

IRU-9400 Ultrasonic Level Sensor



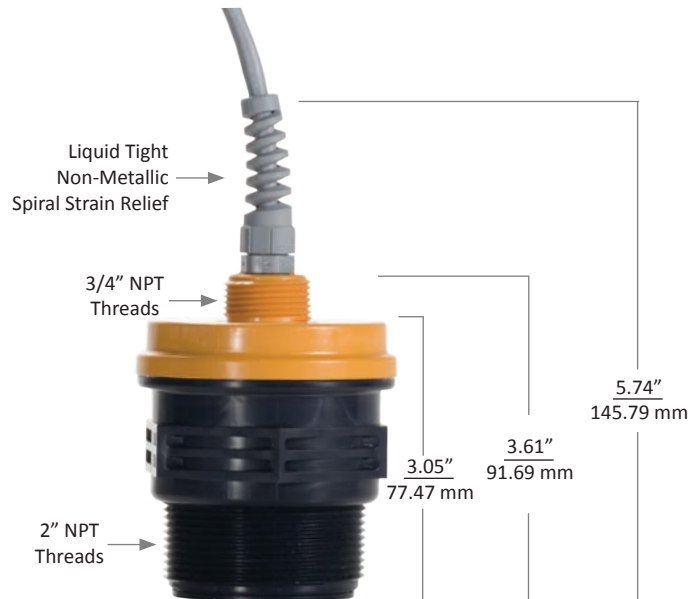
The IRU-9400 series provides a versatile range from 6 inches to 35 feet along with a more sensitive transducer to detect difficult targets. This sensor is great for non-reflective and/or soft surfaces. With built in technology to compensate for temperature the IRU-9400 is well suited for object detection and is recommended for indoor use.

Features

- Easily configured for obstacle detection applications
- Internal Temperature Compensation
- Works on solids and liquids



IRU-9400 Specifications



Performance

- Operating Range: 0.50 - 35 ft. (0.15 - 10.67 m)
- Beam Pattern: 9° off axis
- Internal Temperature Compensation
- Frequency: 50 kHz
- Accuracy: $\pm 0.25\%$ of detected range
- Resolution: 0.1 in. (2.5 mm)
- Response Time: Programmable (20 ms minimum)

Connectivity

Output:

- 4-20 mA
- 4-20 mA with (2) NPN outputs
- 0-2.5 V/0-5 V (selectable via software)

Environmental

- Ratings: NEMA 12
- Operating Temp: -40° - 140°F (-40° - 60°C)

Electrical

- Total Current Draw: 75 mA @ 24 VDC
- Supply Voltage: 12-28 VDC
- Wiring Connection: 4, 5 or 8 conductor shielded cable

Programming

- Interface with RST-3001 Programmer (purchase separately - not needed for "S" option)
 - The RST-3001 is 32 bit only
 - The RST-3002 is 32 and 64 bit compatible
- User selected units of measure

Physical

- PC/PET upper housing
- PC/PET Blend Transducer

Certification

- CSA General Purpose

Common Model Configurations

Model Number	Model Description
IRU-9425-C6	0.5 - 35 ft range, 50 kHz, 2" MNPT, 4-20 mA Output, 6 ft cable
IRU-9425-M	0.5 - 35 ft range, 50 kHz, 2" MNPT, 4-20 mA Output, Microconnector
IRU-9429-C6	0.5 - 35 ft range, 50 kHz, 2" MNPT, 0-2.5 V / 0-5 V Output, 6 ft cable
IRU-9429-M	0.5 - 35 ft range, 50 kHz, 2" MNPT, 0-2.5 V / 0-5 V Output, Microconnector

IRU-9400 Accessories

Please order separately, by part number.

Description	Part Number
Over Molded Extension Cables with Foil Shield	
4 Conductor	
Straight, 2 m	135407-0002
Right Angle, 2 m	135407-1002
Straight, 5 m	135407-0005
Right Angle, 5 m	135407-1005
5 Conductor	
Straight, 2 m	135415-0002
Right Angle, 2 m	135415-1002
Straight, 5 m	135415-0005
Right Angle, 5 m	135415-1005
8 Conductor	
Straight, 2 m	135423-0002
Right Angle, 2 m	135423-1002
Straight, 5 m	135423-0005
Right Angle, 5 m	135423-1005
Programming Module	
RST-3001 (USB - 32 bit only)	125389
RST-3002 (USB - 32 and 64 bit compatible)	125389-1000

Model Configuration Options



Model Number: IRU - 942 - -
 A B C

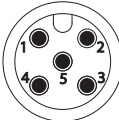
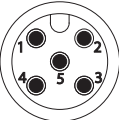
A. Output

- ☐ **3** 4-20 mA
- ☐ **5** 4-20 mA with (2) NPN outputs
- ☐ **9** 0-2.5V / 0-5V
- ☐ **9S** 0-2.5V / 0-5V

B. Cable/Microconnector

- ☐ **CL** Cable (Specify L=length in feet)
 Standard 6 feet of cable
- ☐ **M** Micro Connector

Wiring

IRU-9423-C		IRU-9425-C		IRU-9429-C		IRU-9429S-C	
Red	+24 VDC	Red	+24 VDC	Red	+24 VDC	Red	+24 VDC
Black	Ground	Black	Ground	Black	Ground	Black	Ground
White	mA+	White	NPN 1	White	Voltage Out	Orange	Excitation
IRU-9423-M		Green	NPN 2	Green	Analog Grd	White	Voltage Out
1 Brown	+24 VDC	Orange	mA+	Orange	Excitation	Green	Analog Grd
2 White	Not used	IRU-9425-M		IRU-9429-M		Brown	RS-232 Grd
3 Blue	Ground	1 Brown	+24 VDC	1 Brown	+24 VDC	Yellow	RS-232 TX
4 Black	mA+	2 White	NPN 1	2 White	Voltage Out	Blue	RS-232 RX
		3 Blue	Ground	3 Blue	Ground	IRU-9429S-M	
		4 Black	mA+	4 Black	Analog Grd	1 White	Voltage Out
		5 Grey	NPN 2	5 Grey	Excitation	2 Brown	+24 VDC
						3 Green	Analog Grd
						4 Yellow	RS-232 TX
						5 Grey	RS-232 Grd
						6 Pink	RS-232 RX
						7 Blue	Ground
						8 Red	Excitation
							