Owner's Manual

8-Port Unmanaged Industrial Fast 10/100 Ethernet Switch with EIP QoS, DIN or Wall-Mountable

Model: NFI-U08-2A

Este manual está disponible en español en la página de Tripp Lite: tripplite.com

Ce manuel est disponible en français sur le site Web de Tripp Lite : tripplite.com

Русскоязычная версия настоящего руководства представлена на веб-сайте компании Tripp Lite по адресу: tripplite.com

Dieses Handbuch ist in deutscher Sprache auf der Tripp Lite-Website verfügbar: tripplite.com

WARRANTY REGISTRATION

Register your product today and be automatically entered to win an ISOBAR® surge protector in our monthly drawing!

tripplite.com/warranty

1111 W. 35th Street, Chicago, IL 60609 USA • tripplite.com/support

Package Contents

- NFI-U08-2A Ethernet Switch
- DIN Rail-Mounting Clip (Preinstalled)
- Owner's Manual

Product Features

- 8 auto-negotiable 10/100 Mbps RJ45 ports
- Supports 10/100Base-T, Full Duplex and auto MDI/MDI-X crossover function
- 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-TX
  - o IEEE 802.3 Auto Negotiation
  - o IEEE 802.3x Flow Control
  - o IEEE 802.1p Class of Service
- Supports MAC address auto-learning and auto-aging
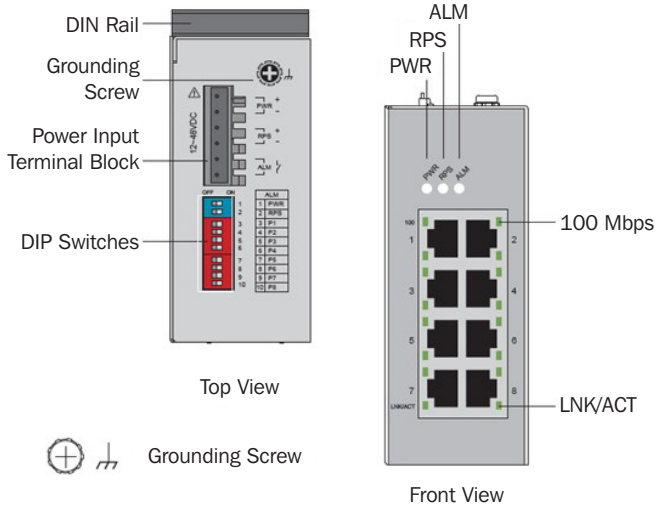
Product Features

• EIP/QoS/Flow and Storm Control
• Preinstalled durable rail clip mounts firmly to any standard 35 mm DIN rail

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

8-Port Unmanaged Industrial Fast 10/100 Ethernet Switch with EIP QoS, DIN or Wall-Mountable

DIN Rail
Grounding Screw
Power Input Terminal Block
DIP Switches

Top View

Grounding Screw

ALM
RPS
PWR

100 Mbps

LNK/ACT

Front View

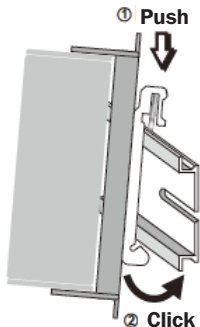# DIN-Rail Mounting and Dismounting Instructions

⚠️ **ATTENTION:** The NFI-U08-2A is an open-type device and shall be DIN-rail mounted or wall mounted (optional) in a cabinet or rack enclosure. The ambient temperature should not exceed 75°C (167°F).
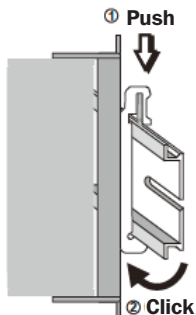
Mounting the Switch

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.

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. Calculate the maximum possible current in each power wire and common wire. Confirm all electrical codes dictating the maximum current allowable for each wire size. If current exceeds the maximum rating, the wiring can overheat causing serious damage to your equipment.

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

You can use "PWR" for Primary Power input and "RPS" for Redundant Power Input. Check the polarity while connecting. The top view of the Terminal Block is shown in the figure below:
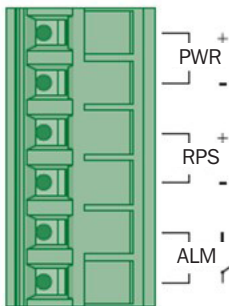
Terminal Block

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 wire gauge for the terminal block should range between 12 and 24 AWG.

Wiring Requirements

To insert power wire and connect the specified voltage and maximum electric current 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, 0.5A maximum. The device power shall be supplied by LPS circuit.

Wiring Requirements

Wiring the Relay Contact (ALM)

The switch has one set of relay alarm output. This relay contact uses two contacts of the terminal block on the switch top panel.

The two contacts of the 6-pin terminal block connector are used to detect user-configured events. The two wires attached to the fault contacts form an open circuit when a user-configured event is triggered. If a user-configured event does not occur, the fault circuit remains closed.
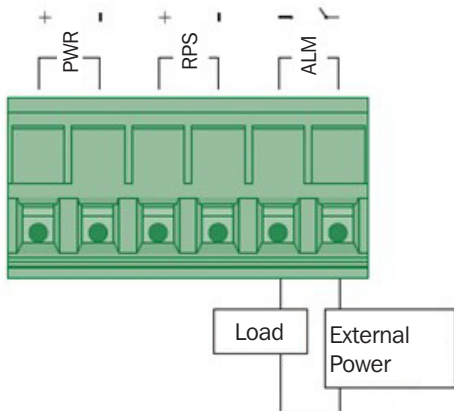

Relay rating: 24V, 1A

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.

• Ports 1-8 of the switch support Fast Ethernet (10/100 Mbps)
• All ports support auto-negotiation and auto MDI/MDI-X to eliminate the need for crossover cabling.

DIP Switch Settings
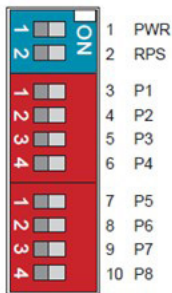
	ON	Primary power alarm reporting is enabled
PWR	OFF	Primary power alarm reporting is disabled
RPS	ON	Redundant power alarm reporting is enabled
	OFF	Redundant power alarm reporting is disabled
P1	ON	Port 1 link alarm reporting is enabled
	OFF	Port 1 link alarm reporting is disabled

Cabling

P2	ON	Port 2 link alarm reporting is enabled
	OFF	Port 2 link alarm reporting is disabled
P3	ON	Port 3 link alarm reporting is enabled
	OFF	Port 3 link alarm reporting is disabled
P4	ON	Port 4 link alarm reporting is enabled
	OFF	Port 4 link alarm reporting is disabled
P5	ON	Port 5 link alarm reporting is enabled
	OFF	Port 5 link alarm reporting is disabled
P6	ON	Port 6 link alarm reporting is enabled
	OFF	Port 6 link alarm reporting is disabled
P7	ON	Port 7 link alarm reporting is enabled
	OFF	Port 7 link alarm reporting is disabled
P8	ON	Port 8 link alarm reporting is enabled
	OFF	Port 8 link alarm reporting is disabled

LED Indicators

PWR (Green)	Illuminated	Primary power on
	Off	Primary power off or failure
RPS (Green)	Illuminated	Redundant power on
	Off	Redundant power off or failure
ALM (Red)	Illuminated	Alarm triggered for abnormal power or port link down status
	Off	Normal operation or DIP switch off
100 (Green) 1-8 RJ45 Ports	Illuminated	Link speed at 100 Mbps
	Off	Link speed at 10 Mbps
LNK/ACT (Green) 1-8 RJ45 Ports	Illuminated	Port link up
	Blinking	Activity (receiving or transmitting data)
	Off	Port disconnected or link failed

Specifications

Power	
Input Voltage	Dual-power inputs 12-48VDC/0.5A
Connection	6-pin terminal block
Reverse Polarity Protection	Present
Power Consumption (System Only)	5W
Grounding Screw	Present
Interface	
RJ45	8 x 10/100 Base-T, auto-negotiation, auto-MDI/MDI-X, Full/Half Duplex and Flow Control
LED	PWR (Green): Power RPS (Green): Power by terminal block RPS ALM (Red): Power and RPS fails and RJ45 port link down 100 (Green): Port 1~8 100 Mbps Ethernet speed at 100 Mbps LNK/ACT (Green): Port 1~8 data transmitting/receiving
Alarm Relay Output	1 alarm relay output for power loss and port link down

Specifications

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 / BS EN 55011 EN 61000-6-4 / BS EN 61000-6-4 EN IEC 61000-6-2 / BS EN 61000-6-2 EN 55032 / BS 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 and Product Registration

3-Year Limited Warranty

Seller warrants this product, if used in accordance with all applicable instructions, to be free from original defects in material and workmanship for a period of three (3) years from the date of initial purchase. If the product should prove defective in material or workmanship within that period, Seller will repair or replace the product, at its sole discretion.

THIS WARRANTY DOES NOT APPLY TO NORMAL WEAR OR TO DAMAGE RESULTING FROM ACCIDENT, MISUSE, ABUSE OR NEGLECT. SELLER MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY EXPRESSLY SET FORTH HEREIN. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ALL IMPLIED WARRANTIES, INCLUDING ALL WARRANTIES OF MERCHANTABILITY OR FITNESS, ARE LIMITED IN DURATION TO THE WARRANTY PERIOD SET FORTH ABOVE; AND THIS WARRANTY EXPRESSLY EXCLUDES ALL INCIDENTAL AND CONSEQUENTIAL DAMAGES. (Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from jurisdiction to jurisdiction.)

WARNING: The individual user should take care to determine prior to use whether this device is suitable, adequate or safe for the use intended. Since individual applications are subject to great variation, the manufacturer makes no representation or warranty as to the suitability or fitness of these devices for any specific application.

Product Registration

Visit tripplite.com/warranty today to register your new Tripp Lite product. You'll be automatically entered into a drawing for a chance to win a FREE Tripp Lite product!*

*No purchase necessary. Void where prohibited. Some restrictions apply. See website for details.

Warranty and Product Registration

WEEE Compliance Information for Tripp Lite 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 Tripp Lite, 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

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 Tripp Lite could void the user's authority to operate this equipment.

Warranty and Product Registration

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.

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

22-10-198 9346C5_RevA