Standard Voltage Input Module

Features

⬊ Single channel of optically-isolated voltage-to-digital conversion

⬊ "T" modules also include 4,000 Vrms channel-to-channel isolation, which eliminates any ground loop problems.

⬊ Modules plug into a Standard analog I/O rack and are secured by a captive screw.

AD12

Description

Voltage input analog modules provide a single channel of optically-isolated voltage-to-digital conversion.

These modules offer wide nominal input and special over/under range capabilities.

Modules with a "T" in the part number also include 4,000 Vrms channel-to-channel isolation, which eliminates any ground loop problems.

Modules plug into a Standard analog I/O rack and are secured by a captive screw.

Part Numbers

Part	Description
AD6	0 TO +5 VDC Input
AD6T	0 TO +5 VDC Input Isolated
AD6HS	0 TO +5 VDC Input-High Speed
AD7	0 TO +10 VDC Input
AD9T	0 TO 50 mV Input Isolated
AD11	-5 TO +5 VDC Input
AD12	-10 TO +10 VDC Input
AD12T	+10 TO -10 mV Input Isolated
AD13T	0 TO 100 mV Input Isolated

Specifications

	AD6 AD6HS	AD6T	AD7	AD9T
Nominal Voltage Input	0 to 5 VDC	0 to 5 VDC	0 to 10 VDC	0 to 50 mVDC
Over/Under Range Capability	-0.125 to 11 VDC	-0.125 to 11 VDC	-0.250 to 11 VDC	-0.125 to 110 mVDC
Accuracy*	± 5 mV	± 5 mV	± 10 mV	± 100 µV
Power Requirements	16 mA at +15 (+/- 0.25) VDC 11 mA at -15 (+/- 0.25) VDC	35 mA at +15 (+/- 0.25) VDC 35 mA at -15 (+/- 0.25) VDC	16 mA at +15 (+/- 0.25) VDC 11 mA at -15 (+/- 0.25) VDC	35 mA at +15 (+/- 0.25) VDC 35 mA at -15 (+/- 0.25) VDC

*May be improved by the use of the "Set Offset" or "Set Gain" commands in the OPTOMUX command set.

	AD11	AD12	AD12T	AD13T
Nominal Voltage Input	-5 to + 5 VDC	-10 to 10 VDC	-10 to 10 VDC	0 to 100 mV DC
Over/Under Range Capability	-5.25 to 11 VDC	-10.5 to 11 VDC	-10.5 to 11 VDC	-0.250 to 220 mV DC
Accuracy*	± 10 mV	± 20 mV	± 20 mV	± 100 µV
Power Requirements	15 mA at +15 (+/- 0.25) VDC 12 mA at -15 (+/- 0.25) VDC	15 mA at +15 (+/- 0.25) VDC 12 mA at -15 (+/- 0.25) VDC	35 mA at +15 (+/- 0.25) VDC 35 mA at -15 (+/- 0.25) VDC	35 mA at +15 (+/- 0.25) VDC 35 mA at -15 (+/- 0.25) VDC

*May be improved by the use of the "Set Offset" or "Set Gain" commands in the OPTOMUX command set.
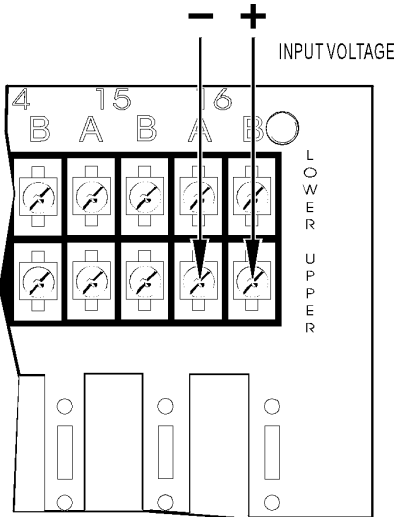
Input Response Time*	5% of scale change in 8.5 ms 63% of scale change in 165 ms
Resolution	12-bits
Isolation Input-to-Output Input-to-Analog Supply ("T" Modules)	4,000 V$_{RMS}$ 4,000 V$_{RMS}$
Temperature Operating Storage	0 to 70 °C -25 to 85 °C

*AD6HS input response 100% step change in less than 3 milliseconds.

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Connections

Wiring for AD6, AD6T, AD6HS, AD7, AD11, AD12, and AD12T

Wiring for AD9T and AD13T