NSM-205GP

4+1G Combo Port Gigabit Unmanaged Ethernet Switch with 4 IEEE 802.3af/at PoE+ ports



The NSM-205GP is 5-port unmanaged full Gigabit Ethernet switch supporting Power-over-Ethernet on ports 1 to 4. The switch is classified as power source equipment (PSE), and when used in this way, the NSM-205GP switch enable centralization of the power supply, providing up to 30 watts. The NSM-205GP can be used to power IEEE 802.3af/at standard devices (PD).

Voltage boost technology supports 24V industrial power sources ensuring that a full and proper PSE voltage is available across all PoE ports

Features:

- Full Gigabit Ethernet ports
- 4 PoE/PoE+ PSE capable ports, fully compliant to IEEE 802.3af/at
- 24/48 VDC flexible redundant power inputs
- Supports 10 KB jumbo frames
- Pluggable SFP transceiver port
- Supports Auto Negotiation and Auto MDI/MDI-X
- Supports Dual +18 ~ 55 VDC power input and 1 relay output
- Supports operating temperatures from -40 ~ +75°C
- DIN-Rail, Wall Mounting (optional)

Specifications:

Technology		
Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3ab for 1000Base-T IEEE 802.3x for Flow Control IEEE 802.3af Power Over Ethernet IEEE 802.3at Power Over Ethernet	
	Energy Efficient Ethernet (EEE) as per 802.3az; this provides power savings during idle network activity	
Processing Type	Store & forward, wire speed switching	
MAC Addresses	8K	
Memory Bandwidth	10 Gbps	
Frame buffer memory	1 Mbit	
Jumbo Frames	10K for Speed 1000M	
Flow Control	IEEE802.3x flow control, back pressure flow control	

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Interface		
RJ-45 Ports	10/100/1000 BaseT(X), 10/100BaseT(X) auto negotiation speed, full/half duplex mode, and auto MDI/MDI-X connection	
Fiber Port	1000BaseSFP slot/100BaseSFP slot	
LED Indicators	PWR1, PWR2, Power fail, 10/100M, 1000M, Link/Act, Power Device is detected	
Ethernet Isolation	1500 Vrms 1 minute	
DIP Switch	100BaseSFP/1000BaseSFP and PoE/PoE+ setting	
Power Input		
Redundant Input Range	Flexible input +24/+48 VDC Nominal. (+18 ~ +55 VDC)	
Power Consumption	0.13@ 48 VDC without PD loading; 3.1 A @ 48 VDC with PD full loading (30 W per ports) 0.25@ 24 VDC without PD loading; 6.2 A @ 24 VDC with PD full loading (30 W per ports)	
Alarm Contact	One relay output with current carrying capacity of 1A @ 30 VDC	
Protection	Power reverse polarity protection	
Connector	6-Pin Removable Terminal Block (Power & Relay)	
Mechanical		
Chassis	Metal with an IP30 ingress protection rating	
Dimensions (W x L x H)	28 mm x 160 mm x 122 mm	
Installation	DIN-Rail or Wall Mounting (with optional kit)	
Environmental		
Operating Temperature	-40 °C ~ + 75 °C (-40° F to 167° F)	
Storage Temperature	-40 °C ~ + 85 °C (-40 F to 185° F)	
Ambient Relative Humidity	10 ~ 90% RH, non-condensing	

Getting to know your NSM-205GP Switch

- Package Contents:
- NSM-205GP
- · DIN-Rail mounting (pre-installed on the unit)
- This manual

Note – optional wall mounting kits may be ordered

LED Indicator Functions:

LED	Color	Description	
	Green On	Link/Act to 1000 Mbps	
Ethernet Port (P1 ~ P4)	Yellow On	Link/Act to 10/100 Mbps	
	Red On	Power Device is detected	
Combo Port (P5)	Green On	Link/Act	
PWR1	Yellow On	This yellow LED is turned on when power is applied to the PWR1 input	
PWR2	Yellow On	This yellow LED is turned on when power is applied to the PWR2 input	
Power fail	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	

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-205GP power needs.

External power supply is connected using the removable terminal block: PWR (Power) : Power input (+18 ~ +55 VDC) and should be connected to the power supply (+) GND: Ground and should be connected to the power supply (-)

Accessories:	
DR-120-48	48 V/2.5 A, 120 W Single Output Industrial DIN Rail Power Supply
MDR-60-48	48 V/1.25 A, 60 W Single Output Industrial DIN Rail Power Supply
DR-120-24	24V/5 A, 120 W Single Output Industrial DIN Rail Power Supply
SDR-240-24	24 V/10 A, 240 W Single Output Industrial DIN Rail Power Supply with PFC Function

PoE Ethernet Port Connection:

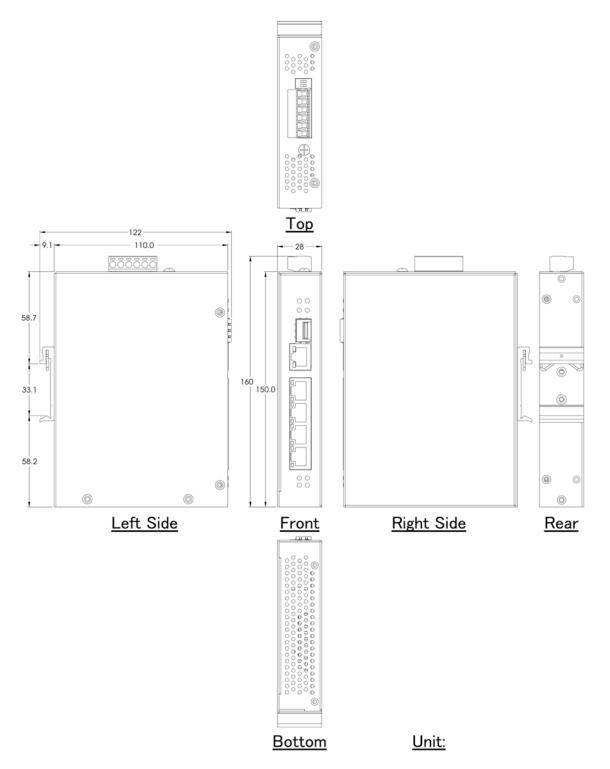
PoE ports located on the NSM-205GP's front panel are used to connect to PoE-enabled devices. The pinout follows the Alternative A, MDI mode" of 802.3af/802.3at standards. Please see the details in the following table.

Pin	Signal (MDI Port Pinouts)	PoE
1	BI_DA+	V+
2	BI_DA-	V+
3	BI_DB+	V-
4	BI_DC+	
5	BI_DC-	
6	BI_DB-	V-
7	BI_DD+	
8	BI_DD+	

DIP Switch Settings:

DIP Switch	Setting	Description	
SFP Speed	ON 100BaseSFP		
	OFF	1000BaseSFP	
		(default)	
PoE AF/AT	ON	PoE	
	OFF	PoE+ (default)	

To actively update DIP switch settings, power off and then power on the NSM-205GP.



Accessories:

SFP-1G85M-SX	Multi-mode 850 nm, 0.5 km SFP module	
SFP-1G13M-SX2	Multi-mode 1310 nm, 2 km SFP module	
SFP-1G13S-LX	Single-mode 1310 nm, 10 km SFP module	
SFP-1G13S-LX20	Single-mode 1310 nm, 20 km SFP module	1
SFP-1G13S-LHX	Single-mode 1310 nm, 40 km SFP module	and the second s
SFP-1G15S-XD	Single-mode 1550 nm, 60 km SFP module	