# NS-206AF-T/NSM-206AF-T Series

# 4-Port 10/100 Mbps Ethernet with 2 fiber ports Switch



#### Introduction

The NS-206F/NSM-206AF is a 4-port unmanaged Ethernet with 2 fiber ports 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-206AF/NSM-206AF 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 2 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-206AF-Tseries NSM-206AF-T series			
Technology	<u> </u>			
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			
Ethernet Interface				
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			
Fiber Interface (100 Base-FX; SC/ST type)				
Multi-Mode: NS-206AFT-T NS-206AFC-T NSM-206AFC-T Single-Mode: NS-206AFCS-T NSM-206AFCS-T	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 1310 nm Min. TX Output: -20 dBm Max. TX Output: -14 dBm Max. RX Sensitivity: -32 dBm Min. RX Overload: -8 dBm Single-mode fiber cables: 8.3/125, 8.7/125, 9/125 or 10/125 µm Distance: 30 km, (9/125 µm recommended) for full duplex Wavelength: 1300 or 1310 nm Min. TX Output: -15 dBm Max. TX Output: -8 dBm Max. TX Output: -8 dBm Max. RX Sensitivity: -34 dBm Min. RX Overload: -5 dBm			
Single-Mode: NS-206AFCS-60T NSM-206AFCS-60T	Single-mode fiber cables: 8.3/125, 8.7/125, 9/125 or 10/125 µm Distance: 60 km, (9/125 µm 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			

Power Input				
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			
Mechanical				
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			
Environmental				
Operating Temperature	-30 °C ~ +75 °C			
Storage Temperature	-40 °C ~ +85 °C			
Ambient Relative	10% ~ 90% RH, non-condensing			
Humidity				

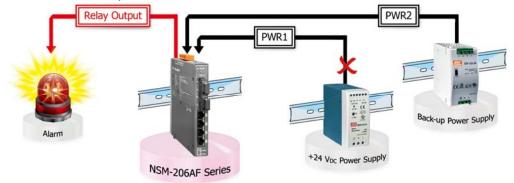
### **LED Indicator Functions:**

LED	Color	Description
Link for P1, P2	Green On	Link/Act
	Green Off	Not Networking
Ethernet Port (P3 ~ P6)	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
T WIXT	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
1 Ower fall	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-206AF/NSM-206AF series power needs.



#### **Dimensions:**

