

# IRU-5000 Ultrasonic Level Sensor



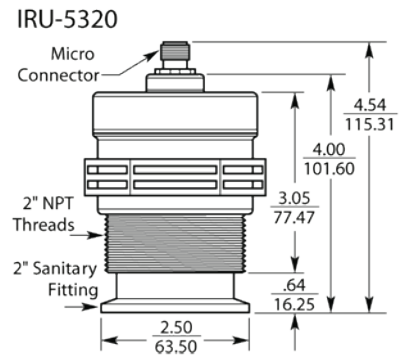
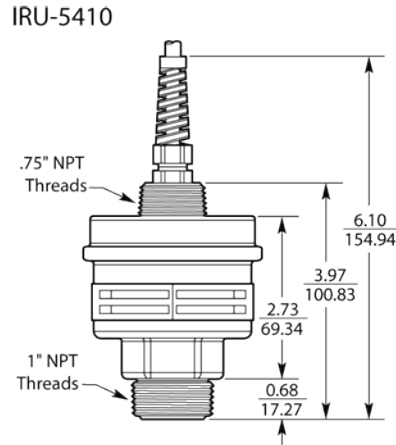
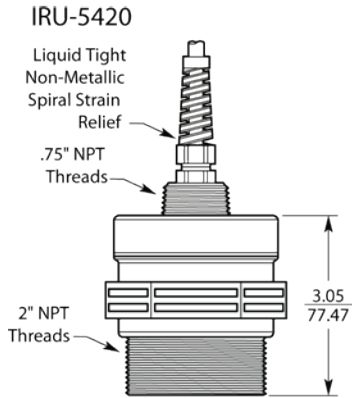
The IRU-5000 series provides a non-contact method of detecting level, presence/absence detection, volume, proximity and distance. With built in technology to compensate for unpredictable variables such as humidity, temperature and agitators the IRU-5000 is the right sensor for your application.

## Features

- AutoSense Software for hassle-free setup
- Internal Temperature Compensation
- Works on solids and liquids



# IRU-5000 Specifications



## Performance

- Operating Range  
4 - 79 in. (102 - 2007 mm)
- Beam Pattern: 9° off axis
- Internal Temperature Compensation
- Frequency: 143 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

## Environmental

- Ratings: IP65
- Operating Temp: -40° - 140°F (-40° - 60°C)

## Certification

- Class 1, Div. 2, Groups C, D, T6; Ex nA IIB T6
  - Class 1, Zone 2, Aex nA IIB, T6
  - IP65
- (\*Models IRU-5413, -5415, -5423 & -5425 only)

## Electrical

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

## Programming

- Interface with RST-3001 Programmer (purchase separately - powered by USB)
  - 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

# Common Model Configurations

Model Number	Model Description
IRU-5413-C6	4 - 79 in. range, 143 kHz, <b>1" MNPT, 4-20 mA Output, 6 ft cable</b>
IRU-5415-C6	4 - 79 in. range, 143 kHz, <b>1" MNPT, 4-20 mA / 2 NPN Outputs, 6 ft cable</b>
IRU-5423-C6	4 - 79 in. range, 143 kHz, <b>2" MNPT, 4-20 mA Output, 6 ft cable</b>
IRU-5425-C6	4 - 79 in. range, 143 kHz, <b>2" MNPT, 4-20 mA / 2 NPN Outputs, 6 ft cable</b>

## IRU-5000 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>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 - 5  $\frac{\quad}{A}$  -  $\frac{\quad}{B}$  -  $\frac{\quad}{C}$

## A. Mounting

- 41** 1 in. NPT (Kynar T.F.)
- 42** 2 in. NPT (Kynar T.F.)
- 32** 2 in. sanitary ferrule (Kynar T.F.)

## B. Output

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

## C. Cable/Microconnector

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

# Wiring

IRU-5xx3-C	
Red	+24 VDC
Black	Ground
White	mA+

IRU-5xx3-M	
1 Brown	+24 VDC
2 White	Not used
3 Blue	Ground
4 Black	mA+
5 Grey	Not used

IRU-5xx9-C	
Red	+24 VDC
Black	Ground
White	mA+

IRU-5xx9-M	
1 Brown	+24 VDC
2 White	Not used
3 Blue	Ground
4 Black	Voltage Out
5 Grey	Not used

IRU-5xx5-C	
Red	+24 VDC
Black	Ground
Orange	mA+
White	NPN 1
Green	NPN 2

IRU-5xx5-M	
1 Brown	+24 VDC
2 White	NPN 1
3 Blue	Ground
4 Black	mA+
5 Grey	NPN 2

