



# Ranger Two™ LTRP-2

ULTRASONIC LEVEL TRANSMITTER



## DESCRIPTION

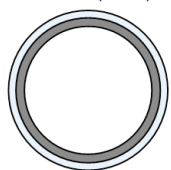
The Ranger Two™ LTRP-2 Ultrasonic Level Transmitter is designed for level and distance measurement in remote monitoring and other difficult outdoor applications. The Ranger Two™ features surge protection which assures reliable performance in lightning prone areas. The Ranger Two™ is able to measure distance of level with a range of 1ft. up to 30ft. Features include a stainless steel housing for rugged indoor or outdoor use, surge protection, and the ability to connect to one sensor up to 32 sensors optimized with RS-485 output to the CONNEX 3D Cellular Monitor. Serial data is addressable in MODBUS RTU protocol and options include ASCII. These all-weather sensors survive submersion and provide years of maintenance free service.

## FEATURES & BENEFITS

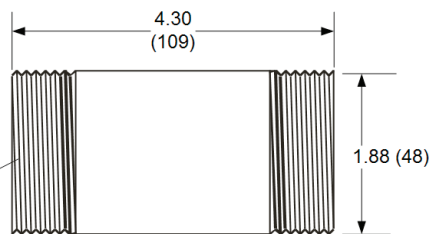
- Long range, short dead band
- Unaffected by optical factors like color and transparency
- Surge protection
- Low power consumption
- Stainless 316 housing
- Connect to one sensor, up to 32 sensors
- Optimized with RS-485 output
- Narrow beam with adjustable sensitivity
- Temperature Compensated
- No warmup mode, ready to measure with 1 sec.

## DIMENSIONS

Dimensions in  
Inches (mm)

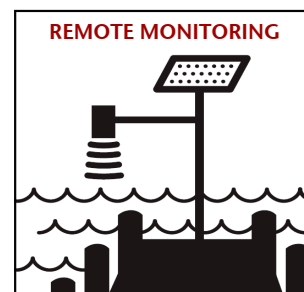
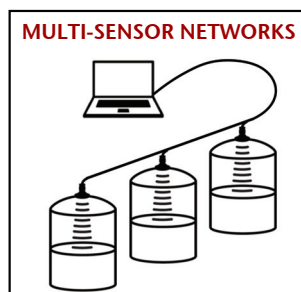
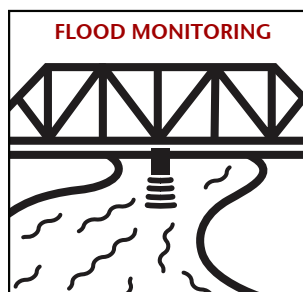


1.5 inch  
NPT thread



### NOTES:

- **Dimensions:** Inches (mm)
- **Mounting:** 1.5 in. NPT thread, top or bottom
- **Standard Cable:** 6.5 ft (2m)
- **Total Weight:** 22.6 oz (0.64 kg)



## SPECIFICATIONS

<b>Maximum Range</b>	30 feet (9.1 m)
<b>Optimum Range</b>	20 ft. (6.1 m)
<b>Deadband</b>	Typ. < 10 in. (254 mm)
<b>Beam Width</b>	7.5° 1° off axis @ -3db
<b>Configuration</b>	Stored in sensor's non-volatile memory
<b>Data Output</b>	Modbus, ASCII streaming, specials
<b>Transducer</b>	75 kHz, Ruggedized Piezoelectric
<b>Protection</b>	NEMA-4X, NEMA-6P, IP68
<b>Adjustment</b>	SenixVIEW PC Software
<b>Case Material</b>	316 Stainless Steel
<b>Temperature</b>	-40 to 158 F (-40 to 70 C)
<b>Humidity</b>	0 to 100% operating
<b>Compensation</b>	Selectable temperature Compensation
<b>Data Resolution</b>	0.0068 in. (0.172 mm) per count
<b>Repeatability</b>	Repeatability Nominal 0.2% of range @ constant temp. Affected by target, distance, environment
<b>Update Rate</b>	10 Hz (100 ms), Software adjustable; also affected by filter selections
<b>Modbus Protocol</b>	Modbus RTU, 9600 to 115200 baud, 8 data bits, 1 stop, no parity
<b>ASCII Protocol</b>	Five ASCII distance characters followed by Carriage Return; for single sensor connections only
<b>RS-485 Networks</b>	From 1 to 32 sensors can operate in an addressable multi-drop network

<b>Resolution</b>	Digital: 0.0034 inches (0.086 millimeters); Analog:4099 steps (0-10 VDC), 3279 steps (4-20 mA)
<b>Ready Time</b>	< 1 second after power application
<b>Cable</b>	2m standard length, potted into sensor body, PUR with shield and drain, other lengths available
<b>Conformance</b>	CE, RoHS, Surge protection exceeds IEC 61000-4-5
<b>Compatibility</b>	Compatible with the CONNEX 3D™ Cellular Monitor
<b>Target Requirements</b>	
<b>Objects</b>	Detects liquid surface, flat or curved objects. Surface must reflect ultrasound to sensor
<b>Distance Ranges (*)</b>	Affected by size, shape, orientation of target (sound level reflected back to sensor), environment Restrict use to Optimum Range when using over a wide range of environmental conditions
<b>Orientation</b>	Sensor should be oriented perpendicular to liquid surface for maximum reflection
<b>Optical</b>	Unaffected by target color, light, transparency or other optical characteristics

*Specifications are subject to change without notice.*

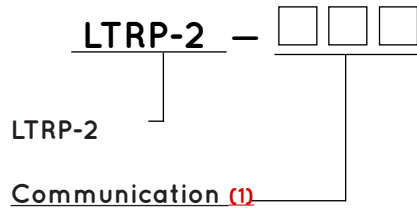
## Ordering Information

### FLO-CORP MODEL NUMBER BUILDER

For Assistance Call **877.356.5463**

Use the diagram below, working from left to right to construct your FLO-CORP Model Number. Simply match the category number to the corresponding box number.

**Example:** LTRP-2-485 Ranger Two™ Ultrasonic Level Transmitter (Up to 30ft) with RS-485 Communication Interface



- 232)** Serial RS-232 Interface (limited to single sensor connections)
- 485)** Serial RS-485 Interface (Allows addressable multi-sensor networks)

**Ordering Notes:**  
(1) Select the best probe type based on your requirements