

# EchoPulse® LR20

Pulse Radar Liquid Level Transmitter



## Application

The general purpose 26 GHz. pulse radar transmitter provides continuous level measurement up to 65.6' (20m) with a 4-20 mA signal output, and is configured via its integral push button display module. The non-contact liquid level sensor is intended for chemical storage or process applications in above or below grade tanks of any material. Select this sensor for challenging process conditions with corrosive media, light surface foam or agitation, higher temperature or pressure, condensation or vapor, and installation in a flange fitting. Typical applications include bulk storage and process tanks.



LR20-0310-30 Shown

## Features

- 316L antenna with PTFE inner shield for corrosive media
- Simple configuration via integral push button display module
- 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
- Auto-temperature compensation for accurate measurement
- Fail-safe diagnostics with selectable signal fail-safe outputs
- Recognition, storage and rejection of false echo signal returns
- Rugged IP67 aluminum enclosure with polycarbonate window

## Success

Hydrochloric acid is an inorganic acid that's widely used in industrial and commercial applications. Both highly corrosive and vaporous, it's difficult to measure. Here, a LR20 is flange mounted on a 18' HCL storage tank at a steel fabrication company. Its 26 GHz. pulse radar measurement is unaffected by the extreme vapor, and the antenna's PTFE inner shield, provides reliable corrosion resistance.



DS301750 REV B2

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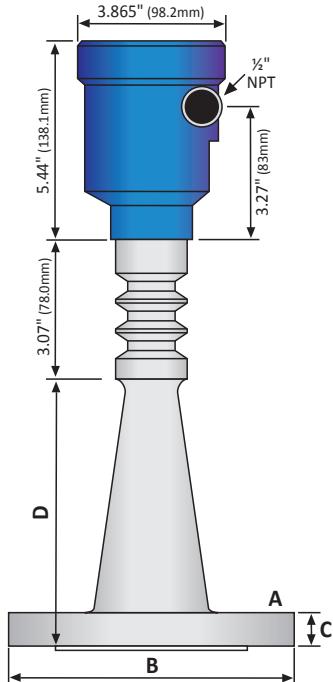
## Specifications

<b>Range:</b>	12" to 65.6' (30cm to 20m)
<b>Frequency:</b>	26 GHz.
<b>Accuracy:</b>	± 3mm
<b>Dead band:</b>	12" (30cm)
<b>Beam angle:</b>	- 30: 12° - 40: 8°
<b>Configuration:</b>	Push button
<b>Memory:</b>	Non-volatile
<b>Display type:</b>	LCD, dot matrix
<b>Display units:</b>	Feet and meters
<b>Display bar:</b>	Percent of span
<b>Display graph:</b>	Echo signal curve
<b>Supply voltage:</b>	16-26 VDC
<b>Max. consumption:</b>	22.5 mA
<b>Signal output:</b>	4-20 mA, two-wire
<b>Signal invert:</b>	4-20 mA, 20-4 mA
<b>Signal fail-safe:</b>	3.9 mA, 20.5 mA, 22 mA
<b>Process temp.:</b>	F: -40° to 302° C: -40° to 150°
<b>Temp. comp.:</b>	Automatic
<b>Storage temp.:</b>	F: -40° to 176° C: -40° to 80°
<b>Pressure:</b>	-14.5 to 72 psi (-1 to 5 bar)
<b>Enclosure rating:</b>	IP67
<b>Encl. material:</b>	Aluminum w/silicone gasket
<b>Encl. window mat.:</b>	Polycarbonate
<b>Conduit entrance:</b>	(1) 1/2" NPT connector (1) M20 x 1.5 plug
<b>Antenna material:</b>	316L w/PTFE inner shield
<b>Process mount:</b>	- 30: 3" flange (ANSI) - 40: 4" flange (ANSI)
<b>Classification:</b>	General purpose
<b>Certification:</b>	cTUVus FCC
<b>Compliance:</b>	CE, CRN, RoHS

## Dimensions

### ANTENNA / FLANGE

P/N	-30	-40
A	3" ANSI	4" ANSI
B	7.5" (190.5mm)	9.0" (228.6mm)
C	0.88" (22.3mm)	0.88" (22.3mm)
D	6.5" (165mm)	8.0" (203mm)



Echo Signal Return Curve Shown

## Compatible Products



LI23

DATALOOP™

Level Indicator



LI55

DATAVIEW™

Level Controller

## Ordering

LR20-0310-  0

### FLANGE SIZE (1)

- 3 3" ANSI
- 4 4" ANSI



### NOTES

- 1) 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.