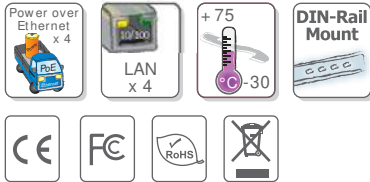# NS-205PFx series/NSM-205PFx series

4-Port 10/100 Mbps PoE (PSE) with 1 fiber port Switch

Highlight Information ▶▶▶▶

NS-205PFx series   NSM-205PFx series

Power over Ethernet x 4

LAN x 4

+75 °C -30

DIN-Rail Mount

CE   FC   RoHS

● Introduction

The NS-205PFx/NSM-205PFx is a 4-port unmanaged PoE (PSE) with 1 fiber port switch; it supports 4 PoE ports which are classified as power source equipments (PSE). The NS-205PFx/NSM-205PFx makes central-ized power supply come true and provides up to 15.4 watts of power per PSE port. Using fiber optics, you can prevent noise from interfering with your system and supports high-speed (100 Mbps) and high-distance (up to 60 km) transmissions.

● Features

- Provides 1 x 100-FX fiber port plus 4 x PoE ports
- Automatic MDI/MDI-X crossover for plug-and-play
- Each port supports both 10/100Mbps speed auto negotiation
- Store-and-forward architecture
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- 4 PoE ports with Power Sourcing Equipment (PSE) operation
- Auto-detection of PD (powered devices) and automatic power management
- Over-temperature, over-current and over/under-voltage detection
- Power Input, +46 ~ +55 V_{DC}
- Supports operating temperatures from -30 ~ +75°C
- DIN-Rail

● Specifications

Models	NS-205PFx series	NSM-205PFx series
Technology		
Standards	IEEE 802.3, 802.3u, 802.3x ,802.3af (Power over Ethernet)	
Processing Type	Store & forward; wire speed switching	
MAC Addresses	1024	
Memory Bandwidth	3.2 Gbps	
Frame Buffer Memory	512 Kbit	
Flow Control	IEEE 802.3x flow control, back pressure flow control	
Ethernet Interface		
RJ-45 Ports	10/100 Base-T(X) auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection	
LED Indicators	Power, Link/Act , 10/100M, Power Device is detected	
Ethernet Isolation	1500 V_{rms} 1 minute	
+/-6 kV EMS Protection	Yes	
Fiber Interface (100 Base-FX; SC/ST type)		
Multi-Mode (NS-205PFT/FC)	Multi mode fiber cables:50/125, 62.5/125 or 100/140 µm Distance :2 km, (62.5/125 µm recommended) for full duplex Wavelength : 1300 or 1310nm Min. TX Output:- 20 dBm Max. TX Output: -14 dBm Max. RX Sensitivity: -32 dBm Max. RX Overload: -8 dBm Budget: 12 dBm	
Single-Mode (NS-205PFCS)	Single-mode fiber cables: 8.3/125, 8.7/125, 9/125 or 10/125µm Distance: 30 Km, (9/125 µm recommended) for full duplex Wavelength: 1300 or 1310nm Min. TX Output: - 15 dBm Max. TX Output: -8 dBm Max. RX Sensitivity: -34 dBm Max. RX Overload: -5 dBm Budget: 19 dBm	
Single-Mode (NS-205PFCS-60)	Single-mode fiber cables: 8.3/125, 8.7/125, 9/125 or 10/125µm Distance: 60 Km, (9/125 µm recommended) for full duplex Wavelength: 1300 or 1310nm Min. TX Output: - 5 dBm Max. TX Output: 0 dBm Max. RX Sensitivity: -35 dBm Max. RX Overload: -5 dBm Budget: 30 dBm	
Power Input		
Input Voltage Range	+46 ~ +55 VDC for PoE output	
Power consumption	0.08@ 48 VDC without PD loading	
Protection	Power reverse polarity protection	
+/- 4kV EMS Protection	Yes	
Connection	3-Pin Removable Terminal Block	
PoE Output (Port1 ~ 4)		
PoE Compliance	100% IEEE 802.3af compliant	
PoE Classification	PSE (Power Sourcing Equipment)	
PoE Voltage	+48 VDC depending on power input	
PoE Power	Up to 15.4 watts per channel	
PoE Operation	Automatic detection and power management	

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Unmanaged Ethernet Switches   NS-205PFx series/NSM-205PFx series

Mechanical		
Casing	Plastic (Flammability UL 94V-0)	Metal (IP30 Protection)
Dimensions (W x L x H)	31 mm x 157 mm x 113 mm	25 mm x 168 mm x 119 mm
Installation	DIN-Rail	
Environmental		
Operating Temperature	-30 °C ~ +75 °C	
Storage Temperature	-40 °C ~ +85 °C	
Ambient Relative Humidity	10% ~ 90% RH, non-condensing	

● LED Functions

LED Indicator Functions

LED	Color	Description
Power	Red On	Power is On
	Red Off	Power is Off
Port 1 ~ Port 4	Orange On	Power Device is detected
	Green On	Link/Act
Port 5	Green On	Link/Act

● Pin Function for Terminal Block

External power supply is connected using the removable terminal block:
PWR : Power input (+46 V_{DC} ~ +55 V_{DC}) and should be connected to the power supply (+)
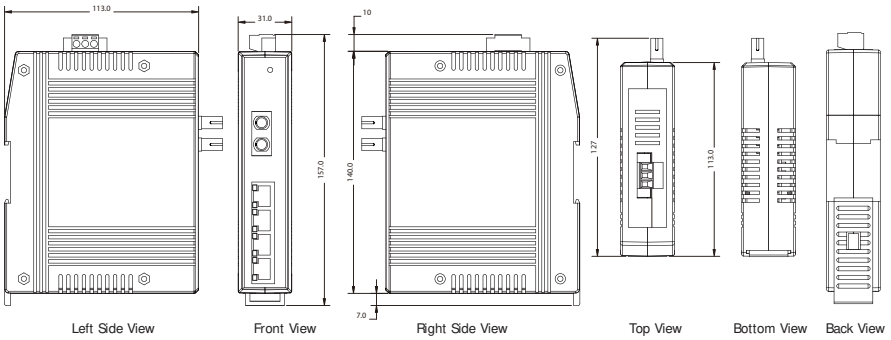GND: Ground and should be connected to the power supply (-)
F.G. : F.G. stands for Frame Ground (protective ground). It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and ESD protection.
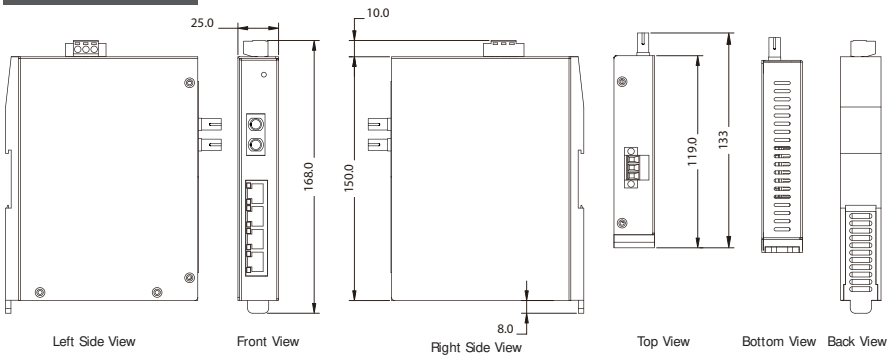
● Applications

● Dimensions (Unit: mm)

NS-205PFx series

Left Side View   Front View   Right Side View   Top View   Bottom View   Back View

NS-205PFx series

Left Side View   Front View   Right Side View   Top View   Bottom View   Back View

● Ordering Information

NS-205PFT CR	Multi-mode, ST Connector, 4-Port 10/100 Mbps PoE (PSE) with 1 Fiber port Switch (RoHS)
NS-205PFC CR	Multi-mode, SC Connector, 4-Port 10/100 Mbps PoE (PSE) with 1 Fiber port Switch (RoHS)
NS-205PFCS CR	Single-mode 30 Km, SC Connector, 4-Port 10/100 Mbps PoE (PSE) with 1 Fiber port Switch (RoHS)
NS-205PFCS-60 CR	Single-mode 60 Km, SC Connector, 4-Port 10/100 Mbps PoE (PSE) with 1 Fiber port Switch (RoHS)
NSM-205PFT CR	Multi-mode, ST Connector, 4-Port 10/100 Mbps PoE (PSE) with 1 Fiber port Switch; metal case (RoHS)
NSM-205PFC CR	Multi-mode, SC Connector, 4-Port 10/100 Mbps PoE (PSE) with 1 Fiber port Switch; metal case (RoHS)
NSM-205PFCS CR	Single-mode 30 Km, SC Connector, 4-Port 10/100 Mbps PoE (PSE) with 1 Fiber port Switch; metal case (RoHS)
NSM-205PFCS-60 CR	Single-mode 60 Km, SC Connector, 4-Port 10/100 Mbps PoE (PSE) with 1 Fiber port Switch; metal case (RoHS)

● Accessories

MDR-60-48	48V/1.25A, 60 W Power Supply with DIN-Rail Mounting
DIN-KA52F-48	48V/0.52A, 25 W Power Supply with DIN-Rail Mounting
KA52F-48	48V/0.52A, 25 W Power Supply

Unmanaged Ethernet Switches   NS-205PFx series/NSM-205PFx series