

MULTI FUNCTION

INPUT/OUTPUT EXPANDER

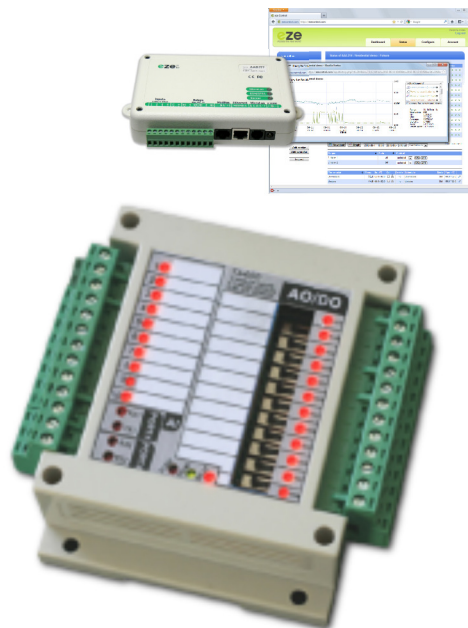
FOR EZEIO MODBUS

This versatile expansion module adds analog inputs, relays and analog outputs to the ezeio system. Each input can be configured for voltage, current or thermistors and has full support from the ezeio system for monitoring, logging and alarms.

This I/O expansion module adds 10 inputs, 8 relays and 4 analog outputs to the ezeio system. The inputs can be wired to thermistors, voltages (0-3V) or currents (4-20mA). Each input is configurable independent of the other inputs, and is fully supported by the ezeio system. The relay output contacts are isolated and rated to switch up to 2A each. The analog outputs can be used to control dimmers, speed controllers or other systems. Modbus communication allows up to 1km (3000ft) cable between the ezeio and this device. It can be powered separately or from the ezeio controller via the Modbus cable. Multiple expanders or other modbus devices can be connected to the same bus.

Features

- 10 Analog inputs (0-10V, 4-20mA or Thermistor)
- 8 Relay outputs (switch up to 2A)
- 4 Analog outputs (0-10V)
- Modbus RTU communication, 19200bps
- Manual override switches on all relay outputs
- Indicators on inputs, outputs and communication
- Mounts on any flat surface or on DIN rail
- Screw terminals for all connections



- ▶ 10 Analog inputs (0-10V, 4-20mA, thermistor)
- ▶ 8 Relays (up to 2A)
- ▶ 4 Analog outputs (0-10V)
- ▶ Up to 4 expanders per ezeio controller

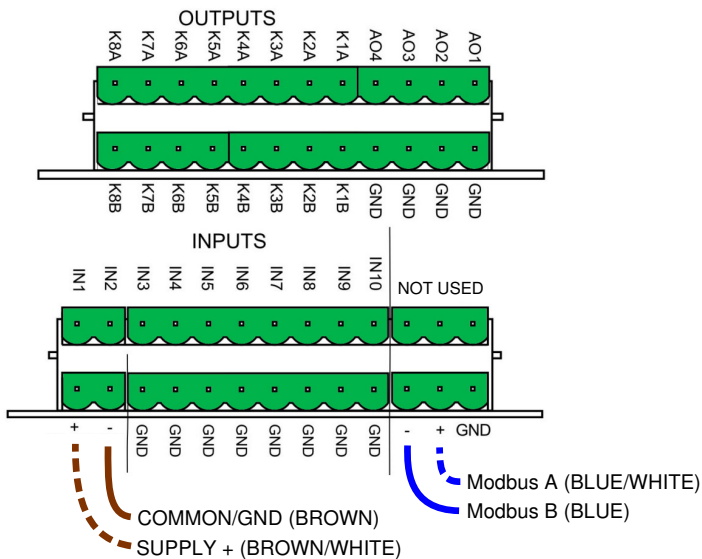
Technical specifications

Dimensions:	120 x 115 x 42mm (4.7" x 4.5" x 1.7")
Weight:	320g (11.3oz)
Supply:	12-24VDC, 100mA at 12VDC
Environment:	0-50C (32-120F), non condensing
Communication:	Modbus RTU RS485, 19200bps
Inputs:	10 single-ended, individually configurable for 0-3V, 0-10V, 0-20mA, Thermistor, Switch
Input resolution:	10 bits (10mV at 0-10V setting)
Relay outputs:	8 individually addressable with indicators. Form A. Max 2A. Manual switch control
Analog outputs:	4 individually addressable with indicators. 0-10V, max 10mA.

MODBUS I/O EXPANSION

10 Analog in, 8 Relays, 4 Analog out

CONNECTIONS



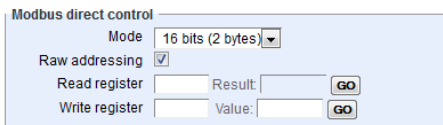
To power the expander from the ezeio, connect the the DC+ wire from the RJ45-jack to the + terminal on the expander as shown to the left.

If using an external power source, note that the common (ground) will be connected to the ezeio.

NOTE: To use the full scale on the analog outputs, the supply voltage must be 16VDC or higher.

CONFIGURATION

Go to ezeio **Configure->Device** and select the device. Use the **Modbus Direct Control** box to set/verify registers. The most common registers are listed here to the right. Please contact us for a complete list.



Make sure the **Raw Addressing** check box is **checked**.

REGISTER	FUNCTION	RANGE
6	Modbus Address	1 -- 254
108	Analog out 1	0 -- 4095
109	Analog out 2	0 = 0V out
110	Analog out 3	2047 = 5V out
111	Analog out 4	4095 = 10V out
200	Analog in 1 mode	0 = Raw (0 -- 4095) 1 = Thermistor C (x10) 2 = Thermistor F (x10) 3 = 0 - 100% 6 = Pulse count
201	Analog in 2 mode	
202	Analog in 3 mode	
203	Analog in 4 mode	
204	Analog in 5 mode	
205	Analog in 6 mode	
206	Analog in 7 mode	
207	Analog in 8 mode	
208	Analog in 9 mode	
209	Analog in 10 mode	

INPUT JUMPER SETTINGS

Remove the plastic lid, and carefully unplug the top board.

There are 10 rows of jumpers. Each row corresponds to one input.

Note the orientation of the board. See possible settings to the right.

