

## 8-Channel Analog Input Module

### Model ADAM-4017

The ADAM-4017 is a 16-bit, 8-channel analog input module that provides programmable input ranges on all channels. This module is an extremely cost-effective solution for industrial measurement and monitoring applications. 3000VDC optical isolation between the analog input and the module protects the module and peripherals from damage due to high input-line voltages.

It offers signal conditioning, A/D conversion, and RS-485 communication functions. The module protects peripheral equipment from ground loops and power surges by providing optical isolation of the A/D input and transformer based isolation up to 3000 VDC.

The ADAM-4017 uses a 16-bit microprocessor-controlled sigma-delta A/D converter to convert sensor voltage or current into digital data. The digital data is then translated into engineering units. When prompted by the host computer, the module sends the data to the host through a standard RS-485 interface.



#### Specifications:

Effective Resolution:	16-bit
Channels:	6 differential, 2 single-ended
Input Type:	mV, V, mA
Input Range:	$\pm 150$ mV, $\pm 500$ mV, $\pm 1$ V, $\pm 5$ V, $\pm 10$ V, $\pm 20$ mA
Isolation Voltage:	3000 VDC
Fault and Over Voltage Protection:	Withstands over voltage up to $\pm 35$ V
Sampling Rate:	10 samples per second (total)
Input Impedance:	20M ohms
Bandwidth:	13.1 Hz @ 50 Hz, 15.7 Hz @ 60 Hz
Accuracy:	$\pm 0.1\%$ or better
Zero Drift:	$\pm 6$ $\mu$ V per degree Celsius
Span Drift:	$\pm 25$ ppm per degree Celsius
CMR @ 50/60 Hz:	92 dB min.
Communication Output:	RS-485 (2-wire)
Baud Rate:	1200, 2400, 4800, 9600, 19.2K, 38.4K, 57.6K, 115.2K
Data Format:	8 data bits, no parity, 1 stop bit (asynchronous)
Operating Temperature:	14 to 158°F (-10 to 70°C)
Storage Temperature:	-13 to 185°F (-25 to 85°C)
Humidity:	0 to 95% (non-condensing)
Power:	Unregulated 10-30 VDC (1.2 watts)
Compliances:	FCC Class A and CE marked

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