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
Ethernet Port (P1 ~ P4)	Green On	Link/Act to 1000 Mbps
	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

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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+	--

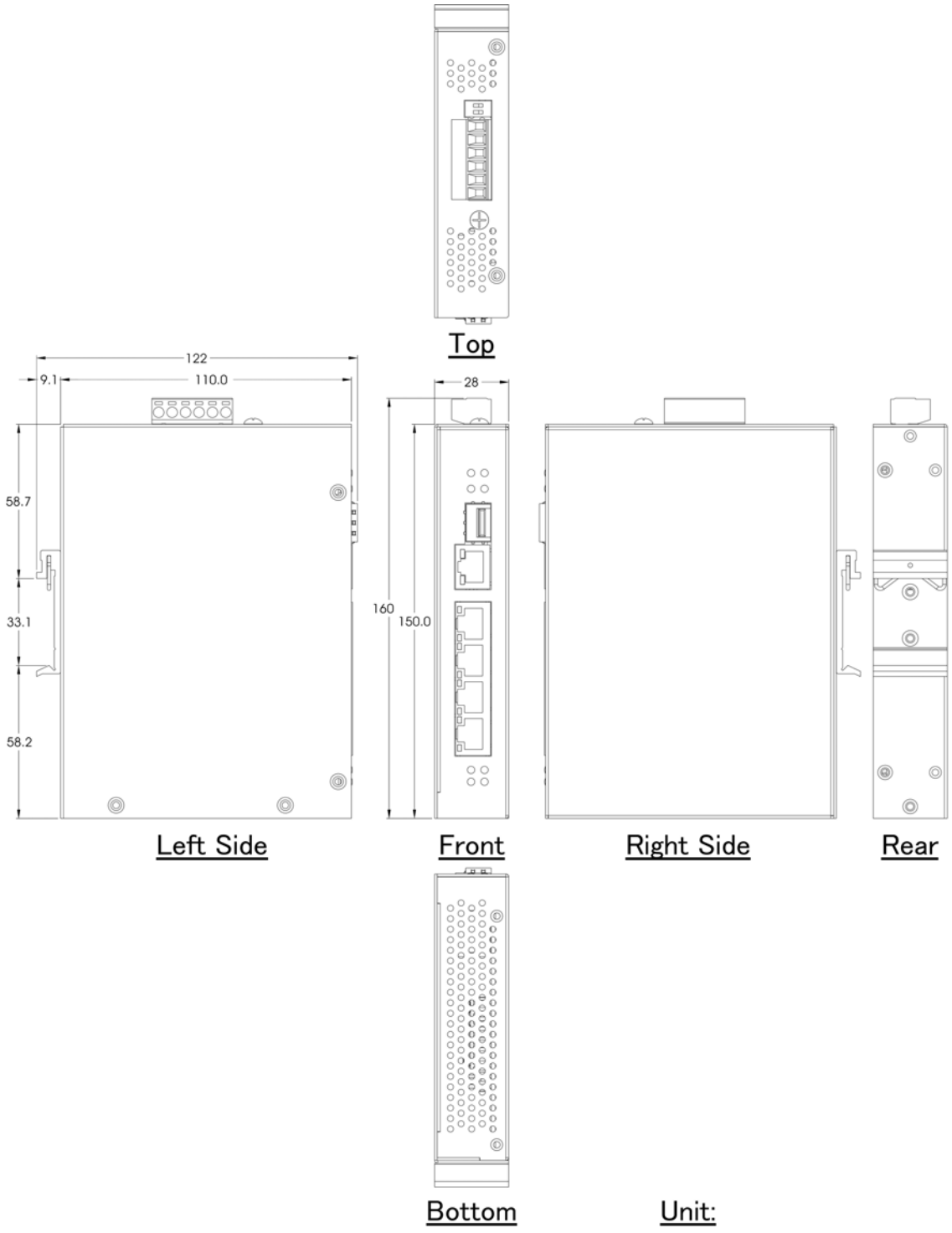
DIP Switch Settings:

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

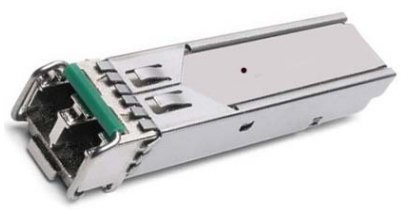
To actively update DIP switch settings, power off and then power on the NSM-205GP.

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Dimensions (unit = mm):



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	
SFP-1G13S-LHX	Single-mode 1310 nm, 40 km SFP module	
SFP-1G15S-XD	Single-mode 1550 nm, 60 km SFP module	

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