Application
The intrinsically safe 26 GHz. pulse radar level transmitter provides continuous level measurement up to 32.8’ (10m) with a 4-20 mA analog and HART digital signal output, and is configured via its integral push button display module or WebCal software. The non-contact liquid level sensor is intended for chemical or water storage applications in above grade metal or reinforced concrete tanks or below grade tanks of any material. Select this sensor for easy process conditions with corrosive media, light agitation, condensation or vapor, and installation in a low-profile tank adapter or flange fitting. Typical applications include chemical bulk storage and tanker trucks.

Features
- PFA encapsulated antenna and mount for corrosive media
- Configuration via push button display or WebCal software
- 26 GHz. pulse radar is unaffected by vapor or condensation
- 12” (30cm) dead band enables utilization of the entire tank
- LCD displays level in feet or meters with percent of span bar
- Optional display mode indicates the echo signal return curve
- HART communication in point to point and multi-drop modes
- Fail-safe diagnostics with selectable signal fail-safe outputs
- Recognition, storage and rejection of false echo signal returns
- IP67 stainless enclosure with polycarbonate display window

Corrosion Resistance
The US produces 40 million tons of sulfuric acid per year that is widely used in oil refining, wastewater treatment, lead-acid battery and cleaning product applications. In higher concentrations, sulfuric acid is both extremely corrosive and vaporous. The non-contact LR11 sensor is an excellent choice for this application, as its 26 GHz. pulse radar measurement is unaffected by vapor, and the antenna and process mount are encapsulated in corrosion resistant PFA for years of reliable service. Select this sensor with confidence in corrosive, vaporous applications.
EchoPro® LR11
Pulse Radar Liquid Level Transmitter

Specifications
- **Range:** 12” to 32.8’ (30cm to 10m)
- **Frequency:** 26 GHz.
- **Accuracy:** ± 5mm
- **Dead band:** 12” (30cm)
- **Beam angle:** 22°
- **Configuration:** Push button; WebCal® PC Windows® USB® 2.0; HART 7 (pending)
- **Memory:** Non-volatile
- **Display type:** LCD, dot matrix
- **Display units:** Feet and meters
- **Display graph:** Echo signal curve
- **Supply voltage:** 21.6 to 26.4 VDC
- **Max. consumption:** 22.5 mA
- **Signal output:** 4-20 mA, two-wire, HART 7
- **Signal invert:** 4-20 mA, 20-4 mA
- **Signal fail-safe:** 3.9 mA, 20.5 mA, 22 mA
- **Process temp.:** F: -40° to 266°
- **Temp. comp.:** Automatic
- **Storage temp.:** F: -40° to 176°
- **Pressure:** -14.5 to 43.5 psi (-1 to 3 bar)
- **Enclosure rating:** IP67
- **Encl. material:** 316L stainless steel w/silicone gasket and PBT FR neck
- **Encl. window mat.:** Polycarbonate
- **Conduit entrance:** (1) 1/2” NPT connector
- **Antenna material:** PFA
- **Process mount:** 1-1/2” NPT
- **Classification:** Intrinsically safe
- **Approvals (pending):** ATEX & IIG Ex ia II C T6...T3 Ga
  IEC Ex ia IIC T6...T3 Ga
  CSA Class I, Div 1, Groups A, B, C & D; Class II, Groups E, F & G; Class I
  Zone 0 IIC & Zone 20 Group IIC
- **Certification:** FCC, CE, RoHS
- **Compliance:** FCC

Level Indicator
- **DATALOOP™** Intrinsically Safe Level Indicator
  - FM and CSA approved intrinsically safe, the loop powered level indicator displays engineering units connected in series with one 4-20 mA level transmitter. Select the LI25-2001 level indicator for hazardous applications with an intrinsically safe sensor. For field mount installation, add a single or two indicator NEMA box.

Dimensions

Fittings
- **REDUCER BUSHINGS**
  - LM53-2400 2” x 1.5” NPT, PVC, schedule 40
  - LM53-2800 2” x 1.5” NPT, PVC, schedule 80
  - LM53-3800 3” x 1.5” NPT, PVC, schedule 80

- **ANSI FLANGES**
  - LM53-3850 3” x 1.5” NPT, CPVC, schedule 80
  - LM53-4850 4” x 1.5” NPT, CPVC, schedule 80
  - LM53-6850 6” x 1.5” NPT, CPVC, schedule 80

NOTES
1) Sensors are offered with or without a LI99-3001 Fob USB adapter. If you want to configure the sensor using our free WebCal software, you need one Fob, which can be used with any EchoPro sensor.
2) If you want help in selecting a sensor for your application, please go to our website and submit a Level Questionnaire. An engineer will review your requirements and suggest a product solution via email.
3) Install the sensor using Flowline installation fittings or equivalents.