

# ADAM-4510I

# ADAM-4520I

# ADAM-4117

Robust RS-422/485 Repeater

Robust RS-232 to RS-422/485 Converter

Robust 8-ch Analog Input Module with Modbus



ADAM-4510I



ADAM-4520I



ADAM-4117



## Specifications

### General

- **Connectors** 2 x plug-in terminal blocks (#14 ~ 22 AWG)
- **Power Consumption** 1.4 W @ 24 V<sub>DC</sub>

### Communications

- **Input** RS-485 (2-wire) or RS-422 (4-wire)
- **Output** RS-485 (2-wire) or RS-422 (4-wire)
- **Speed Modes (bps)** 1,200, 2,400, 4,800, 9,600, 19.2 k, 38.4 k, 57.6 k, 115.2 k, RTS control and RS-422. (switchable)
- **Supports Auto Baud-Rate**
- **Provide RS-485 to RS-422 Convert Ability**

## Specifications

### General

- **Connectors** 1 x plug-in terminal block (#14 ~ 22 AWG) (RS-422/485)  
1 x DB9-F (RS-232)
- **Power Consumption** 1.2 W @ 24 V<sub>DC</sub>

### Communications

- **Input** RS-232 (4-wire)
- **Output** RS-485 (2-wire) or RS-422 (4-wire)
- **Speed Modes (bps)** 1,200, 2,400, 4,800, 9,600, 19.2 k, 38.4 k, 57.6 k, 115.2 k, RTS control and RS-422. (switchable)
- **Supports Auto Baud-Rate**

## Specifications

### General

- **Connectors** 2 x plug-in terminal blocks (#14 ~ 22 AWG)
- **Watchdog Timer** System (1.6 second) & Communication
- **Supported Protocols** ASCII Command and Modbus/RTU
- **Power Consumption** 1.2 W @ 24 V<sub>DC</sub>

### Analog Input

- **Channels** 8 differential and independent configuration channels
- **Input Impedance** Voltage: 20 M $\Omega$   
Current: 120  $\Omega$
- **Input Type** mV, V (supports unipolar and bipolar), mA
- **Input Range** 0 ~ 150mV, 0 ~ 500mV, 0 ~ 1V, 0 ~ 5V, 0 ~ 10V, 0 ~ 15V,  $\pm 150$  mV,  $\pm 500$  mV,  $\pm 1$ V,  $\pm 5$  V,  $\pm 10$  V,  $\pm 15$ V,  $\pm 20$  mA, 0 ~ 20 mA, 4 ~ 20mA
- **Accuracy** Voltage mode :  $\pm 0.1\%$  or better  
Current mode :  $\pm 0.2\%$  or better
- **Resolution** 16 bits
- **Sampling Rate** 10/100 samples/sec (selected by Utility)
- **CMR @ 50/60 Hz** 92 dB
- **NMR @ 50/60 Hz** 60 dB
- **Over Voltage Protection**  $\pm 60$  V<sub>DC</sub>
- **High Common Mode** 200 V<sub>DC</sub>
- **Span Drift**  $\pm 25$  ppm/ $^{\circ}$  C
- **Zero Drift**  $\pm 6\mu$ V/ $^{\circ}$  C
- **Built-in TVS/ESD Protection**

## Common Specifications

### General

- **Power Input** Unregulated 10 ~ 48 V<sub>DC</sub> w/power reversal protection
- **Isolation Voltage** 3,000 V<sub>DC</sub>

### Environment

- **Humidity** 5 ~ 95% RH
- **Operating Temperature** -40 ~ 85 $^{\circ}$  C (-40 ~ 185 $^{\circ}$  F)
- **Storage Temperature** -40 ~ 85 $^{\circ}$  C (-40 ~ 185 $^{\circ}$  F)

## Ordering Information

- **ADAM-4510I** Robust RS-422/485 Repeater
- **ADAM-4520I** Robust RS-232 to RS-422/485 Converter
- **ADAM-4117** Robust 8-ch Analog Input Module with Modbus