

# ADAM-4055 ADAM-4056S/4056SO ADAM-4080

**16-ch Isolated Digital I/O Module with Modbus**  
**12-ch Sink/Source Type Isolated Digital Output Modules with Modbus**  
**2-ch Counter/Frequency Module**



ADAM-4055



ADAM-4056S/4056SO



ADAM-4080



## Specifications

### General

- Connectors** 2 x plug-in terminal blocks (#14 ~ 28 AWG)
- Power Consumption** 1 W @ 24 V<sub>DC</sub>
- Watchdog Timer** System (1.6 second) & Communication
- Supported Protocols** ASCII command and Modbus/RTU
- Isolation Voltage** 2,500 V<sub>DC</sub>
- LED Indicators** Yes

### Digital Input

- Channels** 8
- Input Level**  
Dry Contact: Logic level 0: open  
Logic level 1: close to GND  
Wet Contact: Logic level 0: 3 V max.  
Logic level 1: 10 ~ 50 V
- Overvoltage Protection** 70 V<sub>DC</sub>

### Digital Output

- Channels** 8, open collector to 40 V (200 mA max. load)
- Power Dissipation** Channel: 1 W max.  
Total: 2.2 W (8 Channels)

## Common Specifications

### General

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

### Environment

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

## Specifications

### General

- Connectors** 2 x Plug-in terminal blocks (#14~22 AWG)
- Watchdog Timer** System (1.6 second) & Communication
- Support Protocol** ASCII command and Modbus/RTU
- Isolation Voltage** 5000 V<sub>DC</sub>
- LED Indicators** Yes

### ADAM-4056S

- Digital Output Channels** 12  
Open collector to 40V (200mA max. load)
- Power Dissipation** Channel: 1 W max  
Total: 4 W (12 Channels)
- Digital Output Type** Sink

### ADAM-4056SO

- Digital Output Channels** 12  
VCC: 10 ~ 35 V<sub>DC</sub>  
Current: 1A (per channel)
- Digital Output Type** Source
- Over Current Detection and Protection**

## Ordering Information

- ADAM-4055** 16-ch Isolated Digital I/O Module with Modbus
- ADAM-4056S** 12-ch Sink Type Isolated Digital Output Module with Modbus
- ADAM-4056SO** 12-ch Source Type Isolated Digital Output Module with Modbus
- ADAM-4080** 2-ch Counter/Frequency Modules

## Specifications

### General

- Connectors** 2 x plug-in terminal blocks (#14 ~ 22 AWG)
- Power Consumption** 2.0 W @ 24 V<sub>DC</sub>
- Watchdog Timer** System (1.6 second)
- Supported Protocols** ASCII command

### Counter Input

- Channels** 2 independent counters (32-bit + 1-bit overflow)
- Input Frequency** 50 kHz max.
- Input Pulse Width** >10  $\mu$ s.
- Input Mode** Isolated or non-isolated
- Isolated Input Level** Logic level 0: 1 V max.  
Logic level 1: 3.5~30 V
- Isolation Voltage** 2,500 V<sub>RMS</sub>
- Non-isolated Input Level** Programmable threshold:  
Logic level 0: 0.8 V<sub>max</sub>.  
Logic level 1: 2.4 ~ 5.0 V
- Maximum Count** 4,294,967,295 (32-bit)
- Preset Type** Absolute or relative
- Programmable Digital Noise Filter** 2  $\mu$ s ~ 65 ms
- Alarm** Alarm comparators on each counter
- Frequency Measurement Range** 5 Hz ~ 50 kHz
- Programmable Built-in Gate Time** 1 or 0.1 second

### Digital Output

- Channels** 2, open collector to 30 V, 30 mA max. load
- Power Dissipation** 300 mW for each channel



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