



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
- MAC address 2048
- Store-and-forward architecture
- Supports +12 VDC ~ +48 VDC power input

NS-209F Series/NSM-209F Series

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

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

Model	NS-209FT	NS-209FC	NS-209FC	NSM-209FT	NSM-209FC	NSM-209FC
EMS Protection						
ESD (IEC 61000-4-2)	± 4 kV Contact					
LED Indicators						
Status	Power, Link/Act, 10/100M, Full duplex/Half duplex (Fiber Port)			PWR1, PWR2, PWR_Fault, PWR_OK, Link/Act, 10/100M, Full duplex/Half duplex (Fiber Port)		
Ethernet						
Ports	8 x RJ-45, 10/100 Base-TX					
Standards	IEEE 802.3, 802.3u, 802.3x					
Processing Type	Store & forward; wire speed switching					
MAC Table	2048					
Memory Bandwidth	2.0 Gbps					
Frame Buffer Memory	512 Kbit					
Flow Control	IEEE 802.3x flow control, back pressure flow control					
Isolation	1500 Vrms 1 minute					
Fiber						
Ports	1 x 100 Base-FX, ST connector	1 x 100 Base-FX, SC connector		1 x 100 Base-FX, ST connector	1 x 100 Base-FX, SC connector	
Mode	Multi-Mode		Single-Mode	Multi-Mode		Single-Mode
Fiber Cable	50/125, 62.5/125 or 100/140 µm		8.3/125, 8.7/125, 9/125 or 10/125 µm	50/125, 62.5/125 or 100/140 µm		8.3/125, 8.7/125, 9/125 or 10/125 µm
Distance	2 km, (62.5/125 µm recommended) for full duplex		30 km, (9/125 µm recommended) for full duplex	2 km, (62.5/125 µm recommended) for full duplex		30 km, (9/125 µm recommended) for full duplex
Wavelength	1300 or 1310 nm					
TX Output	-20 dBm Min. -14 dBm Max.		-15 dBm Min. -8 dBm Max.	-20 dBm Min. -14 dBm Max.		-15 dBm Min. -8 dBm Max.
RX Sensitivity	-32 dBm		-34 dBm	-32 dBm		-34 dBm

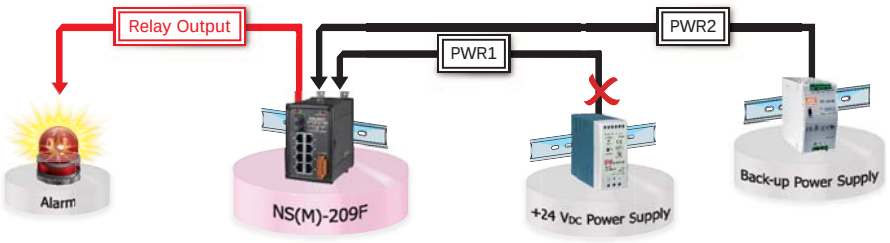
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Model	NS-209FT	NS-209FC	NS-209FC	NSM-209FT	NSM-209FC	NSM-209FC
Power						
Reverse Polarity Protection	Yes					
Input Range	+12 ~ +48 VDC			+12 ~ +48 VDC (Redundant input)		
Redundant Power Inputs	-			Yes		
Consumption	0.26 A @ 24 VDC					
Alarm Output	-			Yes,Relay 1 A @ 30 VDC		
Mechanical						
Casing	Plastic			Metal		
Dimensions (mm)	64 x 118 x 101 (W x L x H)			73 x 132 x 105 (W x L x H)		
Installation	DIN-Rail Mounting			DIN-rail mounting or wall mounting		
Ingress Protection Rating	-			IP20		
Environment						
Operating Temperature	-10 °C ~ +75 °C					
Storage Temperature	-20 °C ~ +85 °C					
Humidity	10% ~ 90% RH, non-condensing					

Redundant Power Input

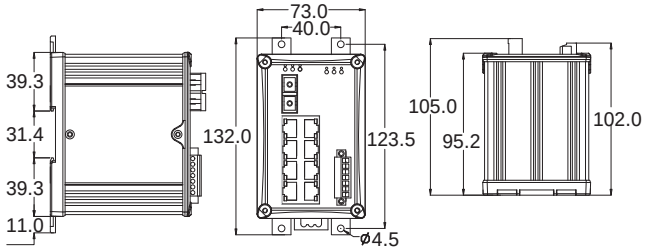
Both power inputs can be connected simultaneously to live DC power sources.

If one power source fails, the other live source will act as a backup, and automatically supplies all of NSM-209F series power needs.



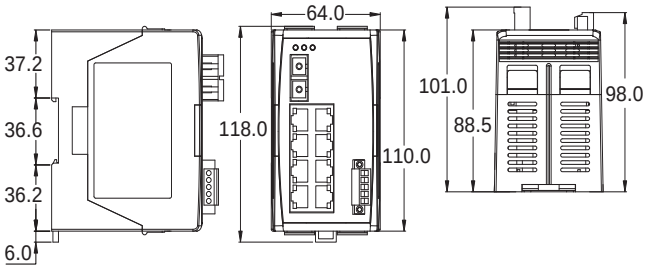
Dimensions (Units: mm)

NSM-209F Series



Left Side View | Front View | Rear View

NS-209F Series



Left Side View | Front View | Rear View

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

Accessories

DIN-KA52F CR	Power Supply, 100~250 VAC to 24 VDC/1.04 A, 25 W, DIN-rail mounting (RoHS)
MDR-20-24 CR	Power Supply, 85~264 VAC to 24 VDC/1 A, 24 W, DIN-rail mounting (RoHS)
MDR-60-48 CR	Power Supply, 85~264 VAC to 48 VDC/1.25 A, 60 W, DIN-rail mounting (RoHS)

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