

# ADAM-4501

# ADAM-4501D

**Ethernet-enabled Communication Controller with 8-ch DI/O**

**Ethernet-enabled Communication Controller with 8-ch DI/O and 7-segment LED**



ADAM-4501

ADAM-4501D



## Features

- 10/100Base-T Ethernet interface
- Email alarm function
- Built-in web server
- Built-in FTP server and client
- Supports versatile I/O modules
- Full functions of standard TCP and UDP sockets
- Optional 4 digit 7-segment LED display
- Supports Modbus/RTU and Modbus/TCP function libraries
- 1.5 MB Flash ROM/640 kB SRAM
- 4 serial ports available
- Integrates all operations in Windows utility

## Introduction

The ADAM-4501/D consists of compact-sized Ethernet-enabled communication controllers with a x86 CPU architecture. They support not only an Ethernet interface but also 4 serial ports, which makes them very suitable for industrial communication and control applications. The Ethernet-enabled features include built-in HTTP Server, FTP Server and email alarm functions. The modularized I/O design provides high flexibility for versatile application requirements. The ADAM-4501/D also supports rich Modbus function libraries including Modbus/RTU (Master/Slave) and Modbus/TCP (Server/Client) function libraries.

## Specifications

### General

- **Connectors**
  - 1 x RJ45 (Ethernet)
  - 1 x RJ48 (COM1)
  - 2 x Plug-in terminal blocks (#14 ~ 28 AWG)
- **Indicators** LEDs for Power, run, communication and battery
- **Power Input** Unregulated 10 ~ 30 V<sub>DC</sub> w/power reversal protection

### System

- **CPU** 40 MHz, 16-bit
- **CPU Power Consumption** 4 W @ 24 V<sub>DC</sub>
- **Memory**
  - 1.5 MB flash memory:
    - 256 kB system flash disk (Drive C: Read Only)
    - 256 kB flash memory (accessed by function LIB)
    - 1024 kB file system, 960 kB for user applications (Drive D: Read/Write)
  - 640 kB SRAM, up to 384 kB with battery backup (accessed by function LIB)
- **Real-time Clock (RTC)** Yes
- **Watchdog Timer** Yes

### Digital Input

- **Channels** 4
- **Input Level**
  - Dry Contact:
    - Logic level 0 : Close to GND
    - Logic level 1 : Open
  - Wet Contact:
    - Logic level 0 : 2 V max.
    - Logic level 1 : 4 V ~ 30 V

### Digital Output

- **Channels** 4, open collector to 30 V, 30 mA max. load
- **Power Dissipation** 200 mW

### Communication

- **LAN** 1 x 10/100Base-T
- **RS-485 Speed** 1.2 to 115.2 kbps
- **Serial Ports**
  - COM1: RS-232 (Full Modem Signals)
  - COM2, COM3: RS-485
  - COM4: RS-232 (Programming Port)/RS-485 (Selected by Jumper)

### Software

- **C Library** Borland C++ 3.0 for DOS
- **Operating System** ROM-DOS

### Environment

- **Humidity** 5 ~ 95% RH
- **Operating Temperature** - 10 ~ 70° C (14 ~ 158° F)
- **Storage Temperature** - 25 ~ 85° C (-13 ~ 185° F)

## Ordering Information

- **ADAM-4501** Ethernet-enabled Comm. Controller w/ 8-ch DI/O
- **ADAM-4501D** Ethernet-enabled Comm Controller, 8-ch DI/O, LED