

Unmanaged 5-Port Industrial Ethernet Switch with IP67 Casing



NS-205-IP67 ethernet switches are designed for use in industrial waterproof/harsh environments. The rugged packaging and IP67 connectors guarantee a total protection that can withstand a variety of extreme conditions such as high temperatures, extreme shocks & vibrations, dust particles or even liquid immersion. They can be directly mounted to any machine or convenient flat surface. Even with all its rugged features, the switch still provides a high level of functionality, including the ability to support full-duplex communication and 10 Mbps/100 Mbps transmission speeds. With 1.4 Gbps of total bandwidth, the switch can simultaneously handle full wire speed communication on each port. A dedicated uplink port enables a connection to other switches without use of a crossover cable. No programming is necessary, as the switch auto-learns network addresses. +10 V_{DC} \sim +30 V_{DC} isolated power input keeps spikes and surges on the power line from damaging the power supply. They are completely plug and play and ready to go right out of the box.

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 1024 unicast MAC addresses
- Supports +10 V_{DC} ~ +30 V_{DC} with 1 kV isolation **Reverse Polarity Protection**
- Plastic casing with IP67

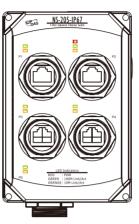
Specifications

| Models | NS-205-IP67 | NS-205-IP67/DIN | |
|---------------------------|---|---------------------------|--|
| Technology | | | |
| Standards | IEEE 802.3, 802.3u, 802.3x | | |
| Processing Type | Store & forward, wire speed switching | | |
| MAC Addresses | 1024 | | |
| Memory Bandwidth | 1.4 Gbps | | |
| Frame Buffer Memory | 256 Kbit | | |
| 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 | Power, 10/100M, Link/Act | | |
| 0.11 | 10 Base-T (Cat.3, 4,5 UTP cable; 100m Max.) | | |
| Cable | 100 Base-TX (Cat.5 UTP cable; 100m Max.) | | |
| Power | | | |
| Input Voltage | $+10 V_{DC} \sim +30 V_{DC}$ (1 kV isolation) | | |
| Power Consumption | 0.12 A @ 24 V _{DC} , +/-5% arrowed with 10M Full duplex | | |
| | 0.1 A @ 24 V $_{\text{DC}}$, +/-5% arrowed with 100M Full duplex | | |
| Mechanical | | | |
| Casing | Plastic | | |
| Flammability | UL 94V-0 | | |
| Environmental Dating | Protection rating IP67 for Operating Temperature -10 °C \sim +60 °C | | |
| Environmental Rating | Protection rating IP66 for for Operating Temperature -40 °C ~ +80 °C | | |
| Dimensions (W x L x H) | 85 mm x 76 mm x 137 mm | 89 mm x 90 mm x 138 mm | |
| Installation | Wall mounting | DIN-Rail or Wall Mounting | |
| Environmental | | | |
| Operating Temperature | -10 °C ~ +60 °C (Protection rating IP67) | | |
| | -40 °C ~ +80 °C (Protection rating IP66) | | |
| Storage Temperature | -10 °C ~ +60 °C (Protection rating IP67) | | |
| Storage Temperature | -40 °C ~ +85 °C (Protection rating IP66) | | |
| Ambient Relative Humidity | 100% RH for Operating Temperature -10 °C \sim +60 °C | | |
| | 10% \sim 90% RH, non-condensing for Operating Temperature -40 °C \sim +80 °C | | |
| | | | |



• LED Functions

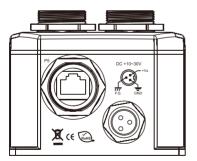
| LE | LED Indicator Functions | | | |
|--|-------------------------|------------------|--|--|
| LED | Color | Description | | |
| PWR | Red | Power is On | | |
| | Off | Power is Off | | |
| 10/100M (Port 1) | Orange | Link to 10 Mbps | | |
| | Green | Link to 100 Mbps | | |
| | Off | Not Networking | | |
| | Orange | Link to 10 Mbps | | |
| 10/100M (Port 2) | Green | Link to 100 Mbps | | |
| | Off | Not Networking | | |
| | Orange | Link to 10 Mbps | | |
| 10/100M (Port 3) | Green | Link to 100 Mbps | | |
| (10100) | Off | Not Networking | | |
| | Orange | Link to 10 Mbps | | |
| 10/100M (Port 4) | Green | Link to 100 Mbps | | |
| (, , , , , , , , , , , , , , , , , , , | Off | Not Networking | | |
| | Orange | Link to 10 Mbps | | |
| 10/100M (Port 5) | Green | Link to 100 Mbps | | |
| (| Off | Not Networking | | |





| RJ-45 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 | | |

Pin Function for Terminal Block



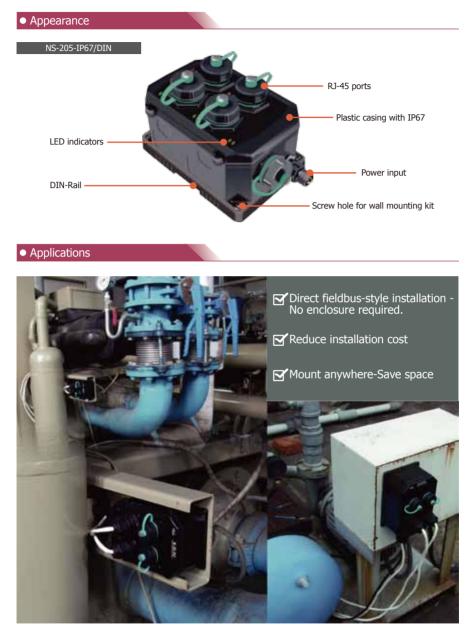
External power supply is connected using the removable terminal block:

+Vs : Power input (+10 V_{DC} \sim +30 $V_{\text{DC}})$ and should be connected to the power supply (+)

 $\ensuremath{\textbf{GND}}\xspace$: Ground and should be connected to the power supply (-)

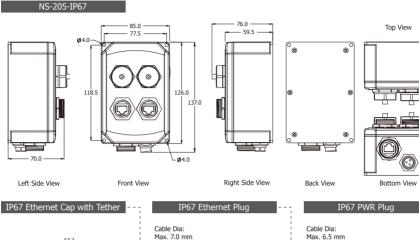
F.G. : F.G. stands for Frame Ground (protective ground).

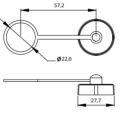
It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and ESD protection.

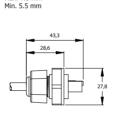


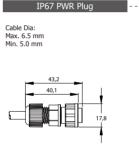


• Dimensions (Unit: mm)









• Ordering Information

| NS-205-IP67 CR | Unmanaged 5-Port Industrial Ethernet Switch with IP67 Casing (RoHS) |
|--------------------|---|
| NS-205-IP67/DIN CR | NS-205-IP67 with DIN-Rail Mount (RoHS) |

Accessories

