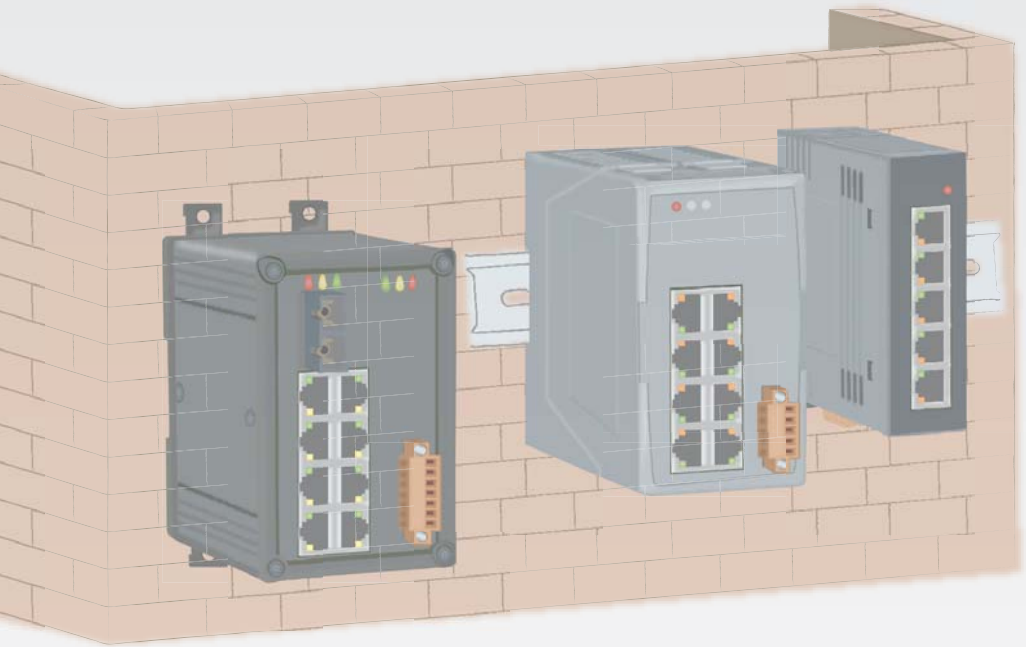
Unmanaged Ethernet Switches

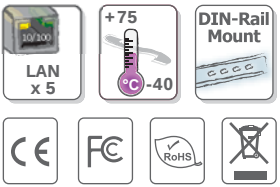
3



NS-205 Series

Unmanaged 5-Port Industrial Ethernet Switch

Highlight Information



Introduction

The NS-205 series has 5 Ethernet Switching ports that support 10/100 Base-TX, with a 10/100M auto negotiation feature and auto MDI/MDI-X function. It can connect 5 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps) for corresponding connections. The flow control mechanism is also negotiated. There is activity/link/data rate LEDs for each port to aid trouble-shooting. Port connectors are shielded RJ-45. It contains "soft start" function with overload protection, high-low voltage protection. The width of the NS-205 is just 33 mm, so it can be used where space is important.

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
- Integrated look-up engine with dedicated 1024 unicast MAC addresses
- Store-and-forward architecture
- Supports +10 V_{DC} ~ +30 V_{DC} Reverse Polarity Protection
- Supports operating temperatures from -40 °C ~ +75 °C
- DIN-Rail

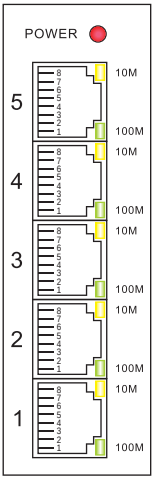
Specifications

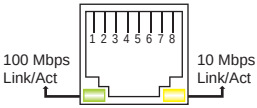
Technology	
Standards	IEEE 802.3, 802.3u, 802.3x
Processing Type	Store & forward, wire speed switching
MAC Addresses	1024
Memory Bandwidth	1.4 Gbps
Frame Buffer Memory	256 Kbit
Flow Control	IEEE 802.3x flow control, back pressure flow control
Interface	
RJ-45 Ports	10/100 Base-TX auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection
LED Indicators	Power, 10/100M, Link/Act
Ethernet Isolation	1500 V_{rms} 1 minute
Frame Ground for EMS Protection	Yes
Cable	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)
Power Consumption	0.1 A @ 24 V_{DC}, +/-5% arrowed with 10M Full duplex
	0.09 A @ 24 V_{DC}, +/-5% arrowed with 100M Full duplex
Protection	Power reverse polarity protection
Frame Ground for EMS Protection	Yes
Connection	3-Pin Removable Terminal Block
Mechanical	
Casing	Plastic
Flammability	UL 94V-0
Dimensions	33 mm x 78 mm x 107 mm (W x L x H)
Installation	DIN-Rail
Environmental	
Operating Temperature	-40 °C ~ +75 °C
Storage Temperature	-40 °C ~ +85 °C
Ambient Relative Humidity	10% ~ 90% RH, non-condensing

LED Functions

LED Indicator Functions

LED	Color	Description
PWR	Red	Power is On
	Off	Power is Off
10/100M (Port 1)	Yellow	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 2)	Yellow	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 3)	Yellow	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 4)	Yellow	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 5)	Yellow	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking



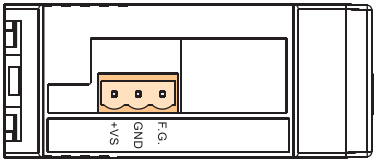


RJ-45 Pin-Out

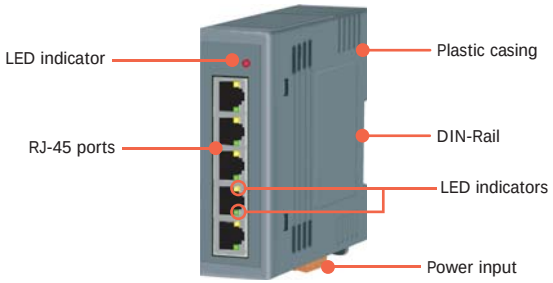
Pin#	Signal Name	Function
1	TD+	Transmit Data
2	TD-	Transmit Data
3	RD+	Receive Data
4	NC	No Connection
5	NC	No Connection
6	RD-	Receive Data
7	NC	No Connection
8	NC	No Connection

Pin Function for Terminal Block

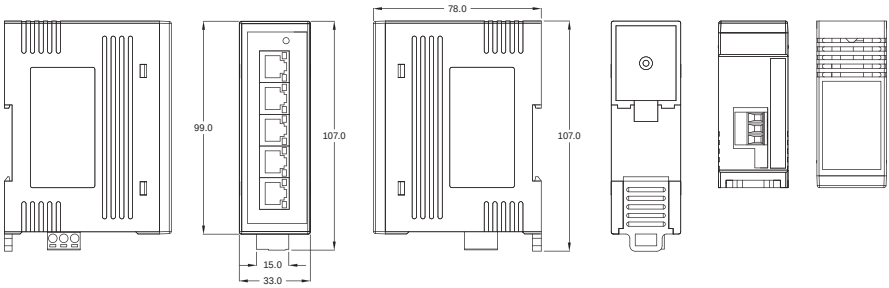
External power supply is connected using the removable terminal block:
+Vs : Power input (+10 V_{DC} ~ +30 V_{DC}) and should be connected to the power supply (+)
GND: Ground and should be connected to the power supply (-)
F.G. : F.G. stands for Frame Ground (protective ground). It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and ESD protection.



Appearance



Dimensions (Unit: mm)



Ordering Information

NS-205	Unmanaged 5-Port Industrial Ethernet Switch
NS-205 CR	Unmanaged 5-Port Industrial Ethernet Switch (RoHS)
NS-205A CR	Unmanaged 5-Port Industrial Ethernet Switch with Power Input +12 V_{DC} ~ +48 V_{DC} (RoHS)

Accessories

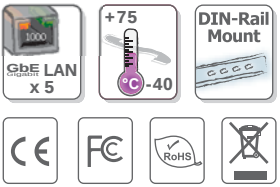
GPSU06-6	24V/0.25A, 6 W Power Supply
KWM020-1824F	24V/0.75A, 18 W Power Supply
DIN-KA52F	24V/1.04A, 25 W Power Supply with DIN-Rail Mounting

NS-205G

NEW

Unmanaged 5-Port Industrial 10/100/1000 Base-T Ethernet Switch

Highlight Information



Introduction

The NS-205G is 5-port unmanaged gigabit switches that support 10/100/1000 Base-T, with a 10/100/1000M auto negotiation feature and auto MDI/MDI-X function. It can connect 5 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps or 1000 Mbps) for corresponding connections.

That is an ideal solution for bandwidth-hungry applications (such as high resolution digital image transmission, video/audio file streaming/downloading, and server farm connectivity).

The flow control mechanism is also negotiated. There is link/data rate LEDs for each port to aid trouble-shooting. Port connectors are shielded RJ-45.

Power Savings by Number of Connected Ports and Link Status: Computers do not require Internet access all the time; neither do switches utilize all ports at all times. When a computer or network equipment is shutdown, switches often remain on and continue to consume considerable amount of power. With Green Ethernet technology, NS-205G can automatically detect link status and reduce power usage of ports that are idle. Computers or any connecting parties set to standby mode (not power off), however, will not provide significant power savings.

Power Savings by Cable Length:

The Power Saving switches have the ability to analyze the length of any Ethernet cable connected to them for adjustment of power usage accordingly. Shorter lengths require less power.

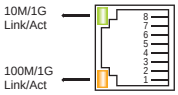
Features

- Power saving Technology
- Automatic MDI/MDI-X crossover for plug-and-play
- Each port supports 10/100 and 1000 Mbps speed auto negotiation
- Store-and-forward architecture
- 10 Gbps high performance memory bandwidth
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- Power Inputs +10 V_{DC} ~ +30 V_{DC}
- Supports operating temperatures from -40 °C ~ +75 °C
- DIN-Rail

Specifications

Technology	
Standards	IEEE 802.3, 802.3u, 802.3ab and 802.3x
Processing Type	Store & forward, wire speed switching
MAC Addresses	8192
Memory Bandwidth	10 Gbps
Frame Buffer Memory	1 Mbit
Jumbo Frames	9K for Speed 1000M
Flow Control	IEEE 802.3x flow control, back pressure flow control
Interface	
RJ-45 Ports	10/100/1000 Base-T auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection
LED Indicators	Power, 10/100/1000M, Link/Act
Ethernet Isolation	1500 V_{rms} 1 minute
Frame Ground for EMS Protection	Yes
Cable	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
	Gigabit Ethernet: 4-pair UTP/STP Cat.5, EIA/TIA-568 100 Ω
Power	
Input Voltage Range	+10 V_{DC} ~ +30 V_{DC} (Non-isolation)
Power Consumption	0.2 A @ 24 V_{DC}, +/-5% arrowed with 1000M Full duplex
Protection	Power reverse polarity protection
Frame Ground for EMS Protection	Yes
Connection	3-Pin Removable Terminal Block
Mechanical	
Casing	Plastic
Flammability	UL 94V-0
Dimensions	33 mm x 78 mm x 107 mm (W x L x H)
Installation	DIN-Rail
Environmental	
Operating Temperature	-40 °C ~ +75 °C
Storage Temperature	-40 °C ~ +85 °C
Ambient Relative Humidity	10% ~ 90% RH, non-condensing

LED Functions



LED Indicator Functions

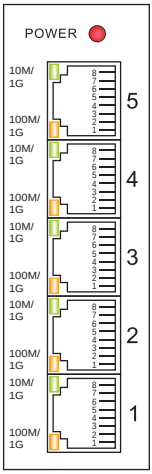
LED	Color	Description
Power	Red On	Power is On
	Red Off	Power is Off
Ethernet Port	Orange On	Link to 1000 Mbps
	Green On	
	Only Orange On	Link to 100 Mbps
	Only Green On	Link to 10 Mbps

RJ-45 Pin-Out

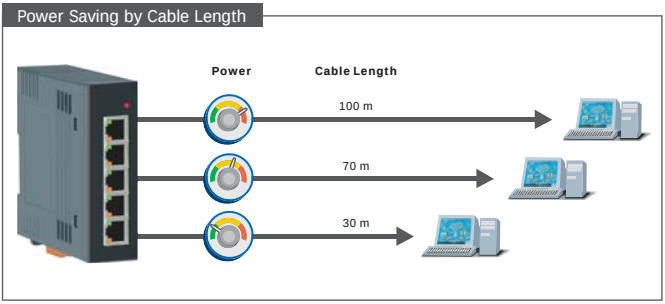
Pin#	Signal Name	Function
1	BI_DA+	Bi-directional pair +A
2	BI_DA-	Bi-directional pair -A
3	BI_DB+	Bi-directional pair +B
4	BI_DC+	Bi-directional pair +C
5	BI_DC-	Bi-directional pair -C
6	BI_DB-	Bi-directional pair -B
7	BI_DD+	Bi-directional pair +D
8	BI_DD-	Bi-directional pair -D

Power Saving Application

An automatic power savings when a specific port is in link down or standby operation.	An intelligent algorithm that actively determines the appropriate power level needed based on cable length.
up 60%	**up 10%**

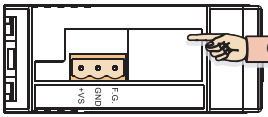


Power Saving by Cable Length



Pin Function for Terminal Block

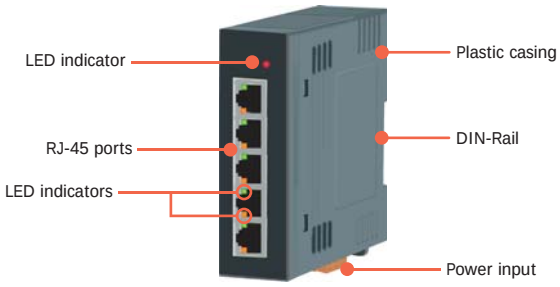
External power supply is connected using the removable terminal block:
+Vs : Power input (+10 V_{DC} ~ +30 V_{DC}) and should be connected to the power supply (+)
GND: Ground and should be connected to the power supply (-)
F.G. : F.G. stands for Frame Ground (protective ground). It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and ESD protection.



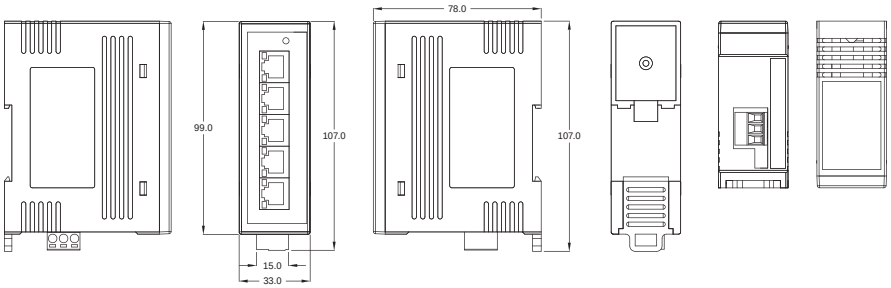
Checking Power

Since the NS-205G consumes 4.8 W Max., ensure that your power supply is able to meet this demand. The Input voltage range is +10 V_{DC} ~ +30 V_{DC}.

Appearance



Dimensions (Unit: mm)



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

Ordering Information

NS-205G CR	Unmanaged 5-Port Industrial 10/100/1000 Base-T Ethernet Switch (RoHS)

Accessories

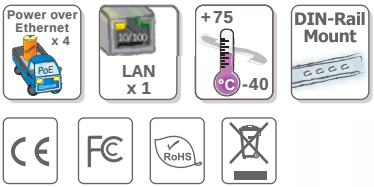
GPSU06-6	24V/0.25A, 6 W Power Supply
KWM020-1824F	24V/0.75A, 18 W Power Supply
DIN-KA52F	24V/1.04A, 25 W Power Supply with DIN-Rail Mounting

NS-205PSE

NEW

Unmanaged Ethernet Switch with 4-PoE Port and 1 RJ-45 Uplink (RoHS)

Highlight Information



Introduction

The NS-205PSE is a 5-Port unmanaged PoE (Power-over-Ethernet) Industrial Ethernet Switch, it supports 4-PoE Port which are classified as power source equipments (PSE). The NS-205PSE makes centralized power supply come true and provides up to 15.4 watts of power per port. The NS-205PSE can be used to power IEEE 802.3af compliant powered devices (PD) by Ethernet cable and eliminates the need for additional power wiring.

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
- 3.2 Gbps high performance memory bandwidth
- Power Inputs +46 V_{DC} ~ +55 V_{DC}
- Supports operating temperatures from -40 °C ~ +75 °C
- DIN-Rail
- IEEE 802.3af compliant PoE ports
  4-PoE Port with power sourcing equipment (PSE) operation Auto-detection of PD (powered devices) and automatic power management over-temperature, over-current and over/under-voltage detection

Specifications

Technology	
Standards	IEEE 802.3, 802.3u, 802.3x, 802.3af (Power-over-Ethernet)
Processing Type	Store & forward, wire speed switching
MAC Addresses	1024
Memory Bandwidth	3.2 Gbps
Frame Buffer Memory	512 Kbit
Flow Control	IEEE 802.3x flow control, back pressure flow control
Interface	
RJ-45 Ports	10/100 BaseTX auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection
LED Indicators	Power, 10/100M, Link/Act
Ethernet Isolation	1500 V_{rms} 1 minute
Frame Ground for EMS Protection	Yes
Cable	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	+46 V_{DC} ~ +55 V_{DC} for PoE output
Power Consumption	1.3 A @ 48 V_{DC}, +/-5% arrowed with PoE
Protection	Power reverse polarity protection
Frame Ground for EMS Protection	Yes
Connection	3-Pin Removable Terminal Block
Mechanical	
Casing	Plastic
Flammability	UL 94V-0
Dimensions	33 mm x 107 mm x 99 mm (W x L x H)
Installation	DIN-Rail
Environmental	
Operating Temperature	-40 °C ~ +75 °C
Storage Temperature	-40 °C ~ +85 °C
Ambient Relative Humidity	10% ~ 90% RH, non-condensing

LED Functions

LED Indicator Functions

LED	Color	Description
Power	Red On	Power is On
	Red Off	Power is Off
Port 1 ~ Port 4	Orange On	Power Device is detected
	Green On	Link/Act
Port 5	Yellow On	Link to 100 Mbps
	Green On	Link/Act

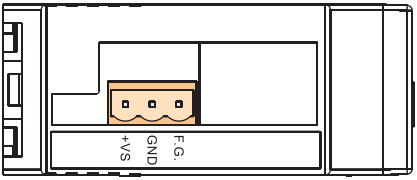
Pin Function for Terminal Block

External power supply is connected using the removable terminal block:

+Vs : Power input (+46 V_{DC} ~ +55 V_{DC}) and should be connected to the power supply (+)

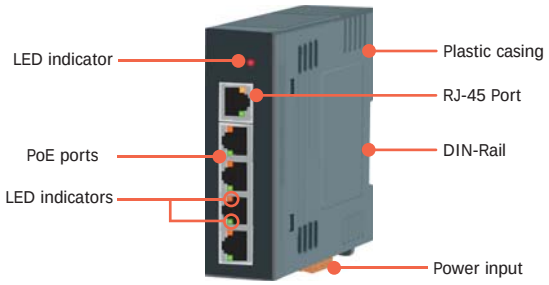
GND: Ground and should be connected to the power supply (-)

F.G. : F.G. stands for Frame Ground (protective ground). It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and ESD protection.

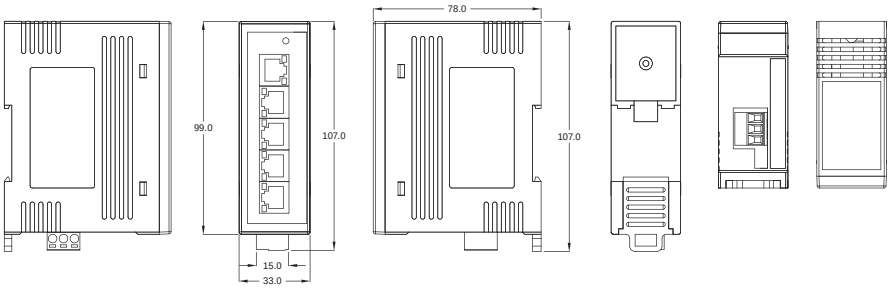


Applications

Appearance



Dimensions (Unit: mm)



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

Ordering Information

NS-205PSE CR	Unmanaged Ethernet Switch with 4-PoE Port and 1 RJ-45 Uplink (RoHS)

Accessories

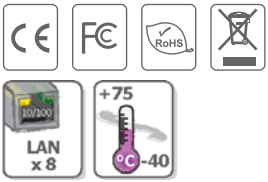
MDR-60-48	48V/1.25A, 60 W Power Supply with DIN-Rail Mounting

NS-208/NSM-108 Series

Unmanaged 8-Port Industrial 10/100 Base-TX Ethernet Switch

Highlight Information

NS-208/NSM-108 Series



For NSM-108 Series

For NS-208 Series

NEW

NSM-108 Series

NS-208 Series

Introduction

The NS-208/NSM-108 series has 8 Ethernet Switching ports that support 10/100 Base-TX, with a 10/100M auto negotiation feature and auto MDI/MDI-X function. It can connect 8 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps) for corresponding connections.

The flow control mechanism is also negotiated. There is link/data rate LEDs for each port to aid trouble-shooting. Port connectors are shielded RJ-45.

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
- 2 Gbps high performance memory bandwidth
- Power Inputs +10 V_{DC} ~ +30 V_{DC}
- Supports operating temperatures from -40 °C ~ +75 °C
- DIN-Rail

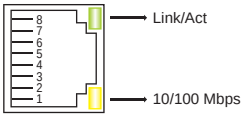
Specifications

Models	NS-208	NSM-108
Technology		
Standards	IEEE 802.3, 802.3u, 802.3x	
Processing Type	Store & forward, wire speed switching	
MAC Addresses	1024	
Memory Bandwidth	2 Gbps	
Frame Buffer Memory	512 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	
LED Indicators	Power, 10/100M, Link/Act	
Ethernet Isolation	1500 V_{rms} 1 minute	
Frame Ground for EMS Protection	Yes	
Cable	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)	
Power Consumption	0.15 A @ 24 V_{DC}, +/-5% arrowed with 10M Full duplex	
	0.09 A @ 24 V_{DC}, +/-5% arrowed with 100M Full duplex	
Protection	Power reverse polarity protection	
Frame Ground for EMS Protection	Yes	
Connection	5-Pin Removable Terminal Block	5-Pin Removable Terminal Block
Mechanical		
Casing	Plastic (Flammability UL 94V-0)	Metal (IP20 Protection)
Dimensions (W x L x H)	64 mm x 98 mm x 118 mm	73 mm x 102 mm x 132 mm
Installation	DIN-Rail	DIN-Rail or Wall Mounting
Environmental		
Operating Temperature	-40 °C ~ +75 °C	
Storage Temperature	-40 °C ~ +85 °C	
Ambient Relative Humidity	10% ~ 90% RH, non-condensing	

LED Functions

LED Indicator Functions

LED	Color	Description
Power	Red On	Power is On
	Red Off	Power is Off
Ethernet Port	Green On	Link/Act
	Green Off	Not Networking
	Yellow On	Link to 100 Mbps
	Yellow Off	Link to 10 Mbps

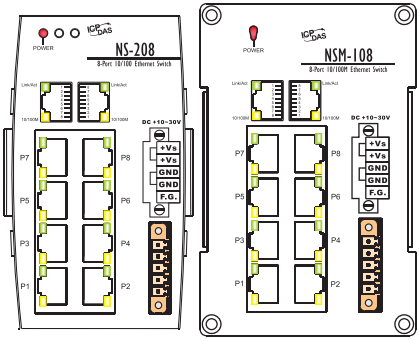


RJ-45 Pin-Out

Pin#	Signal Name	Function
1	TD+	Transmit Data
2	TD-	Transmit Data
3	RD+	Receive Data
4	NC	No Connection
5	NC	No Connection
6	RD-	Receive Data
7	NC	No Connection
8	NC	No Connection

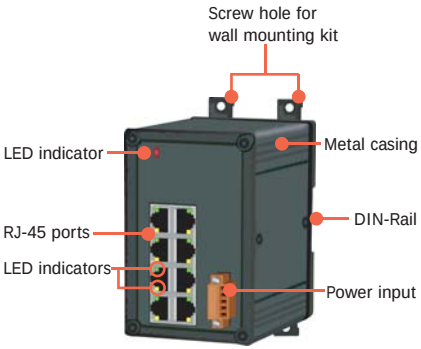
Pin Function for Terminal Block

External power supply is connected using the removable terminal block:
+Vs : Power input +10 V_{DC} ~ +30 V_{DC}
GND: Ground
F.G. : F.G. stands for Frame Ground (protective ground). It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and ESD protection.

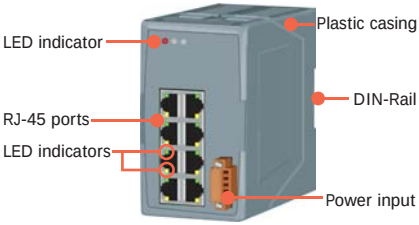


Appearance

NSM-108 Series

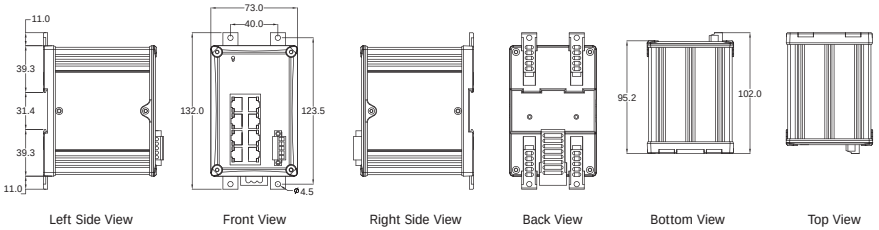


NS-208 Series



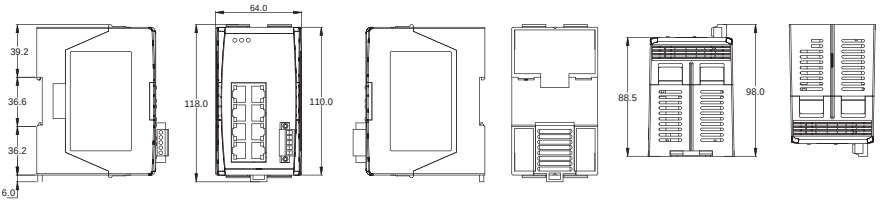
Dimensions (Unit: mm)

NSM-108 Series



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

NS-208 Series



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

Ordering Information

NS-208 CR	Unmanaged 8-Port Industrial 10/100 Base-TX Ethernet Switch with Power Input +10 V_{DC} ~ +30 V_{DC} (RoHS)
NSM-108 CR	Unmanaged 8-Port Industrial 10/100 Base-TX Ethernet Switch with Power Input +10 V_{DC} ~ +30 V_{DC}, metal casing (RoHS)
NS-208A CR	Unmanaged 8-Port Industrial 10/100 Base-TX Ethernet Switch with Power Input +12 V_{DC} ~ +48 V_{DC} (RoHS)
NSM-108A CR	Unmanaged 8-Port Industrial 10/100 Base-TX Ethernet Switch with Power Input +12 V_{DC} ~ +48 V_{DC}, metal casing (RoHS)

Accessories

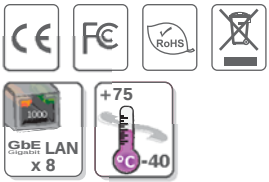
GPSU06-6	24V/0.25A, 6 W Power Supply
KWM020-1824F	24V/0.75A, 18 W Power Supply
DIN-KA52F	24V/1.04A, 25 W Power Supply with DIN-Rail Mounting

NS-208G/NSM-208G Series

Unmanaged 8-Port Industrial 10/100/1000 Base-T Ethernet Switch

Highlight Information

NS-208G/NSM-208G Series



For NSM-208G Series

For NS-208G Series

NSM-208G Series

NS-208G Series

Introduction

The NS-208G/NSM-208G series has 8 Ethernet Switching ports that support 10/100/1000 Base-T, with a 10/100/1000M auto negotiation feature and auto MDI/MDI-X function. It can connect 8 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps or 1000 Mbps) for corresponding connections.

The flow control mechanism is also negotiated. There is link/data rate LEDs for each port to aid trouble-shooting. Port connectors are shielded RJ-45.

Features

- Automatic MDI/MDI-X crossover for plug-and-play
- Each port supports 10/100 and 1000 Mbps speed auto negotiation
- Store-and-forward architecture
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- 16 Gbps high performance memory bandwidth
- Power Inputs +10 V_{DC} ~ +30 V_{DC}
- Supports operating temperatures from -40 °C ~ +75 °C
- DIN-Rail

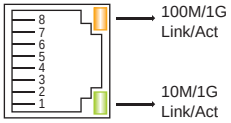
Specifications

Models	NS-208G	NSM-208G
Technology		
Standards	IEEE 802.3, 802.3u, 802.3ab and 802.3x	
Processing Type	Store & forward, wire speed switching	
MAC Addresses	8192	
Memory Bandwidth	16 Gbps	
Frame Buffer Memory	1 Mbit	
Jumbo Frames	9K for Speed 1000M	
Flow Control	IEEE 802.3x flow control, back pressure flow control	
Interface		
RJ-45 Ports	10/100/1000 Base-T auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection	
LED Indicators	Power, 10/100/1000M, Link/Act	
Ethernet Isolation	1500 V_{rms} 1 minute	
Frame Ground for EMS Protection	Yes	
Cable	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	
	Gigabit Ethernet: 4-pair UTP/STP Cat.5, EIA/TIA-568 100 Ω	
Power		
Input Voltage Range	+10 V_{DC} ~ +30 V_{DC} (Non-isolation)	
Power Consumption	0.3 A @ 24 V_{DC}, +/-5% arrowed with 1000M Full duplex	
Protection	Power reverse polarity protection	
Frame Ground for EMS Protection	Yes	
Connection	5-Pin Removable Terminal Block	
Mechanical		
Casing	Plastic (Flammability UL 94V-0)	Metal (IP20 Protection)
Dimensions (W x L x H)	64 mm x 98 mm x 118 mm	73 mm x 102 mm x 132 mm
Installation	DIN-Rail	DIN-Rail or Wall Mounting
Environmental		
Operating Temperature	-40 °C ~ +75 °C	
Storage Temperature	-40 °C ~ +75 °C	
Ambient Relative Humidity	10% ~ 90% RH, non-condensing	

LED Functions

LED Indicator Functions

LED	Color	Description
Power	Red On	Power is On
	Red Off	Power is Off
Ethernet Port	Orange On	Link to 1000 Mbps
	Green On	
	Only Orange On	Link to 100 Mbps
	Only Green On	Link to 10 Mbps



RJ-45 Pin-Out

Pin#	Signal Name	Function
1	BI_DA+	Bi-directional pair +A
2	BI_DA-	Bi-directional pair -A
3	BI_DB+	Bi-directional pair +B
4	BI_DC+	Bi-directional pair +C
5	BI_DC-	Bi-directional pair -C
6	BI_DB-	Bi-directional pair -B
7	BI_DD+	Bi-directional pair +D
8	BI_DD-	Bi-directional pair -D

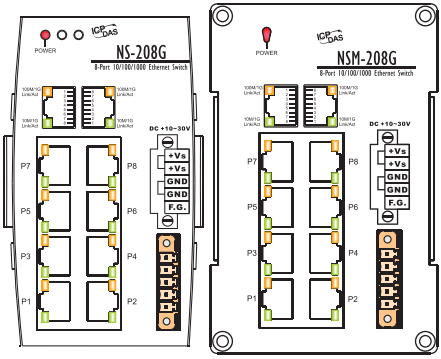
Pin Function for Terminal Block

External power supply is connected using the removable terminal block:

+Vs : Power input (+10 V_{DC} ~ +30 V_{DC}) and should be connected to the power supply (+)

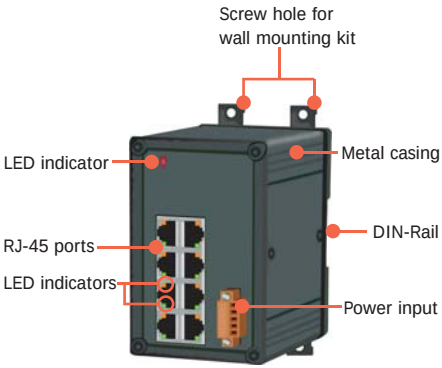
GND: Ground and should be connected to the power supply (-)

F.G. : F.G. stands for Frame Ground (protective ground). It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and ESD protection.

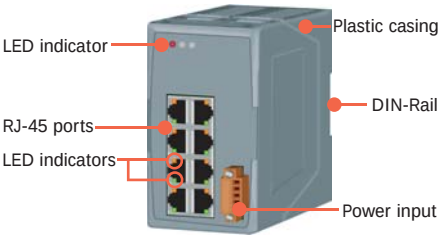


Appearance

NSM-208G Series

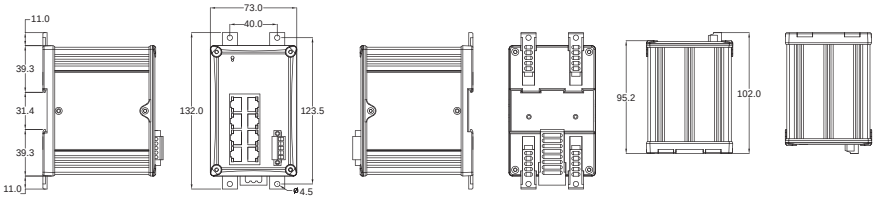


NS-208G Series



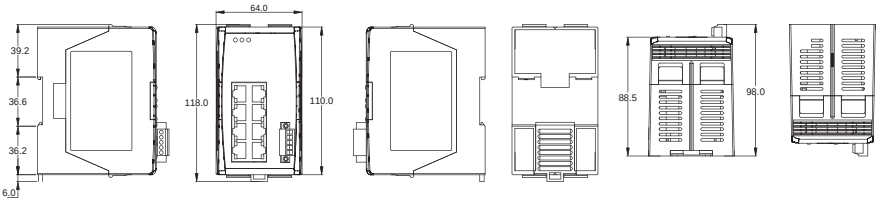
Dimensions (Unit: mm)

NSM-208G Series



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

NS-208G Series



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

Ordering Information

NS-208G CR	Unmanaged 8-Port 10/100/1000 Base-T Ethernet Switch with Power Input +10 V_{DC} ~ +30 V_{DC} (RoHS)
NSM-208G CR	Unmanaged 8-Port 10/100/1000 Base-T Ethernet Switch with Power Input +10 V_{DC} ~ +30 V_{DC}, metal casing (RoHS)
NS-208AG CR	Unmanaged 8-Port 10/100/1000 Base-T Ethernet Switch with Power Input +12 V_{DC} ~ +48 V_{DC} (RoHS)
NSM-208AG CR	Unmanaged 8-Port 10/100/1000 Base-T Ethernet Switch with Power Input +12 V_{DC} ~ +48 V_{DC}, metal casing (RoHS)

Accessories

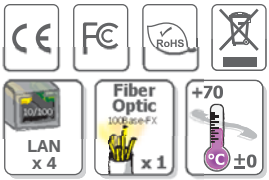
KWM020-1824F	24V/0.75A, 18 W Power Supply
DIN-KA52F	24V/1.04A, 25 W Power Supply with DIN-Rail Mounting
MDR-20-24	24V/1A, 24 W Power Supply with DIN-Rail Mounting

NS-205F/NSM-205F Series

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

Highlight Information

NS-205F/NSM-205F Series



For NSM-205F Series

For NS-205F Series

NSM-205F Series

NS-205F Series

Introduction

The NS-205F/NSM-205F series is a Unmanaged 4-Port Industrial Ethernet (10/100 Base-TX) to Fiber Port (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 40 km, and is the perfect solution for applications where transmission must be protected from electrical exposure, surges, lightning or chemical corrosion.
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
- 3.2 Gbps high performance memory bandwidth
- Frame buffer memory: 512 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

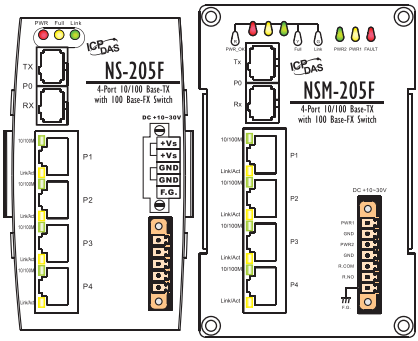
Specifications

Models	NS-205F Series	NSM-205F Series
Technology		
Standards	IEEE 802.3, 802.3u, 802.3x	
Processing Type	Store & forward, wire speed switching	
MAC Addresses	1024	
Memory Bandwidth	3.2 Gbps	
Frame Buffer Memory	512 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 Optics 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	0.14 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-205F Series LED Indicator Functions

LED	Color	Description
PWR_OK	Red On	Core Power is OK
	Red Off	Core Power is Off
Full for P0	Yellow On	Full Duplex
	Yellow Off	Half Duplex
Link for P0	Green On	Link/Act
	Green Off	Not Networking
Ethernet Port (P1 ~ P4)	Yellow On	Link/Act
	Yellow Off	Not Networking
	Green On	Link to 100 Mbps
	Green 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 being supplied to power input PWR1 and PWR2
	Red Off	Power is being supplied to power input PWR1 and PWR2

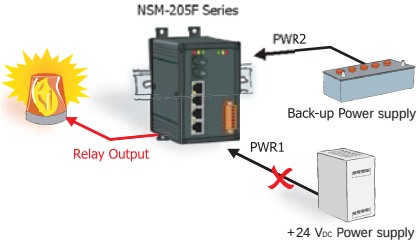


NS-205F Series LED Indicator Functions

LED	Color	Description
Power	Red On	Power is On
	Red Off	Power is Off
Fiber Port (P0)	Yellow On	Full Duplex Mode
	Yellow Off	Half Duplex Mode
	Green On	Link/Act
	Green Off	Not Networking
Ethernet Port (P1 ~ P4)	Yellow On	Link/Act
	Yellow Off	Not Networking
	Green On	Link to 100 Mbps
	Green Off	Link to 10 Mbps

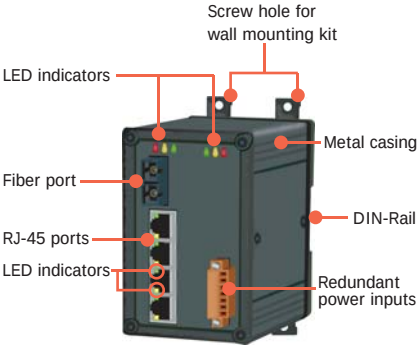
Redundant Power Inputs

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

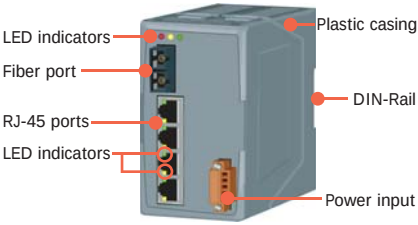


Appearance

NSM-205F Series

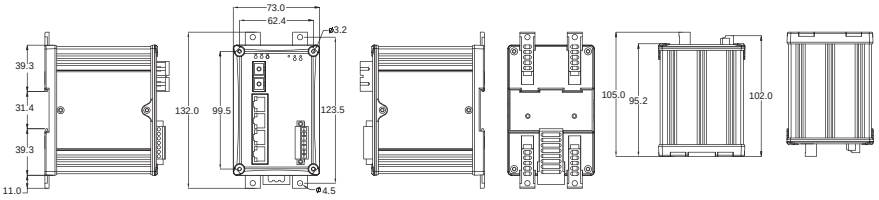


NS-205F Series



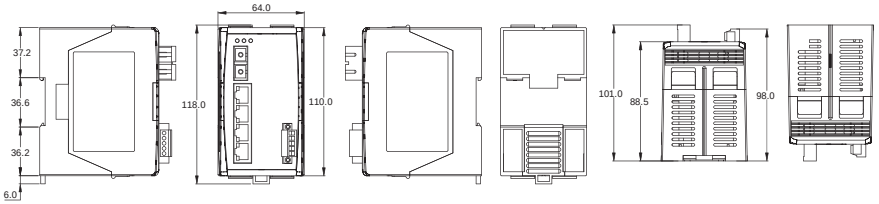
Dimensions (Unit: mm)

NSM-205F Series



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

NS-205F Series



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

Ordering Information

NS [**M**] **-205** [**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-205FT, NSM-205FT NS-205FC, NSM-205FC NS-205FCS, NSM-205FCS NS-205AFT, NSM-205AFT NS-205AFC, NSM-205AFC NS-205AFCS, NSM-205AFCS	NS-205AFT-T, NSM-205AFT-T NS-205AFC-T, NSM-205AFC-T NS-205AFCS-T, NSM-205AFCS-T NS-205AFCS-40T, NSM-205AFCS-40T

Accessories

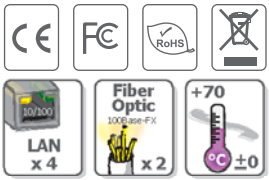
GPSU06-6	24V/0.25A, 6 W Power Supply
KWM020-1824F	24V/0.75A, 18 W Power Supply
DIN-KA52F	24V/1.04A, 25 W Power Supply with DIN-Rail Mounting

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

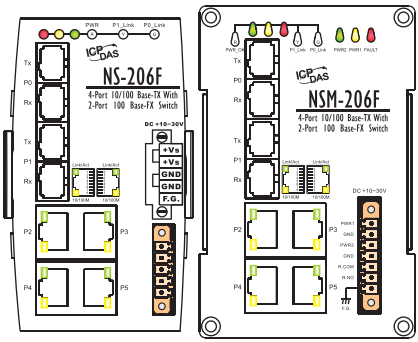
Specifications

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

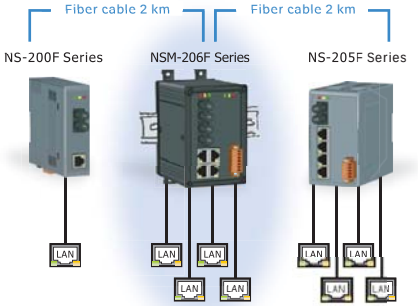


NS-206F Series LED Indicator Functions

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

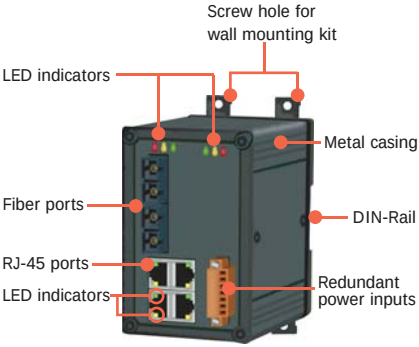
Applications

Fiber Daisy Chain Configuration

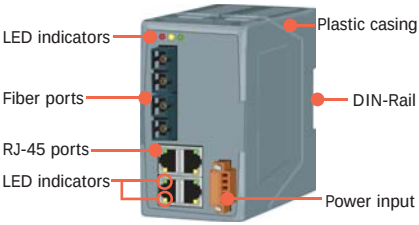


Appearance

NSM-206F Series

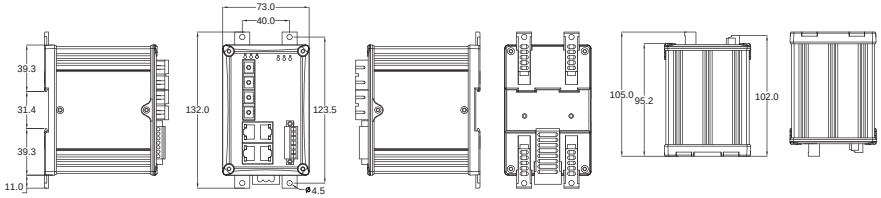


NS-206F Series



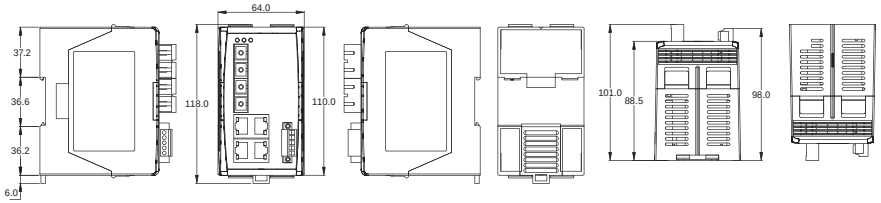
Dimensions (Unit: mm)

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 VDC ~ +48 VDC

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

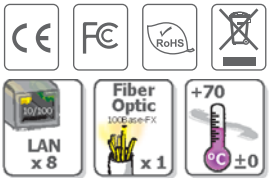
NS-209F/NSM-209F Series

NEW

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

Highlight Information

NS-209F/NSM-209F Series



For NSM-209F Series

For NS-209F Series

NSM-209F Series

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 is used Ethernet for transmitting a signal up to 15 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 15 km with 8.3/125, 8.7/125, 9/125 or 10/125 μm fiber cables.

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
- 2 Gbps high performance memory bandwidth
- Integrated look-up engine with dedicated 2048 unicast MAC addresses
- Supports +12 V_{DC} ~ +48 V_{DC}
- Supports operating temperatures from 0 °C ~ +70 °C
- DIN-Rail

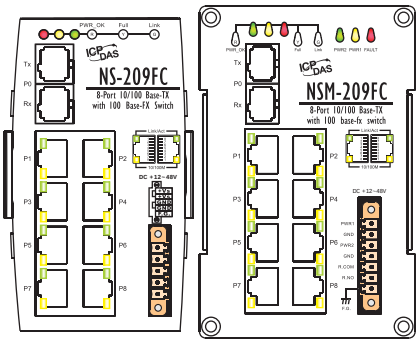
Specifications

Models	NS-209F Series	NSM-209F Series
Technology		
Standards	IEEE 802.3, 802.3u, 802.3x	
Processing Type	Store & forward, wire speed switching	
MAC Addresses	2048	
Memory Bandwidth	2 Gbps	
Frame Buffer Memory	512 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 Optics 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	+12 V_{DC} ~ +48 V_{DC} (Non-isolation)	+12 V_{DC} ~ +48 V_{DC} (Non-isolation) Redundant Inputs
Power Consumption	0.15 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-209F Series LED Indicator Functions

LED	Color	Description
PWR_OK	Red On	Core Power is OK
	Red Off	Core Power is Off
Full for P0	Yellow On	Full Duplex
	Yellow Off	Half Duplex
Link for P0	Green On	Link/Act
	Green Off	Not Networking
Ethernet Port (P1 ~ P8)	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 being supplied to power input PWR1 and PWR2
	Red Off	Power is being supplied to power input PWR1 and PWR2

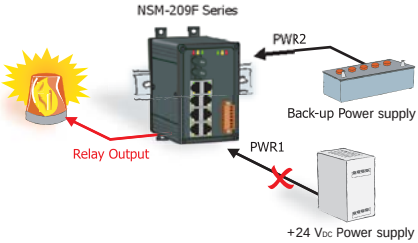


NS-209F Series LED Indicator Functions

LED	Color	Description
Power	Red On	Power is On
	Red Off	Power is Off
Fiber Port (P0)	Yellow On	Full Duplex Mode
	Yellow Off	Half Duplex Mode
	Green On	Link/Act
	Green Off	Not Networking
Ethernet Port (P1 ~ P8)	Green On	Link/Act
	Green Off	Not Networking
	Yellow On	Link to 100 Mbps
	Yellow Off	Link to 10 Mbps

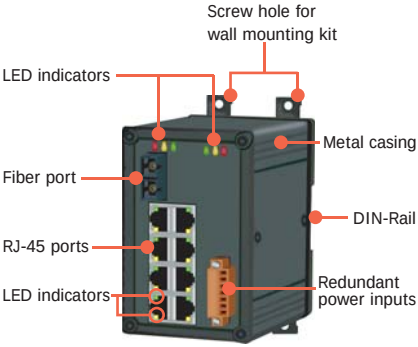
Redundant Power Inputs

Both power inputs can be connected simultaneously to live DC power sources.
If one power source fails, the other live source acts as a backup, and automatically supplies all of NSM-209F series power needs.

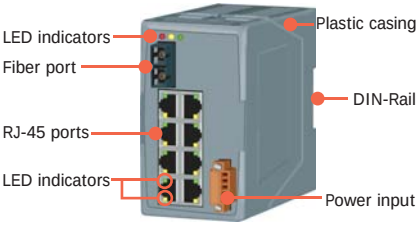


Appearance

NSM-209F Series

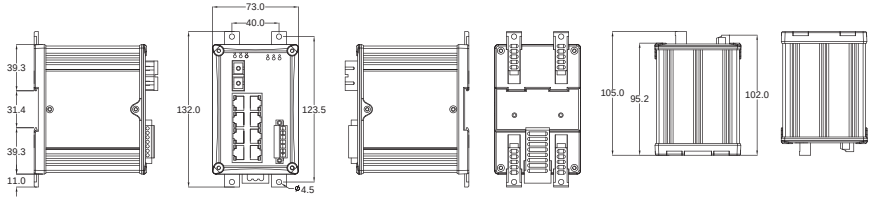


NS-209F Series



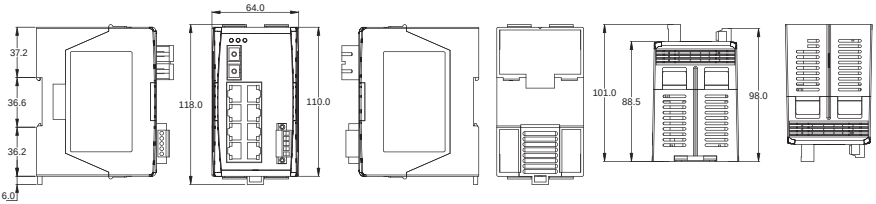
Dimensions (Unit: mm)

NSM-209F Series



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

NS-209F Series



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

Ordering Information

NS [**M**] **-209F** [ ][ ] - [**4**][**0**] - [ ]

M: Metal

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-209FT, NSM-209FT NS-209FC, NSM-209FC NS-209FCS, NSM-209FCS	NS-209FT-T, NSM-209FT-T NS-209FC-T, NSM-209FC-T NS-209FCS-T, NSM-209FCS-T NS-209FCS-40T, NSM-209FCS-40T

Accessories

GPSU06-6	24V/0.25A, 6 W Power Supply
KWM020-1824F	24V/0.75A, 18 W Power Supply
DIN-KA52F	24V/1.04A, 25 W Power Supply with DIN-Rail Mounting

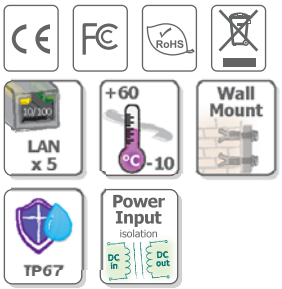
NS-205-IP67 Series

NEW

Unmanaged 5-Port Industrial Ethernet Switch with IP67 Casing

Highlight Information

NS-205-IP67 Series



Only for NS-205-IP67/DIN

NS-205-IP67/DIN

NS-205-IP67

Introduction

NS-205-IP67 ethernet switches are designed for use in industrial waterproof/harsh environments. The rugged packaging and IP67 connectors guarantee a total protection that can withstand a variety of extreme conditions such as high temperatures, extreme shocks & vibrations, dust particles or even liquid immersion. They can be directly mounted to any machine or convenient flat surface. Even with all its rugged features, the switch still provides a high level of functionality, including the ability to support full-duplex communication and 10 Mbps/100 Mbps transmission speeds. With 1.4 Gbps of total bandwidth, the switch can simultaneously handle full wire speed communication on each port. A dedicated uplink port enables a connection to other switches without use of a crossover cable. No programming is necessary, as the switch auto-learns network addresses. +10 V_{DC} ~ +30 V_{DC} isolated power input keeps spikes and surges on the power line from damaging the power supply. They are completely plug and play and ready to go right out of the box.

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
- 1.4 Gbps high performance memory bandwidth
- Integrated look-up engine with dedicated 1024 unicast MAC addresses
- Supports +10 V_{DC} ~ +30 V_{DC} with 1 kV isolation Reverse Polarity Protection
- Plastic casing with IP67

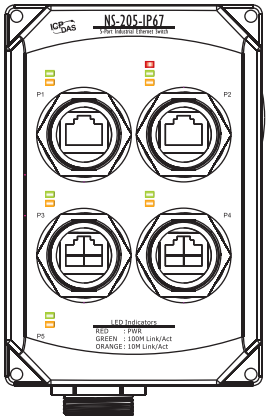
Specifications

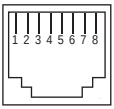
Models	NS-205-IP67	NS-205-IP67/DIN
Technology		
Standards	IEEE 802.3, 802.3u, 802.3x	
Processing Type	Store & forward, wire speed switching	
MAC Addresses	1024	
Memory Bandwidth	1.4 Gbps	
Frame Buffer Memory	256 Kbit	
Flow Control	IEEE 802.3x flow control, back pressure flow control	
Interface		
RJ-45 Ports	10/100 Base-TX auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection	
LED Indicators	Power, 10/100M, Link/Act	
Cable	10 Base-T (Cat.3, 4,5 UTP cable; 100m Max.)	
	100 Base-TX (Cat.5 UTP cable; 100m Max.)	
Power		
Input Voltage	+10 V_{DC} ~ +30 V_{DC} (1 kV isolation)	
Power Consumption	0.12 A @ 24 V_{DC}, +/-5% arrowed with 10M Full duplex	
	0.1 A @ 24 V_{DC}, +/-5% arrowed with 100M Full duplex	
Mechanical		
Casing	Plastic	
Flammability	UL 94V-0	
Environmental Rating	Protection rating IP67 for Operating Temperature -10 °C ~ +60 °C	
	Protection rating IP66 for for Operating Temperature -40 °C ~ +80 °C	
Dimensions (W x L x H)	85 mm x 76 mm x 137 mm	89 mm x 90 mm x 138 mm
Installation	Wall mounting	DIN-Rail or Wall Mounting
Environmental		
Operating Temperature	-10 °C ~ +60 °C (Protection rating IP67)	
	-40 °C ~ +80 °C (Protection rating IP66)	
Storage Temperature	-10 °C ~ +60 °C (Protection rating IP67)	
	-40 °C ~ +85 °C (Protection rating IP66)	
Ambient Relative Humidity	100% RH for Operating Temperature -10 °C ~ +60 °C	
	10% ~ 90% RH, non-condensing for Operating Temperature -40 °C ~ +80 °C	

LED Functions

LED Indicator Functions

LED	Color	Description
PWR	Red	Power is On
	Off	Power is Off
10/100M (Port 1)	Orange	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 2)	Orange	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 3)	Orange	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 4)	Orange	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 5)	Orange	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking

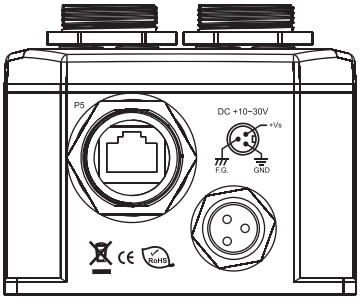




RJ-45 Pin-Out

Pin#	Signal Name	Function
1	TD+	Transmit Data
2	TD-	Transmit Data
3	RD+	Receive Data
4	NC	No Connection
5	NC	No Connection
6	RD-	Receive Data
7	NC	No Connection
8	NC	No Connection

Pin Function for Terminal Block



External power supply is connected using the removable terminal block:

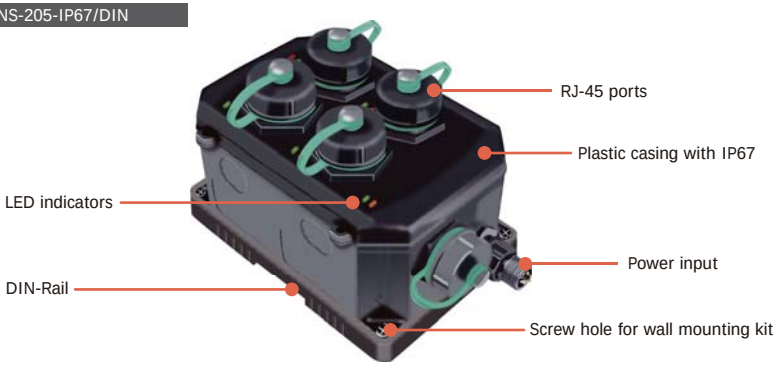
+Vs : Power input (+10 V_{DC} ~ +30 V_{DC}) and should be connected to the power supply (+)

GND: Ground and should be connected to the power supply (-)

F.G. : F.G. stands for Frame Ground (protective ground). It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and ESD protection.

Appearance

NS-205-IP67/DIN

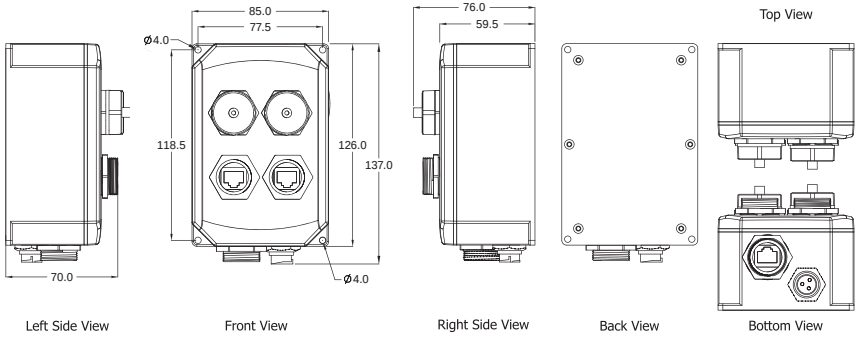


Applications

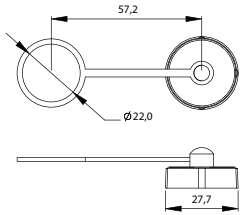
- Direct fieldbus-style installation - No enclosure required.
- Reduce installation cost
- Mount anywhere-Save space

Dimensions (Unit: mm)

NS-205-IP67

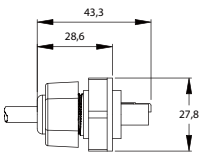


IP67 Ethernet Cap with Tether



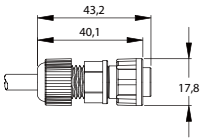
IP67 Ethernet Plug

Cable Dia:
Max. 7.0 mm
Min. 5.5 mm



IP67 PWR Plug

Cable Dia:
Max. 6.5 mm
Min. 5.0 mm



Ordering Information

NS-205-IP67 CR	Unmanaged 5-Port Industrial Ethernet Switch with IP67 Casing (RoHS)
NS-205-IP67/DIN CR	NS-205-IP67 with DIN-Rail Mount (RoHS)

Accessories

GPSU06-6	24V/0.25A, 6 W Power Supply
KWM020-1824F	24V/0.75A, 18 W Power Supply
DIN-KA52F	24V/1.04A, 25 W Power Supply with DIN-Rail Mounting