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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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



Specifications

General

Connectors 2 x plug-in terminal blocks (#14 ~ 22 AWG) Power Consumption 1.4 W @ 24 V_{DC} Watchdog Timer System (1.6 second) Supported Protocols ASCII command

Analog Output

Channels 1 Output Impedance 0.5Ω Output Range $0 \sim 20 \text{ mA}, 4 \sim 20 \text{ mA},$

0 ~ 10 V Output Type mA, V

±0.1% of FSR for current Accuracy

output

±25 ppm/°C

±0.2% of FSR for voltage output

 Current Load 0 to 500 Ω (source) Resistor

 Resolution 12-bit Isolation Voltage 3,000 V_{DC}

Programmable 0.125 ~ 128 mA/sec. **Output Slope** 0.0625 ~ 64.0 V/sec. ±1% of FSR

Readback Accuracy Span Temperature

Coefficient Zero Drift

Voltage output: ±30 μV/°C $\pm 0.2~\mu A/^{\circ} C$ Current output:

Common Specifications

General

Unregulated 10 ~ 30 V_{DC} Power Input

Environment

 Operating Humidity 5 ~ 95% RH Operating -10 ~70°C (14 ~ 185°F)

Temperature

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_{DC} System (1.6 second) **Watchdog Timer Supported Protocols** ASCII command and Modbus/RTU

Analog Input (Only AIO and AI2 are the PID input)

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Channels

mA, V, Thermistor, RTD Input Type $0 \sim 20$ mA, $4 \sim 20$ mA, **Input Range** $0 \sim 10 \text{ V}$

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 (a = 0.00385) JIS RTD 100 ohms (a = 0.00392)

Pt 1000 RTD Pt -40 ~ 160°C

Resolution 16-bit **Sampling Rate** 10 sample/second **Isolation Voltage** 3,000 V_{DC}

Analog Output

Channels

Output Range 0 ~ 20 mA, 4 ~ 20 mA, $0 \sim 10 \text{ V}$

Output Type Resolution 12-bit **Isolation Voltage** $3,000 V_{DC}$

Digital Input

Channels

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

Digital Output

Channels

Open Collector to 30 V, 30 mA max. load

 Power Dissipation 300 mW



Specifications

General

Connectors 2 x plug-in terminal blocks (#14 ~ 28 AWG) **Power Consumption** 3 W @ 24 V_{DC} Watchdog Timer System (1.6 second) & Communication Supported Protocols

ASCII command and Modbus/RTU

Analog Output

Channels 0.5Ω **Output Impedance**

Output Range $0 \sim 20$ mA, $4 \sim 20$ mA, ±10 V

mA, V (Differential) Output Type Accuracy ±0.1 % of FSR for current output

±0.1 % of FSR for voltage output

Current Load Max. $500 \,\Omega$ Resistor (source) Voltage Load Min. 1K Ω Resistor

Resolution 12-bit 3.000 V_{DC} **Isolation Voltage** Programmable 0.125 ~ 128 mA/sec. **Output Slope** 0.0625 ~ 64.0 V/sec.

Span Temperature Coefficient

Zero Drift Voltage output: ±30 μV/°C Current output: ±0.2 µA/°C

±25 ppm/°C

Digital Input

Channels

 Input Level Logic level 0: 1 V max. Logic level 1: 10 ~ 30 V_{DC} 3.000 VDC

Isolation Voltage

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