

IRU-2000 Ultrasonic Level Sensor



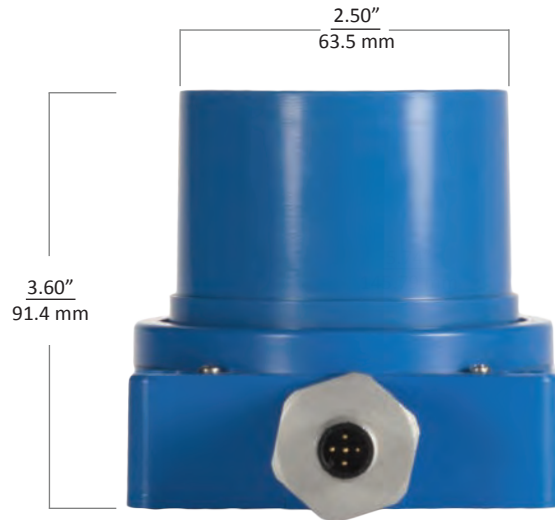
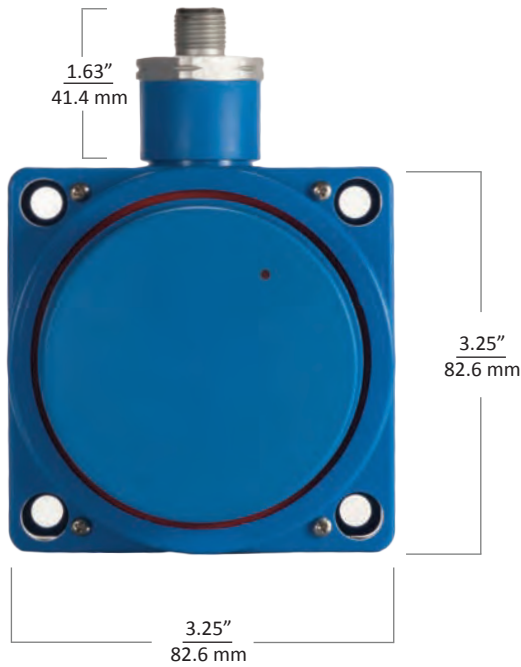
The IRU-2000 series ultrasonic sensors are designed for applications outside of the tank environment. They are ideal for presence/absence detection, object profiling, and more. With ample programming options, the IRU-2000 series are designed for a variety of applications.

Features

- Programmable response time
- Internal Temperature Compensation
- Programmable filtering

Rev. A 08/28/2015

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

+24 VDC	☐	☒
- VDC	☐	☒
Clock Synch	☐	☒
Digital Pulse Width	☐	☒
Relay	☐	☒
Relay	☐	☒

IRU-2003

+24 VDC	☐	☒
- VDC	☐	☒
Clock Synch	☐	☒
Digital Pulse Width	☐	☒
4-20mA Circuit Power (+24 VDC)	☐	☒
4-20mA Output	☐	☒

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

