Owner's Manual

TRIPP LITE
SERIES

Unmanaged Industrial Fast 10/100 Ethernet Switches

Models:
NFI-U05
NFI-U08-1
NFI-U08-2

Purchased product may differ from image.

Este manual está disponible en español en la página de Eaton:
Tripplite.Eaton.com/support

Ce manuel est disponible en français sur le site Web de Eaton :
Tripplite.Eaton.com/support

Dieses Handbuch ist in deutscher Sprache auf der Eaton-Website verfügbar:
Tripplite.Eaton.com/support

Questo manuale è disponibile in italiano sul sito web di Eaton:
Tripplite.Eaton.com/support

Powering Business Worldwide

Package Contents

- NFI-U05 or NFI-U08-1 or NFI-U08-2 10/100 Ethernet Switch
- DIN Rail-Mounting Clip (Preinstalled)
- Wall-Mount Mask (Preinstalled on NFI-U08-1 Only)
- Owner's Manual

Product Features

- 5 or 8 auto-negotiable 10/100 Mbps RJ45 ports
- Supports 10/100Base-T, Full Duplex and auto MDI/MDI-X crossover function
- Simple plug-and-play installation and operation with no configuration required
- Rugged high-strength case
- Industrial temperature switch models support operating temperature range of -40°F to 167°F (-40°C to 75°C)
- Easy-to-read LEDs indicate connection and activity status for each port
- Meets the following IEEE standards:
  - o IEEE 802.3 10Base-T
  - o IEEE 802.3u 100Base-T
  - o IEEE 802.3 Auto Negotiation
  - o IEEE 802.3x Flow Control
- Supports MAC address auto-learning and auto-aging
- Preinstalled durable rail clip mounts firmly to any standard 35 mm DIN rail*

*__Note:__ *Only NFI-U05 and NFI-U08-1 are both DIN and wall mountable*

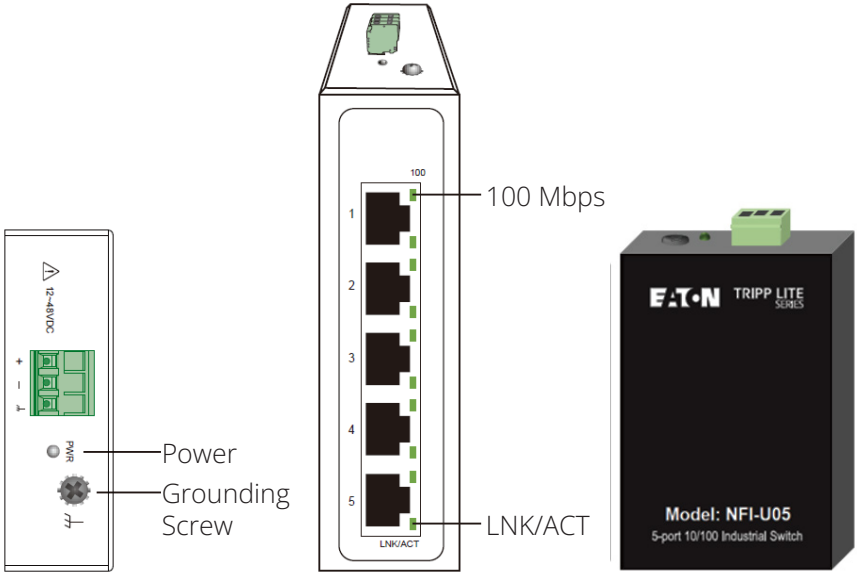
Optional Accessories

- N001-Series Cat5e 350 MHz Snagless UTP Cables
- N002-Series Cat5e 350 MHz UTP Ethernet Cables
- N200-Series Cat6 Gigabit Molded UTP Ethernet Cables
- N201-Series Cat6 Gigabit Snagless Molded UTP Ethernet Cables

Product Overview

NFI-U05

5-Port Unmanaged Industrial Fast 10/100 Ethernet Switch, Plug and Play, Ruggedized, DIN and Wall Mountable

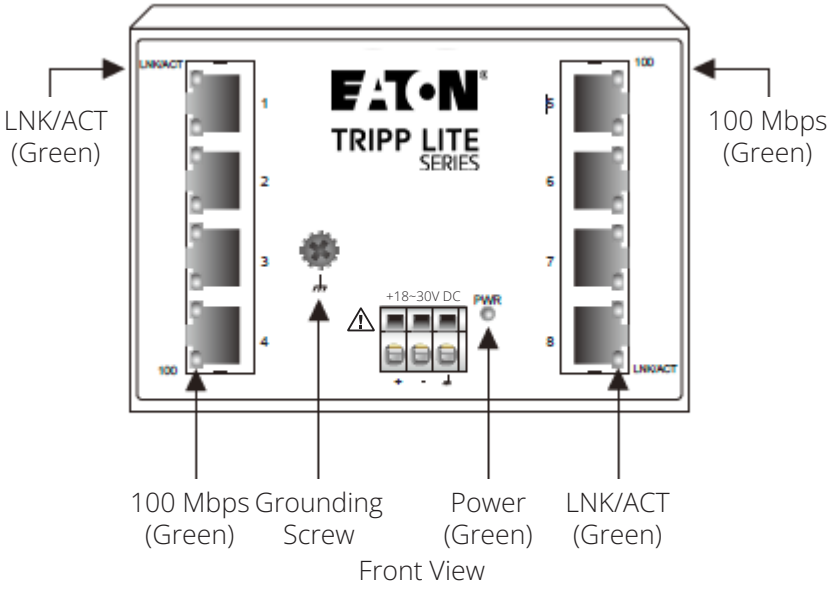


Top View Front View Side View

Product Overview

NFI-U08-1

8-Port Unmanaged Industrial Fast 10/100 Ethernet Switch, Plug and Play, Ruggedized, DIN and Wall Mountable

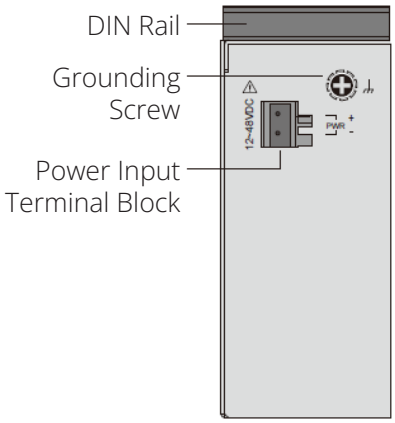


Front View

Product Overview

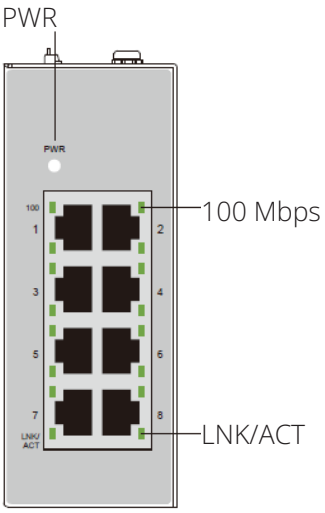
NFI-U08-2

8-Port Unmanaged Industrial Fast 10/100 Ethernet Switch, Plug and Play, Ruggedized, DIN Mountable



Top View

Grounding Screw



Front View

DIN-Rail Mounting and Dismounting Instructions

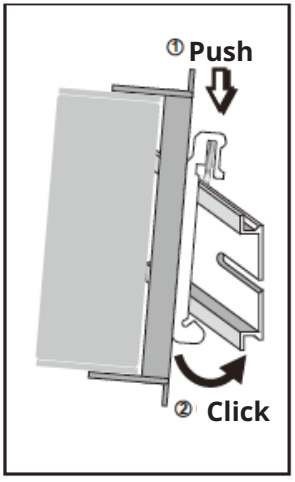
ATTENTION: The NFI-Series switches are open-type devices and shall be DIN mounted or wall mounted (NFI-U05 and NFI-U08-1 only) in a rack enclosure. The ambient temperature should not exceed 75°C (167°F).

Mounting the Switch

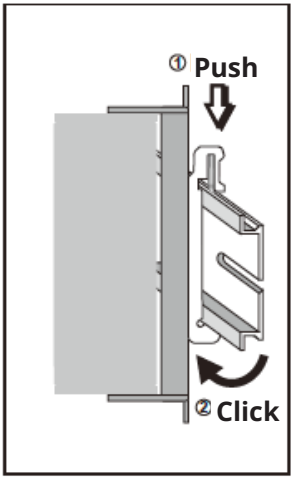
Place the switch on the DIN rail from above using the built-in slot. Push the front of the switch toward the mounting surface until it snaps into place. You will hear a "click" to indicate it has successfully snapped into place.

Dismounting the Switch

Press the switch from the top, then pull out the lower edge of the switch to remove it from the DIN rail.



Mounting the Switch



Removing the Switch

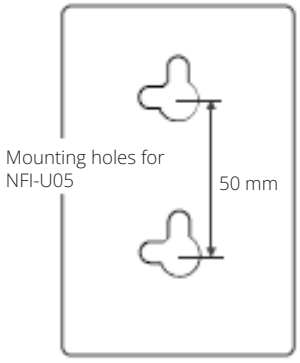
DIN-Rail Mounting and Dismounting Instructions

ATTENTION: A corrosion-free DIN mounting rail is advisable. When mounting the switch, be sure to allow enough space between devices to install the cabling and to ensure proper airflow.

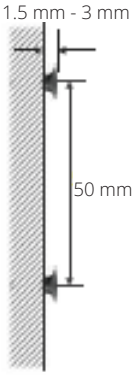
Wall-Mounting Installation for NFI-U05 and NFI-U08-1 Only

Wall-Mounted Mask (NFI-U05 Only)

1. Mount the switch by using mounting holes on the wall at the appropriate places.



Mounting Holes for Drawing of NFI-U05



Screw Installation Distance

2. The switch can be wall mounted either vertically or horizontally.

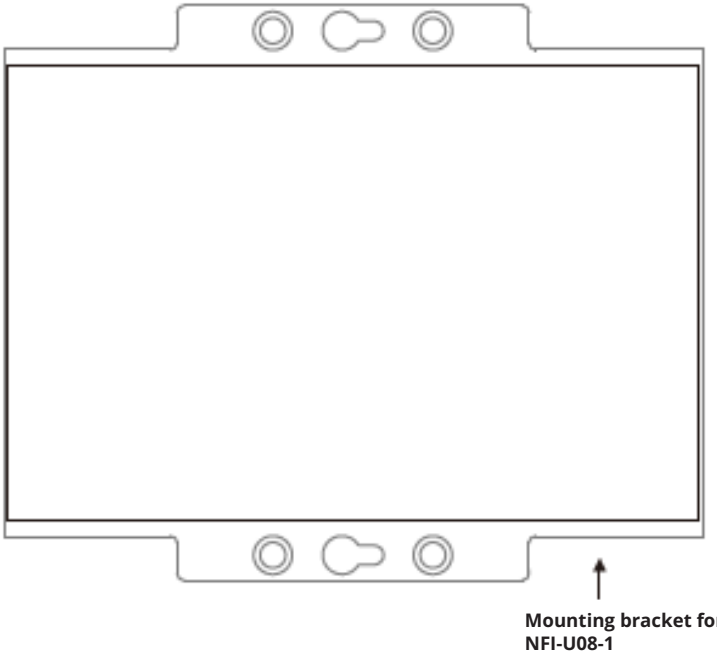
Straight Direction Installation

Horizontal Direction Installation

DIN-Rail Mounting and Dismounting Instructions

Wall-Mounted Mask (NFI-U08-1 Only)

1. Remove the DIN rail kit before wall mounting.
2. Mount the switch by using mounting holes on the wall at the appropriate places.
3. The switch can be wall mounted either vertically or horizontally.



Grounding the Switch

Grounding and wire routing help limit the effects of line noise caused by electromagnetic interference (EMI). Run the ground connection from the ground screw to the grounding surface, then connect the ground connection from the terminal block to the grounding surface prior to connecting devices.

ATTENTION: This switch is intended for mounting on a well-grounded surface, such as a metal panel.

Wiring Requirements

WARNING: Safety measures should be taken before connecting the power cable. Turn off the power before connecting modules or wires. The correct power supply voltage is listed on the product label. Check the voltage of your power source to make sure you are using the correct voltage. DO NOT use a voltage greater than what is specified on the product label.

- Use minimum 24AWG power cable wire when connecting.
- Use a Power Supply that provides a Limited Power Source. These power supply are generally marked LPS.
- Be sure to observe the polarity when connecting. Not following polarity can damage your unit and void your warranty.

Please read and follow these guidelines:

- Use separate paths to route wiring for power and devices. If power wiring and device wiring paths must cross, make sure the wires are perpendicular at the intersection point.

  Note: *Do not run signal or communications wiring and power wiring through the same wire conduit. To avoid interference, wires with different signal characteristics should be routed separately.*

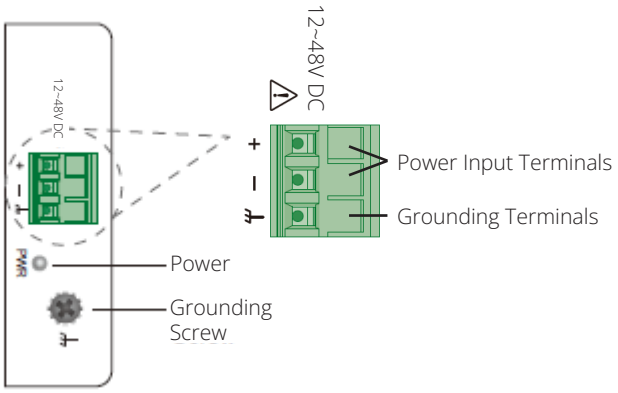
- You can use the type of signal transmitted through a wire to determine which wires should be kept separate. Wiring that shares similar electrical characteristics can be bundled together.
- You should separate input wiring from output wiring.
- Be advised that you should label the wiring to all devices in the system.

Wiring Requirements

Wiring Power Input

NFI-U05 with 3-Pin Terminal Block

Check the polarity while connecting. Top view of the Terminal Block is shown in the figure below:



CAUTION:

- Use copper conductors only.
- Wiring cable temperature should support at least 105˚C (221˚F).
- Tighten the wire to a torque value of 0.5 N•m (4.5 in•lb). with green connector.
- The wire gauge for the terminal block should range between 12~24 AWG with green connector and 12~22 AWG with gray connector.

To insert the power wire and connect the 12~48V DC at a maximum of 0.15A DC power to the power terminal block, follow the steps below:

- Use a flathead screwdriver to loosen the wire-clamp screws.
- Insert the negative/positive DC wires into the (- / +) terminals, respectively.
- Tighten the wire-clamp screws to prevent the wires from loosening

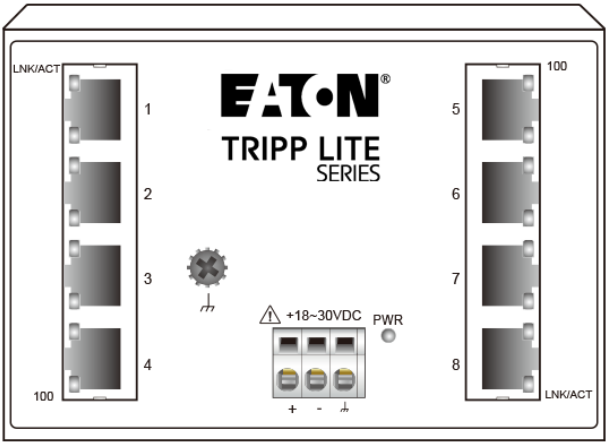
ATTENTION: Use a power supply from 12~48V DC. The device power shall be supplied by SELV circuit.

Wiring Requirements

NFI-U08-1 with 3-Pin Terminal Block

Note: *The 3-Pin Terminal Block is integrated to switch case. The NFI-U08-1 is designed to face forward and requires more space. It utilizes a different type of terminal block (gray color) commonly known as a PCB terminal block, as it is directly mounted in the PCBA. The NFI-U08-1 model does not require an additional male connector like the NFI-U05 and NFI-U08-2 models.*

Check the polarity while connecting. Top view of the Terminal Block is shown in the figure below:



CAUTION:

- Use copper conductors only.
- Wiring cable temperature should support at least 105˚C (221˚F).
- The wire gauge for the terminal block should range between 12~22 AWG.

To insert the power wire and connect the 18~30V DC at a maximum of 0.5A DC power to the power terminal block, follow the steps below:

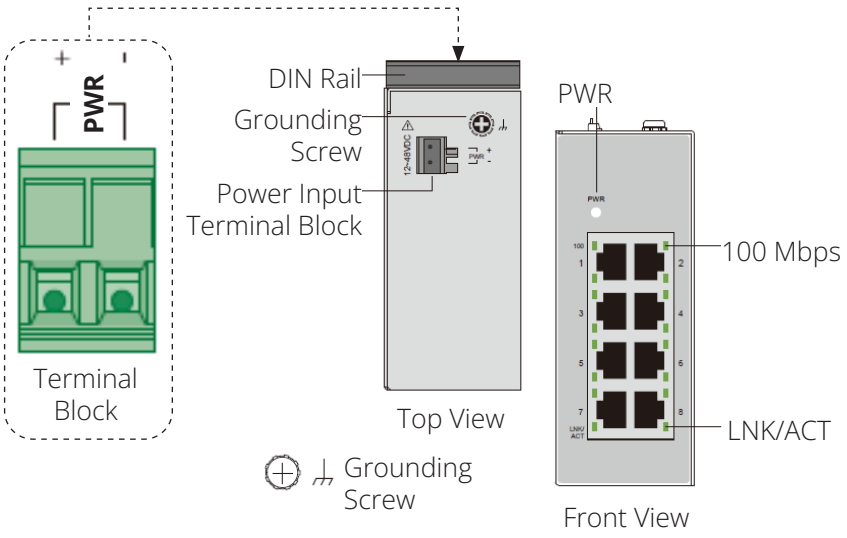
- Use a flathead screwdriver to push in and open the wire clamp.
- Insert the negative/positive DC wires into the (- / +) terminals, respectively.
- Tighten the wire clamp by releasing the screwdriver to prevent the wires from loosening.

ATTENTION: Use a power supply from 18~30V DC. The device power shall be supplied by SELV circuit.

Wiring Requirements

NFI-U08-2 with 2-Pin Terminal Block

You can use "PWR" for Power input. Top view of the Terminal Block is shown in the figure below:



CAUTION:

- Use copper conductors only.
- Wiring cable temperature should support at least 105°C (221˚F).
- Tighten the wire to a torque value 0.5 N•m (4.5 in•lb).

Note: *The NFI-U08-2 wire gauge for the terminal block should range between 12 and 24 AWG. Power input is 18~30VDC at a maximum of 0.2A DC power.*

To insert power wire and connect the 12~48VDC at a maximum of 0.2A DC power to the power terminal block, follow these steps:

- Use a flat-head screwdriver to loosen the wire-clamp screws.
- Insert the negative/positive DC wires into the PWR-/PWR+ terminals, respectively.
- Tighten the wire-clamp screws to prevent the wires from loosening.

ATTENTION: Use a power supply from 12~48VDC. The device power shall be supplied by 61010-2-301 R/C power with SELV, Limited energy output.

Cabling

Connect one end of an RJ45 Ethernet cable (see **Optional Accessories**) into the switch's RJ45 Ethernet port. Connect the other end to a network device. Cat5e cable or above is recommended.

All ports support Fast Ethernet (10/100Base-T), as well as auto-negotiation and auto MDI/MDI-X to eliminate the need for crossover cabling.

LED Indicators

PWR (Green)	Illuminated	Power on by Terminal Block PWR or DC jack
	Off	Terminal Block PWR/DC jack fails or is unavailable
10/100 (Green)	Illuminated	Link speed is 100 Mbps
	Blinking	Data is transmitting/receiving
	Off	Link speed is 10 Mbps
LNK/ACT (Green)	Illuminated	Copper port link-up
	Blinking	Data is transmitting/receiving
	Off	Port disconnected or link failed

Specifications

Power	
Input Voltage	NFI-U05: Single power input 12~48VDC/0.15A NFI-U08-1: Single power input 18~30VDC/0.2A NFI-U08-2: Single power input 12~48VDC/0.2A
Connection	NFI-U05/NFI-U08-1: 3-pin terminal block NFI-U08-2: 2-pin terminal block
Reverse Polarity Protection	Present (all models)
Power Consumption (System Only)	NFI-U05/NFI-U08-2: 3W NFI-U08-1: 4W
Grounding Screw	Present (all models)
Interface	
RJ45	5 or 8 x 10/100Base-T, auto-negotiation, auto-MDI/MDI-X, Full/Half Duplex and Flow Control
LED	PWR (Green): Power 100 (Green): Port 1~5 or 1~8 100 Mbps Ethernet speed LNK/ACT (Green): Port 1~5 or 1~8 data transmitting/receiving
Environmental	
Operating Temperature	-40°C to 75°C (-40°F to 167°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Operating Humidity	5 to 95% (Non-Condensing)
Storage Humidity	5 to 95% (Non-Condensing)
Operating Altitude	2000 m
Regulatory Approvals	
EMI/EMC	FCC Part 15 EN 55011 EN 61000-6-4 EN IEC 61000-6-2 EN 55032 EN 55024

ATTENTION: If the switch is used in a manner not specified here, the protection provided by the switch may be impaired.

Warranty

3-Year Limited Warranty

We warrant our products to be free from defects in materials and workmanship for a period of three (3) years from the date of initial purchase. Our obligation under this warranty is limited to repairing or replacing (at its sole option) any such defective products. Visit Tripplite.Eaton.com/support/product-returns before sending any equipment back for repair. This warranty does not apply to equipment which has been damaged by accident, negligence or misapplication or has been altered or modified in any way.

EXCEPT AS PROVIDED HEREIN, WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

EXCEPT AS PROVIDED ABOVE, IN NO EVENT WILL WE BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. Specifically, we are not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, costs of substitutes, claims by third parties, or otherwise.

WEEE Compliance Information for Customers and Recyclers (European Union)

Under the Waste Electrical and Electronic Equipment (WEEE) Directive and implementing regulations, when customers buy new electrical and electronic equipment from Eaton, they are entitled to:

- Send old equipment for recycling on a one-for-one, like-for-like basis (this varies depending on the country)
- Send the new equipment back for recycling when this ultimately becomes waste

Warranty

FCC Notice, Class B

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.

Note: This equipment has been tested and found to comply with the limits for a Class B 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.

Any changes or modifications to this equipment not expressly approved by Eaton could void the user's authority to operate this equipment.

Use of this equipment in life support applications where failure of this equipment can reasonably be expected to cause the failure of the life support equipment or to significantly affect its safety or effectiveness is not recommended.

Eaton has a policy of continuous improvement. Specifications are subject to change without notice. Photos and illustrations may differ slightly from actual products.

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