

Search: [Parametric Search](#)[Replacement Parts Search](#)[View Cart](#) [My Account](#)[Log](#)[Home](#) > [Other](#) > [IOS Subsystems](#) [Contact Us](#) | 

## AC1367 Voltage Input

### Product Categories

[Amplifiers and Comparators](#)[Analog to Digital Converters](#)[Digital to Analog Converters](#)[Analog Microcontrollers](#)[Embedded Processing & DSP](#)[MEMS and Sensors](#)[Audio/Video Products](#)[Power and Thermal Management](#)[Interface](#)[Switches/Multiplexers](#)[References](#)[RF/IF Components](#)[Broadband Products](#)[Wireless Products](#)[Other Linear](#)[Other](#)[5B Series Overview](#) | [Available 5B Series Modules](#) | [5B Series Backplanes](#) | [5B and 6B Series Power Supplies](#)  
[5B Series Accessories](#) | [5B Series Configuration Guide](#) | [Outline Drawings](#) | [All Series Modules](#)

### Functional Description

The AC1367 is a voltage-switch input module that allows a convenient, low cost and safe connection of a high-level pre-conditioned analog signal to the 5B Series backplane system connector. This module accepts a -5 V to +5 V input and provides a -5 V to +5 V output, while protecting computer-side circuitry from field-side overvoltage faults. There is no gain or attenuation of the input signal and the output is not isolated. In addition, AC1367 modules are mix-and-match and hot swappable, so can be inserted or removed from any socket in the same [backplane](#) without disrupting system power.

### Protection and Convenience Features

The AC1367 input protection includes overvoltage clamping, fusing (in each line), and a 250  $\Omega$  series resistor to limit fault current when the module is enabled. The module withstands inputs of  $\pm 10$  V continuously, and peak inputs of  $\pm 20$  V for 10 seconds; above these limits a nonreplaceable, internal fuse may open.

Like all 5B Series modules, the AC1367 includes a low-resistance series switch to eliminate the need for external multiplexing in many applications. The switch is turned on by an active-low enable input. The enable input should be grounded to power common if the output need be switched, as on the 5B01 and 5B08 [backplanes](#).

[back](#)

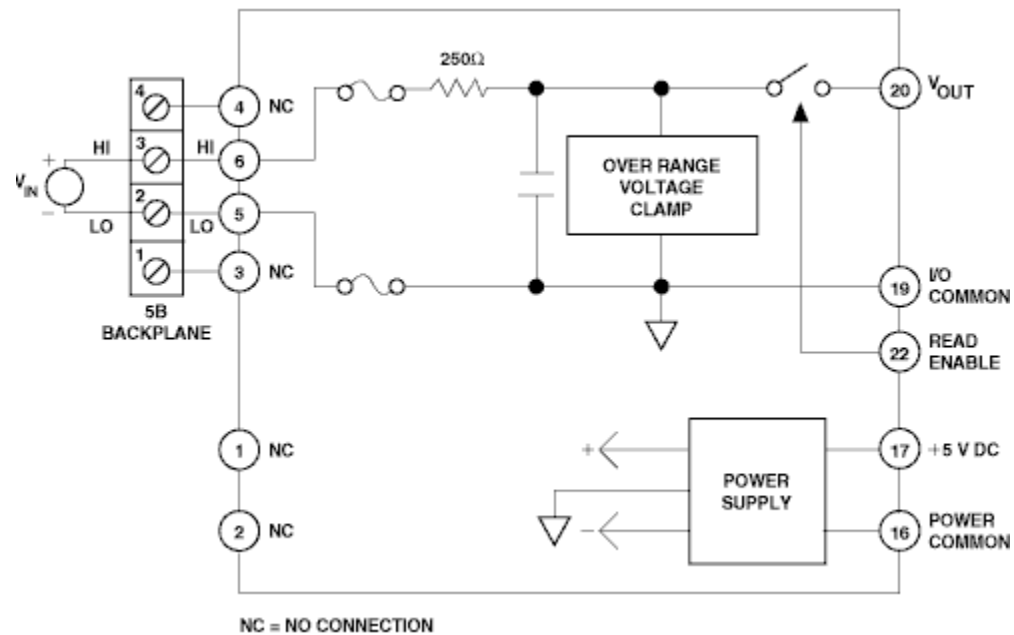


Figure 1. AC1367 Functional Block Diagram

**Input Types**

-5 V to +5 V

**Output Ranges**

-5 V to +5 V

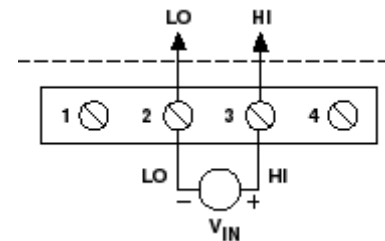


Figure 2. AC1367 Input Field Connections

[back](#)**AC1367 Models Available**

	Model	Input Range	Output Range
<a href="#">Order Now</a>	AC1367	-5 V to +5 V	-5 V to +5 V)


[back](#)
**AC1367 Specifications**

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

Description	Model AC1367
<b>Input Ranges</b>	
Standard Range	-5 V to +5 V
Custom Ranges	Not Available
<b>Output Range</b>	-5 V to +5 V
<b>Maximum Voltage at Input Low<sup>1</sup></b>	0.0 V
<b>Maximum Current into Input Low<sup>2</sup></b>	±20 mA
<b>Maximum Current into Input High<sup>2</sup></b>	±20 mA
<b>Maximum Output When Input Is Overrange</b>	±10 V
<b>Feedthrough, Input-to-Output @ 1 kHz, <math>R_{load} = 50\text{ k}\Omega</math></b>	-100 dB
<b>Input-to-Output Resistance, when enabled</b>	250 $\Omega$
<b>Input Resistance</b>	
Power On	10 M $\Omega$
Power Off	200 $\Omega$
Overrange	200 $\Omega$
<b>Noise</b>	

Output, 100 kHz Bandwidth	300 $\mu$ V peak-peak
<b>Bandwidth, -3 dB</b>	500 kHz
<b>Output Rise Time, 10% to 90% Span</b>	500 ns
<b>Input Protection</b>	$\pm 10$ V Continuous $\pm 20$ V for 10 seconds
<b>Output Resistance</b>	250 $\Omega$ + Input Source Resistance
<b>Voltage Output Protection</b>	Continuous Short to Ground
<b>Output Selection Time</b>	6 $\mu$ s @ $C_{load} = 0$ to 2,000 pF
<b>Output Enable Control</b>	
Max Logic "0"	+1 V
Min Logic "1"	+2.5 V
Max Logic "1"	+36 V
Input Current "0"	0.4 mA
<b>Power Supply</b>	
Voltage	+5 V $\pm 5\%$
Current	6.5 mA
<b>Mechanical Dimensions</b>	2.275" x 2.375" x 0.595" (57.8 mm x 59.1 mm x 15.1 mm)
<b>Environmental</b>	
<b>Temperature Range</b>	
Rated Performance	-25°C to +85°C
Operating	-40°C to +85°C
Storage	-40°C to +85°C
Relative Humidity	0 to 95% @ +60°C noncondensing
RFI Susceptibility	$\pm 0.5\%$ Span error @ 400 MHz, 5 Watt, 3 ft

<sup>1</sup>Input Low is internally connected to the I/O common (refer to block diagram).

<sup>2</sup>Input High and Input Low are internally fused; the fuse is nonreplaceable.

*Specifications subject to change without notice.*

[back](#)

[Privacy/Security](#)

[myAnalog](#)

[Contact ADI](#)

[Site Map](#)

[Registration](#)

[Technical Support](#)

[Terms of Use](#)

© 1995-2004 Analog Devices, Inc. All Rights Reserved

This site is optimized for IE 6.0+, NN 7.1, and Mozilla.