

**FEATURES**

**Mix and Match 5B Series I/O Module Capability**  
**Factory Mutual (FM) Approved**  
**Approved for Use in Class I, Division 2, Groups A, B, C, and D Locations.**  
**CE Certified: EMC Directive in Heavy Industrial Applications**  
**1500 V rms Channel/Channel and Input/Output Isolation**  
**Four Backplanes and Three Mounting card Options**  
**1-, 2- channels**  
**-25°C to +85°C Temperature Range**  
**Single Threaded Insert for module Hold Down**

**APPLICATIONS**

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

**PRODUCT OVERVIEW**

To address diverse applications, the 5B Series includes a family of backplanes and mounting cards which provide a complete signal conditioning solution. The models 5B03 and 5B04, one and two channels cards, allow an economical means to handle a few signals.

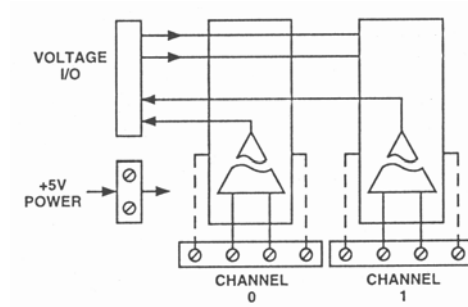
**FUNCTIONAL BLOCK DIAGRAM**

Figure 1 5B03 & 5B04 Functional Block Diagram

The backplanes provide four screw terminals per channel for all field connections. These connections satisfy all transducer inputs, process current outputs and provide transducer excitation when necessary. A cold junction temperature sensor (model AC1361) sensor is also supplied on each channel to accommodate thermocouple input modules. All 5B Series backplanes and sockets require a regulated +5VDC external power source.

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### GENERAL DESCRIPTION

**MODELS 5B03 and 5B04** – For smaller applications, the models 5B03 and 5B04 mounting cards are available for one and two 5B Series modules respectively. These module cards may be clustered for groups of three or more signals. They are DIN rail

compatible using Phoenix Universal Module UM elements.



Figure 2 5B03

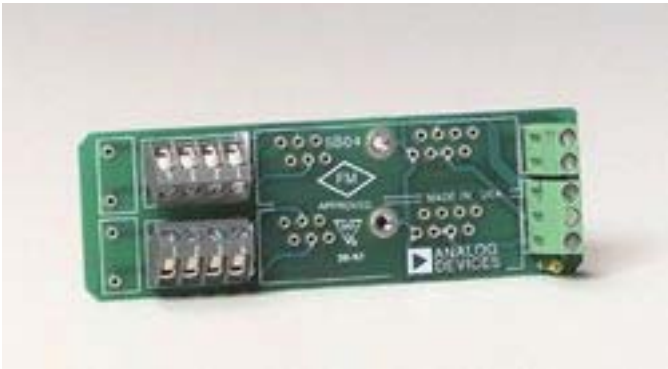


Figure 3 5B04

## 5B03/04 Specifications

(typical @ +25°C and  $V_s = +5$  V dc Power)

Description	Model 5B03	Model 5B04
<b>Number of Channels</b>	1	2
<b>ISOLATION</b>		
Input-to-Output Continuous	1500 V rms, Maximum	1500 V rms, Maximum
Channel-to-Channel Continuous	N/A	1500 V rms, Maximum
<b>MECHANICAL DIMENSIONS</b>		
	4.25" x 1.365"	4.25" x 1.365"
	(105 mm x 34.7 mm)	(105 mm x 34.7 mm)
<b>DIN Rail Mountable</b>	Yes	Yes
<b>WEIGHT</b>	0.85oz. (24.0)	1.06oz. (30.2g)
<b>Provision for Mounting AC1352 Resistor</b>	Yes	Yes
<b>COLD JUNCTION TEMPERATURE SENSORS</b>		
Number provided on backplane	1	2
Type	Model AC1361	Model AC1361
Initial Accuracy @ +25°C	$\pm 0.25^\circ\text{C}$ (+0.75°C, maximum)	$\pm 0.25^\circ\text{C}$ (+0.75°C, maximum)
Accuracy +5°C to +45°C	$\pm 0.5^\circ\text{C}$ (+0.0125°C/°C)	$\pm 0.5^\circ\text{C}$ (+0.0125°C/°C)
<b>Field I/O CONNECTOR</b>		
Number	1	2
Type	4-screw terminals	4-screw terminals
<b>OUTPUT SWITCH ENABLE/READ INPUTS</b>	NO	NO
<b>POWER SUPPLY OPTIONS</b>		
Voltage; Operating	+5 VDC $\pm 5\%$	+5 VDC $\pm 5\%$
Voltage; Max Safe Limit – with modules	+6.0 VDC Max.	+6.0 VDC Max.
Current – without modules	N/A	N/A
Fuse	N/A	N/A
<b>Environmental Temperature Range</b>		
<b>Rated Performance</b>	-25°C to +85°C	-25°C to +85°C
<b>Operating</b>	-40°C to +85°C	-40°C to +85°C
<b>Storage</b>	-40°C to +85°C	-40°C to +85°C
<b>Relative Humidity</b>	0 to 95% @ +60°C noncondensing	0 to 95% @ +60°C noncondensing

# OUTLINE DIMENSIONS

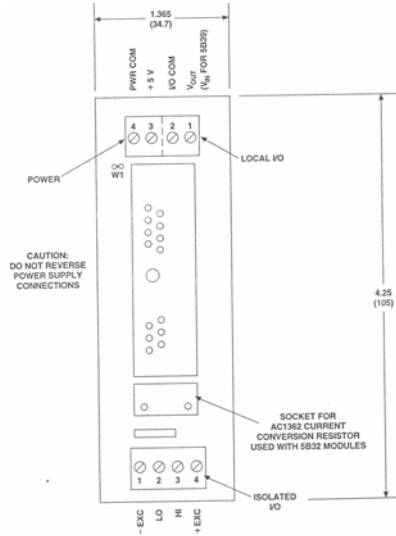


Figure 4 Outline Dimensions 5B03

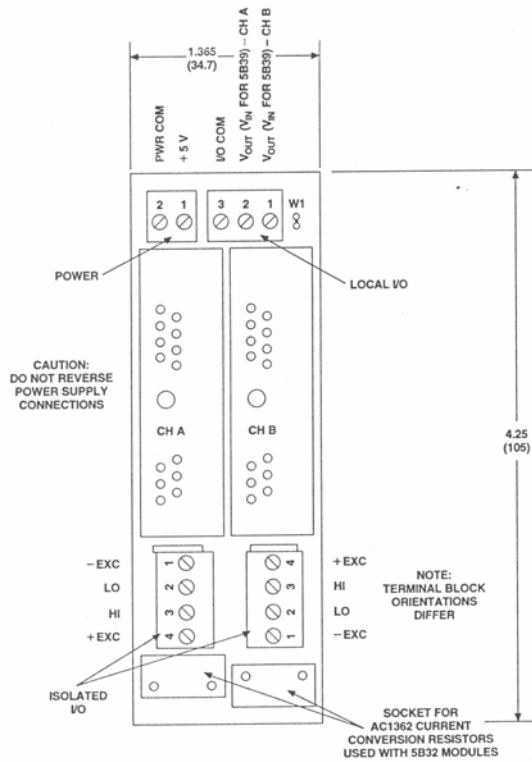


Figure 5 Outline Dimensions 5B04

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