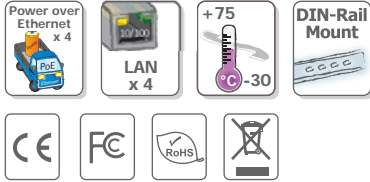


# NS-205PF series/NSM-205PF series

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

## Highlight Information ▶▶▶



NS-205PF series

NSM-205PF series



## ● Introduction

The NS-205PF/NSM-205PF 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-205PF/NSM-205PF makes centralized 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<sub>DC</sub>
- Supports operating temperatures from -30 ~ +75°C
- DIN-Rail

## ● Specifications

Models	NS-205PF series	NSM-205PF series
<b>Technology</b>		
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	
<b>Ethernet Interface</b>		
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 <sub>rms</sub> 1 minute	
+/-4 kV ESD Protection	Yes	
<b>Fiber Interface (100 Base-FX; SC/ST type)</b>		
Multi-Mode (NS-205PFT/FC;NSM-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;NSM-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;NSM-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	
<b>Power Input</b>		
Input Voltage Range	+46 ~ +55 V <sub>dc</sub> for PoE output	
Power consumption	0.08 A@ 48 V <sub>dc</sub> without PD loading; 1.5 A@ 48 V <sub>dc</sub> with PD full loading	
Protection	Power reverse polarity protection	
+/-4 kV ESD Protection	Yes	
Connection	3-Pin Removable Terminal Block	
<b>PoE Technology</b>		
PoE Compliance	100% IEEE 802.3af compliant	
PoE Classification	PSE (Power Sourcing Equipment)	
PoE Voltage	+48 V <sub>dc</sub> depending on power input	
PoE Power	Up to 15.4 watts per channel	
PoE Operation	Automatic detection and power management	

PoE Pin assignments	V+ (Pin 1,2), V- (Pin 3,6)	
PoE disconnect mode	DC disconnect	
<b>Mechanical</b>		
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	
<b>Environmental</b>		
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

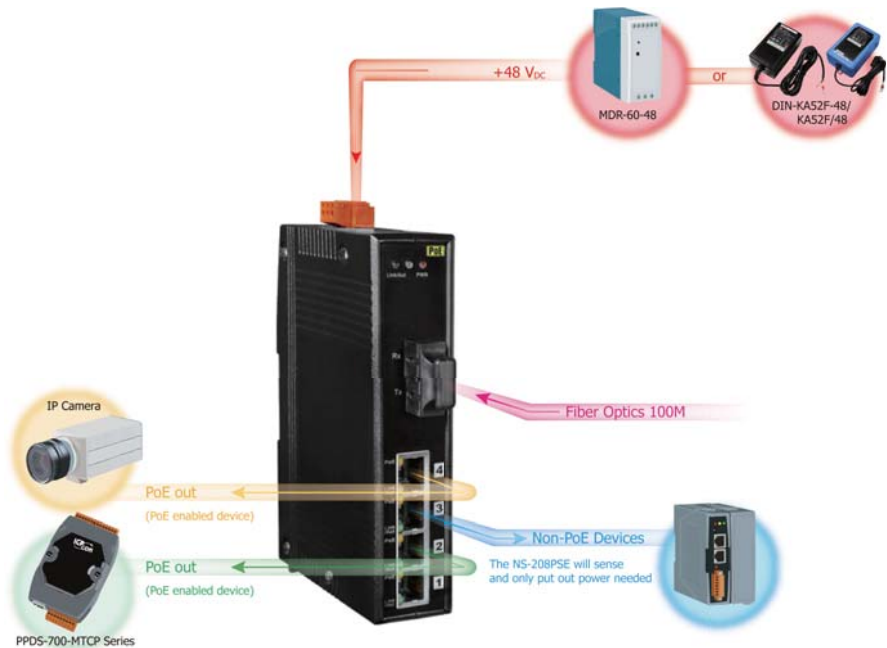
External power supply is connected using the removable terminal block:

**PWR** : Power input (+46 V<sub>DC</sub> ~ +55 V<sub>DC</sub>) and should be connected to the power supply (+)

**GND**: Ground and should be connected to the power supply (-)

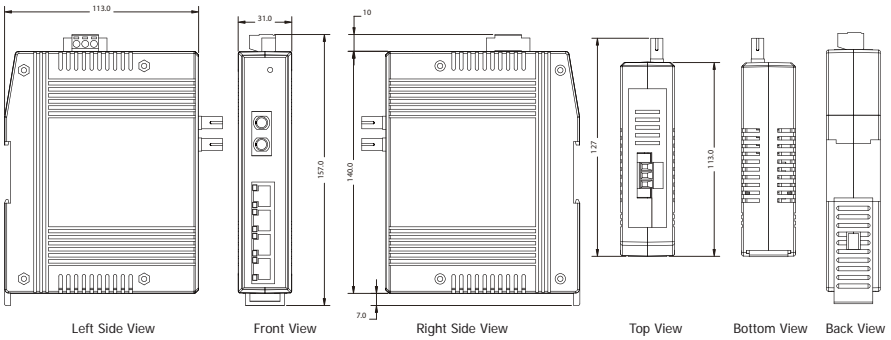
**F.G.** : F.G. stands for Frame Ground (protective ground). It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and ESD protection.

### Applications

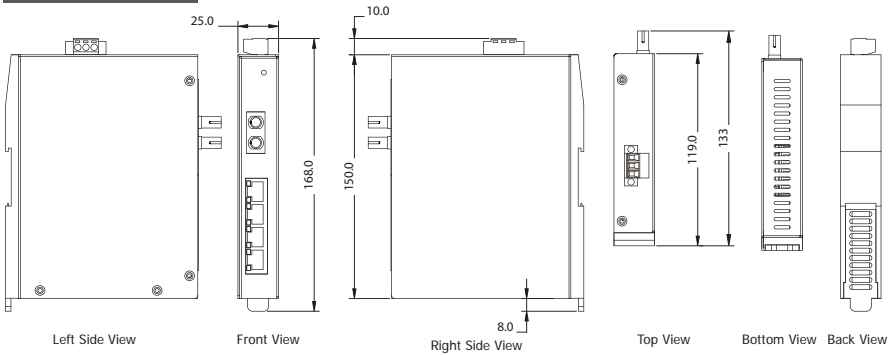


## ● Dimensions (Unit: mm)

### NS-205PF series



### NS-205PF series



## ● 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
DR-120-48	48V/2.5A, 60 W Power Supply with DIN-Rail Mounting