

# IRU-2000 Ultrasonic Level Sensor



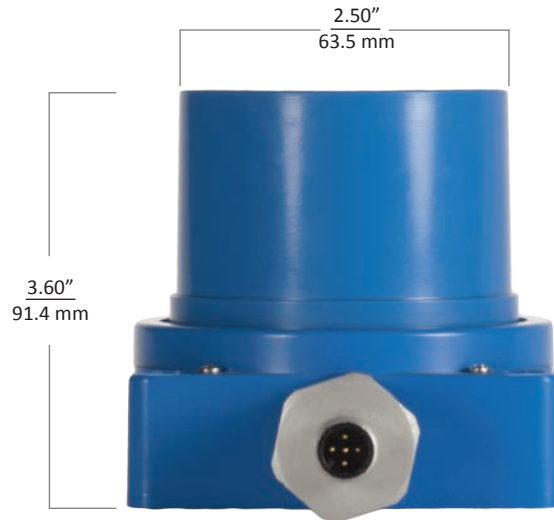
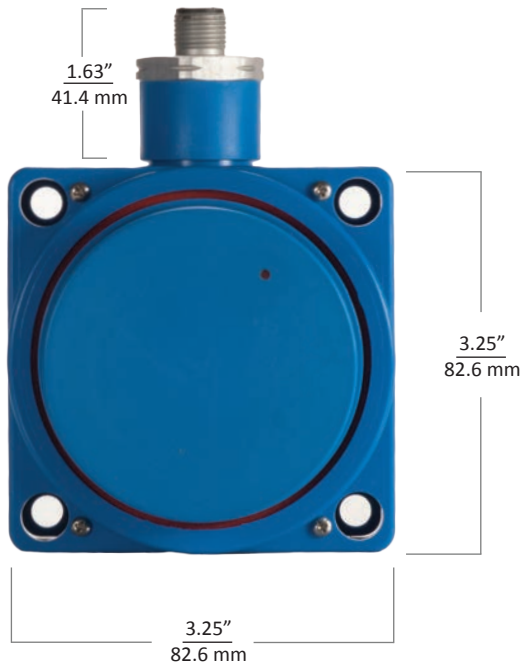
The IRU-2000 series ultrasonic sensors are designed for applications outside of the tank environment. They are ideal for presence/absence detection, object profiling, and more. With ample programming options, the IRU-2000 series are designed for a variety of applications.

## 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, <b>1 Solid-state relay output, 6-pin terminal strip</b>
IRU-2003	1 - 25 ft range, 69 kHz, Surface mount, <b>Isolated 4-20 mA output, 6-pin terminal strip</b>
IRU-2004-C6	1 - 25 ft range, 69 kHz, Surface mount, <b>RS-485 with 1 NPN trip point, 6 ft cable</b>

## IRU-2000 Accessories

Please order separately, by part number.

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

# Model Configuration Options



Model Number: IRU - 200      -       
                                   A           (B)

## A. Output

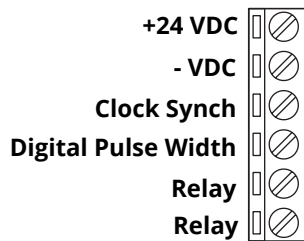
- 2** (1) solid state relay
- 3** isolated 4-20 mA
- 4** RS-485 with (1) NPN trip point
- 5** 4-20 mA with (2) NPN trip points

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

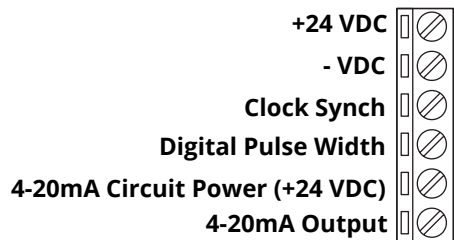
- CL** Cable (specify L=length in feet; standard 6 ft.)
- M** 5-pin micro-connector

## Wiring

### IRU-2002



### IRU-2003



### Cable

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

### Micro-Connector

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

