

# ADAM-4011/4011D

## ADAM-4012

## ADAM-4013

1-ch Thermocouple Input Modules  
(with 7-segment LED Display)

1-ch Analog Input Module

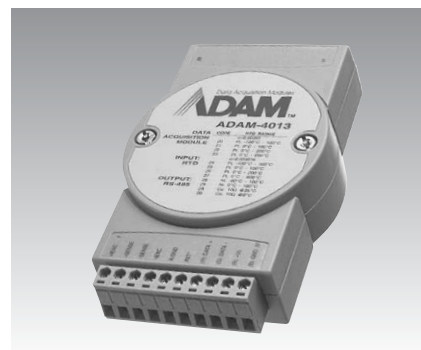
1-ch RTD Input Module



ADAM-4011/4011D



ADAM-4012



ADAM-4013



### Specifications

#### General

- Power Consumption 1.4 W @ 24 V<sub>DC</sub>
- Support Protocol ASCII command
- LED Indicators 5-digit (ADAM-4011D)

#### Analog Input

- Channels 1
- Input Impedance Voltage: 2 M $\Omega$   
Current: 125  $\Omega$   
(Added by users)
- Input Type T/C, 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
- Accuracy Voltage mode:  $\pm 0.1\%$  or  
better  
Current mode:  $\pm 0.2\%$  or  
better
- 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		

- Span Drift  $\pm 25$  ppm/ $^{\circ}$ C
- Zero Drift  $\pm 6$   $\mu$ V/ $^{\circ}$ C
- Wire Burnout Detector ADAM-4011D only

#### Digital Input

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

#### Digital Output

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

### Common Specifications

#### General

- Power Input Unregulated 10~30 V<sub>DC</sub>
- Connectors 1 x Plug-in terminal  
block (#14 ~ 22 AWG)
- Watchdog Timer System (1.6 second)

#### Analog Input

- Resolution 16-bit

### Specifications

#### General

- Power Consumption 1.2 W @ 24 V<sub>DC</sub>
- Support Protocol ASCII command

#### Analog Input

- Channels 1
- Input Impedance Voltage: 20 M $\Omega$   
Current: 125  $\Omega$   
(Added by users)  
mV, V or mA
- Input Type  $\pm 150$  mV,  $\pm 500$  mV,  $\pm 1$   
V,  $\pm 5$  V,  $\pm 10$  V and  $\pm 20$   
mA
- Accuracy Voltage mode:  $\pm 0.1\%$  or  
better  
Current mode:  $\pm 0.2\%$   
or better
- Span Drift  $\pm 25$  ppm/ $^{\circ}$ C
- Zero Drift  $\pm 6$   $\mu$ V/ $^{\circ}$ C

#### Digital Input

- Channels 1  
Logic level 0: +1 V max.  
Logic level 1: 3.5 ~ 30 V  
pull up current: 0.5 mA,  
10 k $\Omega$  resistor to +5 V  
Max. input freq.: 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

- Sampling Rate 10 sample/second
- CMR @ 50/60 Hz 150 dB
- NMR @ 50/60 Hz 100 dB
- Isolation Voltage 3000 V<sub>DC</sub>

#### Environment

- Humidity 5 ~ 95% RH
- Operating Temperature -10~70° C (14~158° F)
- Storage Temperature -25~85° C (-13~185° F)

### Specifications

#### General

- Power Consumption 0.7 W @ 24 V<sub>DC</sub>
- Support Protocol ASCII command

#### Analog Input

- Channels 1
  - Input Connections 2, 3, or 4-wire
  - Input Impedance 2 M $\Omega$
  - 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 |  |
- Accuracy  $\pm 0.1\%$  or better
  - Span Drift  $\pm 25$  ppm/ $^{\circ}$ C
  - Zero Drift  $\pm 3$   $\mu$ V/ $^{\circ}$ C

### Ordering Information

- ADAM-4011 1-ch Thermocouple Input Module
- ADAM-4011D ADAM-4011 with 7-segment LED Display
- ADAM-4012 1-ch Analog Input Module
- ADAM-4013 1-ch RTD Input Module