



## Product Data Sheet

# 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

- 4 RJ-45 Ports 10/100Base-TX (PoE)
- 1 RJ-45 Ports 10/100Base-TX (non-PoE)
- Auto MDI/MDI-X
- High Performance Architecture
- Unmanaged plug and play installation requiring no programming
- Store-and-Forward switching architecture with wire-speed filtering and forwarding rates
- Power over Ethernet (PoE)
- Up to 4 IEEE 802.3af devices powered
- Supports up to 15.4 watts for each PoE port
- Auto detect powered device (PD)
- Robust Hardened Design
- 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
- Complies with IEC60068-2-xx standards for free-fall, shock and vibration
- Wide operating temperature range of -40°C ~ +75°C

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### 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)

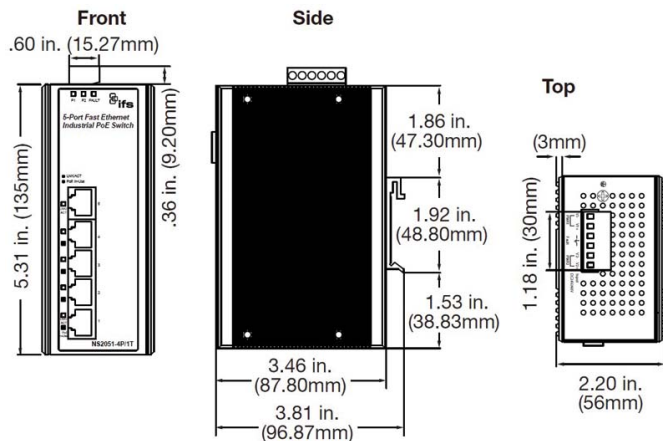
#### Standards Compliance

- 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

#### Accessories

- PS48VDC240W-EU: 100-240V AC Input 48V DC 5A Output Power Supply Hardened Brick model with EU plug
- PS48VDC240W-UK: 100-240V AC Input 48V DC 5A Output Power Supply Hardened Brick model with UK plug

### Diagram



### Ordering Information

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5-port PoE Unmanaged Industrial Ethernet Switch

