# Ethernet I/O Modules: ADAM-6000/6200/6300

Introduction

Advantech's ADAM-6000/6200/6300 Ethernet I/O modules are easily integrated so they can remotely monitor and Cross-site Devices more flexibly.

## Feature Highlights

Secure Cloud I/O

Innovative ADAM-6000/6200 Secure Cloud I/O offers device management, OTA updates, security and device monitoring functions in IoT era and help user easily manage widespread assets across diverse applications
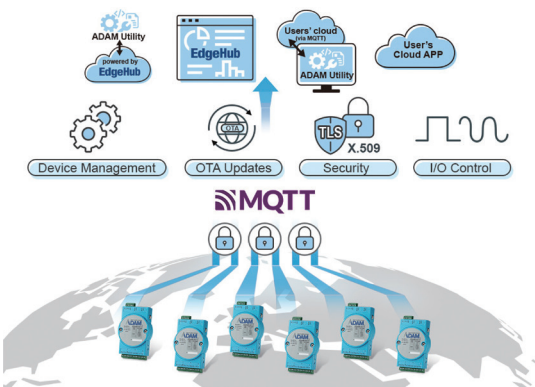
- **Device Management:** UUID, networking setting, I/O channel configuration
- **OTA Updates:** firmware, certificate and configuration mass deployment
- **Security:** TLS, X.509 certificate, cipher suites, IP allowlisting, protocol disabled
- **I/O Control:** digital I/O on/off, analog I/O read/write, I/O value periodically updated, alarm notificatio

Simple and Intuitive Logic Control

ADAM-6000/6200 Peer-to-Peer (P2P) and Graphic Condition Logic (GCL) modules can perform as standalone products for measurement, control, and automation.
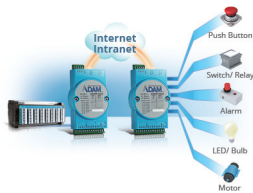

Peer-to-Peer (P2P) connection

- Easy channel mapping from different I/O modules without extra programming effort or additional controllers.
- Utilizes Peer-to-Peer modules, just configure settings through ADAM.NET utility.

Graphic condition logic (GCL)

- GCL function is built-in ADAM-6000 and ADAM-6200 modules for users to easily set up logic rules in any application.
- User defined logic rules through graphical configuration environment in ADAM.NET utility.
- No additional controllers or programming is needed.
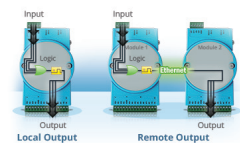
### Easy Deployment and Robust Communication

Flexible deployment with daisy chain networking and auto-bypass protection

ADAM-6200/6300 series supports daisy chain connectivity that offers flexible cabling and space saving capabilities. With Ethernet auto-bypass function supported to prevent accidental power failures if one of the modules unexpectedly shuts down.

Rich IoT Protocols

The ADAM-6000/6200 series supports multiple protocols for IoT applications: MQTT, SNMP, Restful APIs, and Modbus, which are very flexible and can be easily integrated with Microsoft Azure, Database, Network and SCADA systems.
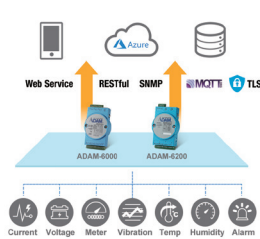
Cloud

- Support EdgeHub, Azure IoT Hub and any user's cloud.

MQTT

- Actively publish MQTT messages with user defined intervals.
- Shorten downtime with agile sequence of event ("ms" resolution) and alarm notification.
- Privacy assured with the TLS (Transport Layer Security).
- User defined topic and payload to integrate existing system.

SNMP

- Simple way to monitor I/O data on NMS (Network Management System).
- SNMP trap to notify alarm events.
- Reduces implementation cost with ADAM MIB (Management Information Base) file.

Industrial Grade with Isolation & Wide-operating Temperature

ADAM-6000/6200/6300 series has a rugged design.

- Supports isolation protection to avoid system damage from high-energy noise.
- Supports operating temperatures of between -40 ~70°C and can perform in most harsh environments.

Application Structure
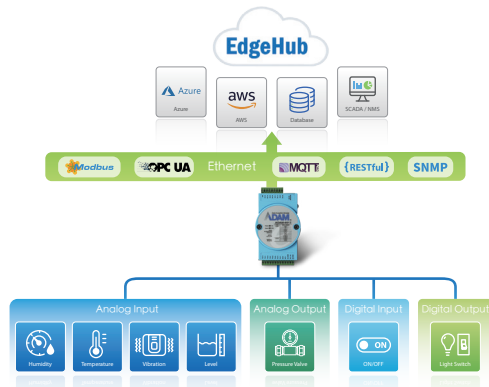
ADAM-6000/6200/6300 Series Comparison

Series Name		ADAM-6000 Series	ADAM-6200 Series	ADAM-6300 Series
Daisy-chain Connectivity		–	✓	✓
Protocol	MQTT	✓	✓	(By request)
	SNMP	✓	✓	(By request)
	Modbus	✓	✓	✓
	RESTful	✓	✓	(By request)
	OPC UA	–	–	✓
	Cloud I/O	✓	✓	(By request)

EdgeHub-enabled Cross-Site Device Management Solution
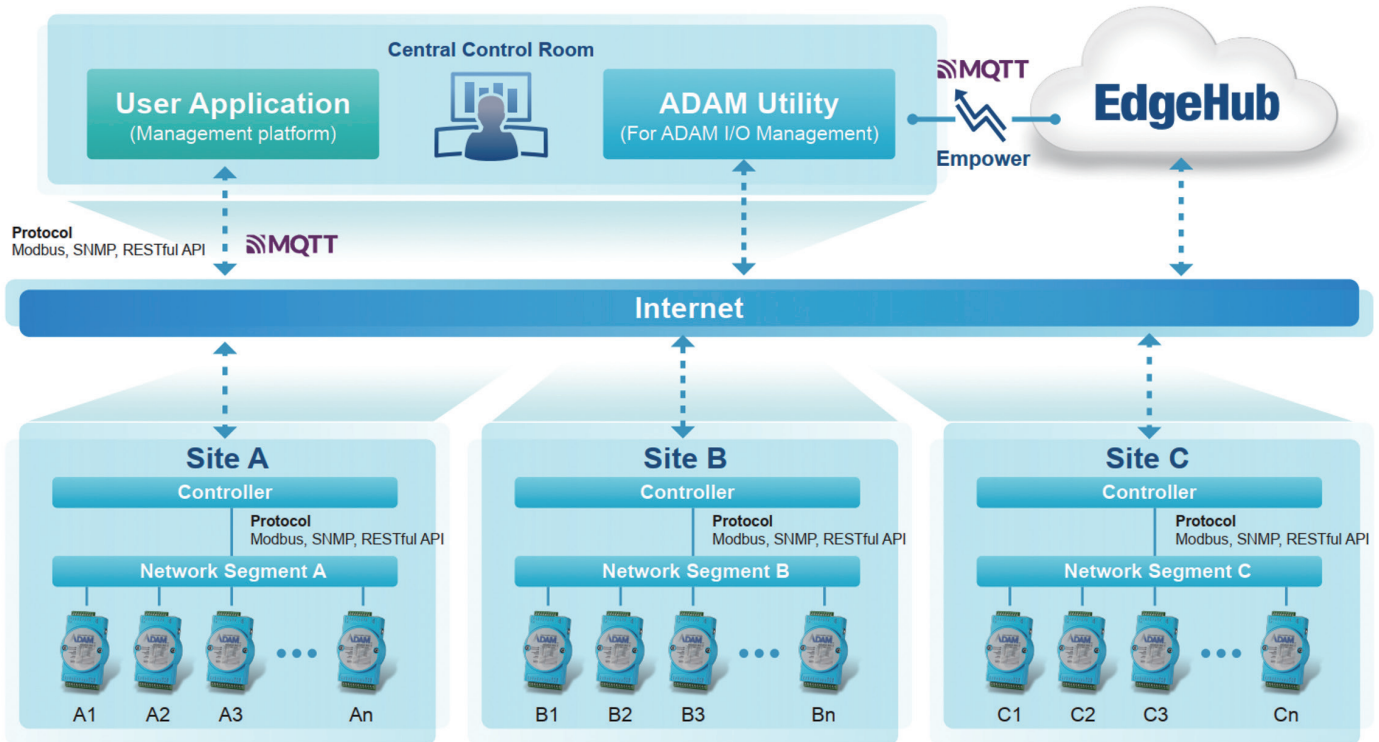
Direct I/O and Centralized Configuration

- EdgeHub enables device management with remote configuration, monitoring and maintenance capabilities for Advantech devices.
- Configure and maintain ADAM devices via ADAM Utility with built-in EdgeHub and web interface.
- Monitor and control I/O in real-time
- Manage user-defined configuration profiles and apply to devices
- Update device firmware remotely through secure OTA
- Manage multiple devices in groups with batch configuration and monitoring

Configurable Data Logging and Dashboard

- Flexible data logging and visualization with selectable tag configurations and customizable dashboard.
- Configure data logging by selecting I/O tags to store
- Customize web-based dashboard to view real-time and historical data

Multi-Tenant Architecture

- Support multiple organizations with isolated environments and resource management through tenant management.
- Tenant isolation – device, data storage, network traffic, API access
- Hierarchical tenant structures with parent-child relationships for enterprise deployments
- Tenant-specific user management and authentication
- Device connection quota management per tenant

Flexible Event Notification System

- User-defined event settings with real-time notification delivery through multiple communication channels.
- Define event rules based on device I/O tags
- Configure targeted notifications with customizable groups, users, and content
- Distribute alerts through email and other supported channels
- Track event history and acknowledgement status

Enterprise-Grade Access Control

- Secure access management with role-based control (RBAC) and user account
- Define role-based access control with customized permission sets
- Control user access right to devices configurations, monitoring and operations
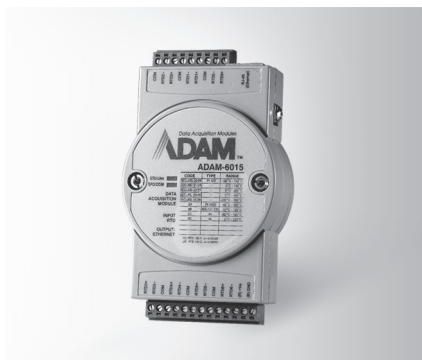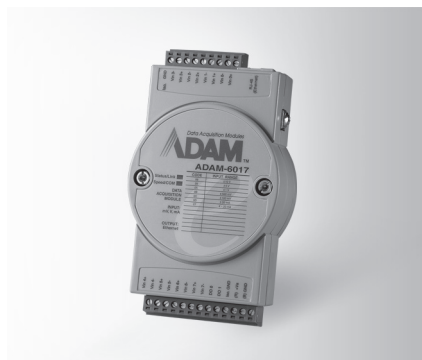- Manage user accounts with hierarchical roles and granular permissions

ADAM-6015
ADAM-6017
ADAM-6018+

7-ch Isolated RTD Input Modbus TCP Module

8-ch Isolated Analog Input Modbus TCP Module with 2-ch DO

8-ch Isolated Thermocouple Input Module

ADAM-6015

ADAM-6017

ADAM-6018+

Specifications

Analog Input

- **Channels**   7 (differential)
- **Input Impedance**   > 10 MΩ
- **Input Connections**   2 or 3 wire
- **Input Type**   Pt, Balco and Ni RTD
- **RTD Types and Temperature Ranges**

Pt 100	-50°C	~	150°C
	0°C	~	100°C
	0°C	~	200°C
	0°C	~	400°C
	-200°C	~	200°C
Pt 1000	-40°C	~	160°C

  Supports both IEC 60751 ITS90 (0.0385 W/W/°C) and JIS C 1604 (0.0392 W/W/°C)

Balco 500	-30°C	~	120°C
Ni 518	-80°C	~	100°C
	0°C	~	100°C

- **Accuracy**   ± 0.1 % or better
- **High speed mode**   ±0.5% or better
- **Span Drift**   ± 25 ppm/°C
- **Zero Drift**   ± 6 µV/°C
- **Resolution**   16-bit
- **Sampling Rate**
  10 sample/ second (total)
  High speed mode:1K sample/second (total)
  CMR @ 50/60 HZ 90dB
  NMR @ 50/60 HZ 60dB
  * high speed mode does not support CMR/NMR
- **Wire Burnout Detection**

Ordering Information

- **ADAM-6015**   7-ch Isolated RTD Input Modbus TCP Module

Specifications

Analog Input

- **Channels**   8 (differential)
- **Input Impedance**   > 10 MΩ (voltage)
  120 Ω (current)
- **Input Type**   mV, V, mA
- **Input Range**   ±150mV , ±500mV , ±1 V , ±5V , ±10V, 0 ~ 150mV, 0 ~ 500mV , 0 ~ 1V , 0 ~ 5V , 0 ~ 10V, 0 ~ 20mA, 4 ~ 20mA , ±20mA
- **Accuracy**   ±0.1% (voltage)
  ±0.2% (current)
- **Span Drift**   ±25 ppm/°C
- **Zero Drift**   ±6 µV/°C
- **Resolution**   16-bit
- **Sampling Rate**   10 or 100 sample/ second (total)
  CMR @ 50/60 HZ 90dB
  NMR @ 50/60 HZ 67dB
- **Common-Mode Voltage**   350V$_{DC}$

Digital Output

- **Channels**   2, open collector to 30 V, 100 mA max. load
- **Power Dissipation**   300 mW for each module
- **Output Delay**   On: 100µs
  Off: 150µs

Ordering Information

- **ADAM-6017**   8-ch Isolated AI with 2-ch DO Modbus TCP Module

Specifications

Analog Input

- **Channels**   8 (differential)
- **Input Type**   Thermocouple
- **Thermocouple Type and Range:**

J	0 ~ 760°C	**R**	500 ~ 1,750°C
K	0 ~ 1,370°C	**S**	500 ~ 1,750°C
T	-100 ~ 400°C	**B**	500 ~ 1,800°C
E	0 ~ 1,000°C		

- **Accuracy@25°C**   Type J,K,E,R,S: ±0.1% FSR Max
  Type B: ±0.15% FSR Max
  Type T: ±0.2% FSR Max
- **Span Drift**   ±25 ppm/°C
- **Zero Drift**   ±6 µV/°C
- **Resolution**   16-bit
- **Sampling Rate**   10 sample/ second (total)
- **Wire Burnout Detection**

Ordering Information

- **ADAM-6018+**   8-ch Isolated Thermocouple Input Module

Common Specifications

General

- **Certification**   CE, FCC, UL
  *Class I, Division 2, Groups A, B, C and D Hazardous Locations for ADAM-6015 and ADAM-6017
- **LAN**   10/100Base-T(X)
- **Power Consumption**   2.5 W @ 24 V$_{DC}$ (ADAM-6015)
  2.7 W @ 24 V$_{DC}$ (ADAM-6017)
  1 W @ 24 V$_{DC}$ (ADMA-6018+)
- **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$_{DC}$
- **Supports Peer-to-Peer**
- **Supports GCL**
- **Supports Modbus/TCP, TCP/IP, UDP, RESTful**
- **Supports MQTT (D version), SNMP (D version) Protocols (ADAM-6017 and ADAM-6018+)**

Protection

- **Isolation Protection**   2,000 V$_{DC}$
- **Built-in TVS/ESD Protection**
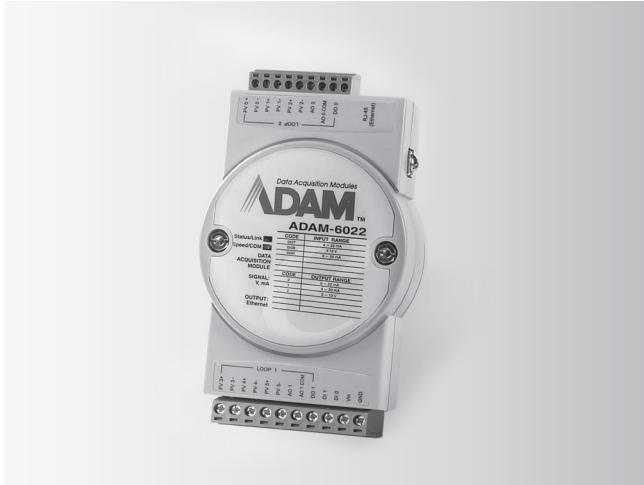- **Power Reversal Protection**

Environment

- **Operating Temperature**   -10 ~ 70°C (14 ~ 158°F)
  -40 ~ 70°C (-40~158°F) (D version)
- **Storage Temperature**   -20 ~ 80°C (-4 ~ 176°F)
  -40 ~ 85°C (-40~185°F) (D version)
- **Operating Humidity**   20 ~ 95% RH (non-condensing)
- **Storage Humidity**   0 ~ 95% RH (non-condensing)

ADAM-6022
ADAM-6024

Ethernet-based Dual-loop PID Controller
12-ch Isolated Universal Input/Output Modbus TCP Module

ADAM-6022

ADAM-6024

Specifications

General

- **Loop Number**   2 (3 AI, 1 AO, 1 DI, 1 DO for each control loop)

Analog Input

- **Channels**   6 (differential)
- **Input Range**   ±10 V$_{DC}$, 0 ~ 20 mA, 4 ~ 20 mA

Analog Output

- **Channels**   2
- **Output Type**   V, mA
- **Output Range**   0 ~ 10 V$_{DC}$, 4 ~ 20 mA, 0 ~ 20 mA

Digital Input

- **Channels**   2
- **Dry Contact**   Logic level 0: close to GND
  Logic level 1: open
- **Wet Contact**   Logic level 0: 0 ~ 3 V$_{DC}$
  Logic level 1: 10 ~ 30 V$_{DC}$

Digital Output

- **Channels**   2, open collector to 30 V, 100 mA max. load
- **Power Dissipation**   300 mW for each module

Ordering Information

- **ADAM-6022**   Ethernet-based Dual-loop PID Controller

Specifications

Analog Input

- **Channels**   6 (differential)
- **Input Range**   ±10 V$_{DC}$, 0 ~ 20 mA, 4 ~ 20 mA

Analog Output

- **Channels**   2
- **Output Type**   V, mA
- **Output Range**   0 ~ 10 V$_{DC}$, 4 ~ 20 mA, 0 ~ 20 mA

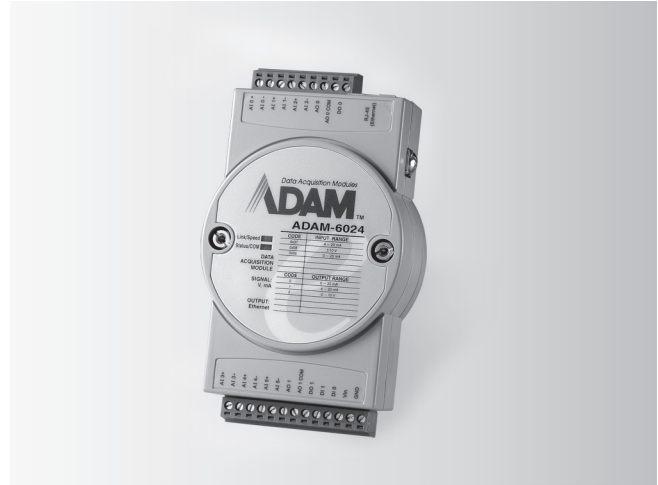### Digital Input

- **Channels**   2
- **Dry Contact**   Logic level 0: close to GND
  Logic level 1: open
- **Wet Contact**   Logic level 0: 0 ~ 3 V$_{DC}$
  Logic level 1: 10 ~ 30 V$_{DC}$

Digital Output

- **Channels**   2, open collector to 30 V, 100 mA max. load
- **Power Dissipation**   300 mW for each module

Supports

- **Peer-to-Peer (Receiver only)**
- **GCL (Receiver only)**

Ordering Information

- **ADAM-6024**   12-ch Isolated Universal I/O Modbus TCP Module

Common Specifications

General

- **Certification**   CE, FCC, UL
- **LAN**   10/100Base-T(X)
- **Power Consumption**   4 W @ 24 V$_{DC}$
- **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$_{DC}$
- **Supports Modbus/TCP, TCP/IP, UDP, RESTful (D version), MQTT (D version), SNMP (D version)**

Analog Input

- **Input Impedance**   20 MΩ
- **Accuracy**   ±0.1% of FSR
- **Resolution**   16-bit
- **Sampling Rate**   10 sample/second
- **CMR @ 50/60 Hz**   90 dB
- **NMR @ 50/60 Hz**   60 dB
- **Span Drift**   ±25 ppm/° C
- **Zero Drift**   ±6 µV/° C

Analog Output

- **Accuracy**   ±0.1% of FSR
- **Resolution**   12-bit
- **Drift**   ±50 ppm/° C
- **Current Load Resistor**   Max. 500Ω
- **Voltage Load Resistor**   Min. 1K Ω

Protection

- **Isolation Protection**   2,000 V$_{DC}$
- **Built-in TVS/ESD Protection**
- **DI Over Voltage Protection**   35 V$_{DC}$
- **Power Reversal Protection**

Environment

- **Operating Temperature**   -10 ~ 50° C (14 ~ 122° F)
  D version: -40 ~ 70° C (-40~158°F)
- **Storage Temperature**   -20 ~ 80° C (-4 ~ 176° F)
  D version: -40 ~ 80° C (-40~176° F)
- **Operating Humidity**   20 ~ 95% RH (non-condensing)
- **Storage Humidity**   0 ~ 95% RH (non-condensing)
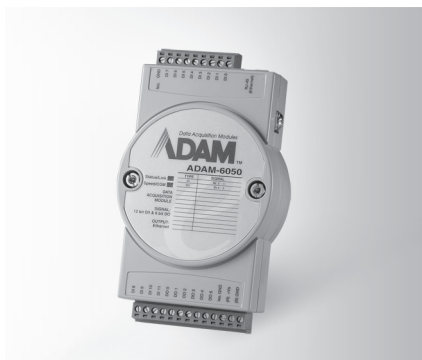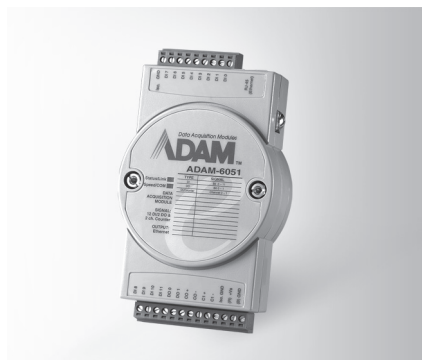
ADAM-6050
ADAM-6051
ADAM-6052

18-ch Isolated Digital I/O Modbus TCP Module

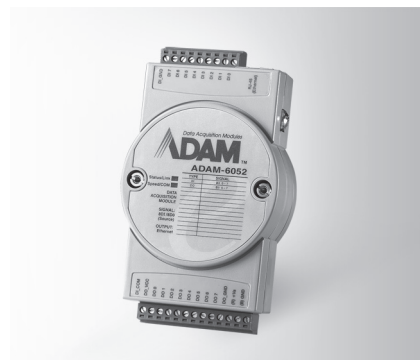**14-ch Isolated Digital I/O Modbus TCP Module with 2-ch Counter**

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

ADAM-6050 $_C$(UL)$_{US}$ FC C€ RoHS COMPLIANT 2002/95/EC

ADAM-6051 $_C$(UL)$_{US}$ FC C€ RoHS COMPLIANT 2002/95/EC

ADAM-6052 Class I, Div 2 $_C$(UL)$_{US}$ FC C€ RoHS COMPLIANT 2002/95/EC

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_{DC}
  Logic level 1: 10 ~ 30 V_{DC}
  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_{DC}
  Logic level 1: 10 ~ 30 V_{DC} 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**
- **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-D** 16-ch Isolated DI/O with
  Counter Modbus TCP Module

Specifications

Digital Input
- **Channels** 8
  Dry/Wet Contact decided by
  switch or jumper
- **Dry Contact** Logic level 0: Open
  Logic level 1: Closed to GND
- **Wet Contact** Logic level 0: 0 ~ 3 V_{DC} or
  floating
  Logic level 1: 10 ~ 30 V_{DC}
  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_{DC}
- **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_{DC}
- **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_{DC}
- **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_{DC}

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)

ADVANTECH Ethernet I/O Modules: ADAM-6000

ADAM-6060
ADAM-6066

6-ch Digital Input and 6-ch Relay Modbus TCP Module

6-ch Digital Input and 6-ch Power Relay Modbus TCP Module

ADAM-6060 ▲   ADAM-6066 ▲

FCC CE RoHS COMPLIANT 2002/95/EC c(UL)us LISTED E180881 I.T.E.

Specifications

General

- **LAN**   1-port 10/100Base-T(X)
- **Power Consumption**   2 W @ 24 V$_{DC}$ (ADAM-6060)
                                        2.5 W @ 24 V$_{DC}$ (ADAM-6066)
- **Connectors**   1 x RJ-45 (LAN), Plug-in screw terminal block (I/O and power)
- **Watchdog Timer**   System (1.6 second) and Communication (programmable)
- **Power Input**   10 ~ 30 V$_{DC}$
- **Supports Peer-to-Peer**
- **Supports GCL**
- **Supports Modbus/TCP, TCP/IP, UDP, DHCP,SNMP, RESTful and MQTT Protocol**

Digital Input

- **Channels**   6
- **Dry Contact**   Logic level 0: Closed to GND
                                        Logic level 1: Open
- **Wet Contact**   Logic level 0: 3 V$_{DC}$
                                        Logic level 1: 10 ~ 30 V$_{DC}$ or floating
                                        Support DO type: Sink (NPN) only
- **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**

Relay Output (Form A)

- **Channels**   6
- **Contact Rating (Resistive)** ADAM-6060: 120 V$_{AC}$ @ 0.5 A
                                        30 V$_{DC}$ @ 1 A
                                        ADAM-6066: 250 V$_{AC}$ @ 5 A
                                        30 V$_{DC}$ @ 3 A
- **Breakdown Voltage**   500 V$_{AC}$ (50/60 Hz)
- **Relay On Time**   7 ms
- **Relay Off Time**   3 ms
- **Total Switching Time**   10 ms
- **Insulation Resistance**   1 GΩ min. at 500 V$_{DC}$
- **Maximum Switching
  Rate (at rated load)**   20 operations/minute
- **Supports Pulse Output**

Protection

- **Isolation Voltage**   2,000 V$_{DC}$
- **Power Reversal Protection**

Environment

- **Operating Temperature**   -40 ~ 70°C (-40~158°F)
- **Storage Temperature**   -40 ~ 80°C (-40~176°F)
- **Operating Humidity**   20 ~ 95% RH (non-condensing)
- **Storage Humidity**   0 ~ 95% RH (non-condensing)

Ordering Information

- **ADAM-6060-D1**   6-ch DI and 6-ch Relay Modbus TCP Module
- **ADAM-6066-D**   6-ch DI and 6-ch Power Relay Modbus TCP Module

ADAM-6000 Series Dimensions

Unit: mm
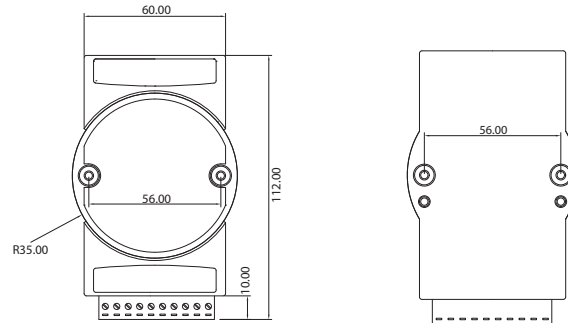
Front View

Rear View
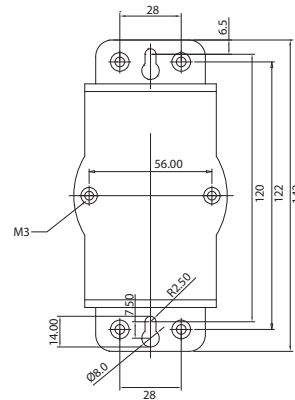
Wall Mounting View
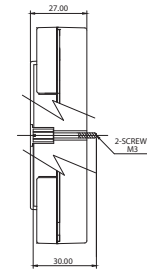
Side View
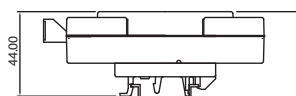
DIN-Rail Mounting View
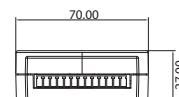
Top View

ADAM-6000 Series Common Specifications

General

- **Dimensions (W x H x D)** 70 x 120 x 30 mm
- **Enclosure**   ABS+PC
- **Mounting**   DIN 35 rail, stack, wall

ADAM-6217
ADAM-6224

8-ch Isolated Analog Input Modbus TCP Module

4-ch Isolated Analog Output Modbus TCP Module

ADAM-6217

ADAM-6224

Specifications

Analog Input

▪ **Channels**	8 (differential)
▪ **Input Impedance**	> 10 MW (voltage)
	120 W (current)
▪ **Input Type**	mV, V, mA
▪ **Input Range**	±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, 0 ~ 20 mA, 4 ~ 20 mA, ±20 mA
▪ **Span Drift**	± 30 ppm/°C
▪ **Zero Drift**	± 6 µV/°C
▪ **Resolution**	16-bit
▪ **Accuracy**	± 0.1% of FSR (Voltage) at 25°C
	± 0.2% of FSR (Current) at 25°C
▪ **Sampling Rate**	10 sample/second (total)
▪ **CMR @ 50/60 Hz**	92 dB
▪ **NMR @ 50/60 Hz**	67 dB
▪ **Common Mode**	200 V_{DC}

Ordering Information

▪ **ADAM-6217** 8-ch Isolated Analog Input Modbus TCP Module

Specifications

Analog Output

▪ **Channels**	4
▪ **Output Impedance**	2.1 Ω
▪ **Output Settling Time**	20 µs
▪ **Driving Load**	Voltage: 2kΩ
	Current: 500 Ω
▪ **Programmable Output Slope**	0.125 ~ 128 mA/sec
	0.0625 ~ 64 V/sec
▪ **Output Type**	V, mA
▪ **Output Range**	0 ~ 5 V, 0 ~ 10 V, ± 5 V, ± 10 V, 0 ~ 20 mA, 4 ~ 20 mA
▪ **Accuracy**	± 0.3% of FSR (Voltage) at 25°C
	± 0.5% of FSR (Current) at 25°C
▪ **Resolution**	12-bit
▪ **Current Load Resistor**	0 ~ 500 Ω
▪ **Drift**	± 50 ppm/°C

Digital Input

▪ **Channels**	4 (Dry Contact only)
▪ **Dry Contact**	Logic 0: Open
	Logic 1: Closed to DGND

▪ **Support DI Filter**
▪ **Support Inverted DI Status**
▪ **Support Trigger to Startup or Safety Value**

Ordering Information

▪ **ADAM-6224** 4-ch Isolated Analog Output Modbus TCP Module

Common Specifications

General

▪ **Ethernet**	2-port 10/100 Base-TX (for Daisy Chain)
▪ **Protocol**	Modbus TCP, TCP/IP, UDP, HTTP, DHCP,RESTful, SNMP (B version), MQTT (B version)
▪ **Connector**	Plug-in 5P/15P screw terminal blocks
▪ **Power Input**	10 - 30 V_{DC} (24 V_{DC} standard)
▪ **Watchdog Timer**	System (1.6 seconds)
	Communication (Programmable)
▪ **Dimensions**	70 x 122 x 27 mm
▪ **Protection**	Built-in TVS/ESD protection
	Power Reversal protection
	Isolation protection: 2500 V_{DC}
▪ **Power Consumption**	ADAM-6217: 3.5W @ 24 V_{DC}
	ADAM-6224: 6W @ 24 V_{DC}

Features

▪ Daisy chain connection with auto-bypass protection
▪ Remote monitoring and control with smart phone/pad
▪ Group configuration capability for multiple module setup
▪ Flexible user-defined Modbus address
▪ Intelligent control ability by Peer-to-Peer and GCL function
▪ Multiple protocol support: Modbus TCP, TCP/IP, UDP, HTTP, DHCP, RESTful SNMP (B version), MQTT (B version)
▪ Web language support: XML, HTML 5, Java Script
▪ System configuration backup
▪ User Access Control

Environment

|	
▪ **Operating Temperature**	-10 ~ 70°C (14 ~ 158°F)
	-40 ~ 70°C (-40~158°F) (B version)
▪ **Storage Temperature**	-20 ~ 80°C (-4 ~ 176°F)
	-40 ~ 85°C (-40~185°F) (B version)
▪ **Operating Humidity**	20 ~ 95% RH (non-condensing)
▪ **Storage Humidity**	0 ~ 95% RH (non-condensing)

ADAM-6250
ADAM-6251
ADAM-6256

15-ch Isolated Digital I/O Modbus TCP Module
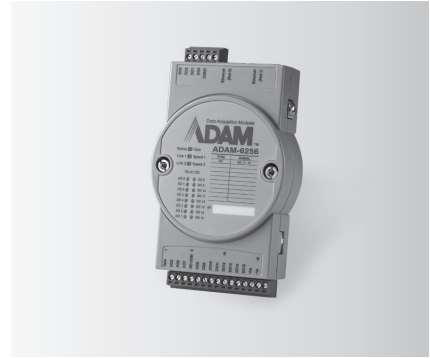
16-ch Isolated Digital Input Modbus TCP Module

16-ch Isolated Digital Output Modbus TCP Module
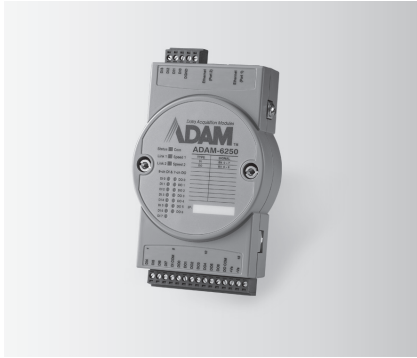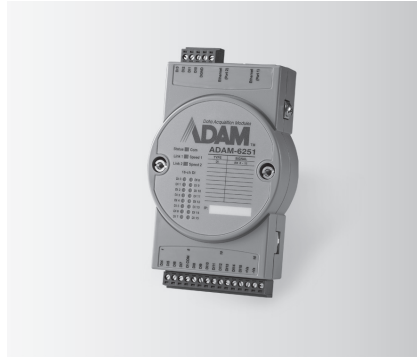
ADAM-6250	ADAM-6251	ADAM-6256

Specifications

Digital Input

- **Channels**   ADAM-6250: 8
                        ADAM-6251: 16
- **Dry Contact**   Logic 0: Open
                        Logic 1: Closed to DGND
- **Wet Contact**   Logic 0: 0 ~ 3 V_{DC} or 0 ~ -3 V_{DC}
                        Logic 1: 10 ~ 30 V_{DC} or -10 ~ -30 V_{DC}
                        (Dry/Wet Contact decided by Switch)
- **Input Impedance**   5.2 kΩ (Wet Contact)
- **Transition Time**   0.2 ms
- **Frequency Input Range** 0.1 ~ 3kHz
- **Counter Input**   3kHz (32 bit + 1 bit overflow)
- **Keep/Discard Counter Value when power off**
- **Supports Inverted DI Status**

Digital Output

- **Channels**   ADAM-6250: 7 (Sink Type)
                        ADAM-6256: 16 (Sink Type)
- **Output Voltage Range**   10 ~ 30 V_{DC}
- **Normal Output Current** 100 mA (per channel)
- **Pulse Output**   Up to 5kHz
- **Delay Output**   High-to-Low and Low-to-High

Ordering Information

- **ADAM-6250**   15-ch Isolated Digital I/O Modbus TCP Module
- **ADAM-6251**   16-ch Isolated Digital Input Modbus TCP Module
- **ADAM-6256**   16-ch Isolated Digital Output Modbus TCP Module

Common Specifications

General

- **Cerification**   CE,FCC,UL
- **Ethernet**   2-port 10/100 Base-TX (for Daisy Chain)
- **LED Indication**   ADAM-6250: 8 DI + 7 DO
                        ADAM-6251: 16 DI
                        ADAM-6256: 16 DO
- **Protocol**   Modbus/TCP, TCP/IP, UDP, HTTP, DHCP,
                        MQTT, SNMP
- **Connector**   Plug-in 5P/15P screw terminal blocks
- **Power Input**   10 - 30 V_{DC} (24 V_{DC} standard)
- **Watchdog Timer**   System (1.6 seconds)
                        Communication (Programmable)
- **Dimensions**   70 x 122 x 27 mm
- **Protection**   Built-in TVS/ESD protection
                        Power Reversal protection
                        Over Voltage protection: +/- 35V_{DC}
                        Isolation protection: 2500 V_{DC}
- **Power Consumption** ADAM-6250: 3 W @ 24 V_{DC}
                        ADAM-6251: 2.7 W @ 24 V_{DC}
                        ADAM-6256: 3.2 W @ 24 V_{DC}

Features

- Daisy chain connection with auto-bypass protection
- Remote monitoring and control with smart phone/pad
- Group configuration capability for multiple module setup
- DI/O LED Indication
- Flexible user-defined Modbus address.
- Intelligent control ability by Peer-to-Peer and GCL function
- Multiple protocol support: Modbus/TCP, TCP/IP, UDP, HTTP, DHCP, MQTT, SNMP
- Web language support: XML, HTML 5, Java Script
- System configuration backup
- User Access Control

Environment

- **Operating Temperature** -10 ~ 70°C (14 ~ 158°F)
                            -40 ~ 70°C (-40~158°F) (B version)
- **Storage Temperature**   -20 ~ 80°C (-4 ~ 176°F)
                            -40 ~ 80°C (-40~176°F) (B version)
- **Operating Humidity**   20 ~ 95% RH (non-condensing)
- **Storage Humidity**   0 ~ 95% RH (non-condensing)

ADAM-6260
ADAM-6266

6-ch Relay Output Modbus TCP Module

4-ch Relay Output Modbus TCP Module with 4-ch DI
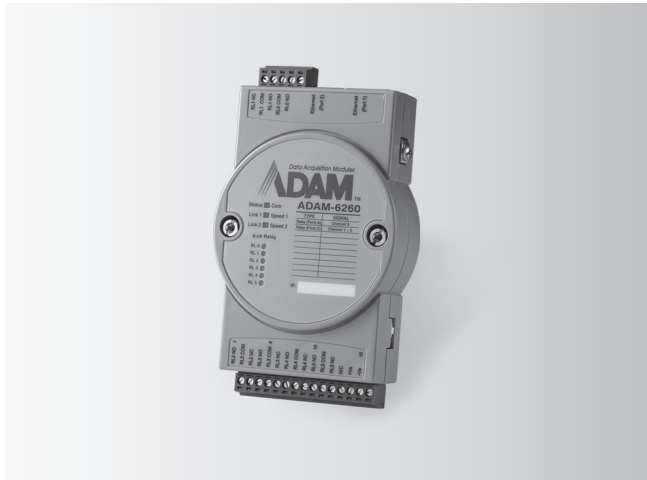
ADAM-6260
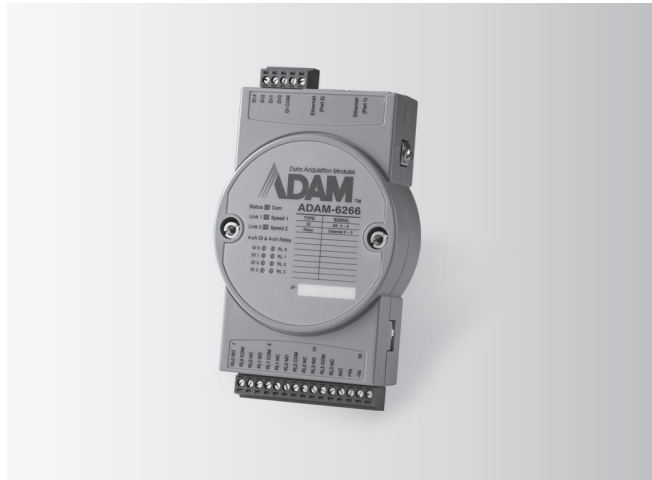
ADAM-6266

Specifications

Relay Output

- **Channels**
  ADAM-6260: 5 Form C and 1 Form A
  ADAM-6266: 4 Form C
- **Contact Rating (Resistive)**
  250 V_{AC} @ 5A
  30 V_{DC} @ 5A
- **Max. Switching Voltage**
  400 V_{AC}
  300 V_{DC}
- **Breakdown Voltage**   500 V_{AC} (50/60Hz)
- **Max. Breakdown Capacity**   1250 VA
- **Frequency of Operation**
  360 operations/hour with load
  72,000 operations/hour without load
- **Set/Reset Time**   8 ms/8 ms
- **Mechanical Endurance**   > 15 x 10^6 operations
- **Isolation between Contact**   1000 V_{rms}
- **Insulation Resistance**   > 10 GΩ @ 500 V_{DC}

Digital Input

- **Channels**   ADAM-6266: 4
- **Dry Contact**
  Logic 0: Open
  Logic 1: Closed to DI COM
- **Wet Contact**
  Logic 0: 0 ~ 3 V_{DC} or 0 ~ -3 V_{DC}
  Logic 1: 10 ~ 30 V_{DC} or -10 ~ -30 V_{DC}
  (Dry/Wet Contact decided by Switch)
- **Input Impedance**   5.2 kΩ (Wet Contact)
- **Transition Time**   0.2 ms
- **Frequency Input Range**   0.1 ~ 3kHz
- **Counter Input**   3kHz (32 bit + 1 bit overflow)
- **Keep/Discard Counter Value when power off**
- **Supports Inverted DI Status**

Ordering Information

- **ADAM-6260**   6-ch Relay Output Modbus TCP Module
- **ADAM-6266**   4-ch Relay Output Modbus TCP Module with 4-ch DI

Common Specifications

General

- **Ethernet**   2-port 10/100 Base-TX (for Daisy Chain)
- **LED Indication**
  ADAM-6260: 6 RL
  ADAM-6266: 4 RL + 4 DI
- **Protocol**   Modbus/TCP, TCP/IP, UDP, HTTP, DHCP, SNMP, MQTT
- **Connector**   Plug-in 5P/15P screw terminal blocks
- **Power Input**   10 - 30 V_{DC} (24 V_{DC} standard)
- **Watchdog Timer**
  System (1.6 seconds)
  Communication (Programmable)
- **Dimensions**   70 x 122 x 27 mm
- **Protection**
  Built-in TVS/ESD protection
  Power Reversal protection
  Over Voltage protection: +/- 35V_{DC}
  Isolation protection: 2500 V_{DC}
- **Power Consumption**
  ADAM-6260: 4.5 W @ 24 V_{DC}
  ADAM-6266: 4.2 W @ 24 V_{DC}

Features

- Daisy chain connection with auto-bypass protection
- Remote monitoring and control with smart phone/pad
- Group configuration capability for multiple module setup
- DI/O LED Indication
- Flexible user-defined Modbus address.
- Intelligent control ability by Peer-to-Peer and GCL function
- Multiple protocol support: Modbus/TCP, TCP/IP, UDP, HTTP, DHCP, SNMP, MQTT
- Web language support: XML, HTML 5, Java Script
- System configuration backup
- User Access Control

Environment

- **Operating Temperature**   -10 ~ 70°C (14 ~ 158°F)
  -40 ~ 70°C (-40~158°F) (B version)
- **Storage Temperature**   -20 ~ 80°C (-4 ~ 176°F)
  -40 ~ 80°C (-40~176°F) (B version)
- **Operating Humidity**   20 ~ 95% RH (non-condensing)
- **Storage Humidity**   0 ~ 95% RH (non-condensing)

ADAM-6315
IoT OPC UA Ethernet I/O - RTD Module

ADAM-6317
IoT OPC UA Ethernet I/O - AI Module

ADAM-6315

CE FC RoHS COMPLIANT 2002/95/EC

ADAM-6317

CE FC RoHS COMPLIANT 2002/95/EC

Specifications

Analog Input

- **Channels** — 8 (differential)
- **Input Impedance** — > 10 MΩ
- **Input Connections** — 2 or 3 wire
- **Input Type** — Pt, Balco and Ni RTD
- **RTD Types and Temperature Ranges**

Pt 100	-50°C - 150°C
	0°C - 100°C
	0°C - 200°C
	0°C - 400°C
	-100°C - 100°C
	-200°C - 200°C

*Supports both IEC 60751 ITS90 (0.00385Ω/Ω/°C) and JIS C 1604 (0.00392Ω/Ω/°C)

Pt 1000	-40°C - 160°C
Balco 500	-30°C - 120°C
Ni 508	0°C - 100°C
Ni 518	-80°C - 100°C

- **Accuracy** — ± 0.1 % or better / High speed mode ±0.5% or better
- **Span Drift** — ± 25 ppm/°C
- **Zero Drift** — ± 6 μV/°C
- **Resolution** — 16-bit
- **Sampling Rate** — Normal speed mode:10 sample/ second (total) / High speed mode:1024 sample/second (total) / CMR: 90 dB @ 50/60 HZ / NMR: 60 dB @ 50/60 HZ

* High speed mode does not support CMR/NMR

- **Wire Burnout Detection**

Digital Input

- **Channels** — 6
- **Dry contact** — logic 0: Open; logic 1: Closed to ground
- **Wet contact** — logic 0: 0 ~ 3 V_{DC} or floating; logic 1: 10 ~ 30 V_{DC} / Support DO type: Sink (NPN) and Source (PNP)
- **DI0~DI5 support 3 kHz counter input**
- **DI0~DI5 support 3 kHz frequency input**

Digital Output

- **Channels** — 8
- **Output type** — Sink type, 30 V_{DC}, 0.1A max. per channel
- **DO2~DO7 support 3 kHz pulse output**

Ordering Information

- **ADAM-6315-A1** — OPC UA and Security Remote I/O - RTD Module

Specifications

Analog Input

- **Channels** — 8 (differential)
- **Sampling Rate** — 10 or 100 samples/ second (total)
- **Resolution** — 16 bits
- **Input Range** — 0 ~ 150mV, 0 ~ 500mV, 0 ~ 1V, 0 ~ 5V, 0 ~ 10V, ±150 mV, ±500 mV, ±1V, ±5 V, ±10 V, ±20 mA, 0 ~ 20 mA, 4 ~ 20mA

Digital Input

- **Channels** — 11
- **Dry contact** — logic 0: Open / logic 1: Closed to ground
- **Wet contact** — logic 0: 0 ~ 3 V_{DC} or floating / logic 1: 10 ~ 30 V_{DC} / Support DO type: Sink (NPN) and Source (PNP)
- **DI5~DI10 support 3 kHz counter input**
- **DI5~DI10 support 3 kHz frequency input**

Digital Output

- **Channels** — 10
- **Output type** — Sink type, 30 V_{DC}, 0.1A max. per channel
- **DO4~DO9 support 3 kHz pulse output**

Ordering Information

- **ADAM-6317-A1** — OPC UA and Security Remote I/O - AI Module

Common Specifications

General

- **Power input** — 10 ~ 30 V_{DC}
- **Power Consumption** — 2.9 W @ 24 V_{DC} (ADAM-6317) / 2.8 W @ 24 V_{DC} (ADAM-6350)
- **LAN port** — 2-port 10/100 Base-T(X) (for Daisy Chain)
- **Connectors** — 2 x RJ-45 (LAN), Plug-in screw terminal block (I/O and power)
- **Watchdog** — System and Communication
- **Protocol** — OPC UA, Modbus

Protection

- **Isolation** — 2,500 V_{DC}
- **Power Reversal Protection**

OPC UA

- **Max Monitored Items** — 600 (A maximum of 32 ScaledValueHistory items can be included in all sessions)
- **Max Sessions** — 4 (including security or non-security session)
- **Max Subscriptions per Session** — 1
- **Support security/certificate management**

Modbus/TCP

- **Modbus/TCP connection** — 4

Environment

- **Operating Temperature** — -25° C ~ 70° C
- **Storage Temperature** — -25° C ~ 85° C
- **Operating Humidity** — 20 ~ 95% RH (non-condensing)
- **Storage Humidity** — 0 ~ 95% RH (non-condensing)

ADAM-6350
ADAM-6360D
ADAM-6366

IoT OPC UA Ethernet I/O - DI/O Module

IoT OPC UA Ethernet I/O - SSR Relay Output Module

IoT OPC UA Ethernet I/O - SSR Relay Output Module

ADAM-6350 CE FC RoHS COMPLIANT 2002/95/EC

ADAM-6360D CE FC RoHS COMPLIANT 2002/95/EC

ADAM-6366 CE FC RoHS COMPLIANT 2002/95/EC

Specifications

Digital Input
- **Channels** 18
- **Dry contact** logic 0: Open
  logic 1: Closed to ground
- **Wet contact** logic 0: 0 ~ 3 V_{DC} or floating
  logic 1: 10 ~ 30 V_{DC}
  Support DO type:
  Sink (NPN) and Source (PNP)
- **DI12~DI17 support 3 kHz counter input**
- **DI12~DI17 support 3 kHz frequency input**

Digital Output
- **Channels** 18
- **Output type** Sink type, 30 V_{DC},
  0.1A max. per channel
- **DO12~DO17 support 3 kHz pulse output**

Specifications

Relay Output (PhotoMOS SPST)
- **Channels** 8 (Form A)
- **Contact rating** 1 A @25°C @30 V_{DC}
  (Resistive and 0.7A @70°C @30 V_{DC}
  Inductive load)
- **Relay-on time** 1.3 ms
- **Relay-off time** 0.8 ms
- **Isolation (Relay** 1500Vrms
  output to power)
- **Peak Load Current** 4A (100ms (1 pulse))
- **Total Power** 400mW / channel
  Dissipation
- **On-state resistance** 0.5Ω

Digital Input
- **Channels** 14
- **Dry contact** logic 0: Open
  logic 1: Closed to ground
- **Wet contact** logic 0: 0 ~ 3 V_{DC} or floating
  logic 1: 10 ~ 30 V_{DC}
  Support DO type:
  Sink (NPN) and Source (PNP)
- **DI8~DI13 support 3 kHz counter input**
- **DI8~DI13 support 3 kHz frequency input**

Digital Output
- **Channels** 6
- **Output type** Sink type, 30 V_{DC},
  0.1A max. per channel
- **DO0~DO5 support 3 kHz pulse output**

Specifications

Relay Output
- **Channels** 6 (Form A)
- **Contact rating** 0.25A@250V_{AC}
  2A@30V_{DC}
- **Relay-on time** 3 ms
- **Relay-off time** 5 ms
- **Electrical endurance** Resistive, 0.25A@250V_{AC}:
  at contact application 1×10^{5} operations/min.
  Resistive, 2A@30V_{DC}:
  1×10^{5} operations/min.
- **Insulation Resistance** 1 GΩ

Digital Input
- **Channels** 18
- **Dry contact** logic 0: Open
  logic 1: Closed to ground
- **Wet contact** logic 0: 0 ~ 3 V_{DC} or floating
  logic 1: 10 ~ 30 V_{DC}
  Support DO type:
  Sink (NPN) and Source (PNP)
- **DI12~DI17 support 3 kHz counter input**
- **DI12~DI17 support 3 kHz frequency input**

Digital Output
- **Channels** 6
- **Output type** Sink type, 30 V_{DC},
  0.1A max. per channel
- **DO0~DO5 support 3 kHz pulse output**

Common Specifications

General
- **Power input** 10 ~ 30 V_{DC}
- **Power Consumption** 2.8 W @ 24 V_{DC}
  (ADAM-6350)
  2.8 W @ 24 V_{DC}
  (ADAM-6360D)
  4.5 W @ 24 V_{DC}
  (ADAM-6366)
- **LAN port** 2-port 10/100 Base-T(X)
  (for Daisy Chain)
- **Connectors** 2 x RJ-45 (LAN), Plug-in
  screw terminal block
  (I/O and power)
- **Watchdog** System and Communication
- **Protocol** OPC UA, Modbus

Protection
- **Isolation** 2,500 V_{DC}
- **Power Reversal Protection**

OPC UA
- **Max Monitored Items** 600
  (including all sessions)
- **Max Sessions** 4 (including security or
  non-security session)
- **Max Subscriptions per** 1
  Session
- **Support security/certificate management**

Modbus/TCP
- **Modbus/TCP connection** 4

Environment
- **Operating Temperature** -25° C ~ 70° C
- **Storage Temperature** -25° C ~ 85° C
- **Operating Humidity** 20 ~ 95% RH
  (non-condensing)
- **Storage Humidity** 0 ~ 95% RH
  (non-condensing)

Ordering Information
- **ADAM-6350-A1** OPC UA and Security
  Remote I/O - DI/O
  Module
- **ADAM-6360D-A1** OPC UA and Security
  Remote I/O - SSR
  Relay Output Module
- **ADAM-6366-A1** OPC UA and Security
  Remote I/O - SSR
  Relay Output Module

Ethernet I/O Modules: ADAM-6000

Model	ADAM-6015	ADAM-6017	ADAM-6018+	ADAM-6022	ADAM-6024
Interface		1x RJ-45 LAN port, 10/100 Mbps Ethernet			
Peer-to-Peer[1]		✓		–	Receiver Only[2]
GCL[1]		✓		–	Receiver Only[2]
Resolution	16-bit			16-bit for analog inputs 12-bit for analog outputs	16-bit for analog inputs 12-bit for analog outputs
Analog Input — Channels	7	8	8	6	6
Analog Input — Sampling Rate	10 Hz	10/100 Hz	10 Hz	10 Hz	10 Hz
Analog Input — Voltage Input	–	±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, 0~150 mV, 0~500 mV, 0~1 V, 0~5 V, 0~10 V	–	±10 V	±10 V
Analog Input — Current Input	–	0~20 mA, 4~20 mA, ±20 mA	–	0~20 mA, 4~20 mA	0~20 mA, 4~20 mA
Analog Input — Direct Sensor Input	Pt, Balco, and Ni RTD	–	J, K, T, E, R, S, B thermocouple	–	–
Analog Input — Burn-out Detection	✓	✓ (4 ~ 20mA only)	✓	–	–
Analog Input — Math. Functions	Max. Min. Avg.	Max. Min. Avg.	Max. Min. Avg.	–	–
Analog Output — Channels	–	–	–	2	2
Analog Output — Current Output	–	–	–	0~20, 4~20 mA @ 15 V_{DC}	0~20, 4~20 mA @ 15 V_{DC}
Analog Output — Voltage Output	–	–	–	0~10 V_{DC} @ 30 mA	0~10 V_{DC} @ 30 mA
Digital I/O — Input Channels	–	–	–	2	2
Digital I/O — Output Channels	-	2 (sink)	8 (sink)	2 (sink)	2 (sink)
Digital I/O — High/Low Alarm Settings	✓	✓	✓	–	–
Isolation Protection	2,000 V_{DC}			2,000 V_{DC}	2,000 V_{DC}
Remark	–	–	–	Built-in dual loop PID control algorithm	–
Protocol	D version: Modbus TCP, RESTful, MQTT, SNMP, ASCII			Modbus TCP	D version: Modbus TCP, RESTful, MQTT, SNMP, ASCII
Certification	CID2, UL, CE, FCC	CID2, UL, CE, FCC	UL, CE, FCC	CE, FCC	UL, CE, FCC

Model	ADAM-6050	ADAM-6051	ADAM-6052	ADAM-6060	ADAM-6066
Interface	1x RJ-45 LAN port, 10/100 Mbps Ethernet				
Peer-to-Peer[1]	✓	✓	✓	✓	✓
GCL[1]	✓	✓	✓	✓	✓
Digital I/O — Input Channels	12	12	8	6	6
Digital I/O — Output Channels	6 (sink)	2 (sink)	8 (source)	6-ch relay	6-ch power relay
Digital I/O — Extra Counter Channels	–	2	–	–	–
Digital I/O — Counter Input	3 kHz	4.5 kHz	3 kHz	3 kHz	3 kHz
Digital I/O — Frequency Input	3 kHz	4.5 kHz	3 kHz	3 kHz	3 kHz
Digital I/O — Pulse Output	✓	✓	✓	✓	✓
Digital I/O — High/Low Alarm Settings	–	–	–	–	–
Isolation Protection	2,000 V_{DC}				
Protocol	D version: Modbus TCP, RESTful, MQTT, SNMP, ASCII				
Certification	CID2, UL, CE, FCC	UL, CE, FCC	CID2, UL, CE, FCC	UL, CE, FCC	UL, CE, FCC

✓: supported, –: not supported, △: optional

Ethernet I/O Modules: ADAM-6200

Model		ADAM-6217	ADAM-6224	ADAM-6250	ADAM-6251	ADAM-6256	ADAM-6260	ADAM-6266
Interface		2x RJ-45 LAN port (Daisy-chain), 10/100 Mbps Ethernet						
Peer-to-Peer[1]		✓	Receiver Only[2]	✓	✓	✓	✓	✓
GCL[1]		✓	✓	✓	✓	✓	✓	✓
Analog Input	Channels	8	–	–	–	–	–	–
	Input Impedance	>10MΩ (voltage) 120Ω (current)	–	–	–	–	–	–
	Voltage Input	±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V	–	–	–	–	–	–
	Current Input	0~20 mA, 4~20 mA ±20 mA	–	–	–	–	–	–
	Sampling Rate	10 Hz	–	–	–	–	–	–
	Burn-out Detection	✓ (4~20 mA)	–	–	–	–	–	–
	Resolution	16-bit	–	–	–	–	–	–
	Accuracy	±0.1% of FSR (voltage) @ 25°C ±0.2% of FSR (current) @ 25°C	–	–	–	–	–	–
Analog Output	Channels	–	4	–	–	–	–	–
	Voltage Output	–	0~5 V, 0~10 V, ±5 V, ±10 V	–	–	–	–	–
	Current Output	–	0~20 mA, 4~20 mA	–	–	–	–	–
	Resolution	–	12-bit	–	–	–	–	–
Digital I/O	Input Channels	–	4 (dry contact only)	8	16	–	–	4
	Output Channels	–	–	7 (sink)	–	16 (sink)	–	–
	Relay Output	–	–	–	–	–	1 x Form A, 5 x Form C	4 x Form C
	Contact Rating	–	–	–	–	–	250 V$_{AC}$ @ 5A 30 V$_{DC}$ @ 5A	
	Counter Input	–	–	3 kHz	3 kHz	–	–	3 kHz
	Frequency Input	–	–	3 kHz	3 kHz	–	–	3 kHz
	Pulse Output	–	–	5 kHz	–	5 kHz	5 kHz	5 kHz
	LED Indicators	–	–	8 digital outputs, 7 digital inputs	16 digital inputs	16 digital outputs	6 relay	4 digital inputs, 4 relay
Power Consumption		3.5 W	6 W	3 W	2.7 W	3.2 W	4.5 W	4.2 W
Isolation Voltage		2,500 V$_{DC}$						
Watchdog Timer		System (1.6 s), Communication (programmable)						
Communication Protocol		Modbus TCP, RESTful, MQTT, SNMP, ASCII						
Power Requirements		10~30 V$_{DC}$ (24 V$_{DC}$ standard)						
Operating Temperature		-40 ~ 70°C (-40 ~ 158°F)						
Storage Temperature		-40 ~ 85°C (-40 ~ 185°F)						
Operating Humidity		20~95% RH (non-condensing)						
Storage Humidity		0~95% RH (non-condensing)						
Certification		UL, CE, FCC	UL, CE, FCC	UL, CE, FCC	UL, CE, FCC	UL, CE, FCC	UL, CE, FCC	UL, CE, FCC

Note 1: Peer-to-peer and GCL cannot be run simultaneously; only one feature can be enabled at a time.
Note 2: The ADAM-6224 can only act as a receiver and generate analog output when peer-to-peer or GCL mode is used.
✓: supported, – : not supported, △ : optional

OPC UA Ethernet I/O Modules: ADAM-6300

Model	ADAM-6315	ADAM-6317	ADAM-6318	ADAM-6324	ADAM-6350	ADAM-6360D	ADAM-6366
Description	IoT OPC UA Ethernet I/O - RTD Input Module	IoT OPC UA Ethernet I/O - Analog Input Module	IoT OPC UA Ethernet I/O - T/C Input Module	IoT OPC UA Ethernet I/O - Analog Output Module	IoT OPC UA Ethernet I/O - Digital I/O Module	IoT OPC UA Ethernet I/O - SSR Relay Output Module	IoT OPC UA Ethernet I/O - Relay Output Module
General — Power Input	10~30 V_{DC}						
LAN Port	2 x RJ-45 10/100 Mbps						
Connectors	2 x RJ-45 (LAN), Plug-in screw terminal block (I/O and power)						
Watchdog	System and Communication						
Protocol	OPC UA, Modbus TCP						
Protection — Isolation	2500 V_{DC}						
Power Reversal Protection	✓						
OPC UA — Max Monitored Items	600 (including all sessions)						
Max Sessions	4 (including security or non-security session)						
Max Subscriptions per Session	1						
Support Security/Certificate Management	✓						
Modbus TCP Connections	4						
Environment — Operating Temperature	-25° ~ 70°C (-13 ~ 158°F)						
LED Indicator	Status, Error, Link, Active						
Analog Input — Channels	8	8	7	–	–	–	–
Voltage Input	RTD: Pt 100, Pt 1000, Balco 500, Ni 518	0~150mV, 0~500mV, 0~1V, 0~5V, 0~10V, ±150 mV, ±500 mV, ±1V, ±5 V, ±10 V	Thermocouple: J, K, T, E, R, S, B	–	–	–	–
Current Input	–	0 ~ 20 mA, 4 ~ 20 mA, ± 20 mA	–	–	–	–	–
Sampling Rate	10/1024 Hz (total)	10/100 Hz (total)	10 Hz (total)	–	–	–	–
Burn-out Detection	✓	✓ (4~20 mA)	✓	–	–	–	–
Resolution	16-bit	16-bit	16-bit	–	–	–	–
Digital Input — Digital Input Channels	10	11	10	11	18	14	18
Counter Input	3 kHz (DI4~DI9)	3 kHz (DI5~DI10)	3 kHz (DI4~DI9)	3 kHz (DI5~DI10)	3 kHz (DI12~DI17)	3 kHz (DI8~DI13)	3 kHz (DI12~DI17)
Frequency Input	3 kHz (DI4~DI9)	3 kHz (DI5~DI10)	3 kHz (DI4~DI9)	3 kHz (DI5~DI10)	3 kHz (DI12~DI17)	3 kHz (DI8~DI13)	3 kHz (DI12~DI17)
Digital Output — Digital Output Channels	10	10	13	12	18	6	6
Relay Output Channels	–	–	–	–	–	8 x Form A (SSR)	6 x Form A
Contact Rating	–	–	–	–	–	1 A @25°C @ 30 V_{DC} 0.7A @70°C @30 V_{DC}	250 V_{AC} @ 0.25 A, 30 V_{DC} @ 2 A
Pulse Output	3 kHz (DO4~DO9)	3 kHz (DO4~DO9)	3 kHz (DO7~DO12)	3 kHz (DO6~DO11)	3 kHz (DO12~DO17)	3 kHz (DO0~DO5)	3 kHz (DO0~DO5)
Analog Output — Channels				4			
Type				0~5 V, 0~10 V, ± 5 V, ± 10 V, 0~20 mA, 4~20 mA	–	–	–
Certification	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

✓: supported, – : not supported, △ : optional