Echoflex

Universal Input-Output Interface

Type(s)

Project

Date

Notes

GENERAL INFORMATION

The Echoflex Universal Input-Output Interface is the keystone for hybrid control solutions that leverage wireless versatility and wired systems performance. The UIO solves the challenge when it's not practical to run wires between every device in your building's control system. 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 0–10 V or 4–20 mA transmitters. Inputs have associated wireless output channels so the analog or digital signal present on the input can be transmitted by different wireless message types. Connected HVAC, building automation, or other third-party wired sensors can have sensor values broadcast wirelessly. In addition to gateways or controllers, another UIO can be linked to reproduce a sensor's analog or digital value.

Two hardware output channels output 0–10 V or 4–20 mA signals based on wireless devices linked to the channel. Behaving similarly as an Echoflex controller, the output channel interprets a wireless message from a switch, sensor or gateway and outputs an analog value.

The UIO mounts on a DIN rail, fits into a variety of enclosures, or onto a 4x4 electrical box, see accessories section. An external antenna option provides flexible mounting scenarios with no loss in radio signal performance.

BUILDING APPLICATIONS
- Building systems integration
- Wirelessly transport sensor signals
- Third-party panel interface

FEATURES
- Integration of wireless devices with existing panels, wired control systems, or energy management systems
- Two input channels supporting 0–10 VDC or 4–20 mA
- Two output channels supporting 0–10 V or 4–20 mA
- Voltage pull-ups available on 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 and 868 MHz frequencies
- Internal antenna, optional external antenna sold separately

ORDERING INFORMATION

Echoflex UIO Interface

MODEL	DESCRIPTION
UIO-BU	Echoflex Universal Input-Output Interface, 902 MHz
UIO-BY	Echoflex Universal Input-Output Interface, 868 MHz

Echoflex UIO Interface Accessories

MODEL	DESCRIPTION
E-DIN	Elaho Low-Voltage DIN-Rail Cover Kit
EEI-EA	Elaho-Echoflex External Antenna Kit (902 MHz)
N1124	Antenna Extension Cable, 8.5 in
N1125	Antenna Extension Cable, 35 ft
DIN8	Mini DIN rail Enclosure - Horizontal (14 in x 8 in)
DIN14	Small DIN rail Enclosure - Vertical (14 in x 14 in) (Horizontal model DIN14-H also available)
DIN28	Large DIN rail Enclosure - Vertical (14 in x 28 in)

Power Requirements

12–24 VDC or 24 VAC Class 2:	100 mA

SPECIFICATIONS

HARDWARE SPECIFICATIONS
- Power supply: 9–24 VDC, 24 VAC 200 mA power input
- Two input channels: 0–10 V or 4–20 mA
  - Channel, Input Type/CLR, Teach/Learn buttons for sensor assignments
- Two output channels: 0–10 V or 4–20 mA
  - One 11.5 V (30 mA) output for sensor inputs requiring pull-up
  - LED indicators, State and Mode (Blue and Red)

MECHANICAL
- DIN mount

COMMUNICATIONS
- Radio frequencies: 902 MHz (U), 868 MHz (Y)
- Wireless range of up to 24 m (80 ft) - commercial office spaces (typical), up to 100 m (330 ft) line-of-sight
- Integrated whip antenna
- Optional external antenna (optional - separate order item)

ENVIRONMENTAL
- Operating temperature: 0° to 50°C (32° to 122°F) ambient
- Ambient humidity: 5–95% non-condensing

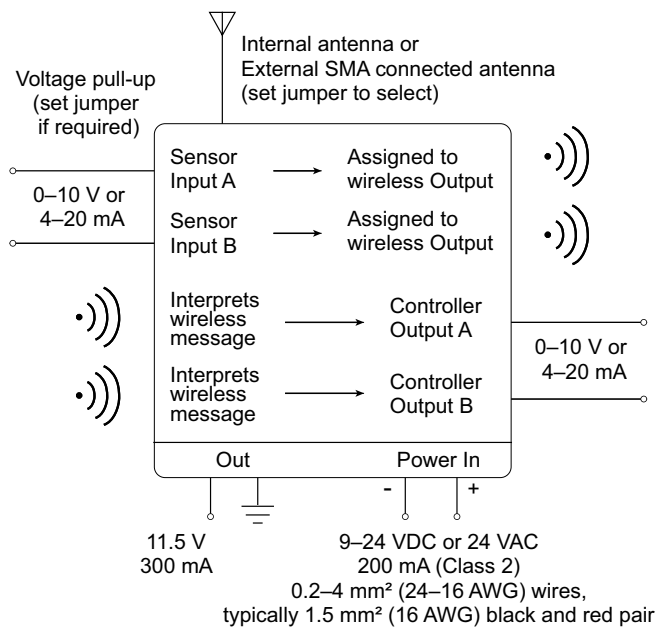**REGULATORY AND COMPLIANCE**
- RoHS compliant
- WEEE marked - Energy Management Equipment
- 902 MHz models
  - FCC Part 15.231 - Remote Control Transmitter
  - IC RSS-210
- 868 MHz models:
  - CE marked

SPECIFICATIONS

Equipment Profiles - Remote Devices Supported

MODEL	DESCRIPTION
EEP: F6-02-02	Light and Blinds Control - EU and US/Canada applications
EEP: A5-06-(01-05)	Light Sensor
EEP: A5-07-01	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
EEP: A5-30-02, D5-00-01	Contact Input
F6-04-01	Keycard Activated Switch
MSC	Structured Commands, Scene Stations

INTERFACE CONNECTIONS

PHYSICAL

Universal Input-Output Interface Weight and Dimensions

MODEL	HEIGHT		WIDTH		DEPTH		WEIGHT	
	in	mm	in	mm	in	mm	oz	g
UIO	3.5	88.9	3.0	76.2	1.0	25.4	4.0	114

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Product information and specifications subject to change.

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