-MV-T	---	√

Optional Accessories (must be purchased separately)

DK-TN-5308: DIN-Rail mounting kit for the TN-5308 series

M12 Patch Cords and Connectors:

M12 Patch Cords



CBL-M12D(MM4P)/RJ45-100 IP67

1-meter M12-to-RJ45 Cat-5E UTP Ethernet cable with waterproof 4-pin D-coded M12 connector



CBL-M12(FF5P)/OPEN-100 IP67

1-meter M12-to-5-pin power cable with waterproof 5-pin A-coded M12 connector

M12 Connectors



M12D-4P-IP68

Field-installable D-coded screw-in sensor connector, male



M12A-5P-IP68

Field-installable A-coded screw-in sensor connector, female