Compact FieldPoint Backplanes

NI cFP-BP-4, NI cFP-BP-8

NEW

- 4 and 8-slot backplanes
- Solid metal construction for rugged installations
- Panel, DIN rail, and 19 in. rack mounting
- Local bus for communications and module power
- Secure screw mounting for I/O and control modules
- -25 to 60 °C operating range

Back Plane	I/O Module Slots	Standard Mounting Hardware
cFP-BP-4	4	cFP-PM-H horizontal panel mounting bracket
cFP-BP-8	8	cFP-PM-H horizontal panel mounting bracket

Overview

National Instruments offers two backplanes for mounting Compact FieldPoint modules – the cFP-BP-4 (4 slots) and the cFP-BP-8 (8 slots). Both backplanes, which are constructed of extruded metal with grounding lugs on the bottom, feature screw-down connections for a controller module, four or eight I/O modules, and 37 pin D-Sub connectors for I/O connections. The backplanes all come with a cFP-PM-H horizontal mounting bracket, which provides mounting holes on either side of the backplane so you can mount it to a panel. For other mounting options, you can purchase a vertical panel mount, a DIN rail mount, or a 19 in. rack mount separately.

Compact FieldPoint and FieldPoint

These backplanes are used with Compact FieldPoint only. Compact FieldPoint is designed for industrial control applications that perform advanced embedded control, data logging, headless operation, and Ethernet connectivity. Compact FieldPoint is our most rugged and reliable platform and is designed for industrial and mobile environments with high shock, vibration, and temperature extremes. FieldPoint is a lower-cost distributed I/O system with a variety of communication options besides Ethernet. It is designed to mount on DIN rails in static applications where the FieldPoint bank is connected to a PC for data collection, analysis, display, and storage.
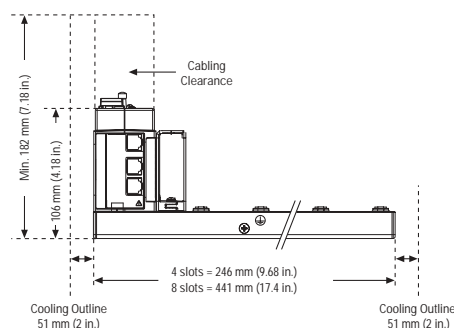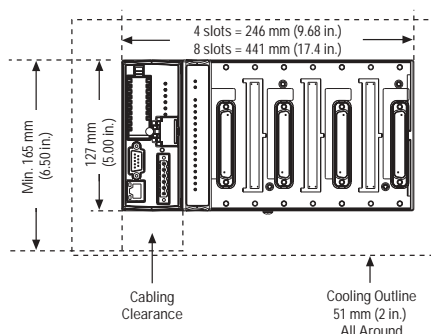

Figure 1. Dimensions of the Compact FieldPoint systems with the cFP-BP-4 and cFP-BP-8 backplanes.

Compact FieldPoint Backplanes

High Shock and Vibration

To withstand high levels of shock and vibration, Compact FieldPoint backplanes are made of extruded metal and provide a rigid mounting surface for the Compact FieldPoint modules. The backplane also provides screw-down connections for the controller module, I/O modules, and connector blocks.

Mounting

NI offers four mounting options for Compact FieldPoint backplanes including panel mounting, DIN-rail mounting, and 19 in. rack mounting.

Mounting Option	Description	Number Needed to Mount cFP-BP-4	Number Needed to Mount cFP-BP-8
cFP-PM-H	Panel mount with bolt holes at the sides of the backplane. (included with all backplane)	1	1
cFP-PM-V	Panel mount with bolt holes at the top and bottom of the backplane	1	1
cFP-RM-8	19 in. rack mount. Features captive screws for easy mounting and cutouts for running grounding cables	1	1
DIN rail mounting clip	DIN rail clip for cFP-BP-4	1	2*

* DIN rail mounting is not recommended for the cFP-BP-8

Compact FieldPoint System Configuration

Compact FieldPoint I/O modules mount on either the cFP-BP-4 or cFP-BP-8 backplane. The backplane also contains a controller module, which runs embedded LabVIEW Real-Time and can connect over Ethernet to a PC, to other FieldPoint banks, to Web browsers, or to other Ethernet devices. The Compact FieldPoint backplane also provides a 37-pin D-Sub connector to connect your field signal wiring for each I/O module. You have three options to connect field wiring to this 37-pin D-Sub connector:

1. Using an integrated connector block such as the cFP-CB-1 or cFP-CB-11;
2. Using a cable to an external connector block mounted on a DIN rail;
3. Making your own custom cable.

For more details on configuring your Compact FieldPoint system, please see 517.

Ordering Information

NI cFP-BP-4 778617-04
NI cFP-BP-8 778617-08

Recommended Compact FieldPoint System Products
NI cFP-2020 777317-2020
NI cFP-CB-1 778618-01
NI PS-5 Power Supply 778805-90
NI Developer Suite Professional Control Edition..........777906-03

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