

## MCG 1800 Process Radar Gauge

### Process Radar

The MCG 1800 is a non-contact, loop powered pulse radar level gauge employing L&J's state of the art Infrared technology. It is ideally suited for all process industries including chemical, petrochemical, pharmaceutical, water and waste water treatment, food and beverage and refining, among others. It is the preferred alternative to other level devices which are less reliable and demand maintenance. An on-board program "wizard" simplifies calibration and walks the operator through 5 easy interactive steps.

### Infrared Capability

L&J Engineering's patented Infrared technology provides the ability to setup, calibrate, diagnose and maintain the MCG 1800 by using the intrinsically safe L&J Engineering MCG 2150 Remote Calibrator along with the local or remote LCD display with infrared pickup.

### All Environments

The 1800 withstands corrosive, caustic, acidic, or any other harsh environment. Different antenna configurations accommodate various process parameters like surface conditions, measuring distance, dielectric constant of product, and internal obstructions.

### Multiple Protocol

The standard unit provides a 2-wire 4-20mA output. Optional outputs include L&J Tankway, HART, Profibus DP, and Fieldbus. Other protocols are also available.

### Input/Output

Optional temperature inputs and relay outputs are available.

### Ground Level Display

Ground level display is available which provides full calibration and programming functionality. This eliminates the need to access the radar gauge by providing an identical display at a convenient location for facility personnel.



## Features

- Microwave Pulse Radar Technology
- 6.3 GHz Low Frequency Loop Powered Radar
- FM and ATEX Approved
- Ultra Low Power
- Local Display With IR Programmability
- Analog 4-20mA and Digital HART Outputs
- Calibration Via MCG 2150 or HART Handheld
- Antennas Tailored for Specific Applications

## Applications

Liquid level gauging of virtually any corrosive, contaminated or viscous product including;

|                |               |                  |                              |
|----------------|---------------|------------------|------------------------------|
| oil            | chemicals     | gasoline         | polyethylene                 |
| tar            | molten sulfur | phosgene         | pharmaceuticals              |
| latex          | paraffin      | titanium dioxide | cryogenic or liquefied gases |
| limestone rock | chocolate     | molten aluminum  |                              |

## Specifications

### Measuring Principle:

Pulse

### Frequency:

6.3GHZ

### Accuracy:

+/- 10MM

### Resolution:

1 mm

### Supply Volt:

20-36VDC, 110 VAC

### Range:

0-75 feet (23m) standard.

Up to 180 feet (55m) optional

### Radar Power:

Less than 1mw (0dBm)

### Electronics Temperature:

-40° F to 150° F (-40° C to +65° C)

### Product Temperature:

-148° F to 482° F (-100° C to 250° C)

### Local Display:

2 line x16 Character LCD

### Optional Digital Communications:

HART, Profibus DP, Fieldbus, L&J Tankway

### Max. Pressure:

150PSIG (or 300PSIG optional)

### Construction:

Cast Aluminum (Standard)

### Mounting:

1 1/4" NPT Standard

### Weight:

8 lbs. (Aluminum)

### Approvals:

FM Explosion Proof, Class I, Div. 1, Group B, C & D

ATEX Flameproof, II 1/2 G Ex ma/d IIC T5

Tamb= 40°C to +65° C

### Antennas:

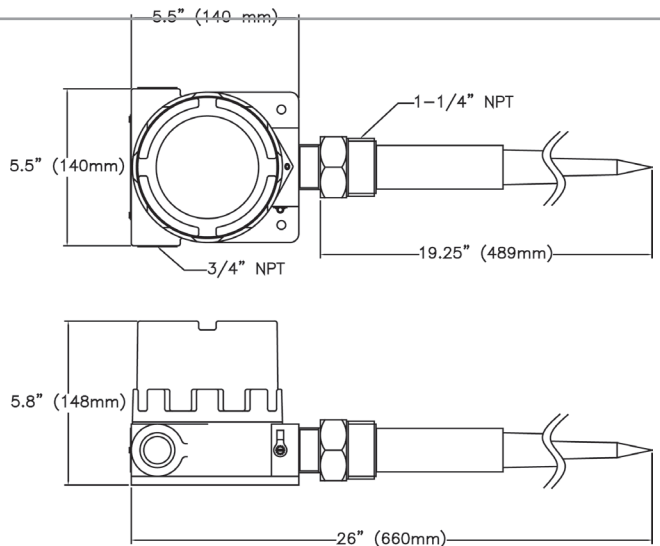
Cone, Rod, Stilling Well, Guided Wire  
(others available)

### Optional Input/Outputs:

Temperature Input

4 Relay Outputs

## Dimensions



All designs subject to change. Certified dimensions and specifications available upon request.

## Typical System Layout

