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 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
- 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.
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
Memory: Non-volatile
Display type: LCD, dot matrix
Display units: Feet and meters
Display bar: Percent of span
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
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°
C: -40° to 130°
Temp. comp.: Automatic
Storage temp.: F: -40° to 176°
C: -40° to 80°
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: ATEX II2G 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, Div 1, Groups E, F & G; (T6...
T3); Class I Zone 0 AEx ia IIC (T6...T3)
Ga & Zone 20 AEx ia IIC (T76°C to
T146°C) Da; Ex ia IIC (T6...T3) Ga & Ex
ia IIC (T76°C to T146°C) Ga
Certification: FCC
Compliance: CE, RoHS

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.

Dimensions

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.

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

Ordering

FOB USB ADAPTER (1) (2) (3)
0 Without Fob
1 With Fob

LI99-3001 Fob USB Adapter