

# RLI-80 Non-Contact Radar Level Sensor

- ▶ Measuring Range up to 49.2 ft (15 m)
- ▶ Accuracy:  $\pm 0.2$  in (5 mm)
- ▶ Measurement is Independent of Temperature, Pressure and Moisture Variations
- ▶ Minimum Dielectric Constant ( $\epsilon_r$ ) > 2
- ▶ 4–20 mA and Modbus® Outputs
- ▶ Temperature Range:  $-40^\circ\text{F}$  to  $+176^\circ\text{F}$  ( $-40^\circ\text{C}$  to  $+80^\circ\text{C}$ )
- ▶ Pressure: Full Vacuum to 43 PSI (3 bar)
- ▶ IP67 Protection
- ▶ Approvals: Intrinsically Safe, cULus, CE, ATEX/IECEX

The RLI-80 Non-Contact Radar Level Sensor is a no-moving parts continuous level transmitter for reliable performance in challenging OEM and industrial tank level applications. RLI-80 Non-Contact Radar comes standard with 4–20 mA, Modbus®, and Bluetooth® connectivity for configuration and setup.

The RLI-80 provides accurate level measurement in medias with a dielectric constant of 2 or greater. Constructed of chemically inert PVDF material and designed to withstand IP67 conditions, the RLI-80 withstands the harshest conditions. The 2" NPT mounting provides adaptability to be used in tanks as large as 49.2 ft (15 m). The RLI-80 is unaffected by changes in physical properties of the application such as pressure, temperature, or vapors.



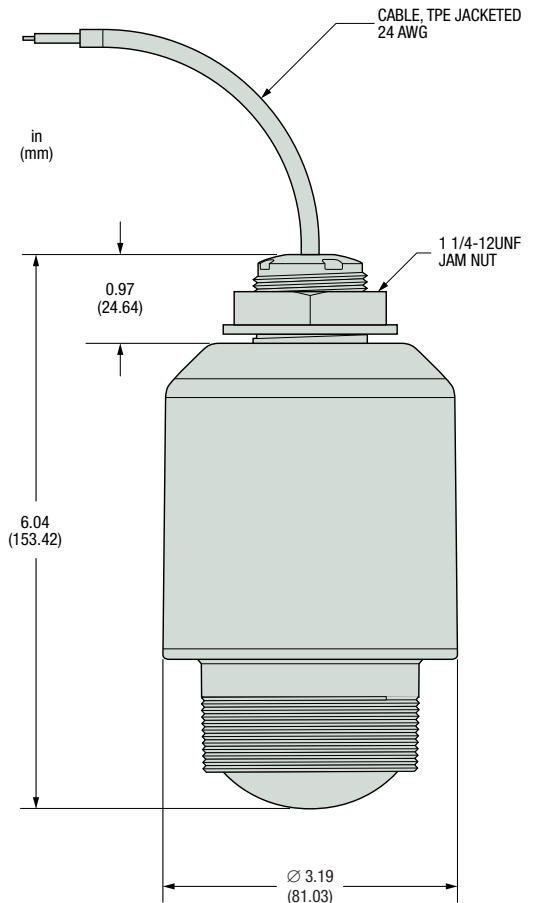
## Applications

- Water & Wastewater
- Food & Beverage Process Tanks
- Fuel Tank Farms
- Chlorination Systems
- Oil & Water Reclamation Systems
- Commercial Marine
- Cooling Towers
- Water Purification
- Power Generators
- Hydraulic Power Units
- Agriculture Tanks & Equipment

## Specifications

|                                  |  |
|----------------------------------|--|
| <b>Measuring Range</b>           | Up to 49.2 ft (15 m)   |
| <b>Accuracy</b>                  | $\pm 0.2$ in (5 mm)  |
| <b>Output</b>                    | 2-wire 4–20 mA or 4-wire Modbus  |
| <b>Configuration</b>             | Bluetooth® and Modbus®   |
| <b>Ingress Protection</b>        | IP67   |
| <b>Media Dielectric Constant</b> | ( $\epsilon_r$ ) > 2   |
| <b>Temperature Range</b>         | $-40^\circ\text{F}$ to $+176^\circ\text{F}$ ( $-40^\circ\text{C}$ to $+80^\circ\text{C}$ ) |
| <b>Pressure Range</b>            | Full Vacuum to 43 PSI (3 bar)  |
| <b>Frequency</b>                 | 80 GHz   |
| <b>Beam Angle</b>                | $8^\circ$  |
| <b>Process Connection</b>        | 2" NPT   |
| <b>Bracket Mounting</b>          | 1 1/4-12 Straight Thread (cable end)   |
| <b>Electrical Connection</b>     | 15', or 30' TPE Jacketed Cable   |
| <b>Supply Voltage</b>            | 24–36 VDC  |
| <b>Wetted Materials</b>          |  |
| Housing                          | PVDF   |
| Seal                             | FKM  |
| <b>Approvals</b>                 | Intrinsically Safe, cULus, CE, ATEX/IECEX  |

## Dimensions



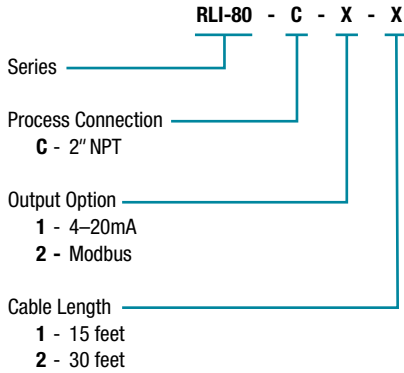
**Configuration & Setup**

- ▶ Wireless configuration via Bluetooth® or Modbus® connection to iOS or Android devices and Windows PCs
- ▶ Download the Gems Sensors Radar App from the Apple App Store or the Google Play Store



**How to Order**

Use the **bold** characters from the chart below to construct a product code.



**Accessories**

- ▶ For mounting onto walls and ceilings

| Accessories             | Order Code |
|-------------------------|------------|
| RLI-80 Mounting Bracket | 261977     |



The RLI-80 has a 1/4-12 UNF thread connection at the top of the sensor for attaching to a bracket

Bluetooth® is a registered trademark of Bluetooth SIG, Inc. in Kirkland, WA.  
 Modbus® is a registered trademark of Schneider Electric USA, Inc. in Palatine, IL.