

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 3B01 backplane is designed for 16 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

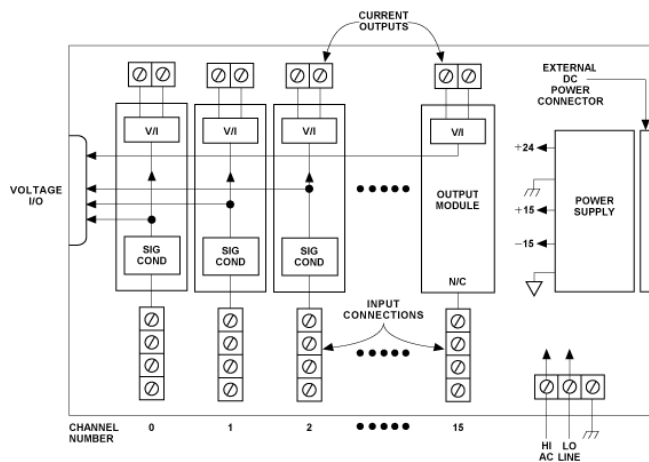


Figure 1 3B01 Functional Block Diagram

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 3B01 Series backplane provides the user with sixteen Channels, any of which may be used with any of the 3B series of modules offered by ADI.

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

The 3B01 Series backplane has been evaluated by both Factory Mutual and also by CSA. The 3B01 has passed all agency testing and is listed by both organizations. In addition the 3B01 series back plane is also CE certified.

The 3B01 backplane has several mounting options:

- Surface Mount – stand alone or using Surface Mount Kit, model AC1331
- 19-inch Rack Mount Kit model AC1330

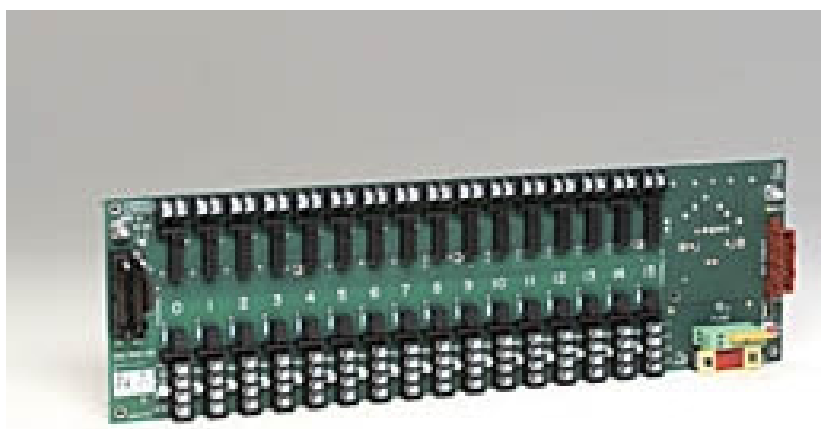
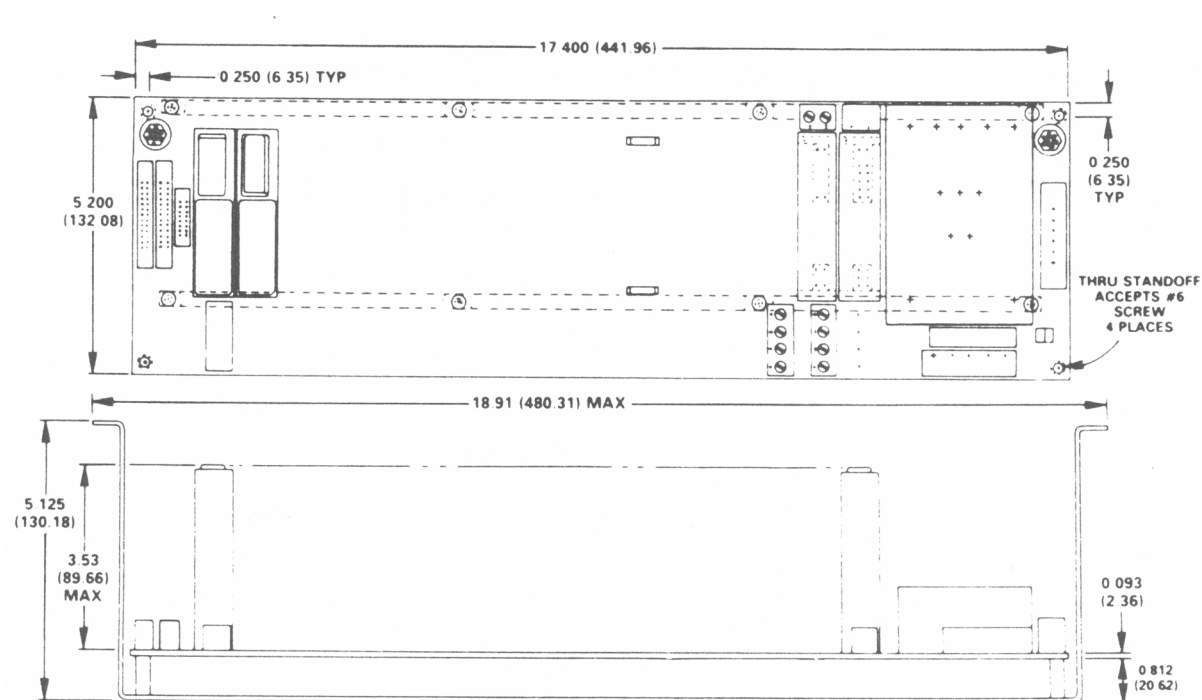


Figure 2

3B01 Specifications(typical @ +25°C and ± 15 V dc, and +24 V dc Power)

Description		Model 3B01
Number of Channels		16
ISOLATION		
Input-to-Output Continuous		1500 V rms, Maximum
Channel-to-Channel Continuous		1500 V rms, Maximum
MECHANICAL DIMENSIONS - with modules		17.4" x 5.2" x 4.373"
		(441.96 mm x 132.08 mm x 111.07 mm)
Mounting Standoffs		7
COLD JUNCTION TEMPERATURE SENSORS		
Number provided on backplane		16
Initial Accuracy @ +25°C		$\pm 0.5^{\circ}\text{C}$
Accuracy +5°C to +45°C		$\pm 0.5^{\circ}\text{C}$ (+0.0125°C/°C)
SYSTEM I/O CONNECTOR		
Number		2, 26-pin
Type		Amp 746290-6
POWER SUPPLY OPTIONS		
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
Environmental		
Temperature Range		
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

*3B01 16-Channel Backplane**Figure 3 Outline Dimensions*

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