

# 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

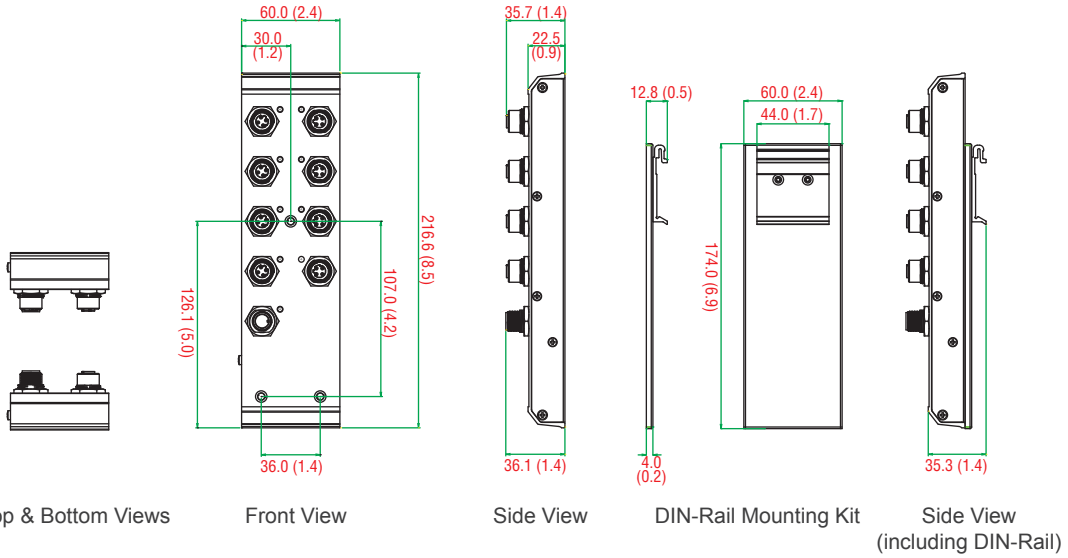
**Warranty Period:** 5 years

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

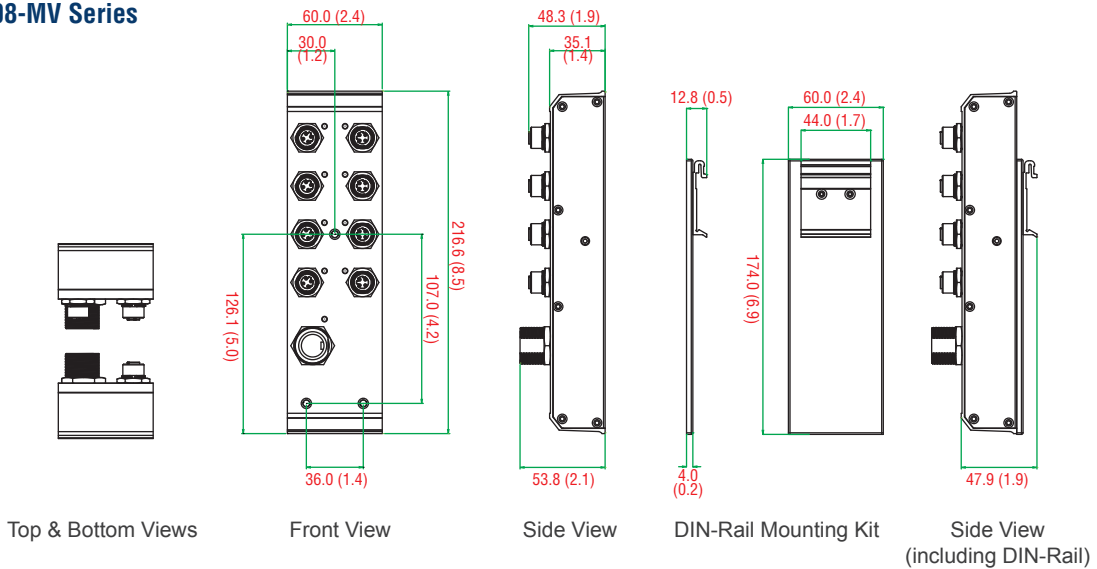
**Dimensions**

**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**

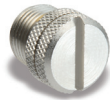
Field-installable M12 A-coded screw-in sensor connector, 5-pin female, IP68-rated



## : 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

