

# ADAM-6050

# ADAM-6051

# ADAM-6052

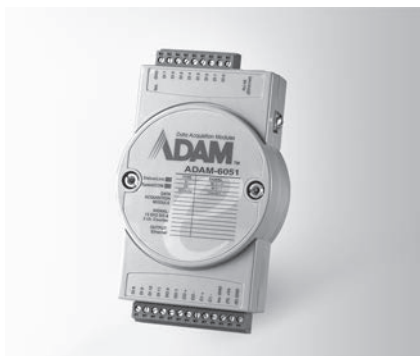
**18-ch Isolated Digital I/O Modbus TCP Module**

**14-ch Isolated Digital I/O Modbus TCP Module with 2-ch Counter**

**16-ch Source-type Isolated Digital I/O Modbus TCP Module**



ADAM-6050



ADAM-6051



ADAM-6052



## Specifications

### Digital Input

- **Channels** 12
- **Dry Contact** Logic level 0: Closed to GND  
Logic level 1: Open
- **Wet Contact** Logic level 0: 0 ~ 3 V<sub>DC</sub>  
Logic level 1: 10 ~ 30 V<sub>DC</sub> or floating  
Support DO type:  
Sink (NPN)
- **Supports 3 kHz Counter Input (32-bit + 1-bit overflow)**
- **Keep/Discard Counter Value when Power-off**
- **Supports 3 kHz Frequency Input**

### Digital Output

- **Channels** 6 (sink type), open collector to 30 V, 100 mA maximum load
- **Supports 5 kHz Pulse Output**
- **Supports High-to-Low and Low-to-High Delay Output**

### Ordering Information

- **ADAM-6050-D1** 18-ch Isolated DI/O Modbus TCP Module

## Specifications

### Digital Input

- **Channels** 12
- **Dry Contact** Logic level 0: Closed to GND  
Logic level 1: Open
- **Wet Contact** Logic level 0: 0 ~ 3 V<sub>DC</sub>  
Logic level 1: 10 ~ 30 V<sub>DC</sub> or floating  
Support DO type:  
Sink (NPN)
- **Supports 3 kHz Counter Input (32-bit + 1-bit overflow)**
- **Keep/Discard Counter Value when Power-off**
- **Supports 3 kHz Frequency Input**

### Counter Input

- **Channels** 2
- **Mode** Counter, Frequency
- **Keep/Discard Counter Value when Power-off** 4,294,967,295
- **Maximum Count** (32-bit + 1-bit overflow)
- **Input Frequency** Frequency Mode:  
0.2 ~ 4500 Hz  
Counter Mode: 0 ~ 4.5 kHz

### Digital Output

- **Channels** 2 (sink type), open collector to 30 V, 100 mA maximum load
- **Supports 5 kHz Pulse Output**
- **Supports High-to-Low and Low-to-High Delay Output**

## Ordering Information

- **ADAM-6051-D** 16-ch Isolated DI/O with Counter Modbus TCP Module

## Specifications

### Digital Input

- **Channels** 8
- **Dry Contact** Dry/Wet Contact decided by switch or jumper  
Logic level 0: Open  
Logic level 1: Closed to GND
- **Wet Contact** Logic level 0: 0 ~ 3 V<sub>DC</sub> or floating  
Logic level 1: 10 ~ 30 V<sub>DC</sub>  
Support DO type:  
Source (PNP)
- **Supports 3 kHz Counter Input (32-bit + 1-bit overflow)**
- **Keep/Discard Counter Value when Power-off**
- **Supports 3 kHz Frequency Input**

### Digital Output

- **Channels** 8 (Source Type)
- **Voltage Range** 10 ~ 35 V<sub>DC</sub>
- **Current** 1 A (per channel)
- **Supports 5 kHz Pulse Output**
- **Supports High-to-Low and Low-to-High Delay Output**
- **Supports Over Current Protection**

## Ordering Information

- **ADAM-6052-D** 16-ch Source-type Isolated DI/O Modbus TCP Module

## Common Specifications

### General

- **Certification** FCC, CE, UL  
\*Class I, Division 2, Groups A, B, C and D Hazardous Locations
- **LAN** 1-port 10/100Base-T(X)
- **Power Consumption** 2 W @ 24 V<sub>DC</sub>
- **Connectors** 1 x RJ-45 (LAN), Plug-in screw terminal block (I/O and power)
- **Watchdog** System (1.6 second) and Communication (programmable)

- **Power Input** 10 ~ 30 V<sub>DC</sub>
- **Supports Peer-to-Peer, GCL**
- **Supports User Defined Modbus Address**
- **Supports Modbus/TCP, TCP/IP, UDP, RESTful, MQTT (D version), SNMP (D version) Protocol**

### Protection

- **Power Reversal Protection**
- **Isolation Protection** 2,000 V<sub>DC</sub>

### Environment

- **Operating Temperature** -20 ~ 70°C (-4 ~ 158°F)  
D version  
-40 ~ 70°C (-40~158°F)
- **Storage Temperature** -30 ~ 80°C (-22 ~ 176°F)  
D version  
-40 ~ 85°C (-40~185°F)
- **Operating Humidity** 20 ~ 95% RH  
(non-condensing)
- **Storage Humidity** 0 ~ 95% RH  
(non-condensing)