

IRU-2000 Ultrasonic Level Sensor



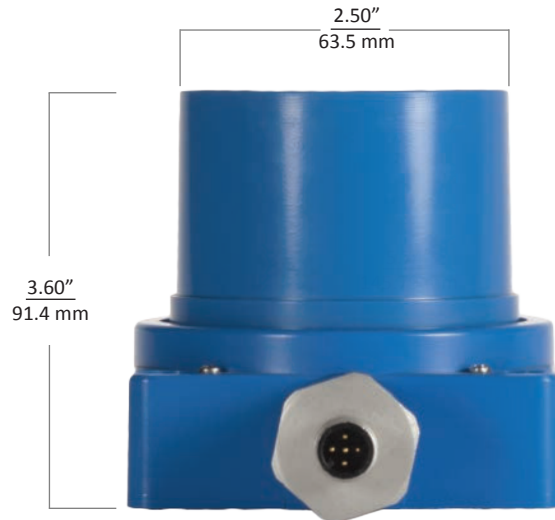
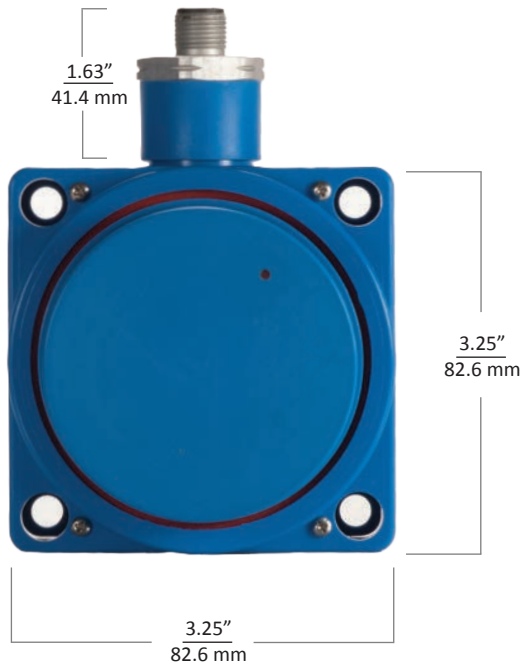
The IRU-2000 series ultrasonic sensors are designed for applications outside of the tank environment. They are ideal for presence/absence detection, object profiling, and more. With ample programming options, the IRU-2000 series are designed for a variety of applications.

Features

- Programmable response time
- Internal Temperature Compensation
- Programmable filtering



IRU-2000 Specifications



Performance

- Operating Range:
 - 1 - 25 ft. (0.30 - 7.62 m) for liquids
 - 1 - 10 ft. (0.30 - 3.05 m) for solids
- Beam Pattern: 9° off axis
- Internal Temperature Compensation
- Frequency: 69 kHz
- Accuracy: $\pm 0.25\%$ of detected range
- Resolution: 0.1 in. (2.5 mm)
- Response Time: Up to 50 Hz, or once every 20 ms

Connectivity

Output:

- 1 Solid State Relay
- Isolated 4-20 mA
- RS-485 with (1) NPN trip point
- 4-20 mA with (2) NPN trip points

Environmental

- Ratings: NEMA 4X
- Operating Temp: -40° - 140°F (-40° - 60°C)

Electrical

- Total Current Draw: 80 mA @ 24 VDC
- Supply Voltage: 12 - 28 VDC
- Wiring Connections:
 - IRU-2002 & 2003 - 6 pin terminal strip
 - IRU-2004 & 2005 -
 - 6 conductor shielded cable (6 ft standard length)
 - Optional 5 pin micro-connector

Programming

- Interface with RST-3001/3002 Programmer (purchase separately)
 - The RST-3001 is 32 bit only
 - The RST-3002 is 64 bit compatible
- User selected units of measure

Physical

- ABS with UV Inhibitor
- Surface Mount with 4 screws

Certification

- CSA General Purpose

Common Model Configurations

| Model Number | Model Description |
|--------------|-------------------------------------------------------------------------------------------------|
| IRU-2002 | 1 - 25 ft range, 69 kHz, Surface mount, 1 Solid-state relay output, 6-pin terminal strip |
| IRU-2003 | 1 - 25 ft range, 69 kHz, Surface mount, Isolated 4-20 mA output, 6-pin terminal strip |
| IRU-2004-C6 | 1 - 25 ft range, 69 kHz, Surface mount, RS-485 with 1 NPN trip point, 6 ft cable |

IRU-2000 Accessories

Please order separately, by part number.

| Description | Part Number |
|----------------------------------------------------|-------------|
| Micro-Connector Over Molded Extension Cable | |
| Straight, 2 m | 135415-0002 |
| Right angle, 2 m | 135415-1002 |
| Straight, 5 m | 135415-0005 |
| Right angle, 5 m | 135415-1005 |
| Programming Module | |
| RST-3001 (USB) | 125389 |
| RST-3002 (USB) 64 bit compatible | 125389-1000 |

Model Configuration Options



Model Number: IRU - 200 -
 A (B)

A. Output

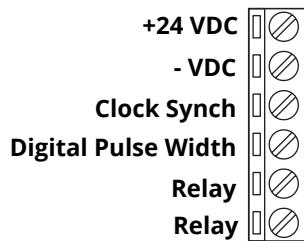
- 2** (1) solid state relay
- 3** isolated 4-20 mA
- 4** RS-485 with (1) NPN trip point
- 5** 4-20 mA with (2) NPN trip points

B. Cable/Micro Connector (IRU-2004/2005 only)

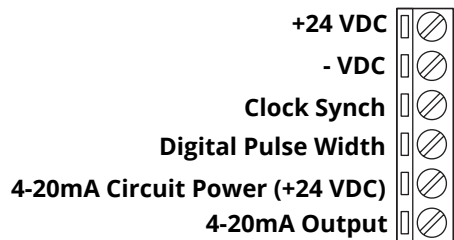
- CL** Cable (specify L=length in feet; standard 6 ft.)
- M** 5-pin micro-connector

Wiring

IRU-2002



IRU-2003



Cable

| | IRU-2004 | IRU-2005 |
|---------------|--------------|----------|
| Red | +24 VDC | +24 VDC |
| Black | - VDC | - VDC |
| Green | Clock | Clock |
| White | NPN trip | NPN 2 |
| Blue | T (+) or (B) | NPN 1 |
| Orange | T(-) or (A) | 4-20 |

Micro-Connector

| | IRU-2004 | IRU-2005 |
|----------------|----------|----------|
| 1 Brown | +24 VDC | +24 VDC |
| 2 White | NPN 1 | NPN 1 |
| 3 Blue | VDC Grnd | VDC Grnd |
| 4 Black | 4-20 mA | 4-20 mA |
| 5 Grey | NPN 2 | NPN 2 |

