## DATA SHEET

Form 440-050118

## Description

The voltage input analog module provides a single channel of opticallyisolated voltage-to-digital conversion. The modules offer wide nominal input and special over/under range capabilities. The "T" module also includes $4,000 \mathrm{~V}_{\mathrm{ms}}$ channel-to-channel isolation which eliminates any ground loop problems. Modules plug into a Standard analog $1 / 0$ rack and are secured by a captive screw.


| Part <br> Numbers | 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 | +10V to -10 mV Input Isolated |
| AD13T | 0 to 100 mV Input Isolated |


|  | AD6 <br> AD6HS | AD6T | AD7 | AD9T |
| :--- | :--- | :--- | :--- | :--- |
| Nominal Voltage Input | 0 to 5 VDC | 0 to 5 VDC | 0 to 10 VDC | 0 to 50 mV |
| Over/Under Range <br> Capability | -.125 to 11 VDC | -.125 to 11 VDC | -.250 to 11 VDC | -.125 to 110 mV |
| Accuracy* | $\pm 5 \mathrm{mV}$ | $\pm 5 \mathrm{mV}$ | $\pm 10 \mathrm{mV}$ | $\pm 100 \mathrm{mV}$ |
| Power Requirements | 16 mA at +15 VDC <br> 11 mA at -15 VDC | 35 mA at +15 VDC <br> 35 mA at -15 VDC | 16 mA at +15 VDC <br> $11 \mathrm{~mA} \mathrm{at}-15 \mathrm{VDC}$ | 35 mA at +15 VDC <br> 35 mA at -15 VDC |

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

|  | AD11 | $\begin{gathered} \text { AD12 } \\ \text { AD12T } \end{gathered}$ | AD13T |
| :---: | :---: | :---: | :---: |
| Nominal Voltage Input | -5 to + 5 VDC | -10 to 10 VDC | 0 to 100 mV |
| Over/Under Range Capability | -5.25 to 11 VDC | -10.5 to 11 VDC | -. 250 to 220 mV |
| Accuracy* | $\pm 10 \mathrm{mV}$ | $\pm 20 \mathrm{mV}$ | $\pm 100 \mu \mathrm{~V}$ |
| Power Requirements | $\begin{aligned} & 15 \mathrm{~mA} \text { at +15 VDC } \\ & 12 \mathrm{~mA} \text { at }-15 \mathrm{VDCC} \end{aligned}$ | 15 mA at +15 VDC <br> 12 mA at -15 VDC | $\begin{aligned} & 35 \mathrm{~mA} \text { at +15 VDC } \\ & 35 \mathrm{~mA} \text { at }-15 \mathrm{VDC} \end{aligned}$ |

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

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Specifications

| Input Response Time* | $5 \%$ of scale change in 8.5 ms <br> $63 \%$ of scale change in 165 ms |
| :--- | :--- |
| Resolution | 12 -bits |
| Isolation |  |
| Input-to-Output |  |
| Input-to-Analog Supply ("T" Modules) | $4,000 \mathrm{Vrms}$ |
| 4,000 Vrms |  |

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

## Connections

```
WIRING FOR AD6, AD6T, AD6HS, AD7,
    AD11, AD12, AND AD12T
```



WIRING FOR AD9T AND AD13T


