# ADAM-4053
# ADAM-4055
# ADAM-4080

## 16-ch Digital Input Module

## 16-ch Isolated Digital I/O Module with Modbus

## 2-ch Counter/Frequency Module

ADAM-4053

ADAM-4055

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## Specifications

### General

- **Connectors** 2 x plug-in terminal blocks (#14 ~ 22 AWG)
- **Power Consumption** 1 W @ 24 $V_{DC}$
- **Watchdog Timer** System (1.6 second)
- **Supported Protocols** ASCII command

### Digital Input

- **Channels** 16
- **Input Level**
  - Dry contact: Logic level 0: close to GND
  - Logic level 1: open
  - Wet contact: Logic level 0: +2 V max.
  - Logic level 1: +4 ~ 30 V
- **Effective Distance (dry contact only)** 500 m max.

## Specifications

### General

- **Connectors** 2 x plug-in terminal blocks (#14 ~ 28 AWG)
- **Power Consumption** 1 W @ 24 $V_{DC}$
- **Watchdog Timer** System (1.6 second) & Communication
- **Supported Protocols** ASCII command and Modbus/RTU
- **Isolation Voltage** 2,500 $V_{DC}$
- **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 Vmax
  - Logic level 1: +10 ~ 50 V
  - (Note: Digital Input levels 0 and 1 can be inverted)
- **Overvoltage Protection** 70 $V_{DC}$

### 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)

## Specifications

### General

- **Connectors** 2 x plug-in terminal blocks (#14 ~ 22 AWG)
- **Power Consumption** 2.0 W @ 24 $V_{DC}$
- **Power Input** Unregulated 10 ~ 30 $V_{DC}$
- **Humidity** 5 ~ 95% RH
- **Operating Temperature** -10 ~ 70° C (14 ~ 158° F )
- **Storage Temperature** -25 ~ 85° C (-13 ~ 185° F)
- **Watchdog Timer** System (1.6 second)
- **Supported Protocols** ASCII command
- **LED Indicators** 5-digit readout, CH 0 or CH 1 (programmable)

### Counter Input

- **Channels** 2 independent counters (32-bit + 1-bit overflow)
- **Input Frequency** 50 kHz max.
- **Input Pulse Width** >10 µs.
- **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 $V_{RMS}$
- **Non-isolated Input Level** Programmable threshold:
  Logic level 0: +0.8 Vmax.
  Logic level 1: 2.4 ~ 5.0 V
- **Maximum Count** 4,294,967,295 (32 bits)
- **Preset Type** Absolute or relative
- **Programmable Digital Noise Filter** 2 µs ~ 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** 30 V, 30 mA max. load
- **Power Dissipation** 300 mW for each channel

## Common Specifications

- **Power Input** Unregulated 10 ~ 30 $V_{DC}$

### Environment

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

## Ordering Information

- **ADAM-4053** 16-ch Digital Input Module
- **ADAM-4055** 16-ch Isolated Digital I/O Module with Modbus
- **ADAM-4080** 2-ch Counter/Frequency Modules