Universal Input/Output Interface

UIO

Overview

The Echoflex Universal Input/Output Interface is the linchpin for hybrid control solutions that leverage wireless versatility and performance of wired networked systems.

When it's not practical to run wires between every device in your building's control system, the UIO Interface is the solution. Use two UIO's to transmit wireless data from one location to the next replacing difficult or expensive wiring runs. The interface includes two inputs and two outputs making it easy to integrate wireless devices with existing panels, wired control systems, or building energy management systems.

The UIO has two hardware input channels which support 0-10V or 4-20mA transmitters. These inputs have wireless output channels assigned to them so the analog or digital signal present on the input can be translated into a number of wireless message types. Connected HVAC, building automation or lighting sensors can have the sensors value broadcast wirelessly. Receivers could include gateways or controllers but also another UIO which can then reproduce the sensors analog or digital value.

Additionally the UIO has two output channels that can output 0-10V or 4-20mA signals that will be driven based on the wireless devices linked to the channel. The output channel will interpret a wireless message from a switch, sensor or gateway and output an analog value on the selected channel.

The UIO supports the addition of an external antenna providing flexable mounting scenarios with no loss in radio signal performance.

The UIO interface is a DIN-rail-mount device fitting into a variety of enclosures or mounting onto a 4x4 electrical box, see accessories section below.

Features

- Integration of wireless devices with existing panels, wired control systems, or energy management systems.
- Two input channels supporting 0-10VDC or 4-20mA
- Two output channels supporting 0-10V or 4-20mA
- Voltage pull up's available on the inputs for dry-contact applications
- Supports numerous wireless device profiles
- Doubles as a repeater
- DIN rail mount
- Cage-clamp style terminal blocks for all wiring connections
- LED interface for channel status indication
- Available in 902 MHz, 868 MHz and 928 MHz frequencies
- Internal antenna with option for external antenna (separate order item)

Ordering Information

Description	902 MHz Model	902 MHz Part	868 MHz Model	868 MHz Part	928 MHz Model	928 MHz Part
Universal Input/Output Interface	UIO-AU	8189A1191-X-1	UIO-AY	8189A1391-X-1	UIO-AJ	8189A1791-X-1

Accessories

Description	Model #	Part #
Elaho Low-Voltage DIN-Rail Cover Kit	E-DIN	8186A1218
Elaho- Echoflex External Antenna Kit (902 MHz)	EEI-EA	8186K1001
Mini DIN rail Enclosure - Horizontal (14 in x 8 in)	DIN8	7180A1030
Small DIN rail Enclosure - Vertical (14 in x 14 in) (Horizontal model DIN14-H also available)	DIN14	7180A1019
Large DIN rail enclosure -Vertical (14 in x 28 in)	DIN28	7180A1018

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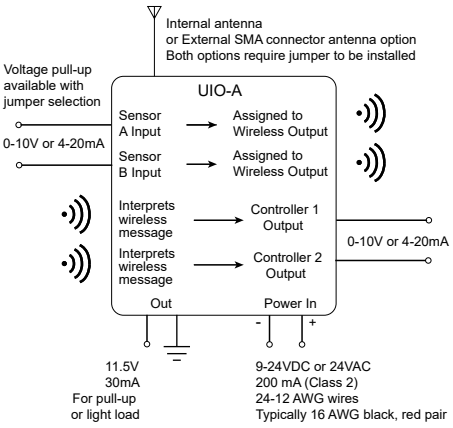
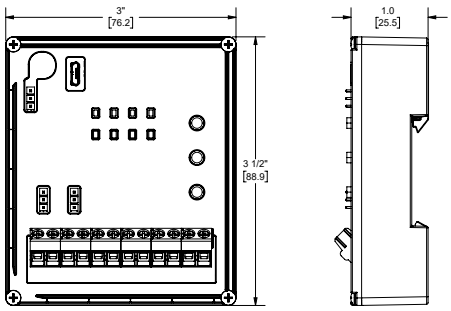
Interface connections



Dimensional Diagram



Equipment Profiles - Remote Devices Supported on either inputs, outputs or both (see install guide for details)

EEP: F6-02-01/02	Light and Blinds Control - EU and US/Canada applications
EEP: A5-06-(01-05)	Light Sensor
EEP: A5-07-01/02	Occupancy Sensor - with supply voltage
EEP: A5-10-19	Temperature Set Point
EEP: A5-37-01	Energy Management - Demand Response
EEP: A5-38-08	Central Command - analog, explicit operation

Hardware Specifications

Power Supply	9-24VDC, 24VAC 200mA power input
Inputs	Two input channels - 0-10V or 4-20mA Channel Select, Input Type, TEACH, LINK and CLEAR buttons for sensor assignment
Outputs	Two output channels - 0-10V or 4-20mA One 11.5V (30mA) output for sensor inputs requiring pull up LED indicators, State and Mode (Blue and Red)

Communication

Radio Frequency	902 MHz (U), 868 MHz (Y), 928 MHz (J)
Antenna	Integrated Whip or External (optional - separate order item)
Transmission Range	24 m (80 ft) - commercial office spaces (typical), up to 100m (330 ft) line of sight

Mechanical Specifications

Dimensions	76.2 x 88.9 x 25.5 mm (3 x 3.5 x 1.0 ")
Weight	4.0 oz (0.06 lbs)
Operating Temperature	0°C to 50°C (32°F to 41°F) ambient
Relative Humidity	5%–95% RH (non–condensing)
Mounting	DIN mount

Regulatory Agencies and Compliance

ROHS compliant

WEEE marked - Energy Management Equipment

902 MHz models	FCC Part 15.231 - Remote Control Transmitter IC RSS-210
868 MHz models	CE Marking
928 MHz models	Japanese Radio Law (special order item)

Specifications are subject to change without notification.

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