

INDUSTRIAL ETHERNET SWITCHES

NS-SERIES

INDUSTRIAL GRADE ETHERNET SWITCHES

Description

The NS Series of Industrial Ethernet Switches provides 5 or 8 Ethernet Switching ports with extended temperature ranges and the features needed for industrial networks or for anyone building reliable Ethernet network systems. The unmanaged switches automatically switch the transmission speed, 10 Mbps, 100 Mbps or 1000 Mbps (NS-208G only), to match the connected device. The switches use a store-and-forward architecture with full duplex IEEE 802.3x and half duplex back pressure flow control. Each port has an auto-negotiation feature and an auto MDI/MDIX crossover function to automatically match the cable and connected device. Diagnostic LEDs on each port display activity, link and data rate to aid trouble-shooting. Port connectors are shielded RJ-45 connectors. Each switch contains a "soft start" function with overload and high-low voltage protection. PSE versions supply power over the Ethernet to POE compatible devices.

The NS Series switches are designed for DIN rail mounting and include a short DIN rail and a power adapter that plugs into a standard AC receptacle. An optional DIN mount power adapter is available for users who prefer a DIN mounted power adapter.



NS-205 5 Port Ethernet Switch

NS-205

The NS-205 has 5 Ethernet Switching ports that support 10/100Base-T, with a 10/100M auto-negotiation feature and auto MDI/MDIX function. The NS-205 can connect 5 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps) for the corresponding connections. The width of the NS-205 is just 32.30 mm (1.27 inches), so it can be used where space is important. The NS-205OEM1 version has conformal coating and an extended operating temperature range of -40 to +85 °C.

NS-205G

The NS-205G version extends the data rate to a gigabit. The NS-205G supports 10/100/1000 Base-T, with a 10/100/1000 M auto-negotiation feature and auto MDI/MDIX function. It can connect 5 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps or 1000Mbps) for corresponding connections.

The NS-205G's Power Saving Technology, automatically reduces the power usage of ports that are idle. It also analyzes the length of any Ethernet cable connected to it and adjustment of power usage accordingly. Shorter lengths require less power.

NS-205PSE

The NS-205PSE version provides 4 PoE ports which are classified as power source equipment (PSE). The NS-205PSE makes centralized power over Ethernet come true and provides up to 15.4 watts of power per port. The NS-205PSE can be used to power IEEE802.3af compliant powered devices (PD) over the Ethernet cable and eliminates the need for additional power wiring.

Use the NS-205PSE with a DIN-KA52F type Power Supply. Both can be DIN wall-mounted and use a minimum of space in your wiring closet.

- 5 and 8 port industrial grade Ethernet switches
Designed for industrial use.
- Auto DMDI/MDIX feature accepts either type of cable
Use with standard and with crossover cables.
- Available POE Versions
Powers POE compatible Ethernet devices.
- Proven reliability values.
Reliability not available in office grade switches.
- Expanded operating temperature range.
Works in harsh environments.
- Mounts on standard DIN rails.
Easy mounting in network cabinets or on factory wall.
- Includes AC Power Adapter.
Nothing more to buy.

 Approved



ICSDataCom
division of Systems West Inc.

7034 Commerce Circle
Pleasanton, CA 94588
▶ Phone: 925.416.1000
Fax: 925.416.0105
www.icsdatacom.com

NS SERIES DESCRIPTION AND SPECIFICATIONS

NS-208

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



NS-208 8 Port Ethernet Switch

The NS-208 is compatible with Sixnet, Stride, Hirschmann, and other industrial grade Ethernet Switches.

NS-208G

The NS-208G has 8 Ethernet Switching ports that support 10/100/1000 Base-T, with a 10/100/1000M auto-negotiation feature and auto MDI/MDIX function. The NS-208G can connect 8 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps or 1000Mbps) for corresponding connections. The Model NSM-208G comes in a slightly larger metal case that has mounting tabs. The NSM-208G case can also be DIN rail mounted.



NS-208G 8 Port Ethernet Switch

NS-208PSE

The NS-208PSE version provides 8 PoE ports which are classified as power source equipment (PSE). The NS-208PSE makes centralized power over Ethernet come true and provides up to 15.4 watts of power per port. The NS-208PSE can be used to power IEEE802.3af compliant powered devices (PD) over the Ethernet cable and eliminates the need for additional power wiring.

Use the NS-208PSE with a DIN-KA52F series Power Supply. Both can be DIN wall-mounted and use a minimum of space in your wiring closet.

Power Adapters

All NS Series Ethernet Switches are shipped with a wall-mounted AC power adapter. The AC power adapter only powers the switch itself. PSE versions require a the DIN-KA52F 48Volt power supply or its equivalent to supply power for the POE ports.

Universal Power Supplies

There are several POE capable power supplies to choose from. All are universal power supplies with a 115/230 Vac input range and can be DIN mounted.

DIN-KA52F produces 1 Amp at 24 Vdc (24 VA).

DIN-KA52F-48 produces 1 Amp at 48 Vdc (48 VA).

A typical POE capable ET-7000 module consumes 3 watts and uses about 0.1 Amps.



DIN-KA52F Power Supply

Ethernet

10/100/1000Base-T switches compatible with IEEE 802.3, IEEE 802.3u, and IEEE 802.3x. Full duplex IEEE 802.3x and half duplex back pressure flow control

Ports 5 or 8 See Model specs

Speed
NS-205/208 10/100 Mbps
NS-208G 10/100/1000 Mbps

Functions
Auto MDI/ Auto MDIX crossover

Connectors RJ-45 shielded jacks

Diagnostic LEDs on each port display Activity, Link and Data Rate.

NS-205 / NS-205OEM1

10/100 Base-T, 5 port Ethernet Switch compatible with : IEEE 802.3, 802.3u, and 802.3x.

Network Characteristics
Memory Bandwidth 1.4 Gbps
MAC Address Table Size 1 K

Size (W x H x D)
32.30 x 99.0 x 77.5 mm
(1.28 x 3.9 x 3.1 inches)

Reliability
MTBF 778,752 hours (25 °C)

Temperature:
Operating -40 to +75 °C
-40 to +85 °C (OEM1)
Storage -40 to +85 °C

Power
Voltage 10-30 Vdc at 2.4 VA

ESD Protection:
Contact Discharge 8 KV
Air-Gap Discharge 15 KV

NS-205G

10/100/1000 Base-T, 5 port Ethernet Switch compatible with : IEEE 802.3, 802.3u, and 802.3x.

Network Characteristics
Memory Bandwidth 16 Gbps
MAC Address Table Size 8K
Frame buffer memory : 1 Mbit
Jumbo Frames 9K

NS SERIES SPECIFICATIONS

NS-205G Cont'd		NS-208G / NSM-208G	DIN-KA52F
Size	(W x H x D) 37 x 107 x 78 mm (1.46 x 4.2 x 3.1 inches)	10/100/1000 Base-T, 8 port Ethernet Switch compatible with : IEEE 802.3, 802.3u, 802.3ab and 802.3x. Available in a metal case as Model NSM-208G	DIN rail mounted universal power supply module for powering 3-10 NS Series Ethernet Switches.
Temperature:		Network Characteristics	Input
Operating	-30 to +70 °C	Memory Bandwidth 16 Gbps	100-230 Vac at 50-60 Hz.
Storage	-40 to +85 °C (OEM1)	MAC Address Table Size 8K	Output
Power		Frame buffer memory : 1 Mbit	24 Vdc at 1 Ampere
Voltage	10-30 Vdc at 2.4 VA	Jumbo Frames 9K	Size
ESD Protection:		Size NS-208G (W x H x D)	(W x H x D)
Contact Discharge	8 KV	64. x 110.0 x 97.5 mm	68. x 107 x 50 mm
Air-Gap Discharge	15 KV	(2.52 x 4.33 x 3.84 inch)	(2.7 x 4.2 x 1.97 inches)
NS-208		Size NSM-208G (W x H x D)	Temperature:
10/100 Base-T, 8 port Ethernet Switch compatible with : IEEE 802.3, 802.3u, and 802.3x.		72.5. x 110.0 x 101.1 mm	Operating
		(2.86 x 4.33 x 4. inches)	Storage
Network Characteristics		Temperature:	0 to +70 °C
Memory Bandwidth 2 Gbps		Operating	-40 to +85 °C
Size	(W x H x D)	Storage	
64. x 110.0 x 97.5 mm		Reliability	Common Specifications
(2.52 x 4.33 x 3.84 inches)		MTBF	Relative Humidity:
Reliability		499,200 hours (25 °C)	10% to 90% non-condensing
MTBF	499,200 hours (25 °C)	Power	Vibration
Temperature:		Voltage	Standard: IEC61373
Operating	-30 to +75 °C	10-30 Vdc at 7.2 VA	Electrical
Storage	-40 to +85 °C	ESD Protection:	Standard: EN50155
Power		Contact Discharge	Approvals
Voltage	10-30 Vdc at 3.6 VA	Air-Gap Discharge	CE Certified
ESD Protection:		15KV	FCC Certified
Contact Discharge	8KV		Included Accessories
Air-Gap Discharge	15KV		Manual
			Short DIN Rail and mounting screws
			115 Vac Power Adapter

ORDERING INFORMATION

	Part Number
Five Port Ethernet Switch, 10/100 Mbs	NS-205
Five Port Ethernet Switch, 10/100 Mbs with conformal coating,	NS-205OEM1
Five Port Ethernet Switch 10/100/1000 Mbs	NS-205G
Five Port Ethernet Switch, 10/100 Mbs with four POE ports	NS-205PSE
Eight Port Ethernet Switch, 10/100 Mbs	NS-208
Eight Port Ethernet Switch, 10/100/1000 Mbs	NS-208G
Eight Port Ethernet Switch, 10/100/1000 Mbs, metal case with tabs	NSM-208G
Eight Port Ethernet Switch, 10/100/1000 Mbs, with eight POE ports	NS-208PSE
Universal Power Supply, 24 Vdc, 1 Amp	DIN-KA52F
Universal Power Supply, 48 Vdc, 1 Amp	DIN-KA52F-48