

ADAM-6050W

ADAM-6051W

ADAM-6060W

**Wireless LAN-enabled 18-channel
DI/O Module**

**Wireless LAN-enabled 16-channel
Isolated I/O with Counter Module**

**Wireless LAN-enabled 6-channel
Relay Output Module**



CE FCC

Features

- Supports IEEE802.11b wireless LAN
- Embedded web server with built-in web page
- Supports Modbus/TCP & UDP protocols
- Supports event trigger function

Introduction

ADAM-6050W, ADAM-6051W, and ADAM-6060W bring wireless LAN communication to your network. The hardware design of the modules were based on ADAM-6050, 6051, and 6060, but a wireless LAN interface has replaced the RJ-45 Ethernet port. With support for the common IEEE802.11b, these modules can be accessed on your wireless LAN without any hardwiring. A sensible choice for environments with wiring limitations, or expensive wiring requirements.

Specifications

General

- **Certifications** CE, FCC class A
- **Connectors** Plug-in screw terminal block (#14 ~ 28 AWG)
- **Dimensions (WxHxD)** 70 x 112 x 25 mm
- **Enclosure** ABS+PC
- **LAN** IEEE802.11b WLAN
- **LED Indicators** Power, communication, signal, strength
- **Mounting** DIN 35 rail, stack, wall
- **Power Consumption** ADAM-6050W, ADAM-6060W: 2 W (typical)
ADAM-6051W: 2.5 W
- **Power Input** Unregulated 10 ~ 30 V_{DC}

Communications

- **Channels** ADAM-6050W: 12 DI, 6 DO
ADAM-6051W: 12 DI/2 DO/2 Counter
ADAM-6060W: 6 DI, 6 Relay
- **Counter** Maximum Count: 4,294,967,285 (32 bit)
Input frequency: 0.3 ~ 4500 Hz max. (frequency mode)
4500 Hz max. (counter mode)
Modes: Counter (Up/Down, Bi-direction), Frequency
- **Digital Input**
 - Dry Contact: Logic level 0: Close to GND
Logic level 1: Open (Status inversable by utility)
 - Wet Contact (ADAM-6050W and ADAM-6051W only)
Logic level 0: +3 V (max.)
Logic level 1: +10 to 30 V
 - Counter Mode: Up to 3 kHz for ADAM-6050W/6060W
Up to 4.5 kHz for ADAM-6051W
 - Frequency Mode: Up to 3 kHz for ADAM-6050W/6060W
Up to 4.5 kHz for ADAM-6051W
- **Digital Output** Open collector to 30 V, 200 mA max. load
Pulse output : up to 5 kHz for ADAM-6050W and ADAM-6051W

- **Relay Output (Form A)** Contact rating: AC: 120 V @ 0.5 A, DC: 30 V @ 1 A
Breakdown voltage: 500 V_{AC} (50/60 Hz)
Relay on time: 7 msec; Relay off time: 3 ms
Total switching time: 10 ms
Insulation resistance: 1 GΩ minimum at 500 V_{DC}

Protection

- **Optical Isolation** ADAM-6050W: 5,000 V_{RMS}
ADAM-6051W, ADAM-6060W: 2,000 V_{RMS}
- **Power Reversal Protection**

Software

- **Support Protocol** Modbus/TCP and UDP
- **Watchdog Timer** Yes, programmable (Comm.)
- **Web Server** Embedded, with web page for configuration

Environment

- **Humidity** 5 ~ 95 % RH, non-condensing
- **Operating Temperature** -10 ~ 60 °C (14 ~ 140 °F)
- **Storage Temperature** -25 ~ 85 °C (-13 ~ 185 °F)

Ordering Information

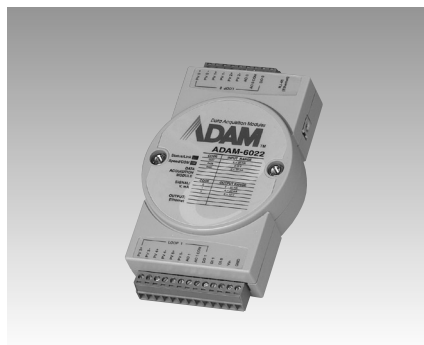
- **ADAM-6050W-A** Wireless LAN-enabled 18-channel DI/O Module
- **ADAM-6051W-A** Wireless LAN-enabled 16-channel Isolated I/O with Counter Module
- **ADAM-6060W-A** Wireless LAN-enabled 6-channel Relay Output Module

ADAM-6022

ADAM-6000

Ethernet-based Dual-loop PID Controller

Series Dimensions



ADAM-6022

CE FCC

Specifications

General

- **Dimensions (W x H x D)** 70 x 112 x 25 mm
- **Loop Number** 2 (3 AI, 1 AO, 1 DI, 1 DO for each control loop)
- **Power Consumption** 4 W (typical)
- **LAN** 10/100Base-T

Analog Input

- **Accuracy** $\pm 0.1\%$ or better
- **Bandwidth** 13.1 Hz @ 50 Hz
15.72 Hz @ 60 Hz
- **Channels** 6 differential
- **CMR @ 50/60 Hz** 92 dB min.
- **Resolution** 16 bits
- **Input Impedance** 20 M Ω
- **Input Range** 0 ~ 10 V_{DC}; 0 ~ 20 mA,
4 ~ 20 mA
- **Isolation Voltage** 2,000 V_{DC}
- **Sampling Rate** 10 samples/sec.
- **Span Drift** ± 25 ppm/ $^{\circ}$ C
- **Zero Drift** ± 6 μ V/ $^{\circ}$ C

Analog Output

- **Accuracy** 0.05% of FSR
- **Channels** 2
- **Drift** ± 50 ppm/ $^{\circ}$ C
- **Drive Voltage** 15 V_{DC} (current output)
- **Isolation Voltage** 2,000 V_{DC}
- **Output Range** 0 ~ 10 V_{DC}; 4 ~ 20 mA,
0 ~ 20 mA
- **Resolution** 12 bits

Digital Inputs

- **Channels** 2
- **Dry Contact:** Logic level 0: close to GND
Logic level 1: open
- **Wet Contact:** Logic level 0: +3V_{max}
Logic level 1: 10~30 V_{DC}

Digital Outputs

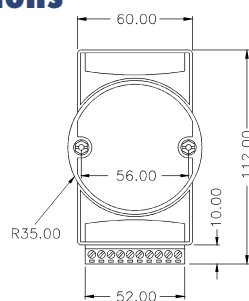
- **Channels** 2
- **Open Collector to 30 V**
100 mA max. load

Environment

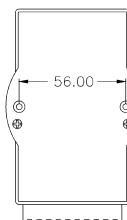
- **Humidity (Operating)** 20~95% RH, (non-cond)
- **Humidity (Storage)** 0~95% RH, (non-cond.)
- **Operating Temperature** -10~50 $^{\circ}$ C
- **Storage Temperature** -20~80 $^{\circ}$ C

Dimensions

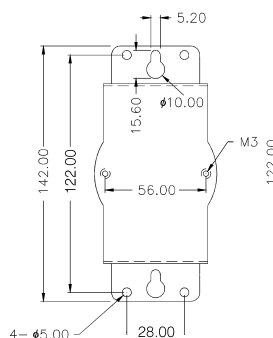
Unit: mm



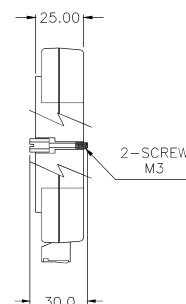
FRONT VIEW



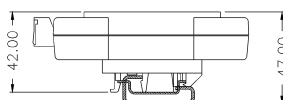
REAR VIEW



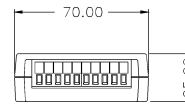
PANEL MOUNTING
BRACKET



SIDE VIEW



DIN - RAIL MOUNTING
ADAPTER



TOP VIEW

Ordering Information

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

Software Ordering Information

- **PCLS-OPC/MTP** Modbus/TCP OPC Server
- **AStudio-WNT/DEV** Astudio-WNI/PRO Web-enabled HMI/SCADA Software

Feature Details

Communication

ADAM-6050W, ADAM-6051W and ADAM-6060W support IEEE802.11b, so they can connect to most wireless LAN access points.

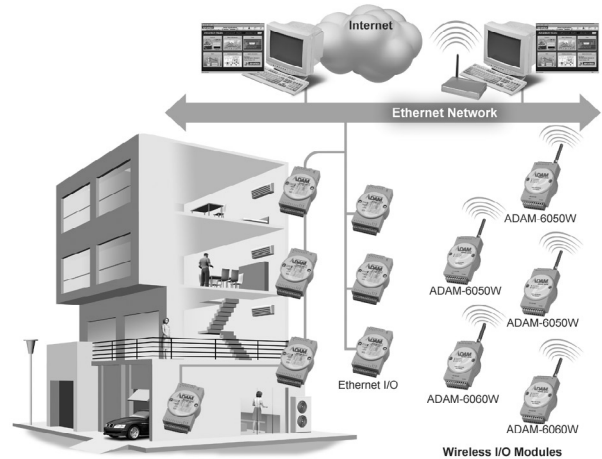
Like other ADAM-6000 modules, ADAM-6050W, ADAM-6051W and ADAM-6060W also support the Modbus/TCP and UDP protocols. You can use HMI/SCADA software to communicate with the modules through Modbus/TCP. The pre-built UDP protocol supports event trigger and data streaming functions for critical and real time responses.

Embedded web server with built-in web page

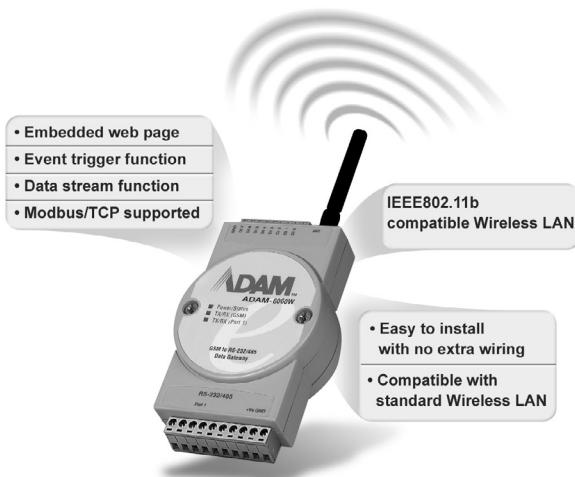
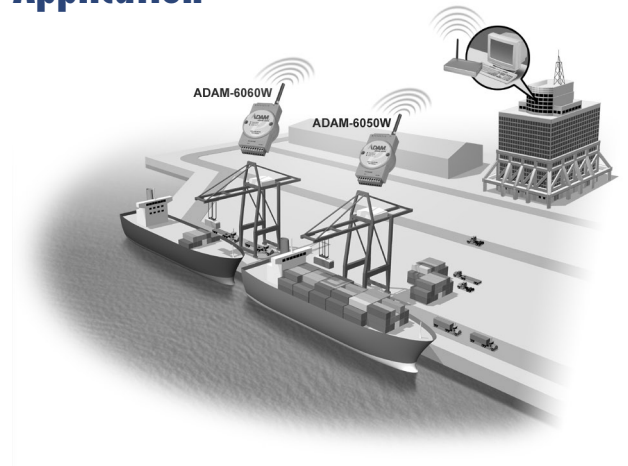
The modules have an embedded web server with a built-in webpage that can be configured by an utility for: Tag Name, Status Label (for example, Start/Stop, Run/Stop, Enable/Disable and Alarm/Normal), and Channel Enable.

Although it is based on Java technology, there is no need to learn how to write Java applets to design a customized web page. By using ADAM-6000 utility software, the webpage can be customized to exact requirements.

Home/Building Application



Port Crane Monitoring & Control Application



1	Software
2	IPPC
3	TPC
4	FPM
5	ATM & AWS
6	DA&C
7	cPCI
8	ADAM-3000
9	Motion Control
10	ICOM
11	Industrial Networking
12	UNO
13	ADAM-4000
14	ADAM-5000
15	ADAM-6000
16	ADAM-8000
17	BAS