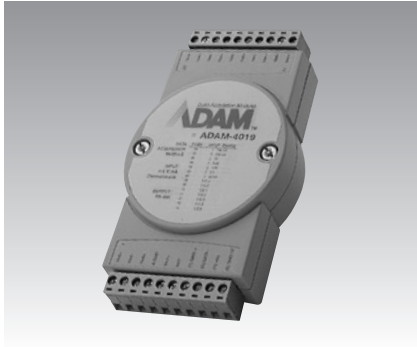


# ADAM-4019 ADAM-4021 ADAM-4022T

8-channel Universal Analog Input Module

Analog Output Module

Serial Based Dual Loop PID Controller



ADAM-4019



ADAM-4021



ADAM-4022T



## Specifications

### Analog Output

- **Effective Resolution** 16-bit
- **Channels** 8 differential channels for individual input type
- **Input Type** thermocouple, mV, V, mA
- **Input Range**  $\pm 100$  mV,  $\pm 500$  mV,  $\pm 1$  V,  $\pm 2.5$  V,  $\pm 5$  V,  $\pm 10$  V,  $\pm 20$  mA
- **T/C Type and Temperature Range**

|   |      |   |         |
|---|------|---|---------|
| J | 0    | ~ | 760° C  |
| K | 0    | ~ | 1370° C |
| T | -100 | ~ | 400° C  |
| E | 0    | ~ | 1000° C |
| R | 500  | ~ | 1750° C |
| S | 500  | ~ | 1750° C |
| B | 500  | ~ | 1800° C |
- **Isolation Voltage** 3000 V<sub>DC</sub>
- **Fault and Overvoltage Protection** Resists overvoltage up to  $\pm 35$  V
- **Input Impedance** 20 M $\Omega$
- **Bandwidth** 13.1 Hz @ 50 Hz, 15.72 Hz @ 60 Hz
- **Accuracy**  $\pm 0.1\%$  of voltage input
- **Zero Drift**  $\pm 30$  mV/° C
- **Span Drift**  $\pm 25$  ppm/° C
- **CMR @ 50/60 Hz** 92 dB min.

### 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-4019** 8-channel Universal Analog Input w/Modbus

## Specifications

### Analog Output

- **Effective Resolution** 12-bit
- **Output Type** mA, V
- **Output Range** 0 to 20 mA, 4 to 20 mA, and 0 to 10 V
- **Isolation Voltage** 3000 V<sub>DC</sub>
- **Output Impedance** 0.5 W
- **Accuracy**  $\pm 0.1\%$  of FSR for current output  
 $\pm 0.2\%$  of FSR for voltage output
- **Readback Accuracy**  $\pm 1\%$  of FSR
- **Resolution**  $\pm 0.015\%$  of FSR
- **Zero Drift** Voltage output:  $\pm 30$  mV/° C  
current output:  $\pm 0.2$  mA/° C
- **Span Temperature Coefficient**  $\pm 25$  ppm/° C
- **Programmable Output Slope** 0.125 ~ 128 mA/sec.  
0.0625 ~ 64.0 V/sec.
- **Current Load Resistor** 0 to 500 W (source)

### Built-in Watchdog Timer

#### Power

- **Power Requirement** Unregulated +10 ~ +30 V<sub>DC</sub>
- **Power Consumption** 1.4 W @ 24 V<sub>DC</sub>

## Ordering Information

- **ADAM-4021** Analog Output Module – V or mA

## Specifications

### Analog Input

- **Channels** 4
- **Input Type** mA, V, Thermistor, RTD
- **Input Range** 0 to 20 mA, 4 to 20 mA, 0 to 10 V
- **Thermistor Type and Temperature Ranges**
  - Thermistor 3K: 0 ~ 100° C
  - Thermistor 10K: 0 ~ 100° C
- **RTD Type and Temperature Ranges**
  - Pt 100 RTD Pt -100 ~ 100° C
  - Pt 0 ~ 100° C
  - Pt 0 ~ 200° C
  - Pt 0 ~ 600° C
  - IEC RTD 100 ohms (a = 0.00385)
  - JIS RTD 100 ohms (a = 0.00392)
  - Pt 1000 RTD
  - Pt -40 ~ 160° C

### Analog Output

- **Channels** 2
- **Output Type** mA, V
- **Output Range** 0 to 20 mA, 4 to 20 mA, 0 to 10 V

### Digital Input

- **Channels** 2
- **Dry Contact** Logic level 0-close to GND  
Logic level 1-open

### Digital Output

- **Channels** 2
- Open Collector to 30 V, 100 mA max. load
- 3,000 V<sub>DC</sub>

### Surge Protection (Power)

### Built-in Watchdog Timer

- **Power Requirements** Unregulated 10 ~ 30 V<sub>DC</sub>
- **Power Consumption** 4 W @ 24 V<sub>DC</sub>

## Ordering Information

- **ADAM-4022T** Serial Based Dual Loop PID Controller