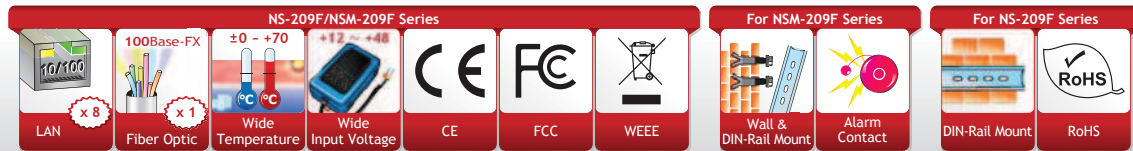


# NS-209F Series/NSM-209F Series

Unmanaged 8-port Industrial 10/100 Base-TX with 100 Base-FX Fiber Switch

NS-209F Series

NSM-209F Series



## Features ▶▶▶

- Each port supports both 10/100 Mbps speed auto negotiation
- Automatic MDI/MDI-X crossover for plug-and-play
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- DIN-Rail Mounting or Wall Mounting for NSM-209F series
- MAC address 2048
- Store-and-forward architecture
- Supports +12 V<sub>DC</sub> ~ +48 V<sub>DC</sub> power input
- DIN-Rail Mounting for NS-209F series

## Introduction

The NS-209F/NSM-209F series is a Unmanaged 8-port Industrial 10/100 Base-TX with 100 Base-FX Switch that secures data transmission by using fiber optic transmission to provide immunity from EMI/RFI interference. It uses Ethernet for transmitting a signal up to 30 km, and is the perfect solution for applications where transmission must be protected from electrical exposure, surges, lightning or chemical corrosion.

The NS-209F/NSM-209F series operates at full duplex mode. In full duplex mode, range is 30 km with 8.3/125, 8.7/125, 9/125 or 10/125 μm fiber cables.

NSM-209F provides two power inputs that can be connected simultaneously to live DC power sources. If one of the power inputs fails, the other live source will act as a backup to automatically support the NSM-209F's power needs.

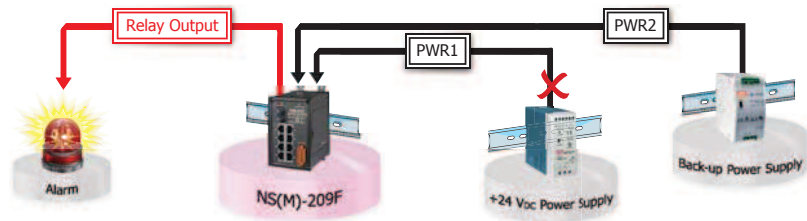
## Specifications

Models	NS-209F Series	NSM-209F Series
<b>Technology</b>		
<b>Standards</b>	IEEE 802.3, 802.3u, 802.3x	
<b>Processing Type</b>	Store & forward; wire speed switching	
<b>MAC Addresses</b>	2048	
<b>Memory Bandwidth</b>	2 Gbps	
<b>Frame Buffer Memory</b>	512 Kbit	
<b>Flow Control</b>	IEEE 802.3x flow control, back pressure flow control	
<b>Ethernet Interface</b>		
<b>RJ-45 Ports</b>	10/100 Base-T(X) auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection	
<b>LED Indicators</b>	Power, Link/Act, 10/100M	
<b>Fiber Optics Port</b>	100 Base-FX	
<b>Ethernet Isolation</b>	1500 V <sub>rms</sub> 1 minute	
<b>EMS Protection</b>	Yes	

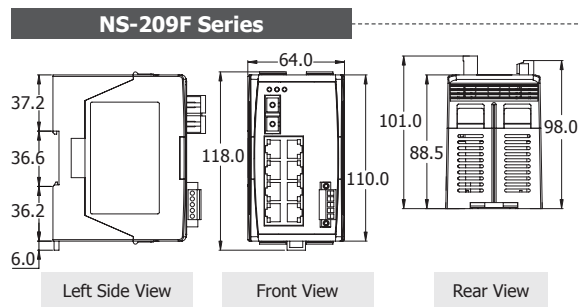
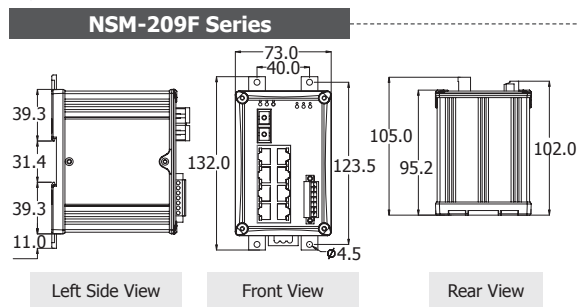
Models		NS-209F Series	NSM-209F Series
<b>Fiber Interface (100 Base-FX; SC/ST type)</b>			
<b>Multi-Mode</b>	<b>NS-209FT/FC NSM-209FT/FC</b>	Multi mode fiber cables: 50/125, 62.5/125 or 100/140 $\mu$ m Distance: 2 km, (62.5/125 $\mu$ m recommended) for full duplex Wavelength: 1300 or 1310 nm Min. TX Output: -20 dBm Max. TX Output: -14 dBm Max. RX Sensitivity: -32 dBm	
<b>Fiber Interface (100 Base-FX; SC/ST type)</b>			
<b>Single-Mode</b>	<b>NS-209FCS NSM-209FCS</b>	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 Min. RX Sensitivity: -34 dBm	
<b>Power Input</b>			
<b>Input Voltage Range</b>	+12 Vdc ~ +48 Vdc (Non-isolated)	+12 Vdc ~ +48 Vdc (Non-isolated) Redundant Inputs with one relay output (1 A @ 24 Vdc) for alarm	
<b>Power Consumption</b>	0.26 A @ 24 Vdc		
<b>LED Indicator</b>	Yes		
<b>Protection</b>	Power reverse polarity protection		
<b>+/-4 kV ESD Protection</b>	Yes		
<b>Mechanical</b>			
<b>Casing</b>	Plastic (Flammability UL 94V-0)	Metal (IP20 Protection)	
<b>Dimensions (W x L x H)</b>	64 mm x 101 mm x 118 mm	73 mm x 105 mm x 132 mm	
<b>Installation</b>	DIN-Rail Mounting	DIN-Rail Mounting or Wall Mounting	
<b>Environmental</b>			
<b>Operating Temperature</b>	0 °C ~ +70 °C		
<b>Storage Temperature</b>	-20 °C ~ +85 °C		
<b>Ambient Relative Humidity</b>	10% ~ 90% RH, non-condensing		

**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 NSM-209F series power needs.



**Dimensions (Units: mm)**



**Ordering Information**

NS-209FT CR	Multi-mode, ST Connector, 8-port 10/100 Mbps with 1 Fiber port Switch (RoHS)
NS-209FC CR	Multi-mode, SC Connector, 8-port 10/100 Mbps with 1 Fiber port Switch (RoHS)
NS-209FCS CR	Single-mode 30 km, SC Connector, 8-port 10/100 Mbps with 1 Fiber port Switch (RoHS)
NSM-209FT	Multi-mode, ST Connector, 8-port 10/100 Mbps with 1 Fiber port Switch; metal case
NSM-209FC	Multi-mode, SC Connector, 8-port 10/100 Mbps with 1 Fiber port Switch; metal case
NSM-209FCS	Single-mode 30 km, SC Connector, 8-port 10/100 Mbps with 1 Fiber port Switch; metal case

**Accessories**

DIN-KA52F	24V/1.04A, 25 W Power Supply with DIN-Rail Mounting
MDR-20-24	24V/1A, 24 W Power Supply with DIN-Rail Mounting
MDR-60-24	24V/2.5A, 60 W Power Supply with DIN-Rail Mounting