

TN-5308 Series

EN 50155 8-port unmanaged Ethernet switches



- > M12 connectors and IP40 metal housing
- > Supports IEEE 802.3/802.3u/802.3x
- > Compliant with essential sections of EN 50155
- > -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 the essential sections of EN 50155, covering operating temperature, power input voltage, surge, ESD and vibration, 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 (8.4 to 60 VDC)
- TN-5308-MV: 72/96/110 VDC (50.4 to 137.5 VDC)

Note: Compliant with EN 50155 on 24/48/72/96/110 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 connector
- TN-5308-MV: M23 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 2.12 in)

Weight:

- TN-5308-LV: 485 g
- TN-5308-MV: 685 g

Installation: Panel mounting, DIN-Rail mounting (with optional kit)

Environmental Limits

Operating Temperature:

- Standard Models: -25 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)

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

Standards and Certifications

Safety: UL 508 (Pending)

EMI: FCC Part 15 Subpart B Class A, EN 55022 Class A

EMS:

- EN 61000-4-2 (ESD) Level 3,
- EN 61000-4-3 (RS) exceeds Level 3,
- EN 61000-4-3 (RS) Level 3,
- EN 61000-4-4 (EFT) Level 3,
- EN 61000-4-5 (Surge) Level 3,
- EN 61000-4-6 (CS) Level 3,
- EN 61000-4-8,
- EN 61000-4-11

Rail Traffic: (for panel mounting installations)

EN 50155, EN 50121-4

Shock: IEC 61373

Freefall: IEC 60068-2-32

Vibration: IEC 61373

Note: Please check Moxa's website for the most up-to-date certification status.

Warranty

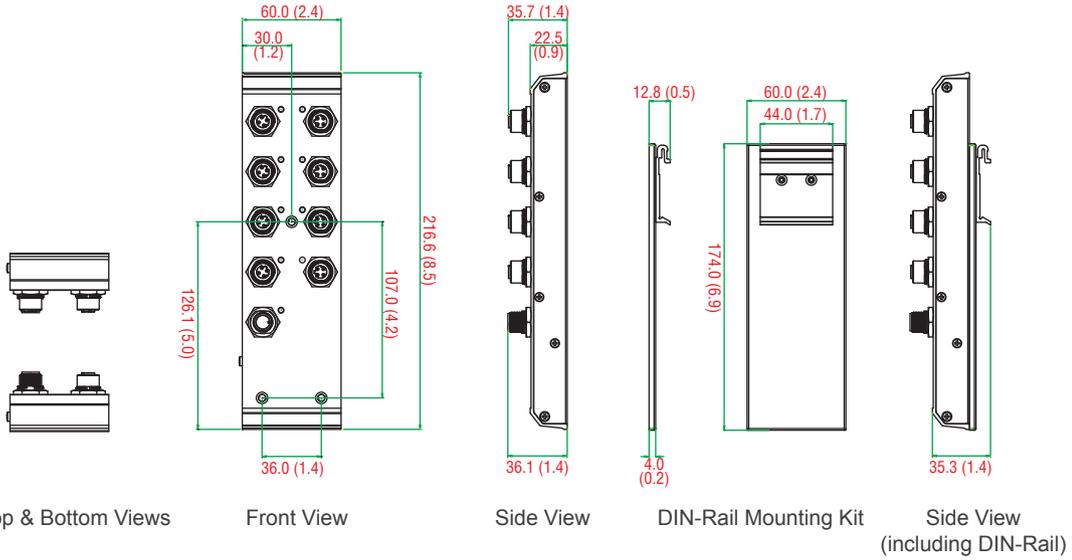
Warranty Period: 5 years

Details: See www.moxa.com/warranty

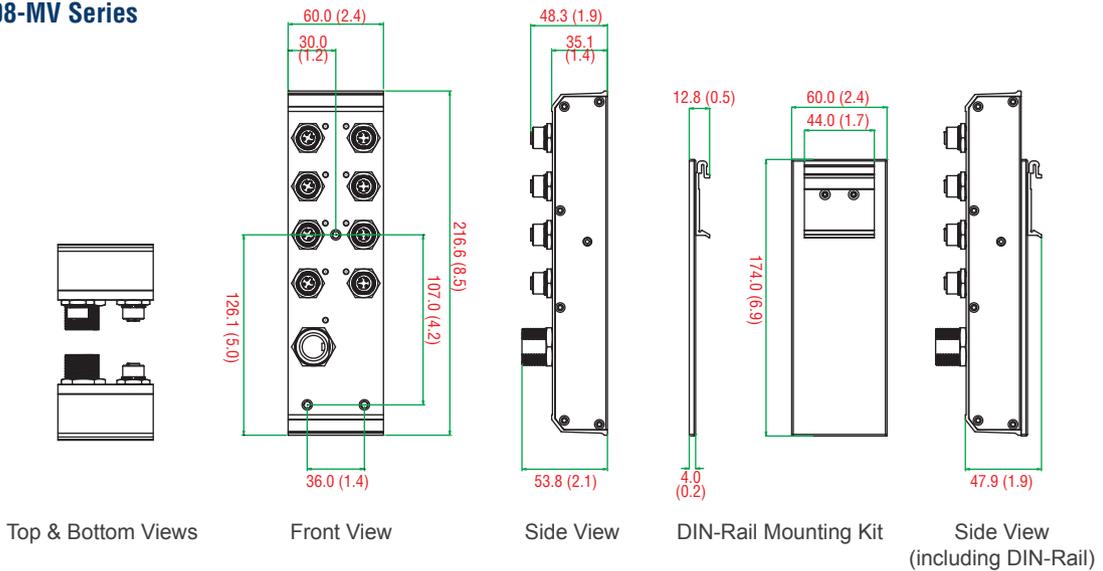
Dimensions

TN-5308-LV Series

Unit: mm (inch)



TN-5308-MV Series



Ordering Information

Available Models		Power Interface 10/100BaseT(X), M12 connector	Power Supply	
Standard Temperature (-25 to 60°C)	Wide Temperature (-40 to 75°C)		LV 12/24/36/48 VDC (8.4 to 60 V)	MV 72/96/110 VDC (50.4 to 137.5 V)
TN-5308-LV	TN-5308-LV-T	8	1	-
TN-5308-MV	TN-5308-MV-T	8	-	1

Package Checklist

- TN-5308 switch
- Panel mounting kit
- Documentation and software CD
- Hardware installation guide
- Warranty card

Note: Conformal coating is available on request.

Optional Accessories (must be purchased separately)

Power Cords, M12 Connectors, Protective Caps: See page 2-22
 DK-TN-5308: DIN-Rail mounting kit

Accessories

: M12/M23 Power Cords

CBL-M12D(MM4P)/RJ45-100 IP67

1-meter M12-to-RJ45 Cat-5C 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(FF6P)/Open-BK-100 IP67

1-meter M23-to-6-pin power cable with IP67-rated 6-pin female M23 connector



: M12 Connectors

M12D-4P-IP68

Field-installable M12 D-coded screw-in sensor connector, 4-pin male, IP68-rated



M12A-5P-IP68

Field-installable M12 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



: M23 Connectors

A-PLG-WPM23-01

M23 cable connector, 6-pin female, crimp type

