

Unmanaged Ethernet Switches

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NSM-216

NEW

Unmanaged 16-port Industrial 10/100 Base-TX Ethernet Switch



Highlight Information ▶▶▶▶



Features ▶▶▶▶

- Provides 16 10/100 Mbps Ethernet ports
- Automatic MDI/MDI-X crossover for plug-and-play
- Each port supports both 10/100 Mbps speed auto negotiation
- Store-and-forward architecture
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- Supports 4 kV Ethernet ESD protection and 1 kV EFT protection
- Supports Dual +12 ~ 48 Vdc power input and 1 relay output
- Supports operating temperatures from -40 °C ~ +75 °C
- DIN-Rail, Wall Mounting

Introduction

The NSM-216 has 16 Ethernet ports that support 10/100 Base-TX, with a 10/100M auto negotiation feature and auto MDI/MDI-X function. It can connect 16 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps) for corresponding connections.

All Ethernet ports have memory buffers that support the store-and-forward mechanism, which assures that data can be transmitted properly. The NSM-216 supports advanced network standards to optimize network performance, reduce maintenance costs, and secure network safety.

The flow control mechanism is also negotiated. There is link/data rate LEDs for each port to aid troubleshooting. Port connectors are shielded RJ-45.

Specifications

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Unmanaged Ethernet Switches

Technology	
Standards	IEEE802.3, 802.3u, 802.3x
Processing Type	Store & forward, wire speed switching
MAC Addresses	8K
Memory Bandwidth	3.2 Gbps
Frame Buffer Memory	3 Mbit
Flow Control	IEEE 802.3x flow control, back pressure flow control
Interface	
RJ-45 Ports	10/100 Base-TX auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection
LED Indicators	PWR1, PWR2, Power fail, 10/100M, Link/Act
Ethernet Isolation	1500 V _{rms} 1 minute
Power	
Redundant Input Range	+12 V _{DC} ~ +48 V _{DC} (Non-isolation)
Power Consumption	0.6 A @ 24 V _{DC}
Alarm Contact	One relay output with current carrying capacity of 1A @ 30 V _{DC}
Protection	Power reverse polarity protection
Connection	6-Pin Removable Terminal Block (Power & Relay)
Mechanical	
Casing	Metal (IP30 Protection)
Dimensions (W x L x H)	25 mm x 168 mm x 119 mm
Installation	DIN-Rail or Wall Mounting
Environmental	
Operating Temperature	-40 °C ~ + 75 °C
Storage Temperature	-40 °C ~ + 85 °C
Ambient Relative Humidity	10 ~ 90% RH, non-condensing

NSM-216

LED Indicator Functions

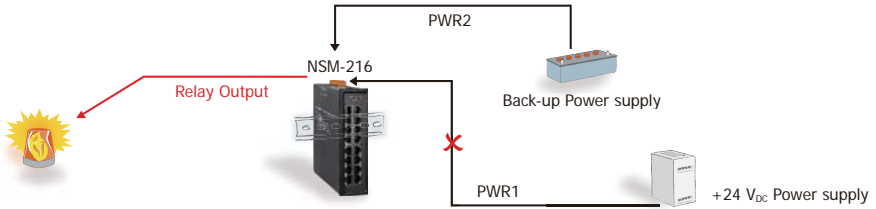
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LED	Color	Description
Ethernet Port (P1 ~ P16)	Green On	Link/Act
	Green Off	Not Networking
	Yellow On	Link to 100 Mbps
	Yellow Off	Link to 10 Mbps
PWR1	Yellow On	Power in input 1 is ready
	Yellow Off	Power in input 1 is off
PWR2	Green On	Power in input 2 is ready
	Green Off	Power in input 2 is off
FAULT	Red On	One of the powers in input 1 & 2 is off
	Red Off	Both the powers in input 1 & 2 are ready

Redundant Power Input

Both power inputs can be connected simultaneously to live DC power sources. If one power source fails, the other live source acts as a backup, and automatically supplies all of NSM-216 series power needs.



Appearance

LED Indicator:

10/100M, Link/Act

DIN-Rail

RJ-45

Power & Relay

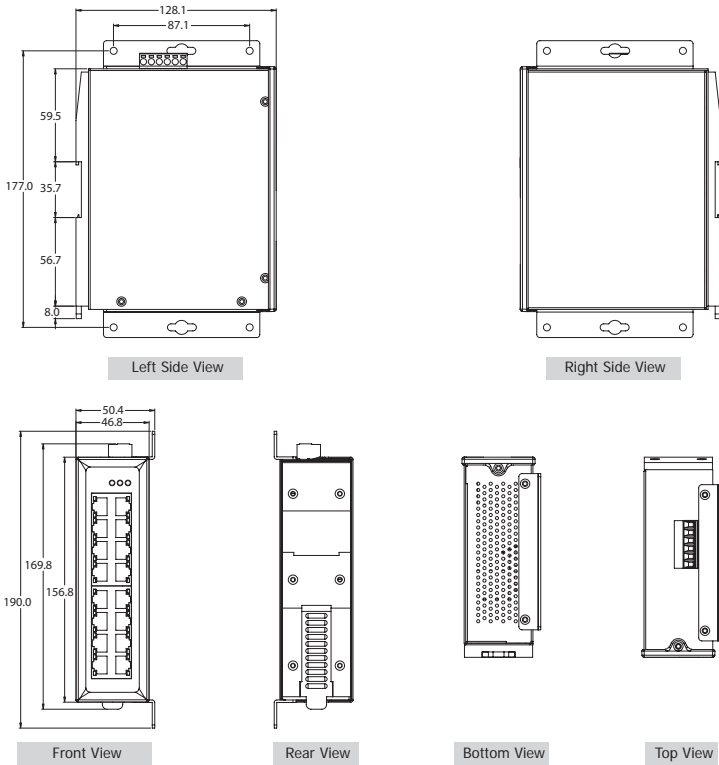
LED Indicator:

PWR1, PWR2, Power fail

Wall Mounting

NSM-216

Dimensions (Units: mm)



Ordering Information

NSM-216 CR	Unmanaged 16-port Industrial 10/100 Base-TX Ethernet Switch with metal casing (RoHS)
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Accessories

MDR-20-24	24 V/1 A, 24 W Power Supply with DIN-Rail Mounting
MDR-60-24	24 V/2.5 A, 60 W Power Supply with DIN-Rail Mounting
MDR-60-48	48 V/1.25 A, 60 W Power Supply with DIN-Rail Mounting
DIN-KA52F	24 V/1.04 A, 25 W Power Supply with DIN-Rail Mounting
DIN-KA52F-48	48 V/0.52 A, 25 W Power Supply with DIN-Rail Mounting
KA52F-48	48 V/0.52 A, 25 W Power Supply

NSM-208-M12

Unmanaged 8-port 10/100 Mbps Ethernet Switch with M12



Highlight Information ▶▶▶▶



Features ▶▶▶▶

- Automatic MDI/MDI-X crossover for plug-and-play
- Each port supports both 10/100 Mbps speed auto negotiation
- Store-and-forward architecture
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- Supports +12 ~ 53 V_{DC} power input
- Operating temperatures, -40 ~ +75°C
- 8-port 10/100 Mbps M12 type connector with IP40 protection

Introduction

The NSM-208-M12 is 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 Ethernet 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.

Specifications

Technology	
Standards	IEEE 802.3, 802.3u, 802.3x, 10/100 Base-T(X) auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection
Processing Type	Store & forward
MAC Addresses	1024
Memory Bandwidth	3.2 Gbps
Frame Buffer Memory	512 Kbit
Flow Control	IEEE802.3x flow control, back pressure flow control
Interface	
LED Indicators	PWR, 10/100M, Link/Act
Ethernet Isolation	1500 V _{rms} 1 minute
Connection	Female 4-Pin shielded M12 D-coding connector
Power Input	
Input Voltage Range	+12 V _{DC} ~ +53 V _{DC}
Power Consumption	0.12 A @ 48 V _{DC}
Protection	Power reverse polarity protection
Connection	Male 5-Pin shielded M12 A-coding connector
Mechanical	
Casing	Metal with IP40
Dimensions (W x L x H)	190 mm x 56 mm x 100 mm
Installation	Wall Mounting
Environmental	
Operating Temperature	-40 °C ~ + 75 °C
Storage Temperature	-40 °C ~ + 85 °C
Ambient Relative Humidity	10 – 95% RH, non-condensing

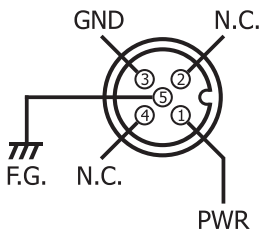
Pin Functions for Power Input

External power supply is connected using the M12 A-coding:

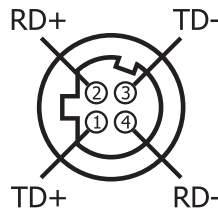
PWR: Power input (+12 ~ +53 V_{DC}) and should be connected to the power supply (+)

GND: Ground and should be connected to the power supply (-)

F.G.: F.G. stands for Frame Ground (protective ground). It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and EMS protection.



Pin Functions for Ethernet Port



LED Indicator Functions

LED	Color	Description
Power	Red On	Power is On
	Red Off	Power is Off
Port 1–8	Green On	Link/Act

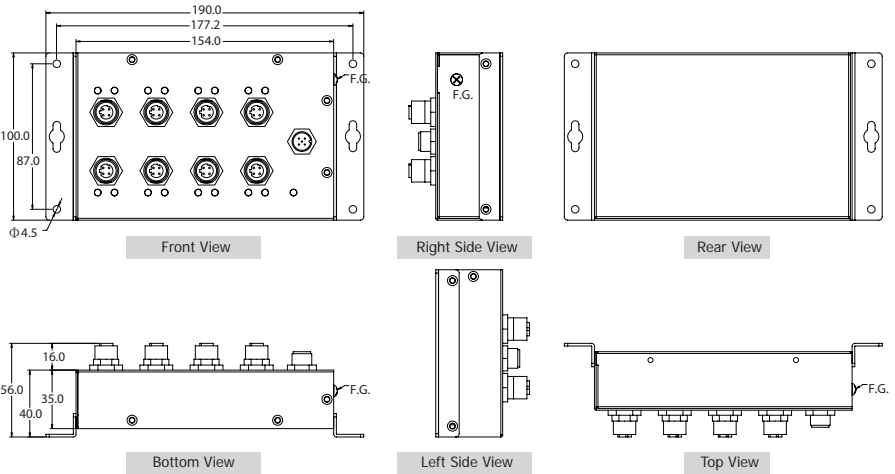
Appearance

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Unmanaged Ethernet Switches



Dimensions (Units: mm)



Ordering Information

NSM-208-M12	Unmanaged 8-port 10/100 Mbps Ethernet Switch with M12 Includes M12D-4P-IP68 x 8, A-CAP-M12M x 1, M12A-5P-IP68 and A-CAP-M12F x 1
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Accessories

MDR-60-48	48 V/1.25 A, 60 W Power Supply with DIN-Rail Mounting
DIN-KA52F-48	48 V/0.52 A, 25 W Power Supply with DIN-Rail Mounting
KA52F-48	48 V/0.52 A, 25 W Power Supply

<p>M12D-4P-IP68</p>	<p>A-CAP-M12M</p>	<p>M12A-5P-IP68</p>	<p>A-CAP-M12F</p>
4PIO1K0000001	4PIO1K0000002	4PIO1K0000003	4PIO1K0000004

NSM-208-M12