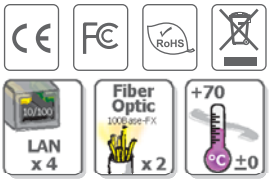
NS-206F/NSM-206F Series

Unmanaged 4-Port Industrial 10/100 Base-TX with Dual 100 Base-FX Fiber Switch

Highlight Information

NS-206F/NSM-206F Series



For NSM-206F Series

For NS-206F Series

NSM-206F Series

NS-206F Series

Introduction

The NS-206F/NSM-206F series is a Unmanaged 4-Port Industrial 10/100 Base-TX with Dual 100 Base-FX Switch that secures data transmission by using fiber optic transmission to provide immunity from EMI/RFI interference. It is used Ethernet for transmitting a signal up to 2 km (6,600 ft), and is the perfect solution for applications where transmission must be protected from electrical exposure, surges, lightning or chemical corrosion.

The NS-206FT can extend your LAN in a daisy chain configuration. Please refer to Hardware.

The Ethernet supports 10/100M auto negotiation feature and auto MDI/MDI-X function.

Features

- Automatic MDI/MDI-X crossover for plug-and-play
- Each port supports both 10/100 Mbps speed auto negotiation
- Store-and-forward architecture
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- 1.6 Gbps high performance memory bandwidth
- Frame buffer memory: 256 Kbit
- Integrated look-up engine with dedicated 1024 unicast MAC addresses
- Supports +10 V_{DC} ~ +30 V_{DC}
- Supports operating temperatures from 0 °C ~ +70 °C
- Din-Rail

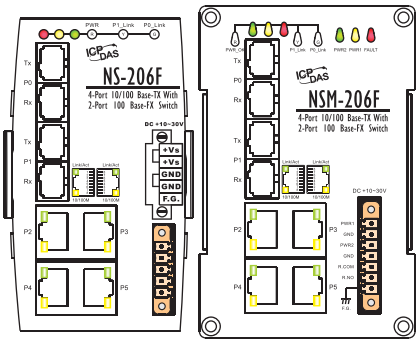
Specifications

Models	NS-206F Series	NSM-206F Series
Technology		
Standards	IEEE 802.3, 802.3u, 802.3x	
Processing Type	Store & forward, wire speed switching	
MAC Addresses	1024	
Memory Bandwidth	1.6 Gbps	
Frame Buffer Memory	256 Kbit	
Flow Control	IEEE 802.3x flow control, back pressure flow control	
Interface		
RJ-45 Ports	10/100 Base-TX auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection	
Fiber Port	100 Base-FX	
LED Indicators	10/100M, Link/Act, Full duplex/Half duplex (Fiber Port)	
Ethernet Isolation	1500 V_{rms} 1 minute	
Frame Ground for EMS Protection	Yes	
Multi Mode	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	
	RX Sensitivity: -34 ~ -31 dBm	
Single Mode	Single Mode Fiber Cables: 8.3/125, 8.7/125, 9/125 or 10/125 µm	
	Distance: 15 km, (9/125 µm recommended) for full duplex	
	Wavelength: 1300 or 1310 nm	
	Min. TX Output: -15 dBm	
	Max. TX Output: -8 dBm	
	RX Sensitivity: -36 ~ -31 dBm	
Ethernet Transmission Distance	Ethernet: 2-pair UTP/STP Cat.3, 4, 5, EIA/TIA-568 100 Ω	
	Fast Ethernet: 2-pair UTP/STP Cat. 5, EIA/TIA-568 100 Ω	
Power		
Input Voltage Range	+10 V_{DC} ~ +30 V_{DC} (Non-isolation)	+10 V_{DC} ~ +30 V_{DC} (Non-isolation) Redundant Inputs
Power Consumption	0.24 A @ 24 V_{DC}, +/-5% arrowed with 100M Full duplex	
LED Indicator	Yes	
Protection	Power reverse polarity protection	
Frame Ground for EMS Protection	Yes	
Mechanical		
Casing	Plastic (Flammability UL 94V-0)	Metal (IP20 Protection)
Dimensions (W x L x H)	64 mm x 101 mm x 118 mm	73 mm x 105 mm x 132 mm
Installation	DIN-Rail	DIN-Rail or Wall Mounting
Environmental		
Operating Temperature	0 °C ~ +70 °C	
Storage Temperature	-20 °C ~ +85 °C	
Ambient Relative Humidity	10% ~ 90% RH, non-condensing	

LED Functions

NSM-206F Series LED Indicator Functions

LED	Color	Description
PWR_OK	Red On	Core Power is OK
	Red Off	Core Power is Off
Full for P0	Green On	Link/Act
	Green Off	Not Networking
Link for P1	Yellow On	Link/Act
	Yellow 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
PWR2 PWR1 FAULT	Green On	Power is being supplied to power input PWR2
	Green Off	Power is not being supplied to power input PWR2
	Yellow On	Power is being supplied to power input PWR1
	Yellow Off	Power is not being supplied to power input PWR1
	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

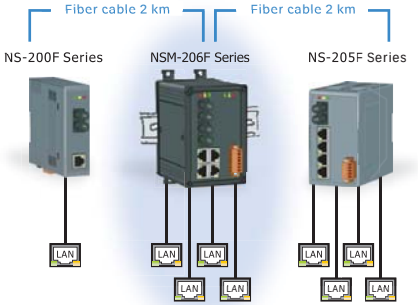


NS-206F Series LED Indicator Functions

LED	Color	Description
Power	Red On	Power is On
	Red Off	Power is Off
Fiber Port (P0)	Green On	Link/Act
	Green Off	Not Networking
Fiber Port (P1)	Yellow On	Link/Act
	Yellow 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

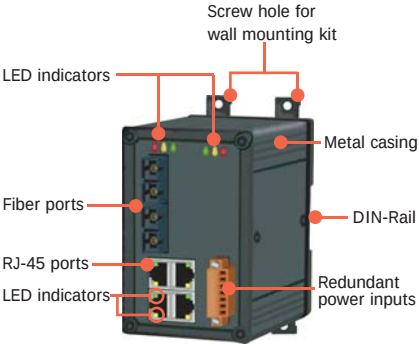
Applications

Fiber Daisy Chain Configuration



Appearance

NSM-206F Series



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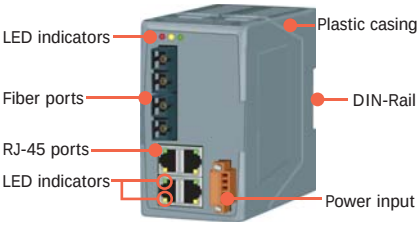
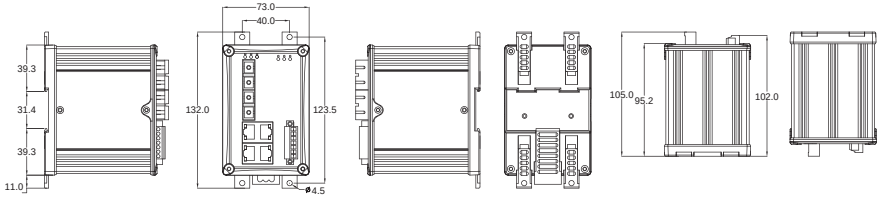


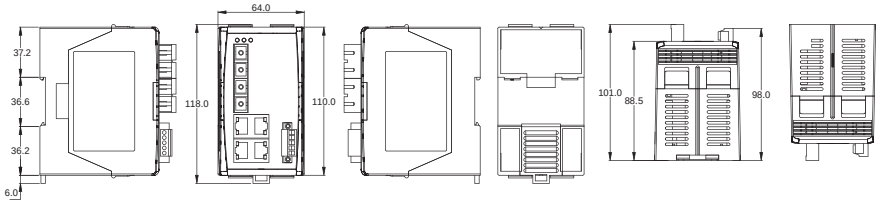
Dimensions (Unit: mm)

NSM-206F Series



Left Side View | Front View | Right Side View | Back View | Bottom View | Top View

NS-206F Series



Left Side View | Front View | Right Side View | Back View | Bottom View | Top View

Ordering Information

NS **M** **-206** **A** **F** [ ][ ] **-** **4** **0** **-** [ ]

M: Metal

A: Power Input +12 V_{DC} ~ +48 V_{DC}

Single Mode Distance
40: 40 km
Standard Models: 15 km

	Fiber Port Connector	Operating Temperature
Ordering Code Definition	**T**: Multi Mode ST Connector **C**: Multi Mode SC Connector **CS**: Single Mode SC Connector	**T**: Operating Temp: -40 °C ~ +75 °C Standard Models: 0 °C ~ +70 °C
Models	NS-206FT, NSM-206FT NS-206FC, NSM-206FC NS-206FCS, NSM-206FCS NS-206AFT, NSM-206AFT NS-206AFC, NSM-206AFC NS-206AFCS, NSM-206AFCS	NS-206AFT-T, NSM-206AFT-T NS-206AFC-T, NSM-206AFC-T NS-206AFCS-T, NSM-206AFCS-T NS-206AFCS-40T, NSM-206AFCS-40T

Accessories

MDR-20-24	24V/1A, 24 W Power Supply with DIN-Rail Mounting
KWM020-1824F	24V/0.75A, 18 W Power Supply
DIN-KA52F	24V/1.04A, 25 W Power Supply with DIN-Rail Mounting