

# ADAM-4017+ ADAM-4018+ ADAM-4019+

8-ch Analog Input Module with Modbus  
8-ch Thermocouple Input Module with Modbus  
8-ch Universal Analog Input Module with Modbus



ADAM-4017+



ADAM-4018+



ADAM-4019+



## Specifications

### General

- **Power Consumption** 1.2 W @ 24 V<sub>DC</sub>
- **Watchdog Timer** System (1.6 second) & Communication
- **Supported Protocols** ASCII command and Modbus/RTU

### Analog Input

- **Channels** 8 differential
- **Channel Independent Configuration** Yes
- **Input Impedance** Voltage: 20 M $\Omega$   
Current: 120  $\Omega$
- **Input Type** mV, V, mA
- **Input Range** 0 ~ 150 mV, 0 ~ 500 mV,  
0 ~ 1 V, 0 ~ 5 V, 0 ~ 10 V,  
 $\pm 150$  mV,  $\pm 500$  mV,  $\pm 1$  V,  
 $\pm 5$  V,  $\pm 10$  V,  $\pm 20$  mA,  
0 ~ 20 mA, 4 ~ 20 mA

## Specifications

### General

- **Power Consumption** 0.8 W @ 24 V<sub>DC</sub>
- **Watchdog Timer** System (1.6 second) & Communication
- **Supported Protocols** ASCII command and Modbus/RTU

### Analog Input

- **Channels** 8 differential
- **Channel Independent Configuration** Yes
- **Input Impedance** Voltage: 20 M $\Omega$   
Current: 120  $\Omega$
- **Input Type** Thermocouple, mA
- **Input Range**  $\pm 20$  mA, 4 ~ 20 mA
- **T/C Types and Temperature Ranges**

|          |              |          |               |
|----------|--------------|----------|---------------|
| <b>J</b> | 0 ~ 760°C    | <b>R</b> | 500 ~ 1,750°C |
| <b>K</b> | 0 ~ 1,370°C  | <b>S</b> | 500 ~ 1,750°C |
| <b>T</b> | -100 ~ 400°C | <b>B</b> | 500 ~ 1,800°C |
| <b>E</b> | 0 ~ 1,000°C  |          |               |

- **Burnout Detection** All T/C

## Specifications

### General

- **Power Consumption** 1.0 W @ 24 V<sub>DC</sub>
- **Watchdog Timer** System (1.6 second) & Communication
- **Supported Protocols** ASCII command and Modbus/RTU

### Analog Input

- **Channels** 8 differential channels for individual input type
- **Channel Independent Configuration** Yes
- **Input Impedance** Voltage: 20 M $\Omega$   
Current: 120  $\Omega$
- **Input Type** T/C, mV, V, mA
- **Input Range** 0 ~ 100 mV, 0 ~ 500 mV,  
0 ~ 1 V, 0 ~ 2.5 V, 0 ~ 5 V,  
0 ~ 10 V,  $\pm 100$  mV,  
 $\pm 500$  mV,  $\pm 1$  V,  $\pm 2.5$  V,  
 $\pm 5$  V,  $\pm 10$  V,  $\pm 20$  mA,  
0 ~ 20 mA, 4 ~ 20 mA,

- **T/C Types and Temperature Ranges**

|          |              |          |                |
|----------|--------------|----------|----------------|
| <b>J</b> | 0 ~ 760°C    | <b>R</b> | 500 ~ 1,750°C  |
| <b>K</b> | 0 ~ 1,370°C  | <b>S</b> | 500 ~ 1,750°C  |
| <b>T</b> | -100 ~ 400°C | <b>B</b> | 500 ~ 1,800°C  |
| <b>E</b> | 0 ~ 1,000°C  | <b>N</b> | -200 ~ 1,300°C |

- **Burnout Detection** 4 ~ 20 mA & all T/C

## Common Specifications

### General

- **Power Input** Unregulated 10 ~ 30 V<sub>DC</sub>
- **Connectors** 2 x plug-in terminal block (#14 ~ 22 AWG)

### Analog Input\*

- **Accuracy** Voltage mode:  $\pm 0.1\%$  or better  
Current mode:  $\pm 0.2\%$  or better
- **Resolution** 16-bit
- **Sampling Rate** 10 sample/second (total)

- **Isolation Voltage** 3,000 V<sub>DC</sub>
- **Overvoltage Protection**  $\pm 35$  V<sub>DC</sub>
- **CMR @ 50/60 Hz** 120 dB
- **NMR @ 50/60 Hz** 100 dB
- **Span Drift**  $\pm 25$  ppm/°C (Typical)
- **Zero Drift**  $\pm 6$   $\mu$ V/°C
- **Built-in TVS/ESD Protection**

### Environment

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

## Ordering Information

- **ADAM-4017+-F** 8-ch Analog Input Module with Modbus
- **ADAM-4018+-F** 8-ch Thermocouple Input Module w/Modbus
- **ADAM-4019+-F** 8-ch Universal Analog Input Module w/Modbus

\*Please reference the user manual for the range accuracy of the thermocouple