

# ADAM-6251

## 16-ch Isolated Digital Input Modbus TCP Module



**NEW**



### Main Features

- 16-ch DI, 2-port Ethernet
- Daisy chain connection with auto-bypass protection
- Remote monitoring and control with mobile devices
- 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
- Web language support: XML, HTML 5, Java Script

### Introduction

In order to fulfill ideal remote DAQ devices in IoT world, Advantech releases ADAM-6200 series, a new selection of Ethernet I/O family comprised of analog I/O, digital I/O and relay modules. ADAM-6200 series module possesses plenty of advanced features whatever the evolution of hardware design and what's worth expecting for user is a variety of useful software functions to make it effective in the application field. With new design and strong capabilities, ADAM-6200 can be a well-integrated I/O solution in Ethernet control system.

### Features

#### Daisy Chain Networking and Auto-Bypass Protection

Daisy chain connectivity offers flexible cabling and space saving capabilities. With Ethernet auto-bypass function supported, it prevents accidental power failure if one of the module's unexpectedly shuts down.



#### Group Configuration Capability for Multiple Module Setup

To aid configuration and save time, engineers can configure and upgrade the firmware of multiple ADAM-6200s simultaneously.



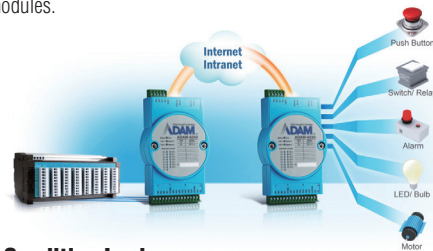
#### Remote Monitoring and Control with Smart Phone

With support for HTML5, the ADAM-6200 can be monitored and controlled from any browser on mobile devices whilst in the field and when the engineer is connected to their network.



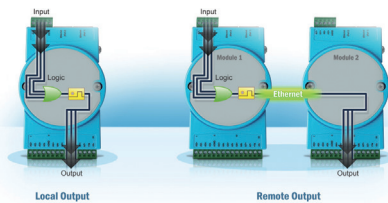
### Peer-to-Peer

Modules will actively update the input channel status to specific output channels. Without dealing with the trouble of long distance wiring, users can define the mapping between a pair of modules.

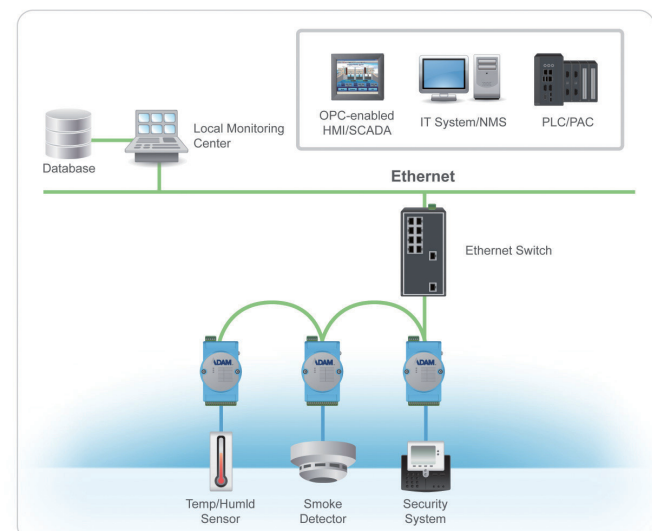


### Graphic Condition Logic

Users can define the control logic rules through graphical configuration Utility, and download defined logic rules to specific ADAM module. Then, it will execute the logic rules automatically just like a standalone controller.



### Architecture



## Specifications

### Digital Input

- **Channels** 16
- **Dry Contact** Logic 0: Open  
Logic 1: Closed to DGND
- **Wet Contact** Logic 0: 0 ~ 3 V<sub>DC</sub> or 0 ~ -3 V<sub>DC</sub>  
Logic 1: 10 ~ 30 V<sub>DC</sub> or -10 ~ -30 V<sub>DC</sub>  
(Dry/Wet Contact Decided by Switch)
- **Input Impedance** 5.2 kW (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**

### General

- **Ethernet** 2-port 10/100 Base-TX (for Daisy Chain)
- **LED Indication** 16 DI
- **Protocol** Modbus/TCP, TCP/IP, UDP, HTTP, DHCP
- **Connector** Plug-in 5P/15P Screw Terminal Blocks
- **Power Input** 10 ~ 30 V<sub>DC</sub> (24 V<sub>DC</sub> Standard)
- **Watchdog Timer** System (1.6 Seconds)
- **Protection** Built-in TVS/ESD Protection  
Power Reversal Protection  
Over Voltage Protection: +/- 35 V<sub>DC</sub>  
Isolation Protection: 2500 V<sub>DC</sub>
- **Power Consumption** 2.7 W @ 24 V<sub>DC</sub>
- **Dimensions (W x H x D)** 70 x 122 x 27 mm
- **Enclosure** PC
- **Mounting** DIN 35 Rail, Stack, Wall

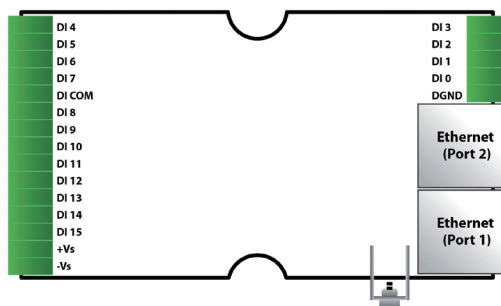
### Software

- **.NET Class Library (SDK)** Windows and Windows CE Class Library, VB and VC#  
Sample Code for I/O Reading or Configuration and Communication
- **Adam/Apax .NET Utility** Network Setting, I/O Configuration, Data Stream, P2P, GCL Configuration

### Environment

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

## Pin Assignment



## Ordering Information

- **ADAM-6251** 16-ch Isolated Digital Input Modbus TCP Module

### Accessories

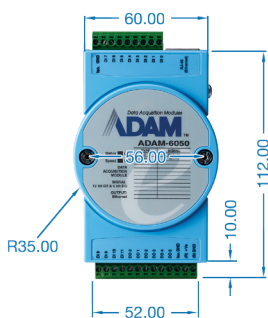
- **PWR-242** DIN-rail Power Supply (2.1A Output Current)
- **PWR-243** Panel Mount Power Supply (3A Output Current)
- **PWR-244** Panel Mount Power Supply (4.2A Output Current)

### Software

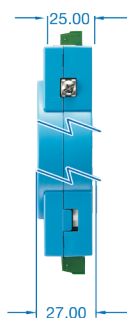
- **PCLS-ADAMVIEW32** ADAMView Data Acquisition Software
- **PCLS-OPC/MTP30** OPC Server for Modbus/TCP protocol

## Dimensions

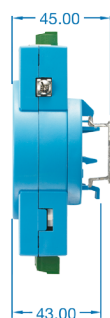
Unit: mm



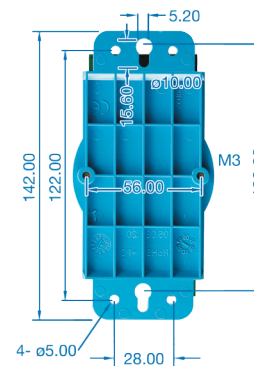
Front View



Side View



DIN-Rail Mounting Adapter



Wall Mounting Bracket