# NS-205R Industrial 5-Port 10/100 Mbps Ethernet Switch with Conformal Coating



### Introduction:

The NS-205R has 5 Ethernet Switching ports that support 10/100Base-T(X), with a 10/100M auto-negotiation feature and auto MDI/MDI-X function.

It can connect 5 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps) for corresponding connections. The flow control mechanism is also negotiated.

NS-205R is designed especially for mission critical and harsh environmental applications since it comes ready with conformal coating

#### Features:

- Full duplex IEEE 802.3x flow control
- Supports 4 kV Ethernet ESD protection
- Supports +10 ~ 36V DC voltage
- Supports operating temperatures from –40 ~ +75  $^\circ\!\mathrm{C}$
- DIN-Rail

#### **Specifications:**

Technology			
Standards	IEEE802.3, 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	IEEE802.3x flow control		
Interface			
RJ45 ports	10/100 BaseTX auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection		
LED Indicators	Power, 10/100M, Link/Act		
Ethernet Isolation	1500 Vrms 1 minute		
Frame Ground for EMS Protection	Yes		
Cable	Ethernet : 2-pair UTP/STP Cat.3,4,5, EIA/TIA-568 100-ohm		
Cable	Fast Ethernet : 2-pair UTP/STP Cat. 5, EIA/TIA-568 100-ohm		
Power			
Input Voltage Range	+10 ~ +36VDC (Non-isolation)		
Power consumption	0.1A@24VDC, +/- 5% arrowed with 10M Full duplex.		
	0.09A@24VDC, +/- 5% arrowed with 100M Full duplex		
Protection	Power reverse polarity protection		
Frame Ground for EMS Protection	Yes		
Connection	3-Pin Removable Terminal Block		
Mechanical			
Casing	Plastic		
Flammability	UL 94V-0		
Dimensions	33 mm x 78 mm x 107 mm (W x L x H)		
Installation	DIN-Rail		
Environmental			
Operating Temperature	-40 ~ +75 °C		
Storage Temperature	-40 ~ +85 °C		
Ambient Relative Humidity	10% to 90% HR, non-condensing		

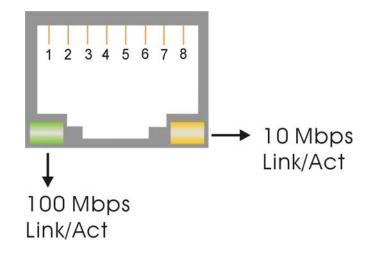
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# LED functions:

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.

LED	Color	Description
Power	Red	Power is On
	Off	Power is Off
10/100M (Port 1)	Yellow	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 2)	Yellow	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 3)	Yellow	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 4)	Yellow	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 5)	Yellow	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking

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:

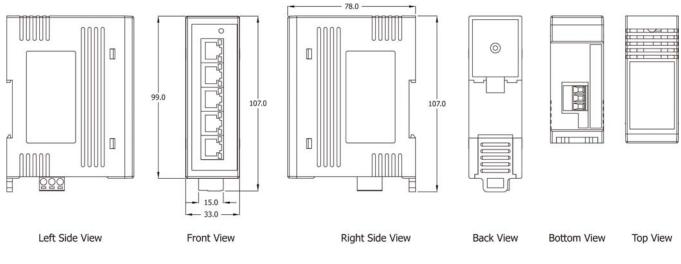
External power supply is connected using the removable terminal block:

+Vs : Power input (+10 ~ +36V) 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.

# Dimensions:



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