

NS2051-4P/1T

5-port PoE Unmanaged Industrial Ethernet Switch



OVERVIEW

The IFS 5-port PoE Unmanaged Industrial Ethernet Switch provides four 10/100Mbps Ethernet ports with IEEE802.3-af PoE and one 10/100Mbps non-PoE Ethernet port.

This unmanaged switch provides plug-and-play installation with no programming required and is ideal for use in small IP systems. The switch uses an IP-30 standard metal case and can also be used in electrically harsh and climatically demanding environments. The switch accommodates either DIN-rail or wall mounting for efficient installation in multiple applications.

This switch is engineered with a high-performance switch architecture capable of providing a non-blocking switch fabric and wire-speed throughput of 1Gbps. With its 2K MAC address table, this switch offers wire-speed packet transfer performance without the risk of packet loss. The Flow Control function allows the switch to deliver fast and reliable IP data transfer.

This switch is ideal for applications such as IP cameras, access control, VoIP and wireless access points.

STANDARD FEATURES

RJ-45 Ports

- 4-Port 10/100Base-TX (PoE)
- 1-Port 10/100Base-TX (non-PoE)
- Auto MDI/MDI-X
- Auto-negotiation

High Performance Architecture

- Unmanaged plug and play installation requiring no programming
- Store-and-Forward switching architecture with wire-speed filtering and forwarding rates

- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x PAUSE frame-flow control (full-duplex)
- Integrated address-lookup engine supports 2K absolute MAC addresses
- CSMA/CD Protocol
- Automatic source-address learning and aging
- Support to handle up to 1522 bytes packet size

Power over Ethernet (PoE)

- Up to 4 IEEE 802.3af devices powered
- Complies with IEEE 802.3af Power over Ethernet End-Span PSE
- Supports up to 15.4 watts for each PoE port
- Auto detect powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 328 ft. (100m)

Robust Hardened Design

- Slim IP-30 metal enclosure for protection
- Provides either DIN-rail or wall-mounting
- 24~48VDC or 24VAC Operation
- Redundant power with reverse-polarity protection
- Removable terminal block for master and slave power
- Alarm relay output for power-failure alert
- Voltage/surge-suppression
 - EFT 6000VDC protection for power lines
 - ESD 6000VDC protection for Ethernet
- Complies with IEC60068-2-xx standards for free-fall, shock and vibration
- Wide operating temperature range of -40°C ~ +75°C

Warranty

- 3-year limited warranty

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5-port PoE Unmanaged
Industrial Ethernet Switch

North America T 855-286-8889 Asia T 852-2907-8108 Australia T 61-3-9239-1200 Europe T 32-2-725-11-20 Latin America T 561-998-6114

Specifications

RJ45 Ports

10/100Base-TX Connectors	RJ-45 (4) PoE and (1) non-PoE (5 total)
Port Configuration	Auto MDI/MDI-X
Port Speed	Auto-negotiate
Electro Static Discharge (ESD) Protection	6KVDC

PoE

PoE Standard	IEEE 802.3af Power over Ethernet / PSE
PoE Power Supply Type	End-Span
PoE Power Output	Per Port 48V DC, 350mA . Max. 15.4 Watts
Power Pin Assignment	1/2(+), 3/6(-)

Switch Performance

Switch Architecture	Store-and-Forward
Switch Fabric	1Gbps / non-blocking
Throughput (Packet per second)	0.744Mpps@64bytes
Address Table	2K entries
Shared Data Buffer	1Mbit on-chip frame buffer
Maximum Frame Size	1522 Bytes packet
Flow Control	Back pressure for Half-Duplex, IEEE 802.3x PAUSE Frame for Full-Duplex

LED Indicators

Power	Power input 1 – Green; Power input 2 – Green
Power Fault	Proper Operation – Off; Fault –Green
RJ-45 (10/100Mbps)	100Mbps Activity – Green; 10Mbps Activity – Off
Fiber (100Base-FX)	Connected to network – Green
Optical Link	Link established – Steady Green; TX/RX Activity – blinking green
PoE	PoE in use – Amber

Electrical & Mechanical

Supply Voltage	24–48VDC or 24VAC, Redundant power with polarity-reverse protection function
Power Consumption	76.3Watts Max.
Electrical Fast Transient (EFT) Protection	6KVDC
Power and Alarm Fault Connector	6-pin removable screw terminal
Alarm Fault Relay	Provides one relay output for power failure notification; 24VDC – 1A max.
Enclosure	IP-30 slim-type metal enclosure
Mounting	DIN-rail kit and wall-mount ears
Dimensions (in/mm) (W x D x H)	2.20 x 3.46 x 5.31 in. (56 x 87.8 x 135mm)
Weight (lbs./kg)	1.86 lbs./0.842kg

Environmental

MTBF	> 100,000 Hrs @ 25°C
Operating Temperature	-40°C~75°C
Storage Temperature	-40°C~85°C
Relative Humidity	0%~95% (non-condensing)

Standards Compliance

IEEE Standards	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX /100Base-FX IEEE 802.3x Flow Control and Back pressure IEEE 802.3-af PoE (15.4w)
IEC Standards	IEC60068-2-32(Free fall) IEC60068-2-27(Shock) IEC60068-2-6(Vibration)
EIA/TIA-568 Standards	2-Pair UTP Cat. 3, 4, 5 (100meters, max.) EIA/TIA-568 100-ohm STP (100meters, max.)
Regulation	FCC Part 15 Class A, CE

Ordering Information

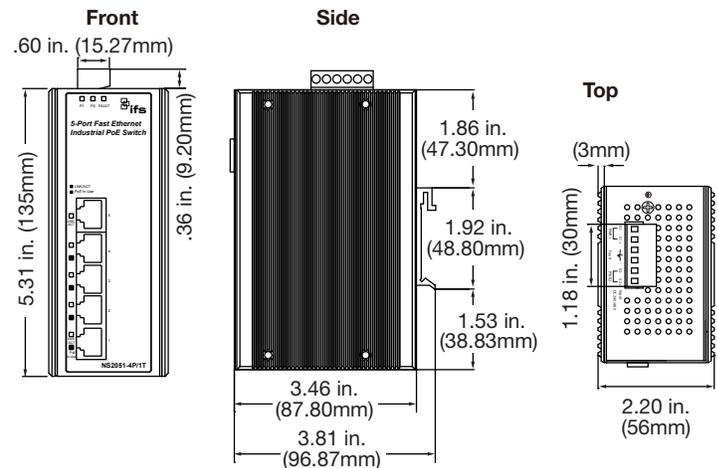
NS2051-4P/1T	5-port PoE Unmanaged Industrial Ethernet Switch
Included Accessories	User's Manual, DIN-Rail Kit, Wall Mount Kit

Note: External power supply must be ordered separately.

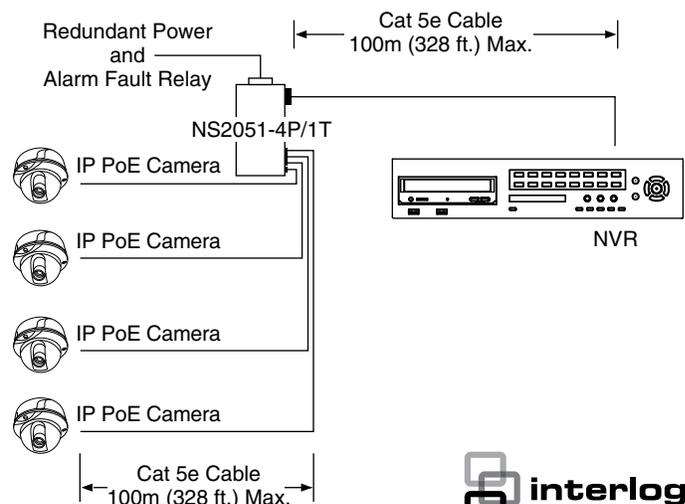
Accessories

PS48VDC100W-DIN	48VDC@2A (100W) DIN-Rail Mount Hardened Power Supply (100–240VAC)
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Dimensional Diagram



Typical Application



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Specifications subject to change without notice.

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