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 | FC C€ RoHS COMPLIANT 2002/95/EC |

| ADAM-4056S/4056SO | c(UL)us FC C€ RoHS COMPLIANT 2002/95/EC |

| ADAM-4080 | FC C€ RoHS COMPLIANT 2002/95/EC |

Specifications

General

- **Certification**   FM, CE, UL
- **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 V max.
                      Logic level 1: 10 ~ 50 V
- **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)

Common Specifications

General

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

Environment

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

Specifications

General

- **Certification**   FCC, CE, UL, UL Class I Division 2 (ADAM-4056SO)
- **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_{DC}
- **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_{DC} 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

- **Certification**   FCC, CE
- **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 modbus/RTU (E version)

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-bit)
- **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