

# IRU-9400 Ultrasonic Level Sensor



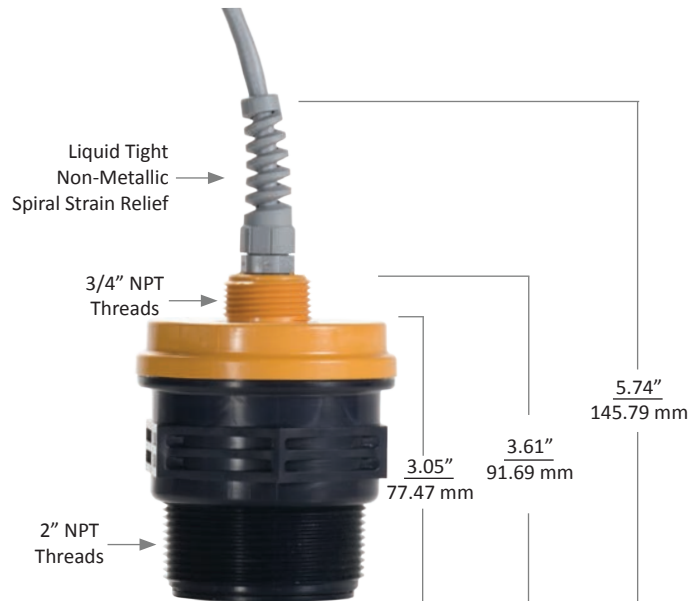
The IRU-9400 series provides a versatile range from 6 inches to 35 feet along with a more sensitive transducer to detect difficult targets. This sensor is great for non-reflective and/or soft surfaces. With built in technology to compensate for temperature the IRU-9400 is well suited for object detection 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: ±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, <b>4-20 mA Output, 6 ft cable</b>
IRU-9425-M	0.5 - 35 ft range, 50 kHz, 2" MNPT, <b>4-20 mA Output, Microconnector</b>
IRU-9429-C6	0.5 - 35 ft range, 50 kHz, 2" MNPT, <b>0-2.5 V / 0-5 V Output, 6 ft cable</b>
IRU-9429-M	0.5 - 35 ft range, 50 kHz, 2" MNPT, <b>0-2.5 V / 0-5 V Output, Microconnector</b>

## IRU-9400 Accessories

Please order separately, by part number.

Description	Part Number
<b>Over Molded Extension Cables with Foil Shield</b>	
<b>4 Conductor</b>	
Straight, 2 m	135407-0002
Right Angle, 2 m	135407-1002
Straight, 5 m	135407-0005
Right Angle, 5 m	135407-1005
<b>5 Conductor</b>	
Straight, 2 m	135415-0002
Right Angle, 2 m	135415-1002
Straight, 5 m	135415-0005
Right Angle, 5 m	135415-1005
<b>8 Conductor</b>	
Straight, 2 m	135423-0002
Right Angle, 2 m	135423-1002
Straight, 5 m	135423-0005
Right Angle, 5 m	135423-1005
<b>Programming Module</b>	
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


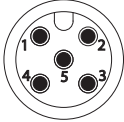
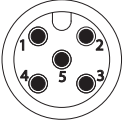
## A. Output

- 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

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