



High quality data acquisition and embedded control products.

## NS-208: 8 Port Industrial Unmanaged Ethernet Switch



The NS-208 is an 8-Port Industrial 10/100 Mbps Unmanaged Ethernet Switch, with DIN-Rail mounting. Offering fast, easy to use, and reliable LAN dispersion, the NS-208 is ideal in almost any setting! It has an MDI/MDIX function. It can connect 8 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps) for corresponding connections. The flow control mechanism is 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 Mbps speed auto negotiation
- Store-and-forward architecture
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- 1.4 Gbps high performance memory bandwidth
- Integrated look up engine with dedicated 1K unicast MAC addresses
- Supports +10 ~ +30V DC voltage
- Supports operating temperatures from -30°C ~ +75°C
- DIN rail mount for industrial usage

### SPECIFICATIONS

- Compatibility: IEEE 802.3, IEEE802.3u, IEEE802.3x
- CE and FCC Certified
- Vibration Standard: IEC61373
- Electrical Standard: EN50155
- Interface: 10/100 Base-T
- Port: 10/100 Mbps x 8 (Shielded RJ-45 Jack)
- Provides LEDs for network and power monitoring
- ESD Protection:
- 8KV Contact Discharge
- 15KVAir-Gap Discharge
- Cables:
  - 10 Base-T (Cat. 3, 4, 5 UTP cable; 100m Max.)
  - 100 Base-T (Cat. 5 UTP cable; 100m Max.)
- Operating temperature: -30°C ~ +75°C
- Storage Temperature: -30°C ~ +85°C
- Relative Humidity: 10% to 90% non-condensing
- Power requirements: 10 to 30V DC (Removable Terminal Block)
- Low power consumption: 0.052A@24vdc, ± 5%, allowed

# NS-208

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



### ***Introduction:***

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

It can connect 8 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps) 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 Mbps speed auto negotiation
- Store-and-forward architecture
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- 2 Gbps high performance memory bandwidth.
- Supports +10 ~ +30V DC voltage
- Supports operating temperatures from -30 ~ +75 °C
- DIN rail mount for industrial usage

### ***Specifications:***

- Compatibility: IEEE 802.3, IEEE802.3u, IEEE802.3x
- Interface: 10/100 Base-T
- Port: 10/100 Mbps x 8 (Shielded RJ-45 Jack)
- Provides LEDs for network and power monitoring
- ESD Protection:
  - 8KV Contact Discharge
  - 15KV Air-Gap Discharge
- Cables:
  - 10 Base-T (Cat.3, 4,5 UTP cable; 100m Max.)
  - 100 Base-T (Cat.5 UTP cable; 100m Max.)
- Environment:
  - Operating temperature: -30 ~ +75 °C
  - Storage Temperature: -40 ~ +85 °C
  - Relative Humidity: 10% to 90% non-condensing
- Dimensions: 64 x 110 x 97.5 mm (W x H x D)
- Power requirements: +10 to +30V DC (Removable Terminal Block)
- Power consumption: 0.15A@24VDC, +/- 5% arrowed with 10M Full duplex.  
0.09A@24VDC, +/- 5% arrowed with 100M Full duplex.

## 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 1 shows the LED indicator functions. The module includes an internal.

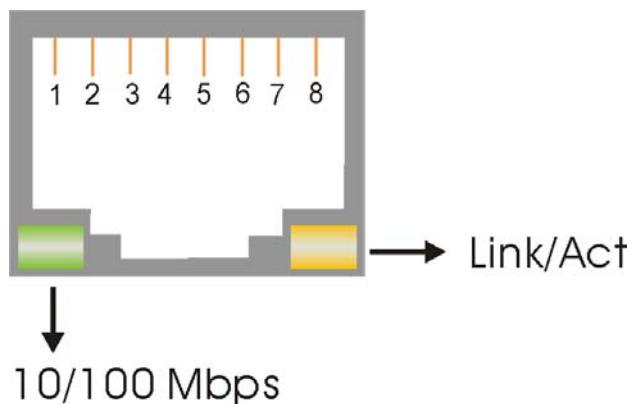
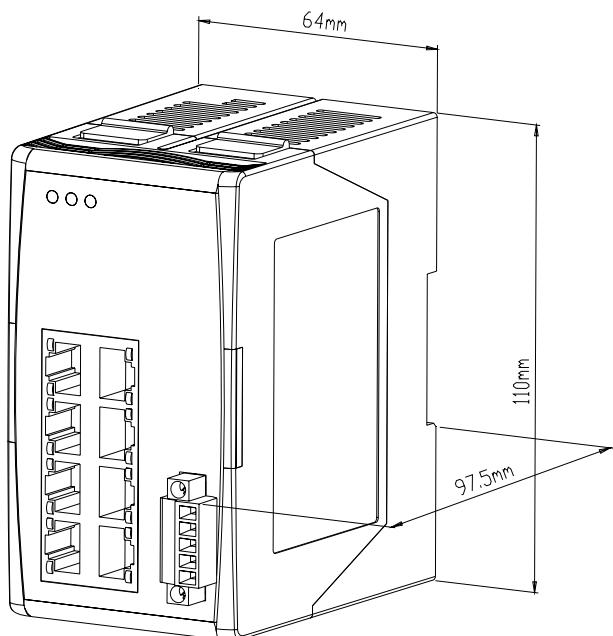
Table 1

| LED           | Color      | Description      |
|---------------|------------|------------------|
| Power         | Red        | Power is On      |
|               | Off        | Power is Off     |
| Ethernet Port | Yellow On  | Link/Act         |
|               | Yellow Off | Not Networking   |
|               | Green On   | Link to 100 Mbps |
|               | Green Off  | Link to 10 Mbps  |

## Pin-Out:

| Pin# | Signal Name | Function      |
|------|-------------|---------------|
| 1    | TD+         | Transmit Data |
| 2    | TD+         | Transmit Data |
| 3    | RD+         | Receive Data  |
| 4    | NC          | No Connection |
| 5    | NC          | No Connection |
| 6    | RD-         | Receive Data  |
| 7    | NC          | No Connection |
| 8    | NC          | No Connection |

**Dimensions:** 64 x 110 x 97.5 mm(W x H x D)



## Checking Power:

Since the NS-208 consumes 3.6 W, ensure that your power supply is able to meet this demand. The Input voltage range is +10~+30VDC.

## Pin Function For Terminal Block:

External power supply is connected using the removable terminal block:

**+Vs** : Power input +10 to +30V

**GND** : Ground

**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.