

# NS-205AF-T/NSM-205AF-T Series

## 4-Port 10/100 Mbps Ethernet with 1 fiber port Switch



### Introduction

The NS-205F/NSM-205AF is a 4-port unmanaged Ethernet with 1 fiber port switch. 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.

The NS-205AF/NSM-205AF provides a wide +12 VDC ~ +48 VDC power range to fit all the common power standards found in industrial automation, without external power converters. The wide power input lowers installation and maintenance costs.

### Features

Provides 1 x 100-FX fiber port plus 4 x Ethernet 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
Redundant dual +12 VDC ~ +48 VDC power inputs
Supports operating temperatures from -30 ~ +75°C
DIN-Rail Mounting

### Specifications

Models	NS-205AF-Tseries	NSM-205AF-T series
<b>Technology</b>		
Standards	IEEE 802.3, 802.3u, 802.3x	
Processing Type	Store & forward; wire speed switching	
MAC Addresses	1024	
Memory Bandwidth	2.0 Gbps	
Frame buffer memory	512 Kbit	
Flow Control	IEEE802.3x flow control	
<b>Ethernet Interface</b>		
RJ45 ports	10/100 Base-T(X) auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection	
LED Indicators	PWR1, PWR2, Power fail, 10/100M, Link/Act	
Ethernet Isolation	1500 Vrms 1 minute	
+/- 4kV EMS Protection	Yes	
<b>Fiber Interface (100 Base-FX; SC/ST type)</b>		
Multi-Mode: NS-205AFT-T NS-205AFC-T NSM-205AFT-T NSM-205AFC-T	Multi mode fiber cables: 50/125, 62.5/125 or 100/140 $\mu$ m Distance: 2 km, (62.5/125 $\mu$ m recommended) for full duplex Wavelength: 1300 or 1310 nm Min. TX Output: -20 dBm Max. TX Output: -14 dBm Max. RX Sensitivity: -32 dBm Min. RX Overload: -8 dBm	
Single-Mode: NS-205AFCS-T NSM-205AFCS-T	Single-mode fiber cables: 8.3/125, 8.7/125, 9/125 or 10/125 $\mu$ m Distance: 30 km, (9/125 $\mu$ m recommended) for full duplex Wavelength: 1300 or 1310 nm Min. TX Output: -15 dBm Max. TX Output: -8 dBm Max. RX Sensitivity: -34 dBm Min. RX Overload: -5 dBm	
Single-Mode: NS-205AFCS-60T NSM-205AFCS-60T	Single-mode fiber cables: 8.3/125, 8.7/125, 9/125 or 10/125 $\mu$ m Distance: 60 km, (9/125 $\mu$ m recommended) for full duplex Wavelength: 1300 or 1310 nm Min. TX Output: -5 dBm Max. TX Output: 0 dBm Max. RX Sensitivity: -35 dBm Min. RX Overload: -5 dBm	

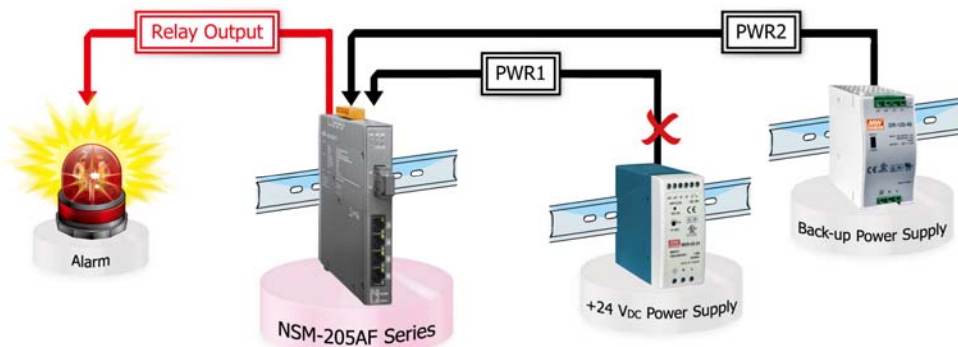
<b>Power Input</b>		
Input Voltage Range	+12 ~ +48 VDC	
Power consumption	0.2@ 24 VDC	
Protection	Power reverse polarity protection	
+/- 4kV EMS Protection	Yes	
Connection	6-Pin Removable Terminal Block	
<b>Mechanical</b>		
Casing	Plastic (Flammability UL 94V-0)	Metal (IP30 Protection)
Dimensions (W x L x H)	31 mm x 127 mm x 157 mm	25 mm x 133 mm x 168 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 Indicator Functions:

LED	Color	Description
Link for P1	Green On	Link/Act
	Green Off	Not Networking
Ethernet Port (P2 ~ P5)	Green On	Link/Act
	Green Off	Not Networking
	Yellow On	Link to 100 Mbps
	Yellow Off	Link to 10 Mbps
PWR1	Yellow On	Power is being supplied to power input PWR1
	Yellow Off	Power is not being supplied to power input PWR1
PWR2	Green On	Power is being supplied to power input PWR2
	Green Off	Power is not being supplied to power input PWR2
Power fail	Red On	Power is not being supplied to power input PWR1 and PWR2
	Red Off	Power is being supplied to power input PWR1 and PWR2

### Redundant Power Input:

Both power inputs can be connected simultaneously to live DC power sources. If one power source fails, the other live source will act as a backup, and automatically supplies all of NS-205AF/NSM-205AF series power needs.



### Dimensions:

