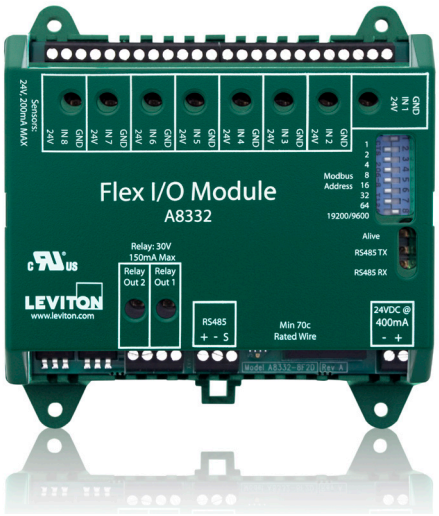
LEVITON

Flex I/O Module

Analog/Digital to Modbus Converter



BASIC OPERATION

Our Flex I/O is a cost-effective way to collect data from meters or sensors and bring that information into a Modbus network or energy monitoring system. As a stand-alone or bundled package, the Leviton Flex I/O can be incorporated with data acquisition and metering devices to provide a cost-effective energy monitoring solution.

The Flex I/O is compatible with virtually any Modbus master, allowing customers the flexibility to use it in existing Modbus networks. Use with the Leviton Energy Monitoring Hub (EMH).

APPLICATIONS

- Converting analog, resistive and pulse inputs to Modbus
- Electric submetering
- Cost allocation
- Measurement and verification (M&V)
- Benchmark building energy usage
- Relay outputs for demand control
- Track energy use and peak demand for Demand Response programs
- DC current monitoring for Renewable Energy

FEATURES

- Designed specifically for metering applications
- Easily add meters and sensor to Modbus network
- 8x user selectable inputs
- 2x output relays
- 2x pulse replicator
- Non-volatile memory
- Industrial temperature range (-30°C to 70°C)
- LEDs for visual verification/status
- Din or wall mount for easy installation
- Field upgradable firmware

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SPECIFICATIONS

DEVICE	
Processor	ARM7 field upgradeable firmware
Memory	Pulse count and runtime values are stored in non-volatile memory
LEDs	8x input status LEDs (red), 2x Modbus TX/RX (yellow), 1 power/alive status (green)
POWER	
Power Supply	24VDC, 200mA, but not to exceed 8A, Required (not included)
COMMUNICATION	
Protocols	Modbus/RTU
INPUTS	
Voltage Mode	0-10VDC (min/max/average/instantaneous data) Accuracy +/- 0.25% of full scale at 20C
Current Mode	4-20mA (min/max/average/instantaneous data) Accuracy +/- 0.25% of full scale at 20C
Resistance Mode	100 ohms to 100k (see installation for accuracy specification
Pulse Mode	• Intended for use with dry contact outputs (consumption/rate/runtime/status) • Standard and KYZ modes for A and C relay outputs • Input terminals supplies 5V at 5mA sense voltage to detect contact closures • Maximum rate: 10Hz, minimum pulse width 50ms • Adjustable contact closure threshold: 100Ω to 5kΩ, broken wire sense above 10kΩ optional
Serial Port	RS-485 two wire, 19200 or 9600 baud, 8N1
I/O	8x Flex IO inputs with user selectable modes: voltage, current, resistance, pulse and status
Isolation	Pulse outputs and RS485 ports are isolated to 1500VDC; Power input, RS232 and analog/pulse inputs are non-isolated
OUTPUTS	
Relays	2x, dry contact (opto-fet) 30 VDC, 150 mA max
PHYSICAL	
Weight	3.70z (105g)
Size	4.13" x 3.39" x 1.18" (105mm x 86mm x 30mm)
ENVIRONMENT	
North America	-22°F to 158°F (-30°C to 70°C), 0-95% RH, non-condensing
Altitude	2000M max
Pollution	Degree 2
CODES & STANDARDS	
Emissions	FCC CFR 47 PART 15, Class A, EN 61000, EN 61326
Safety	UL61010 Recognized, EN61010
OTHER	
NEMA enclosures available upon request; for use with any Modbus RTU device/server	

ORDERING INFORMATION

CAT. NO. *	DESCRIPTION
A8332-8FD	Flex I/O Module, 8 User Selectable Inputs, 2 Relay Outputs