

**Magnetostrictive technology**

**Accuracy of +/- 1/8" with a high resolution (+/- 1/32") option available**

**Up to 25' measuring range**

**4-20 mA or 1-5 Volt Output**

**Combines with MCG 1010 for local indication and digital level transmission**

**High pressure applications**

## The L&J Engineering MCG 1030 Analog Output Level Probe

### Accurate and Reliable

The construction of this probe makes it ideal for severe service installation where reliable performance is essential. The explosion-proof housing is approved for use in Class I, Division 1, Group C and D environments, allowing the MCG 1030 to be used in application where the distance from the probe to the receiver is too great to utilize an intrinsically-safe barrier.

### Multi-Purpose

The operating length of the probe (up to 25 feet) permits installation into nearly any type of liquid storage vessel: aboveground or underground. The standard mounting is accomplished with a 7/8" NPS connector. Flanged connections are also available.

### Level Measurement and Point Switch...All in One

Because of the probe's packaging and high degree of repeatability, the MCG 1030 can provide both level gauging data and act as a point switch for process vessels overspill alarms. When interfaced to an L&J Engineering MCG 1200 or MCG 1010 Receiver, the level data can be viewed at tankside.

### Proven Technology

The magnetostrictive technology of the MCG 1030 has been proven to be extremely reliable. The probe is comprised of a wave guide, a float with permanently-embedded magnets, a motion or stress sensing device, and a probe housing.

## Applications

**Level gauging on LPG bullet-style tanks**

**Level control in the plating process**

**Level measurement of waste water treatment tanks**

**Point switch output on chemical process vessels.**

**Inventory control of crude oil collection tanks**

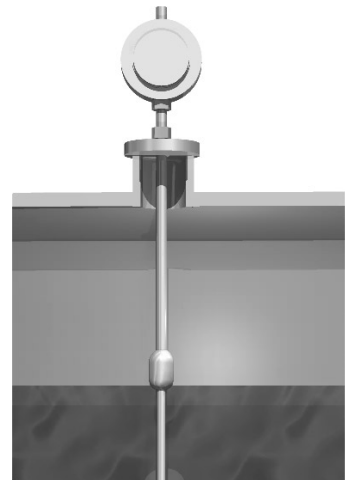
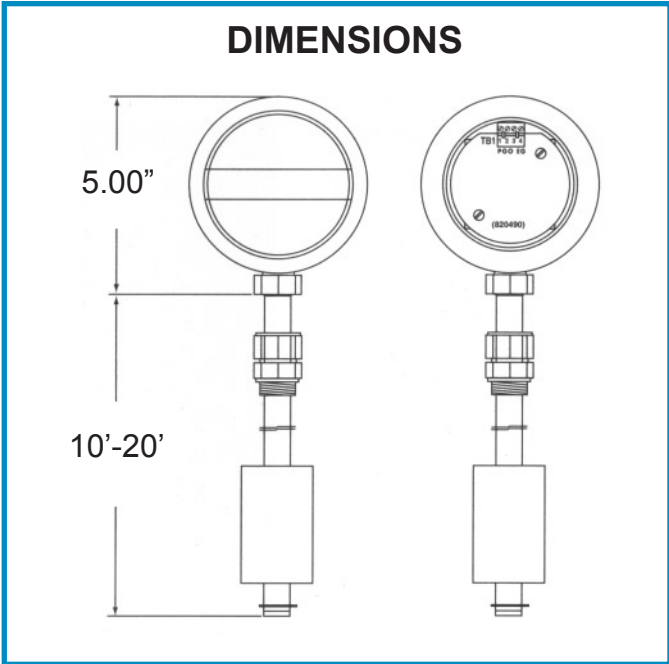
**High-level alarm for sump and slop tanks**

### SPECIFICATIONS

Output:	4-20mA or 1-5 Volt
Resolution:	Standard +/- 1/8" (Optional +/- 1/32")
Accuracy:	+/- 1/8" (optional +/- 1/32")
Tank Connection:	7/8"NPS, flange (opt.)
Standard Float:	2" diameter, 316 SS Float
Power Requirements:	24VDC
Measuring Range:	Up to 25 feet
Surge Protection:	Yes
Probe Construction:	316SS (Other Materials Available)
Safety Approvals:	CSA-Explosion proof Class I, Div.1 Groups C&D CENELEC / ATEX II 1/2 G, EEX d IIB T6
Intrinsically Safe:	Optional
Installation Methods:	Inside Tank through riser or flanged opening. Outside tank via bridal or float chamber
Local Display Available via MCG 1200SFI or MCG 1010SSI	

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

### DIMENSIONS



### INFORMATION REQUIRED TO ORDER:

**MCG 1030 - AB - CD - EF - GH - IJ**

TANK HEIGHT, PROBE LENGTH \_\_\_\_\_

MOUNTING OPTIONS \_\_\_\_\_

SIGNAL OUTPUT \_\_\_\_\_

SIGNAL INPUT \_\_\_\_\_

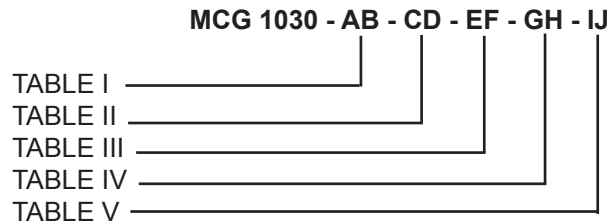
FLOAT \_\_\_\_\_

#### MCG 1030 - ANALOG OUTPUT PROBE

Includes: Single nystrophenyl float for level only, 316 stainless steel probe material, explosion proof housing to Class I, Div. 1 Groups C&D. CSA Approved.

#### MODEL NUMBER SELECTION:

The model number will have a base number, **MCG 1030** followed by 10 digits. These digits will represent 5 option tables.



**TABLE I - TANK HEIGHT** Specify exact tank height on order  
*Probe will be 4 inches taller than the height of the tank*

#### TABLE I - PROBE LENGTH

##### AB

- |  |                             |
|--|-----------------------------|
| 21 - 316SS Probe, Custom Length          | 42 - 316SS EP, 2'           |
| 22 - 316SS Probe, 2'                     | 43 - 316SS EP, 3'           |
| 23 - 316SS Probe, 3'                     | 44 - 316SS EP, 4'           |
| 24 - 316SS Probe, 4'                     | 45 - 316SS EP, 5'           |
| 25 - 316SS Probe, 5'                     | 46 - 316SS EP, 6'           |
| 26 - 316SS Probe, 6'                     | 47 - 316SS EP, 7'           |
| 27 - 316SS Probe, 7'                     | 48 - 316SS EP, 8'           |
| 28 - 316SS Probe, 8'                     | 49 - 316SS EP, 9'           |
| 29 - 316SS Probe, 9'                     | 50 - 316SS EP, 10'          |
| 30 - 316SS Probe, 10'                    | 51 - 316SS EP, 11'          |
| 31 - 316SS Probe, 11'                    | 52 - 316SS EP, 12'          |
| 32 - 316SS Probe, 12'                    | 53 - 316SS EP, 13'          |
| 33 - 316SS Probe, 13'                    | 54 - 316SS EP, 14'          |
| 34 - 316SS Probe, 14'                    | 55 - 316SS EP, 15'          |
| 35 - 316SS Probe, 15'                    | 56 - 316SS EP, 16'          |
| 36 - 316SS Probe, 16'                    | 57 - 316SS EP, 17'          |
| 37 - 316SS Probe, 17'                    | 58 - 316SS EP, 18'          |
| 38 - 316SS Probe, 18'                    | 59 - 316SS EP, 19'          |
| 39 - 316SS Probe, 19'                    | 60 - 316SS EP, 20'          |
| 40 - 316SS Probe, 20'                    | 99 - Custom Length/Material |
| 41 - 316SS Electro Polish, Custom Length |                             |

#### TABLE II - MOUNTING OPTIONS

##### CD

- 00 - Carbon Steel, 7/8" NPS Swagelock
- 01 - Carbon Steel, 1" NPT Swagelock
- 09 - Carbon Steel Housing Only
- 20 - SS304, 7/8" NPS Swagelock
- 21 - SS304, 1" NPT Swagelock
- 29 - SS304 Housing Only
- 99 - Custom

**NOTE:** Use options 09 and 29 when strapping probe external to bridal or float chamber.  
This configuration requires special floats. Consult Factory

#### TABLE III - SIGNAL OUTPUT

##### EF

- 10 - 24VDC/1-5V Out
- 11 - 24 VDC/4-20 MA Out
- 12 - 24VDC/1-5V Out (for cathodic application)
- 13 - 24VDC/4-20mA Out (for cathodic application)

#### TABLE IV - SIGNAL INPUT

##### GH

- 00 - None

#### TABLE V - FLOAT (Standard float for 2" opening)

##### IJ

- 20 - Nitrophenyl S.G. > .45, < 100 PSI
- 40 - SS316 S.G. > .65, < 200 PSI
- 41 - SS316 S.G. > .65, < 500 PSI
- 99 - Custom

**NOTE:** Standard model is CSA approved. Specify on order if CENELEC / ATEX approval is required.