## Specifications

### Digital Input
- **Channels**: 12
- **Dry Contact**
  - Logic level 0: close to GND
  - Logic level 1: open
- **Wet Contact**
  - Logic level 0: 0 ~ 3 VDC
  - Logic level 1: 10 ~ 30 VDC
- **Supports 3 kHz Counter Input** (32-bit + 1-bit overflow)
- **Keep/Discard Counter Value when Power-off**
- **Supports 3 kHz Frequency Input**
- **Supports Inverted DI Status**

### 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**: 18-ch Isolated DI/O Modbus TCP Module

---

## Specifications

### Digital Input
- **Channels**: 12
- **Dry Contact**
  - Logic level 0: close to GND
  - Logic level 1: open
- **Wet Contact**
  - Logic level 0: 0 ~ 3 VDC
  - Logic level 1: 10 ~ 30 VDC
- **Supports 3 kHz Counter Input** (32-bit + 1-bit overflow)
- **Keep/Discard Counter Value when Power-off**
- **Supports 3 kHz Frequency Input**
- **Supports Inverted DI Status**

### Counter Input
- **Channels**: 2
- **Mode**
  - Counter, Frequency
- **Keep/Discard Counter Value when Power-off**
- **Maximum Count**: 4,294,967,295 (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**: 16-ch Isolated DI/O with Counter Modbus TCP Module

---

## Specifications

### Digital Input
- **Channels**: 8
- **Dry Contact**
  - Logic level 0: Open
  - Logic level 1: Close to Ground
- **Wet Contact**
  - Logic level 0: 0 ~ 3 VDC
  - Logic level 1: 10 ~ 30 VDC
- **Supports 3 kHz Counter Input** (32-bit + 1-bit overflow)
- **Keep/Discard Counter Value when Power-off**
- **Supports 3 kHz Frequency Input**
- **Supports Inverted DI Status**

### Digital Output
- **Channels**: 8 (Source Type)
- **Voltage Range**: 10 ~ 35 VDC
- **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**: 16-ch Source-type Isolated DI/O Modbus TCP Module

---

## Common Specifications

### General
- **LAN**: 10/100Base-T(X)
- **Power Consumption**: 2 W @ 24 VDC
- **Connectors**: 1 x RJ-45 (LAN), Plug-in screw terminal block (I/O and power)
- **Watchdog**: System (1.5 second) and Communication (programmable)

### Power Input
- **Power Input**: 10 ~ 30 VDC
- **Supports Peer-to-Peer, GCL**
- **Supports User Defined Modbus Address**
- **Supports Modbus/TCP, TCP/IP, UDP, DHCP, SNMP, HTTP and MQTT Protocol**

### Protection
- **Power Reversal Protection**: 4,294,967,295 (32-bit + 1-bit overflow)
- **Isolation Protection**: 2,000 VDC

### 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 ~ 80°C (-40 ~ 176°F)
- **Operating Humidity**: 20 ~ 95% RH (non-condensing)
- **Storage Humidity**: 0 ~ 95% RH (non-condensing)