

### FEATURES

- Mix and Match 3B Series I/O Module Capability**
- Factory Mutual (FM) Approved**
- CE Certified**
- ±1500 V peak Channel/Channel and Input/Output Isolation**
- 25°C to +85°C Temperature Range**
- LEDs indicate when power is applied**
- Replaceable AC Line Fuse in Protective Housing**
- Versatile Mounting Options**

### APPLICATIONS

- Industrial Signal Conditioning**
- Industrial Signal Isolation**
- Industrial Signal Filtering**

### PRODUCT OVERVIEW

To address diverse applications, the 3B Subsystem Series includes a family of backplanes which provide a complete signal conditioning solution. The 3B03 is designed for 4 channels to offer users the flexibility to match the size of a system to specific applications. All backplanes are provided with #6-32 x 1-inch screws and standoffs for mounting. Several mounting options are available, including rack, surface and NEMA enclosure.

All 3B Series modules feature a universal pin out and can be easily tailored to fit the user's application. Each backplane can accommodate any 3B Series module in a "Mix and Match" arrangement.

Modules are "Hot Swappable"; power does not have to be removed when inserting or removing any module on the backplane.

All backplanes provide a four screw terminal for each individual channel's input field connections. These connections satisfy all transducer inputs and provide transducer excitation when necessary.

### FUNCTIONAL BLOCK DIAGRAM

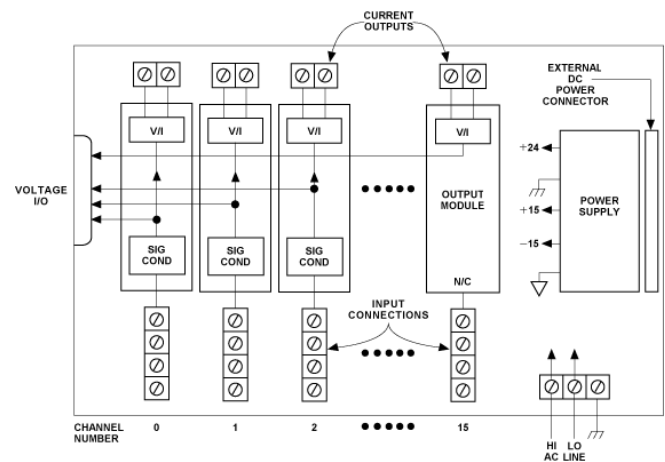


Figure 1 3B03 Functional Block Diagram

A cold junction temperature sensor is also supplied on each channel to accommodate thermocouple input modules.

Each channel has two screw terminals for the output connections for the 4-20 mA output signals. Two 26-pin system connectors provide high level voltage I/O for all channels.

Figure 1 illustrates the 3B Series backplane functional block diagram. In addition, complete specifications are shown in the table below.

### Rev. 0

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## GENERAL DESCRIPTION

The 3B03 Series backplane provides the user with four channels, any of which may be used with any of the 3B series of modules offered by ADI.

This backplane has been designed to operate in a wide temperature range, from -25°C up to +85°C

The 3B03 Series backplane has been evaluated by both Factory Mutual and also by CSA. The 3B03 has passed all agency testing and is listed by both organizations. In addition the 3B03 series back plane is also CE certified.

The 3B03 backplane has several mounting options:

- Surface Mount – stand alone or using Surface Mount Kit, model AC1333
- 19-inch Rack Mount Kit model AC1330



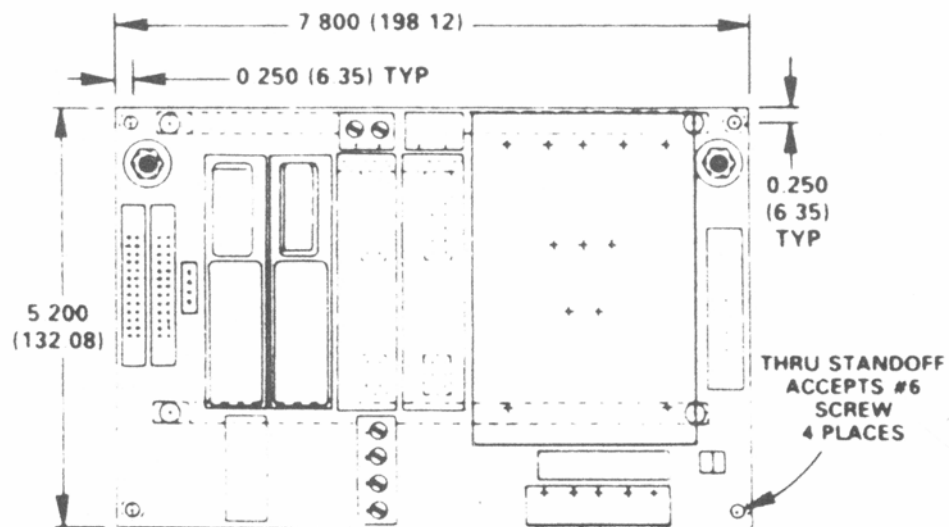
*Figure 2*

**3B03 Specifications**

(typical @ +25°C and ±15 V dc, and +24 V dc Power)

Description	Model 3B03
Number of Channels	4
<b>ISOLATION</b>	
Input-to-Output Continuous	1500 V rms, Maximum
Channel-to-Channel Continuous	1500 V rms, Maximum
<b>MECHANICAL DIMENSIONS – with modules</b>	
	7.8" x 5.2" x 4.373" (198.12 mm x 132.08 mm x 111.07 mm)
Mounting Standoffs	4
<b>COLD JUNCTION TEMPERATURE SENSORS</b>	
Number provided on backplane	4
Initial Accuracy @ +25°C	±0.5°C
Accuracy +5°C to +45°C	±0.5°C (+0.0125°C/°C)
<b>SYSTEM I/O CONNECTOR</b>	
Number	2, 26-pin
Type	Amp 746290-6
<b>POWER SUPPLY OPTIONS</b>	
Voltage; AC Power Supply	115 VAC
Voltage; DC Power Supply	+25 VAC
Voltage; External Supplies	±15 VDC and +24 VDC
Fuse; AC Power Supply	220 VAC @ 500 mA
POWER INDICATOR	LED's indicate ±15 VDC and + 24 VDC Power Applied
<b>Environmental</b>	
<b>Temperature Range</b>	
Rated Performance	-25°C to +85°C
Operating	-25°C to +85°C
Storage	-40°C to +85°C
Relative Humidity, 24 hours	0 to 95% @ +60°C noncondensing

## OUTLINE DIMENSIONS



*3B03 4-Channel Backplane*

Figure 3 Outline Dimensions

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