

# ADAM-4021 ADAM-4022T ADAM-4024

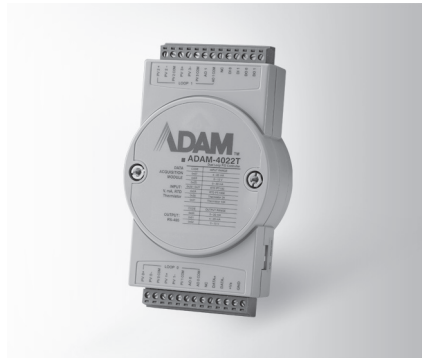
## 1-ch Analog Output Module

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

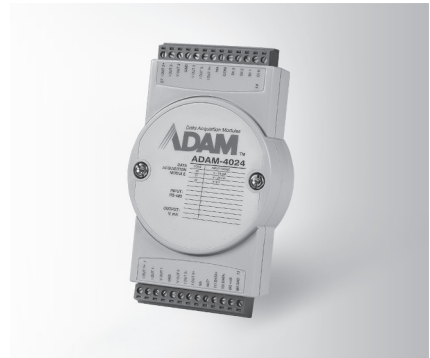
## 4-ch Analog Output Module with Modbus



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 ~ 20 mA, ±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

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