

# ADAM-4011 ADAM-4012 ADAM-4013

## Thermocouple Input Module

## Analog Input Module

## RTD Input Module



ADAM-4011/4011D



ADAM-4012



ADAM-4013



### Specifications

- LED Indicator 5-digit (ADAM-4011D)
- Built-in Watchdog Timer

#### Analog Input

- Effective Resolution 16-bit
- Input Types Th.couple., mV, V or mA
- Input Range  $\pm 15$  mV,  $\pm 50$  mV,  $\pm 100$  mV,  $\pm 500$  mV,  $\pm 1$  V,  $\pm 2.5$  V,  $\pm 20$  mA
- T/C Type and Temperature Range

<b>J</b>	0 ~ 760° C	<b>R</b>	500 ~ 1750° C
<b>K</b>	0 ~ 1370° C	<b>S</b>	500 ~ 1750° C
<b>T</b>	-100 ~ 400° C	<b>B</b>	500 ~ 1800° C
<b>E</b>	0 ~ 1000° C		

- Isolation Voltage 3000 V<sub>DC</sub>
- Input Surge Protection Yes
- Sampling Rate 10 samples/sec.
- Input Impedance 2 M $\Omega$
- Bandwidth 2.62 Hz
- Accuracy  $\pm 0.05$  % for V input
- Zero Drift  $\pm 3$  mV/° C
- Span Drift  $\pm 25$  ppm/° C
- CMR @ 50/60 Hz 150 dB
- NMR @ 50/60 Hz 100 dB

#### Digital Input

- Channels 1  
Logic levels 0: 1 V max. 1: 3.5~30 V  
Pull up current: 0.5 mA, 10 k $\Omega$  resistor to +5 V
- Event Counter Max. input freq.: 50 Hz  
Min. input pulse width: 1 msec.

#### Digital Output

- Channels 2, open collector to 30 V, 30 mA max. load
- Power Dissipation 300 mW
- Power Consumption 1.2 W @ 24 V<sub>DC</sub>

### Ordering Information

- ADAM-4011 Thermocouple Input Module
- ADAM-4011D Thermocouple Input Module w/ LED Display

### Specifications

#### Analog Input

- Effective Resolution 16-bit
- Input Type mV, V or mA
- Input Range  $\pm 150$  mV,  $\pm 500$  mV,  $\pm 1$  V,  $\pm 5$  V,  $\pm 10$  V and  $\pm 20$  mA
- Isolation Voltage 3000 V<sub>DC</sub>
- Sampling Rate 10 samples/sec.
- Input Impedance 2 M $\Omega$
- Bandwidth 2.62 Hz
- Accuracy  $\pm 0.05$  % or better
- Zero Drift  $\pm 6$  mV/° C
- Span Drift  $\pm 25$  ppm/° C
- CMR @ 50/60 Hz 150 dB
- NMR @ 50/60 Hz 100 dB

#### Digital Input

- Channels 1  
logic level 0: +1 V max.  
logic level 1: +3.5 V ~ +30 V  
pull up current: 0.5 mA,  
10 k $\Omega$  resistor to +5 V
- Event Counter Max. input frequency: 50 Hz  
Min. input pulse width: 1 msec.

#### Digital Output

- Channels 2, open collector to 30 V, 30 mA max. load
- Power Dissipation 300 mW

#### Built-in Watchdog Timer

#### Power

- Power Requirements Unregulated 10~30 V<sub>DC</sub>
- Power Consumption 1.2 W @ 24 V<sub>DC</sub>

### Ordering Information

- ADAM-4012 Analog Input Module – mV, mA, or high voltage

### Specifications

#### Analog Input

- Effective Resolution 16-bit
  - Input Type Pt or Ni RTD
  - RTD Types and Temperature Ranges
- | IEC RTD 100 ohms |         |    |                      |
|------------------|---------|----|----------------------|
| Pt               | -100° C | to | +100° C a = 0.00385  |
| Pt               | 0° C    | to | +100° C a = 0.00385  |
| Pt               | 0° C    | to | +200° C a = 0.00385  |
| Pt               | 0° C    | to | +600° C a = 0.00385  |
| JIS RTD 100 ohms |         |    |                      |
| Pt               | -100° C | to | +100° C a = 0.003916 |
| Pt               | 0° C    | to | +100° C a = 0.003916 |
| Pt               | 0° C    | to | +200° C a = 0.003916 |
| Pt               | 0° C    | to | +600° C a = 0.003916 |
| Ni RTD           |         |    |                      |
| Ni               | -80° C  | to | +100° C              |
| Ni               | 0° C    | to | +100° C              |
- Isolation Voltage 3000 V<sub>DC</sub>
  - Sampling Rate 10 samples/sec.
  - Input Impedance 2 M $\Omega$
  - Bandwidth 2.62 Hz
  - Input Connections 2, 3 or 4 wire
  - Accuracy  $\pm 0.05$  % or better
  - Zero Drift  $\pm 3$  mV/° C
  - Span Drift  $\pm 25$  ppm/° C
  - CMR @ 50/60 Hz 150 dB
  - NMR @ 50/60 Hz 100 dB

#### Built-in Watchdog Timer

#### Power

- Power Requirements Unregulated 10~30 V<sub>DC</sub>
- Power Consumption 0.7 W @ 24 V<sub>DC</sub>

### Ordering Information

- ADAM-4013 RTD Input Module – RTD