



High quality data acquisition and embedded control products.

## NS-208G: Unmanaged 8 Port Industrial 10/100/1000 BaseT Ethernet Switch



The NS-208G has 8 Ethernet Switching ports that support 10/100/1000 Base-T, with a 10/100/1000M auto-negotiation feature and auto MDI/MDIX function. It can connect 8 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps or 1000Mbps) for corresponding connections. The flow control mechanism is also negotiated. There is link/data rate LEDs for each port to aid trouble-shooting. Port connectors are shielded RJ-45.

### FEATURES

- Automatic MDI / MDI-X crossover for plug-and-play
- Each port supports both 10/100 and 1000 Mbps speed auto negotiation
- Store-and-forward architecture
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- 16 Gbps high performance memory bandwidth.
- Power Inputs +10 ~ +30V DC
- Supports operating temperatures from -30°C ~ +70°C
- DIN rail mount for industrial usage

### SPECIFICATIONS

- Compatibility : IEEE 802.3, 802.3u, 802.3ab and 802.3x
- 16 Gbps high performance memory bandwidth
- 8K MAC Address Table Size
- Frame buffer memory :1 Mbit
- 9K Jumbo Frames
- Interface : 10/100/1000 Base-T
- Port : 10/100/1000 Mbps x 8 (Shielded RJ-45 Jack)
- Provides LEDs for network and power monitoring
- ESD Protection :
- 6 KV Contact Discharge
- 8 KV Air-Gap Discharge
- Cables :
- Ethernet: 2-pair UTP/STP Cat.3,4,5, EIA/TIA-568 100-ohm
- Fast Ethernet: 2-pair UTP/STP Cat. 5, EIA/TIA-568 100-ohm
- Gigabit Ethernet: 4-pair UTP/STP Cat.5, EIA/TIA-568 100-ohm
- Environment :
- Operating temperature : -30°C ~ +70°C
- Storage Temperature : -40°C ~ +85°C
- Relative Humidity : 10% to 90% non-condensing
- Dimensions : 64mm x 110mm x 97.5 mm (W x H x D)
- Power requirements : +10 to 30V DC (Removable Terminal Block)
- Power consumption : 0.3A@24Vdc;  $\pm 5\%$ , arrowed

# **NSM-208G/NS-208G**

## **8-Port Industrial 10/100/1000 Mbps Ethernet Switch**



### ***Introduction:***

The NSM-208G/NS-208G has 8 Ethernet Switching ports that support 10/100/1000 Base-T, with a 10/100/1000M auto-negotiation feature and auto MDI/MDIX function.

It can connect 8 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps or 1Gbps) for corresponding connections. The flow control mechanism is also negotiated.

LEDs embedded in RJ-45 jacks make for easy monitoring. Port connectors are shielded RJ-45. A power source for +10~+30VDC is required.

### ***Features:***

- Automatic MDI / MDI-X crossover for plug-and-play
- Each port supports both 10/100 and 1000 Mbps speed auto negotiation
- Store-and-forward architecture
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- 16 Gbps high performance memory bandwidth.
- Power Inputs +10 ~ +30V DC
- Supports operating temperatures from -30 ~ +70 °C
- IP20, rugged high-strength metal case (Only for NSM-208G)
- DIN rail mount and Screw hole for wall mounting kit (Wall mounting kit only for NSM-208G)

### ***Specifications:***

- Compatibility : IEEE 802.3, 802.3u, 802.3ab and 802.3x
- 16 Gbps high performance memory bandwidth
- 8K MAC Address Table Size
- Frame buffer memory : 1 Mbit
- 9K Jumbo Frames only for 1000 Base-T
- Interface : 10/100/1000 Base-T
- Port : 10/100/1000 Mbps x 8 (Shielded RJ-45 Jack)
- Provides LEDs for network and power monitoring
- ESD Protection :
  - 4 KV Contact Discharge
  - 6 KV Air-Gap Discharge
- Cables :
  - Ethernet : 2-pair UTP/STP Cat.3,4,5, EIA/TIA-568 100-ohm
  - Fast Ethernet : 2-pair UTP/STP Cat. 5, EIA/TIA-568 100-ohm
  - Gigabit Ethernet : 4-pair UTP/STP Cat.5, EIA/TIA-568 100-ohm
- Environment :
  - Operating temperature : -30 ~ +70 °C
  - Storage Temperature : -40 ~ +75 °C
  - Relative Humidity : 10% to 90% non-condensing
- Power requirements : +10 to 30V DC (Removable Terminal Block)
- Power consumption: 0.3A@24Vdc; +/- 5%, arrowed. .

### LED functions:

Standard RJ45 female connectors are provided. A standard RJ45 plug cable is all that is necessary to connect your device to the unit since switch that supports auto crossover. Table shows the LED indicator functions. The module includes an internal.

**Table**

LED	Color	Description
Power	Red On	Power is On
	Red Off	Power is Off
Ethernet Port	Orange On	Link to 1000 Mbps
	Green On	
	Only Orange On	Link to 100 Mbps
	Only Green On	Link to 10 Mbps

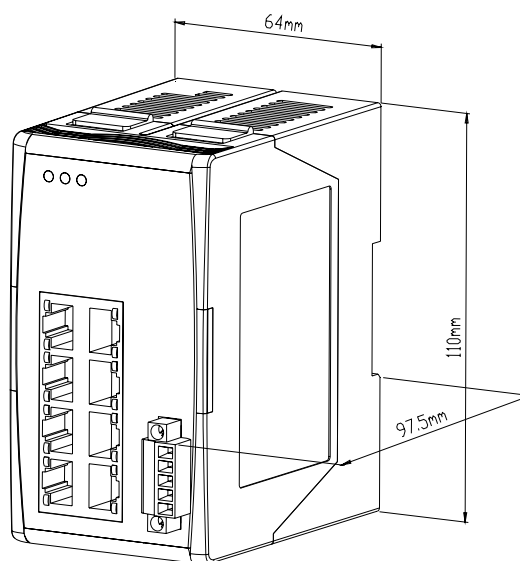
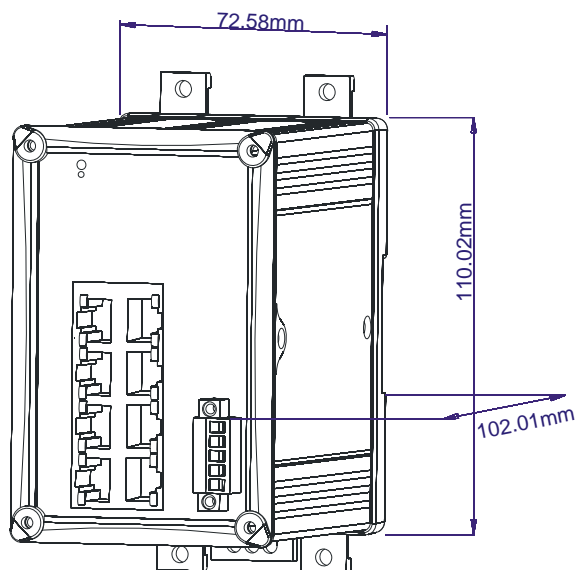
**Pin-Out:**

Pin#	Signal Name	Function
1	BI_DA+	Bi-directional pair +A
2	BI_DA-	Bi-directional pair -A
3	BI_DB+	Bi-directional pair +B
4	BI_DC+	Bi-directional pair +C
5	BI_DC-	Bi-directional pair -C
6	BI_DB-	Bi-directional pair -B
7	BI_DD+	Bi-directional pair +D
8	BI_DD-	Bi-directional pair -D

### Dimensions:

NSM-208G: 72.5 x 110 x 102 mm (W x H x D)

NS-208G: 64 x 110 x 97.5 mm (W x H x D)



### Pin Function For Terminal Block:

External power supply is connected using the removable terminal block:

**+Vs** : Power input (+10 to +30V) 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 ESD protection.