



# CR9052IEPE

## Filtered Analog Input Module for IEPE Sensors



### Overview

This high-performance anti-alias filter module can be used in either the CR9000X or CR9000 measurement and control systems. The CR9052IEPE's daughterboard provides current source excitation and ac coupling that allow the direct connection of internal-electronics piezoelectric (IEPE) accelerometers and microphones.

The CR9052IEPE includes six anti-aliased analog measurement channels with differential input ranges. Each of the six channels has its own programmable-gain instrumentation amplifier, pre-sampling analog filter, and sigma-delta analog-to-digital converter. An on-board digital signal processor provides real-time, programmable anti-alias filtering and down-sampling (decimation) before passing the results to the data logger's main processor.

### Detailed Description

The CR9052IEPE is a high-performance anti-alias filter module for the CR9000X-series and CR9000-series dataloggers. It is used to measure Internal Electronics Piezo-Electric (IEPE) accelerometers and microphones. An external IEPE power supply is not needed because the CR9052IEPE has an on-board 34 V, high efficiency, low noise, charge pump power supply that supplies a 2 mA, 4 mA, or 6 mA constant current excitation. The CR9052IEPE interfaces with sensors via BNC connectors.

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### Specifications

-NOTE-

*Note: Additional specifications are listed in the [CR9052IEPE](#) and [CR9052DC](#) brochure.*

Operating Temperature	-40° to +70°C
Analog Channels	6 differential

Differential Accuracy	<ul style="list-style-type: none"> <li>» ±0.03% of reading (gain)</li> <li>» ±0.03% of full-scale input range (offset)</li> </ul>
Excitation Channels	6

Overvoltage Protection on + 50 V, -40 V  
All Inputs/Outputs

Current Drain (at 12 V input)  $500 \text{ mA} + 1.5 * [I_{ex}]$  where  $I_{ex}$  is the  
sum of excitation currents  
provided by all channels

Dimensions 23.3 x 12.4 x 2.5 cm (9.2 x 4.9 x 1  
in.)

Weight 0.5 kg (1 lb)

For comprehensive details, visit: [www.campbellsci.com/cr9052iepe](http://www.campbellsci.com/cr9052iepe) 



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