# EchoWave® LG10/11

Guided Wave Radar Level Transmitter



## **Application**

Offered with three probe types, the general purpose guided wave transmitter provides continuous level measurement up to 18' (5.5m) with a 4-20 mA signal output, and is configured via our free WebCal software. This liquid level sensor is applied in non-turbulent environments with foam, vapor, condensation, temperature or pressure. Select the rod or cable probe for use with clean, dirty, coating or crystallizing liquids in above grade metal or below grade tanks of any material. Select the coaxial probe for use with clean, non-coating or crystallizing liquids in above or below grade tanks of any material. Standard probe lengths may be user cut in the field. The sensor is intended for bulk storage, day tank, skid or machine, IBC or drum, process tank or waste sump applications.











## **Features**

- Rugged 316L stainless steel probe and process mount
- Simple configuration via WebCal™ software
- Guided Wave Radar is unaffected by vapor, vacuum, foam, condensation, high temperature or pressure
- 4" (10cm) dead band enables utilization of the entire tank
- Fail-safe diagnostics with selectable signal outputs
- Disturbance scanning that maps the recognition, storage and rejection of false echo signal returns
- Rugged NEMA 4 aluminum enclosure

## Success

Sintering is a process of compacting and forming a solid mass of material by extreme heat and / or pressure without melting it to the point of liquefaction.



It is used in the manufacturing process of metals, ceramics and other materials. Ovens that have temperatures exceeding 400 degrees require a system to prevent overheating during manufacturing. Here, a LG10 is mounted on an 8' cooling tower sump at a metal manufacturing plant. The guided wave radar measurement is unaffected by the condensation, agitation, foam and the high temperature environment.



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## **Specifications**

Range: Rod / Coaxial: 9.8' (3.0m)

Cable: 18.0' (5.5m)

Accuracy: ± 3mm

Dead band: Top 4" (10cm)

Bottom 2" (5cm)

Repeatability: <2mm Resolution: <2mm

Configuration: WebCal™ PC Software

Supply voltage: 10-30 VDC

Max. consumption: <50mA at 24 VDC

Signal output: 4-20mA, 3-wire

Signal fail-safe: 4mA, 20mA, 21mA, 22mA or

Hold Last Value

Dielectric: >1.8

Process temp.: F: -40° to 302°

C: -40° to 150°

Ambient temp.: F: -40° to 185°

C: -40° to 85°

Pressure: -14.5 to 250 psig

(-1 to 17 bar)

Enclosure rating: NEMA 4
Encl. material: Aluminum

Feed through mat.: 316L SS and PEEK

Conduit entrance: (1) 1/2" NPT connector

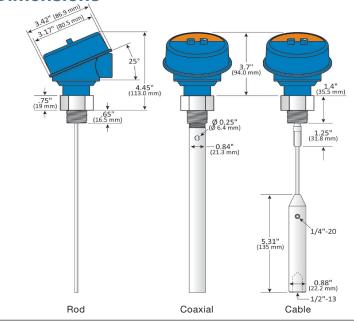
Probe material: Rod / Coaxial: 316L SS

Cable: 316 SS

Process mount: 3/4" NPT or 3/4" G
Classification: General purpose
Certification: CSA / NRTL
Compliance: CE, CRN, RoHS

With Fob

### **Dimensions**



# **Fittings**

#### **REDUCER BUSHINGS (NPT)**

#### LM51-1S00

1" x 3/4", 316 Stainless Steel

#### LM51-2S00

2" x 3/4", 316 Stainless Steel

#### LM51-1800

1" x 3/4", PVC, Sch 80



LM51-2S00



LM51-1800

# Configuration

## WEBCAL





LI99-1001

Echowave is configurable via our free WebCal™ PC software and Fob USB adapter. The sensors are offered with and without Fobs. Download your free copy of WebCal™ at www.flowline.com

#### **Ordering** 3 - 0 LG<sub>1</sub> (1)(4) RANGE (2) 9.8' (3m) 18.0' (5.5m) **PROBE** TYPE (3) Rod Probe 0 Coaxial Probe Cable Probe 2 PROBE MATERIAL 316L Stainless Steel Galvanized Steel (Coaxial Probe Only) **PROCESS MOUNT** 0 3/4" NPT 3/4" G Thread **FOB USB ADAPTER (5)** No Fob 0

#### **NOTES**

- To select a radar sensor for distributor purchase, please go to www.flowline.com/LAQ and submit a level application questionnaire for review. You will receive a suggested part number and comments based on your requirements.
- 2) Available only in the following configurations:

Rod: LG10-00 \_ 3 - 0 \_ Coaxial: LG10-1\_ \_ 3 - 0 \_ Cable: LG11-20 \_ 3 - 0 \_

- Rod and Cable Probes must be installed in metal or reinforced concrete tanks. Coaxial Probes can be installed in tanks constructed from any material.
- Probes are shipped in standard lengths (Rod / Coaxial: 3m, Cable: 5.5m). To order a shorter probe, indicate the dimension after the part number, i.e. LG10-0003-01-XX.
- The Level sensor is configured via our WebCal software and one Li99-1001 Fob USB adapter. The level sensor is offered with and without a Fob. The Fob is universal and can be used to configure any WebCal compatible product. WebCal is a free download from our website, www.flowline.com.