

FP-3000

FieldPoint Network Module



Features

- FOUNDATION Fieldbus H1 interface to control network
- Runs on 11 to 30 VDC power
- Built-in high efficiency power supply powers I/O modules
- -40° to $+60^{\circ}$ C operation

Kit Contents

- FP-3000 network module
- Bag of accessories:
 - Protective connector cover
 - Two DIN rail stops
 - Device Description diskette

Optional Equipment

You can order the following optional equipment from National Instruments:

- Panel mount accessory, part #777609-01
- Terminal bases and I/O modules. You can view a complete list of terminal bases and I/O modules in the National Instruments online catalog at www.natinst.com
- Cables
- 24 VDC power supply

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Overview

The FP-3000 is a network module for the FieldPoint system. It provides a connection to a FOUNDATION Fieldbus H1 network.

This document provides a quick guide to install and configure the FP-3000 network module. For more detailed information on using the network module, refer to the FP-3000 user manual.

Mounting the FP-3000 to a DIN Rail



CAUTION: *To avoid damaging the FP-3000 and the terminal bases, make sure that power is not applied to the FP-3000 while you install or remove terminal bases.*

The FP-3000 has a simple rail clip for reliable mounting onto a standard 35 mm DIN rail. Follow these steps to mount the FP-3000 on the DIN rail:

1. Use a flat-bladed screwdriver to open the DIN rail clip to the unlocked position, as shown in Figure 1.

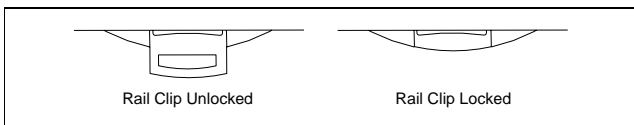


Figure 1. DIN Rail Clip

2. Hook the lip on the rear of the FP-3000 onto the top of a 35 mm DIN rail and press the FP-3000 down onto the DIN rail, as shown in Figure 2.

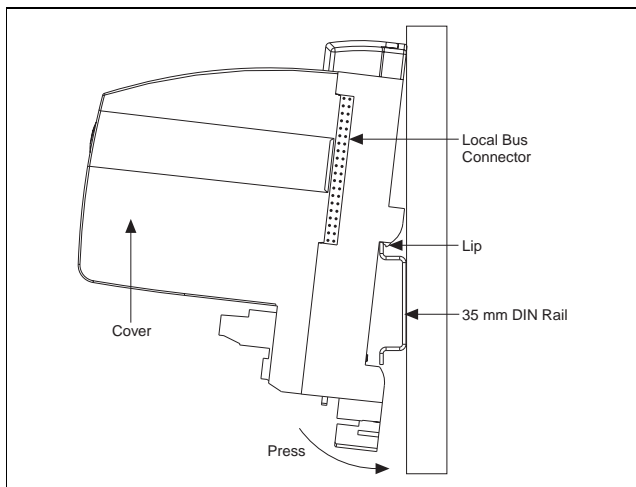


Figure 2. Mounting the FP-3000 onto a DIN Rail

3. Slide the FP-3000 to the desired position along the DIN rail. After the FP-3000 is in position, lock it to the DIN rail by pushing the rail clip to the locked position.
4. Add terminal bases to the DIN rail with their local bus connectors firmly mated to the FP-3000 local bus connector. The FP-3000 is shipped with a protective cover in the bag of accessories. Place the protective cover over the local bus connector of the last terminal base in the bank. Figure 3 shows an installed FP-3000 network module.

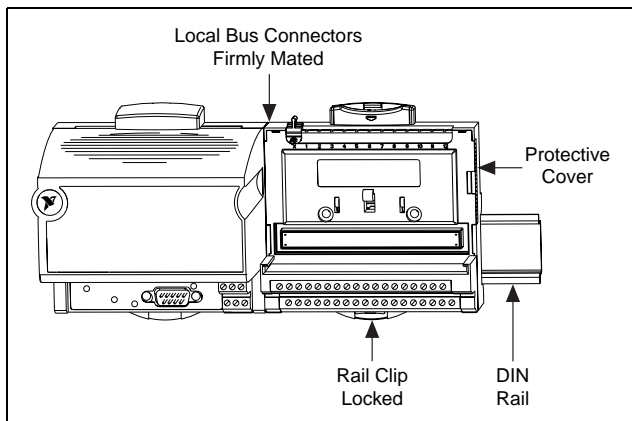


Figure 3. Installed Network Module

Connect the FP-3000 to the Network

Connect the FP-3000 to a Fieldbus network using the 9-position DSub connector on the FP-3000. The pinout of the DSub connector is shown in Figure 4.

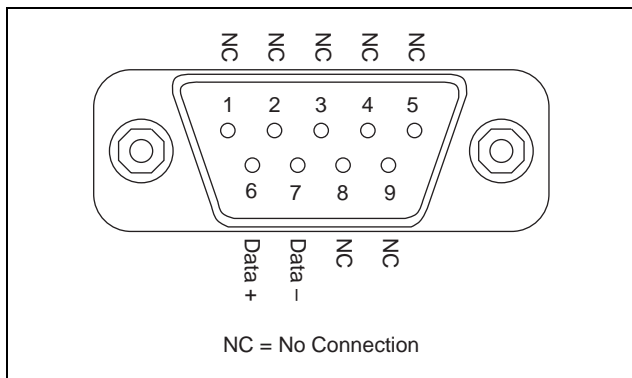


Figure 4. Dsub Connector Pinout

Connect Power to the FP-3000



CAUTION: *Connect the FP-3000 to the terminal base before applying power to the FP-3000 to avoid damaging the FP-3000 or a terminal base.*

An 11-30 VDC power supply is required by each FP-3000 on your network. The FP-3000 filters and regulates this supplied power and provides power for all the I/O modules in the bank. Therefore, you do not need to provide power separately to each FieldPoint I/O module in the bank. If your field I/O devices need to be powered separately, you can use the terminals provided on each terminal base for power supply connections.

The power connector is a 6-pin screw terminal connector whose pinout is shown in Figure 5.

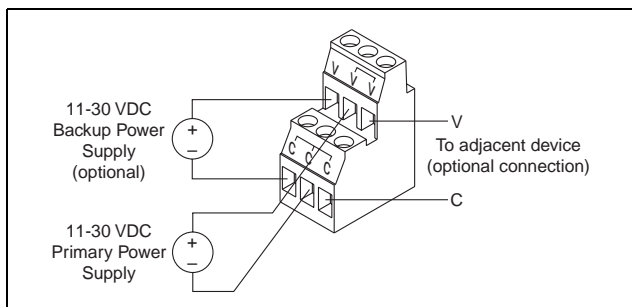


Figure 5. FP-3000 Power Connector Pinout

Connect the primary power supply to the center V and C pair. You can connect an optional backup power supply to the left V and C pair. The right V and C pair provides a convenient means of connecting power to the V and C terminals of a terminal base. Figure 5 shows this optional connection.

Specifications

FP-3000.....	FOUNDATION Fieldbus H1
Integrity.....	Checksum
Power Supply Range.....	11 to 30 VDC
Maximum Terminal Bases/Bank	9
Maximum Banks/Fieldbus Segment (without repeaters)	32
Power Consumption.....	$6\text{ W} + 1.15 * \sum(\text{I/O module consumption})$
Operating Temperature	-40° C to +60° C
Storage Temperature.....	-55° C to +100° C
Relative Humidity.....	5% to 90% non-condensing

CE Mark Compliance

This product meets applicable EU directive(s) as follows:

EMC Directive

Immunity

EN 50082-1:1994

Emissions

EN 55011:1991 Group I
Class A at 10 meters

Mechanical Dimensions

Figure 6 shows the mechanical dimensions of the FP-3000.

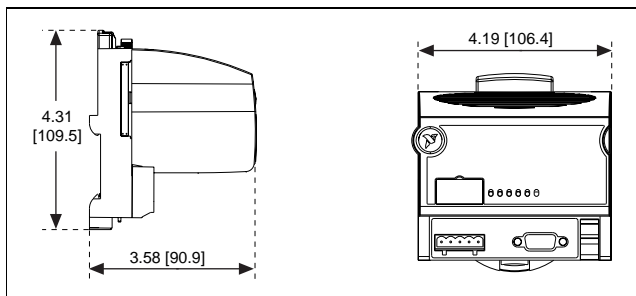


Figure 6. Mechanical Dimensions



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