

# ADAM-4011/4011D

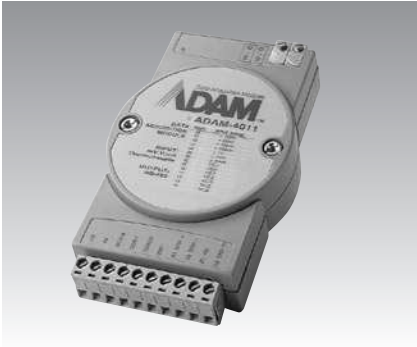
## ADAM-4012

## 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

### 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  
Max. input frequency: 50 Hz  
Min. input pulse width: 1 msec.
- **Event Counter**

#### 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

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ordering  
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MANUFACTURING COMPANY

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