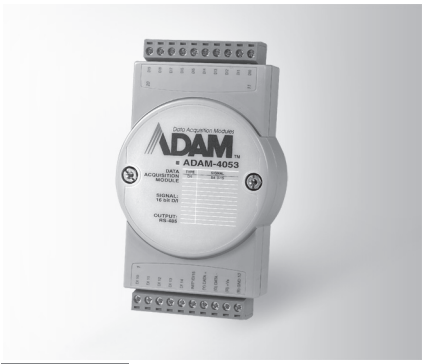
ADAM-4053
ADAM-4055
ADAM-4080

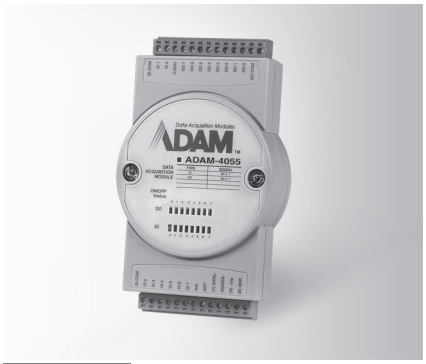
16-ch Digital Input Module

16-ch Isolated Digital I/O Module with Modbus

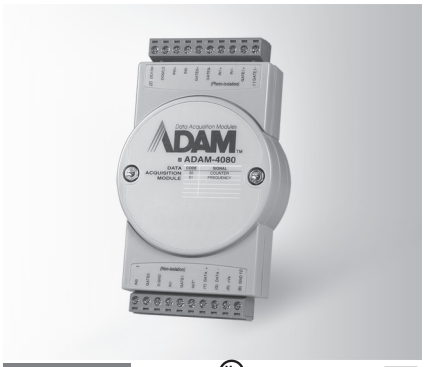
2-ch Counter/Frequency Module



ADAM-4053



ADAM-4055



ADAM-4080

Specifications

General

- **Connectors** 2 x plug-in terminal blocks (#14 ~ 22 AWG)
- **Power Consumption** 0.4 W @ 24 V DC typ.
  0.7 W @ 24 V DC max.
- **Watchdog Timer** System (1.6 second)
- **Supported Protocols** ASCII command and Modbus/RTU

Digital Input

- **Channels** 16
- **Input Level**
  Dry contact: Logic level 0: Closed to GND
  Logic level 1: Open
  Wet contact: Logic level 0: 2 V
  Logic level 1: 4 ~ 30 V or floating
  Support DO type: Sink (NPN) only
- **Effective Distance** 500 m max. (dry contact only)

Specifications

General

- **Connectors** 2 x plug-in terminal blocks (#14 ~ 28 AWG)
- **Power Consumption** 1 W @ 24 V DC typ.
  1.7 W @ 24 V DC max.
- **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
  Dry/Wet Contact decided by switch or jumper
- **Input Level**
  Dry Contact: Logic level 0: Open
  Logic level 1: Closed to GND
  Wet Contact: Logic level 0: 0 ~ 3 V max. or floating
  Logic level 1: 10 ~ 50 V
  Support DO type: Sink (NPN) and Source (PNP)
- **Overvoltage Protection** 70 V_{DC}

Digital Output

- **Channels** 8, open collector to 40 V (1 channel 200 mA max. load, total channel 800 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}
- **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 to 30 V, 30 mA max. load
- **Power Dissipation** 300 mW for each channel

Common Specifications

General

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

Last updated: 30-Jun-2025