

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 troubleshooting. 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

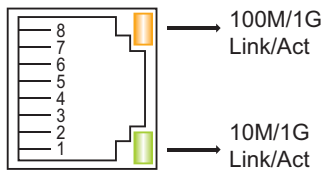
● Specifications

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

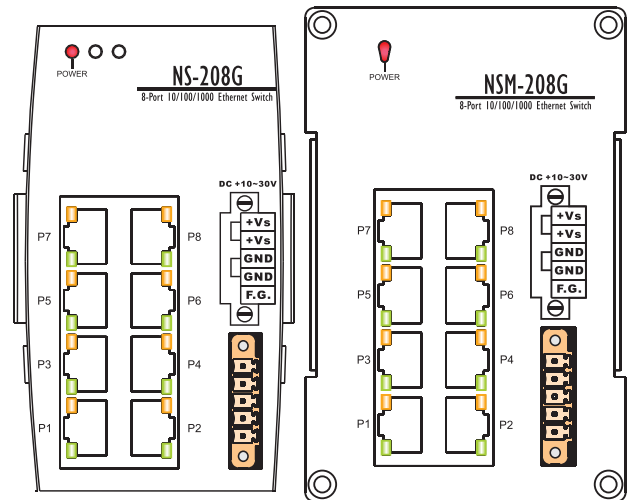
Pin Function for Terminal Block

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 (+)

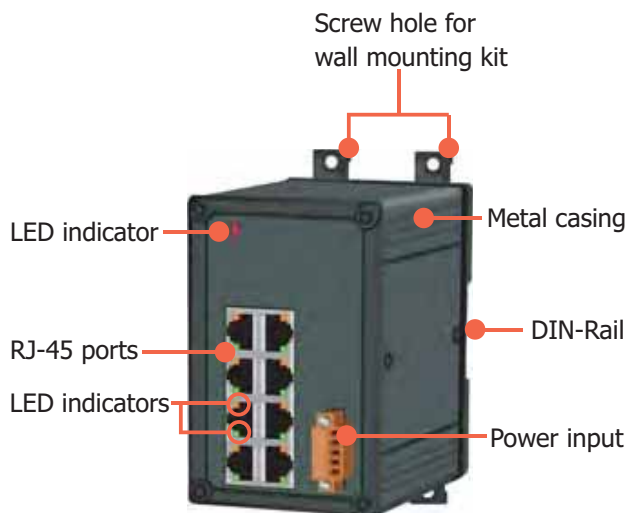
GND: Ground and should be connected to the power supply (-)

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.

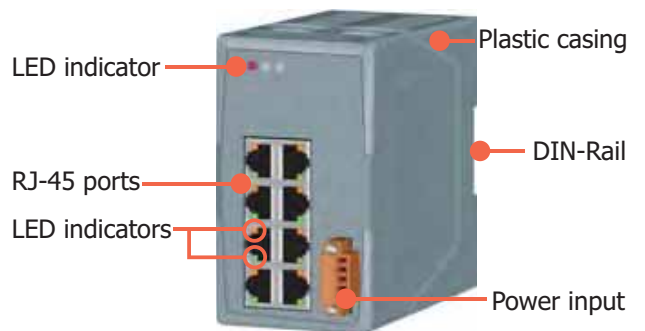


Appearance

NSM-208G Series



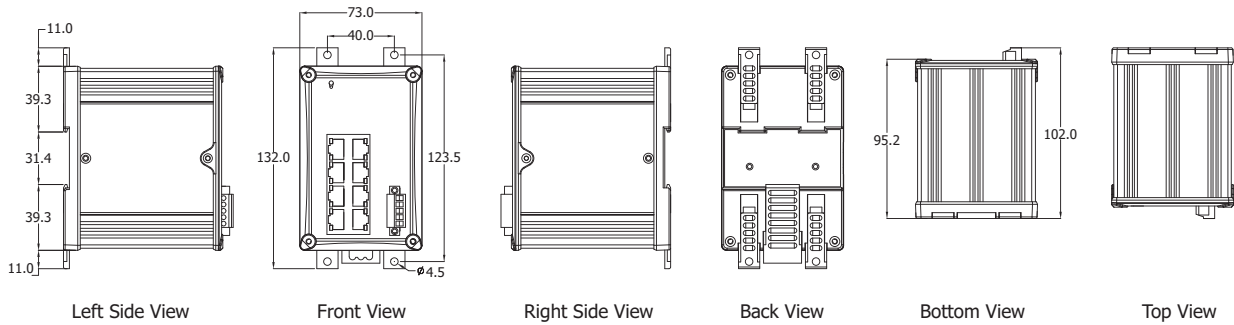
NS-208G Series



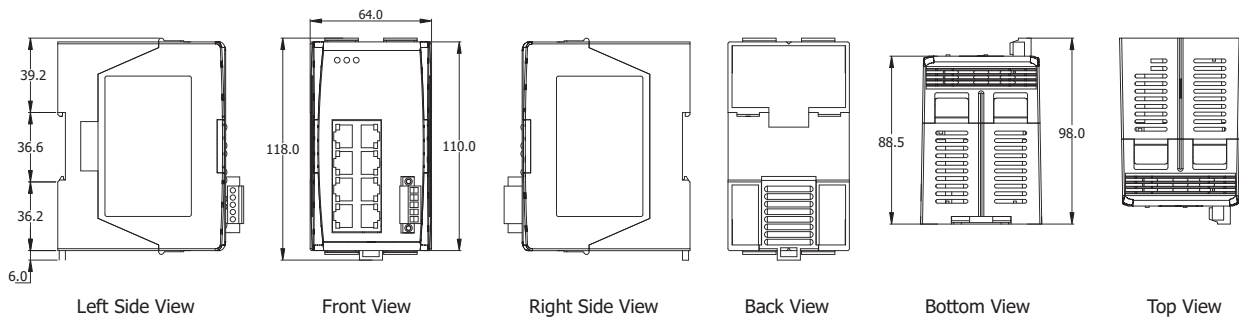
High Reliability Industrial Ethernet Switch for Rugged Environment

● Dimensions (Unit: mm)

NSM-208G Series



NS-208G Series



● Ordering Information

NS-208G CR Art. No. 114576	Unmanaged 8-Port 10/100/1000 Base-T Ethernet Switch with Power Input +10 V _{DC} ~ +30 V _{DC} (RoHS)
NSM-208G CR Art. No. 113650	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 Art. No. 121669	Unmanaged 8-Port 10/100/1000 Base-T Ethernet Switch with Power Input +12 V _{DC} ~ +48 V _{DC} (RoHS)
NSM-208AG CR Art. No. 121670	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

75W Single Output Industrial DIN Rail Power Supply

DR-75 series



■ Features :

- Universal AC input/Full range
- Protections: Short circuit/Over load/Over voltage/Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508(industrial control equipment)approved
- LED indicator for power on
- 100% full load burn-in test
- Fix switching frequency at 50KHz



SPECIFICATION

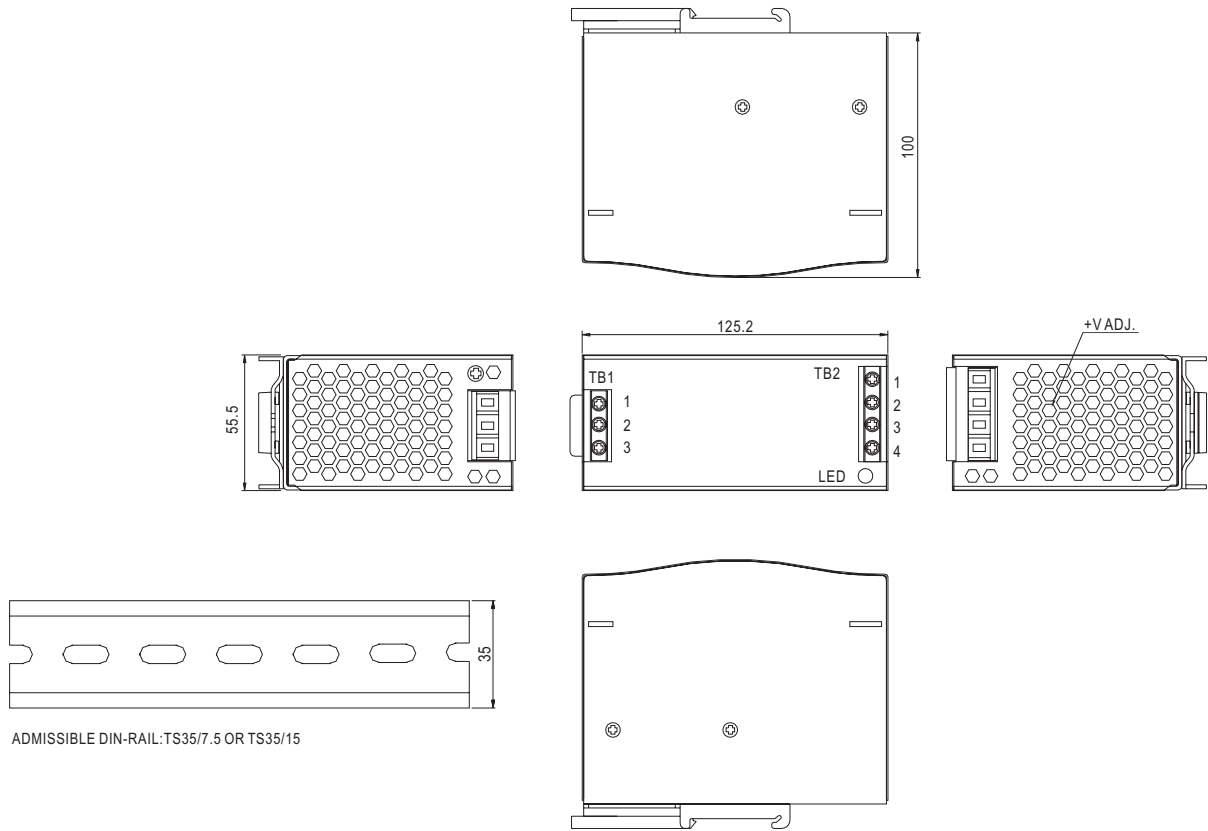
MODEL	DR-75-12	DR-75-24	DR-75-48	
OUTPUT	DC VOLTAGE	12V	24V	48V
	RATED CURRENT	6.3A	3.2A	1.6A
	CURRENT RANGE	0 ~ 6.3A	0 ~ 3.2A	0 ~ 1.6A
	RATED POWER	76W	76.8W	76.8W
	RIPPLE & NOISE (max.) Note.2	100mVp-p	150mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	12 ~ 14V	24 ~ 28V	48 ~ 53V
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±1.0%	±1.0%
	SETUP, RISE TIME	1000ms, 60ms/230VAC	1800ms, 60ms/115VAC at full load	
	HOLD TIME (Typ.)	60ms/230VAC	12ms/115VAC at full load	
INPUT	VOLTAGE RANGE	85 ~ 264VAC	120 ~ 370VDC	
	FREQUENCY RANGE	47 ~ 63Hz		
	EFFICIENCY (Typ.)	76%	80%	81%
	AC CURRENT (Typ.)	1.6A/115V	0.96A/230V	
	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC	40A/230VAC	
LEAKAGE CURRENT	<1mA/ 240VAC			
PROTECTION	OVER LOAD	105 ~ 150% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed		
	OVER VOLTAGE	15 ~ 16.5V	29 ~ 34V	58 ~ 65V
	OVER TEMPERATURE	85°C ±5°C (TSW1) Detect on heat sink of power transistor Protection type : Shut down o/p voltage, recovers automatically after temperature goes down		
ENVIRONMENT	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)		
	WORKING HUMIDITY	20 ~ 90% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH		
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)		
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes		
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL508, TUV EN60950-1 Approved		
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC	I/P-FG:1.5KVAC	O/P-FG:0.5KVAC
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC		
	EMI CONDUCTION & RADIATION	Compliance to EN55011, EN55022 (CISPR22) Class B		
	HARMONIC CURRENT	Compliance to EN61000-3-2, -3		
OTHERS	MTBF	123.1K hrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	55.5*125.2*100mm (W*H*D)		
	PACKING	0.6Kg; 20pcs/13Kg/1.1CUFT		
NOTE	<ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 			

75W Single Output Industrial DIN Rail Power Supply

DR-75 series

Mechanical Specification

Case No. 923 Unit:mm



ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15

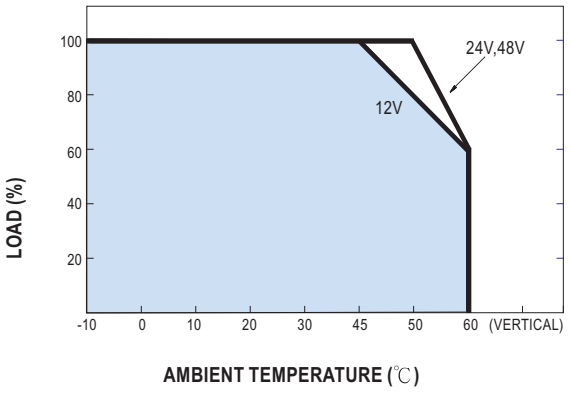
Terminal Pin. No Assignment (TB1)

Pin No.	Assignment
1	FG ⊕
2	AC/N(DC+)
3	AC/L(DC-)

Terminal Pin. No Assignment (TB2)

Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V

Output Derating



Output Derating Vs Input Voltage

