

# ADAM-4021 ADAM-4022T ADAM-4024

## 1-ch Analog Output Module

## 2-ch Serial Based Dual Loop PID Controller with Modbus

## 4-ch Analog Output Module with Modbus



ADAM-4021



ADAM-4022T



ADAM-4024



### Specifications

#### General

- Connectors** 2 x plug-in terminal blocks (#14 ~ 22 AWG)
- Power Consumption** 1.4 W @ 24 V<sub>DC</sub>
- Watchdog Timer** System (1.6 second)
- Supported Protocols** ASCII command

#### Analog Output

- Channels** 1
- Output Impedance** 0.5 Ω
- Output Range** 0 ~ 20 mA, 4 ~ 20 mA, 0 ~ 10 V
- Output Type** mA, V
- Accuracy** ±0.1% of FSR for current output  
±0.2% of FSR for voltage output
- Current Load Resistor** 0 to 500 Ω (source)
- Resolution** 12-bit
- Isolation Voltage** 3,000 V<sub>DC</sub>
- Programmable Output Slope** 0.125 ~ 128 mA/sec.  
0.0625 ~ 64.0 V/sec.
- Readback Accuracy** ±1% of FSR
- Span Temperature Coefficient** ±25 ppm/°C
- Zero Drift** Voltage output: ±30 μV/°C  
Current output: ±0.2 μA/°C

### Common Specifications

#### General

- Power Input** Unregulated 10 ~ 30 V<sub>DC</sub>

#### Environment

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

### Specifications

#### General

- Connectors** 2 x plug-in terminal blocks (#14 ~ 28 AWG)
- Power Consumption** 4 W @ 24 V<sub>DC</sub>
- Watchdog Timer** System (1.6 second)
- Supported Protocols** ASCII command and Modbus/RTU

#### Analog Input (Only AI0 and AI2 are the PID input)

- Channels** 4
- Input Type** mA, V, Thermistor, RTD
- Input Range** 0 ~ 20 mA, 4 ~ 20 mA, 0 ~ 10 V
- Thermistor Type and Temperature Ranges** Thermistor 3 K (NTC): 0 ~ 100°C  
Thermistor 10 K (NTC): 0 ~ 100°C
- RTD Type and Temperature Ranges** Pt 100 RTD Pt 0 ~ 100°C Pt -100 ~ 100°C  
Pt 0 ~ 600°C Pt 0 ~ 200°C  
IEC RTD 100 ohms (α = 0.00385)  
JIS RTD 100 ohms (α = 0.00392)  
Pt 1000 RTD Pt -40 ~ 160°C
- Resolution** 16-bit
- Sampling Rate** 10 sample/second
- Isolation Voltage** 3,000 V<sub>DC</sub>

#### Analog Output

- Channels** 2
- Output Range** 0 ~ 20 mA, 4 ~ 20 mA, 0 ~ 10 V
- Output Type** mA, V
- Resolution** 12-bit
- Isolation Voltage** 3,000 V<sub>DC</sub>

#### Digital Input

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

#### Digital Output

- Channels** 2
- Power Dissipation** Open Collector to 30 V, 30 mA max. load  
300 mW

### Specifications

#### General

- Connectors** 2 x plug-in terminal blocks (#14 ~ 28 AWG)
- Power Consumption** 3 W @ 24 V<sub>DC</sub>
- Watchdog Timer** System (1.6 second) & Communication
- Supported Protocols** ASCII command and Modbus/RTU

#### Analog Output

- Channels** 4
- Output Impedance** 0.5 Ω
- Output Range** 0 ~ 20 mA, 4 ~ 20mA, ±10 V
- Output Type** mA, V (Differential)
- Accuracy** ±0.1 % of FSR for current output  
±0.1 % of FSR for voltage output
- Current Load Resistor** Max. 500 Ω (source)
- Voltage Load Resistor** Min. 1K Ω
- Resolution** 12-bit
- Isolation Voltage** 3,000 V<sub>DC</sub>
- Programmable Output Slope** 0.125 ~ 128 mA/sec.  
0.0625 ~ 64.0 V/sec.
- Span Temperature Coefficient** ±25 ppm/°C
- Zero Drift** Voltage output: ±30 μV/°C  
Current output: ±0.2 μA/°C

#### Digital Input

- Channels** 4
- Input Level** Logic level 0: 1 V max.  
Logic level 1: 10 ~ 30 V<sub>DC</sub>
- Isolation Voltage** 3,000 V<sub>DC</sub>

### Ordering Information

- ADAM-4021** 1-ch Analog Output Module
- ADAM-4022T** 2-ch Serial Dual Based Loop PID Controller w/ Modbus
- ADAM-4024** 4-ch Analog Output Module with Modbus

## Assured Systems

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