

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

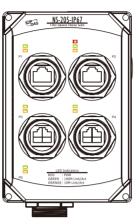
Specifications

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

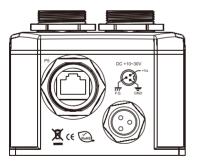
LE	LED Indicator Functions			
LED	Color	Description		
PWR	Red	Power is On		
	Off	Power is Off		
10/100M (Port 1)	Orange	Link to 10 Mbps		
	Green	Link to 100 Mbps		
	Off	Not Networking		
	Orange	Link to 10 Mbps		
10/100M (Port 2)	Green	Link to 100 Mbps		
	Off	Not Networking		
	Orange	Link to 10 Mbps	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



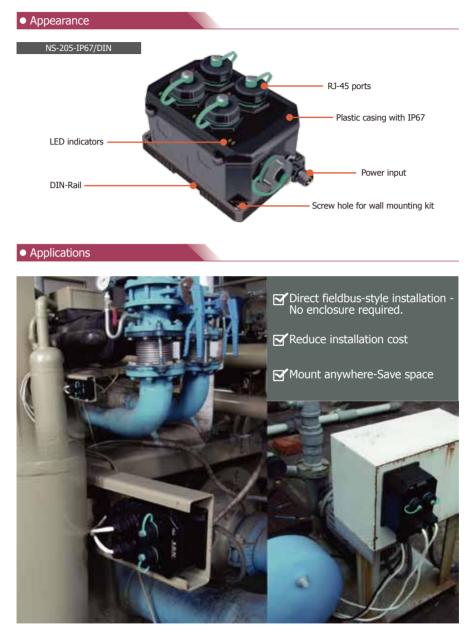
External power supply is connected using the removable terminal block:

+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 (-)

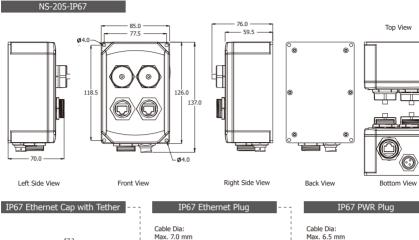
F.G. : F.G. stands for Frame Ground (protective ground).

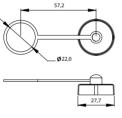
It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and ESD protection.

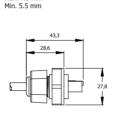


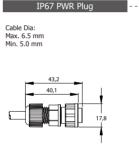


• Dimensions (Unit: mm)









• 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

