

## 5 Port Unmanaged Industrial Ethernet Switch

IES5102



\*actual product may vary from photos

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## FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by StarTech.com could void the user's authority to operate the equipment.

## Industry Canada Statement

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [A] est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (A)/NMB-3(A)

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# Introduction

## Packaging Contents

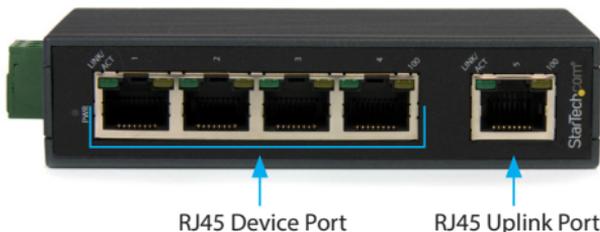
- 1x 5 Port Ethernet Switch (w/ Attached DIN Rail Bracket)
- 1x Terminal Block
- 1x Instruction Manual CD

## System Requirements

- 2 or 3-wire 12~48V DC power source
- 10/100Mbps compatible Ethernet network
- RJ45 terminated Ethernet cabling (Cat 5 or better recommended)

# Product Diagram

## Front View

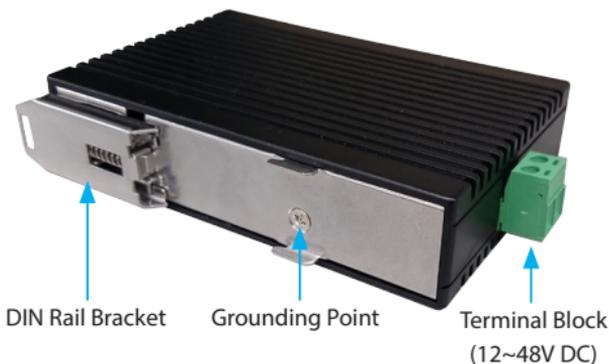


## LED Indicators

The IES5102 has LED indicators for each of the RJ45 ports on the switch to show the status of each connection

| LED                 | State    | Indication  |
|---------------------|----------|---|
| LINK/ACT<br>(Green) | Steady   | Valid network connection established (Link)           |
|                     | Flashing | Transmitting or receiving data (Activity)             |
| 100 (Amber)         | Steady   | Port is transferring at 100Mbps                       |
|                     | Off      | Port is transferring at 10Mbps or is not transferring |

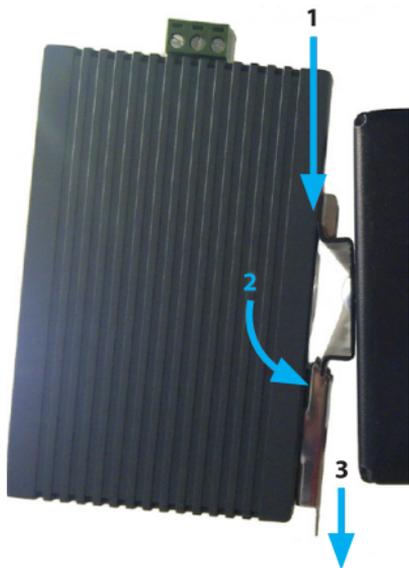
## Rear & Side View



# Installation

## DIN Rail Mounting

1. Hook the top, fixed DIN rail bracket on the rear of the Ethernet Switch to the top edge of the DIN rail.
2. Push the lower portion of the Ethernet Switch back against the DIN rail, which will cause the bottom, spring-loaded DIN clip to snap in place.
3. To remove the Ethernet Switch from the DIN rail, pull the small tab on the bottom of the spring-loaded clip to release it.



## Connecting to Power

1. If already inserted into the Ethernet Switch, gently, yet firmly pull the terminal block connector housing from the Ethernet Switch.
2. Using a small flat head screw driver, loosen the screws for the terminal block connectors.
3. Connect the power and ground wires from your DC power source to the proper terminal block connectors and fasten the screws. The terminals are marked on the Ethernet Switch housing.



4. Reinsert the terminal block housing into the Ethernet Switch.

## Network Connection

1. Ensure that both the IES5102 and any devices that are to be connected to it are powered off.
2. Prepare the necessary cabling for each device that is to be attached to the IES5102. Use the following chart as reference for cabling types:

| Speed      | Connector | Port Speed<br>(Half/ Full Duplex) | Cable Type                        | Max.<br>Distance |
|------------|-----------|-----------------------------------|-----------------------------------|------------------|
| 10Base-T   | RJ45      | 10/20 Mbps                        | 2-pair UTP/STP<br>Cat 5 or better | 100 m            |
| 100Base-TX | RJ45      | 100/200 Mbps                      | 2-pair UTP/STP<br>Cat. 5          | 100 m            |

3. Connect your uplink (connection to an upstream network switch) to the Uplink Port, followed by connecting your network devices to the remaining RJ45 ports using RJ45 terminated Ethernet cabling (Cat 5 or better recommended).
4. Check to ensure that both devices are transmitting and receiving data by checking their LED displays.

# Specifications

|                                   |   |
|-----------------------------------|---|
| <b>Ports</b>                      | 5   |
| <b>Industry Standards</b>         | IEEE 802.3 (10BASE-T), IEEE 802.3u (100BASE-TX), IEEE 802.3az (Energy Efficient Ethernet) |
| <b>External Ports</b>             | 5 - RJ-45 Female<br>1 - Terminal Block (3 Wire)   |
| <b>Maximum Data Transfer Rate</b> | 200 Mbps (Full-Duplex), 100 Mbps (Half-Duplex)  |
| <b>Maximum Cable Length</b>       | 328 ft [100 m]  |
| <b>Flow Control</b>               | IEEE 802.3x Full-Duplex   |
| <b>Compatible Networks</b>        | 10/100 Mbps   |
| <b>Auto MDIX</b>                  | Yes   |
| <b>Full Duplex Support</b>        | Yes   |
| <b>Switching Architecture</b>     | Store-and-Forward<br>Auto-Negotiation   |
| <b>MTBF</b>                       | 1,179,133 Hours   |
| <b>Supported Protocols</b>        | IEEE 802.1P Quality of Service (QoS)  |
| <b>OS Compatibility</b>           | OS Independent; No additional drivers or software required                                |
| <b>Color</b>                      | Black   |
| <b>Enclosure Type</b>             | Plastic   |
| <b>Product Dimensions (LxWxH)</b> | 70mm x 26mm x 110mm   |
| <b>Product Weight</b>             | 7.1 oz [200 g]  |
| <b>LED Indicators</b>             | 1 - Power<br>5 - Link/Activity<br>5 - Activity (100 Mbps)                                 |
| <b>Power Source</b>               | Terminal Block  |

|                              |                                |
|------------------------------|--------------------------------|
| <b>Input Voltage</b>         | 12 ~ 48 DC                     |
| <b>Input Current</b>         | 0.05 A ~ 0.2 A                 |
| <b>Power Consumption</b>     | 2.12W Max                      |
| <b>Operating Temperature</b> | -10°C to 60°C (14°F to 140°F)  |
| <b>Storage Temperature</b>   | -25°C to 85°C (-13°F to 185°F) |
| <b>Humidity</b>              | 5~95% RH (Non-Condensing)      |

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## Warranty Information

This product is backed by a two year warranty.

In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

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