

Approved for all UST EPA requirements

High resolution of +/- .001"

Two separate levels simultaneously measured

Density measurement with integral pressure transducer

Average temperature with internal sensors

The L&J Engineering MCG 8150B & MCG 8190A Magnetostrictive Level Probes

An Integrated Approach

The MCG 8150B/8190A Magnetostrictive Level Probes are highly accurate, continuous measurement devices that are easy to install and maintain. The compact design allows for the collection and transmission of an impressive amount of data. In addition to measuring two levels (product and interface or two interfaces), five (5) temperature sensors are embedded in the probe at different levels to provide average temperature measurement of the product.

Versatility

With rigid probes available in lengths up to 24 feet (7.2 m) and flexible probes in lengths up to 50 feet (15.2 m), the MCG 8150B probe can be installed in nearly any type of storage or process vessel; aboveground or underground. Mounting options include a 4" riser or a 7/8" NPT connector. Flanged connections are also available.

Level Measurement and Point Switch...All in One

Because of the probe's packaging and its high degree of resolution (+/- .001"), the MCG 8150B can provide both level gauging data and act as a point switch for process vessels or overspill alarms.

Density Calculation

The MCG 8190A is a specialized version of the MCG 8150B, adding the ability to measure the density of the stored product and use this information to accurately calculate corrected volume. The density measurement is gathered by a pressure sensor mounted directly to the stainless steel housing of the probe itself. The collected data is then analyzed to provide the most comprehensive and accurate measurement available.

Proven Technology

The magnetostrictive technology that is employed in the MCG 8150B has been proven to be extremely reliable. The probe is comprised of a wave guide, one or two floats with permanently-embedded magnets, a motion or stress sensing device, and a probe housing. Together, these components measure the level of product in a vessel through a simple physical property known as the Wiedemann Effect.

Applications

Only system approved for leak detection in tanks up to 150,000 gallons

Can be used in various types of storage or process vessel; above or underground

Custody transfer on products such as diesel fuel

Level measurement on food and beverage process tanks

Level control on chemical process vessels

STANDARD FEATURES

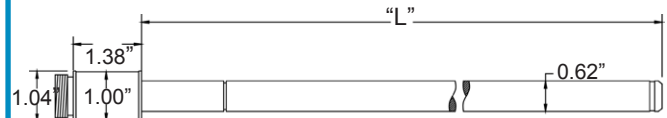
The MCG 8150B/8190A Series Level Sensing Probe is a permanently installed in-tank sensor which is equipped with the following features:

- 2 Precision Weighted Floats
- Standard 4" Riser Mount with Other Sizes Available
- Wiring to Junction Box
- Stainless Steel Probe
- Aluminum Housing at Head

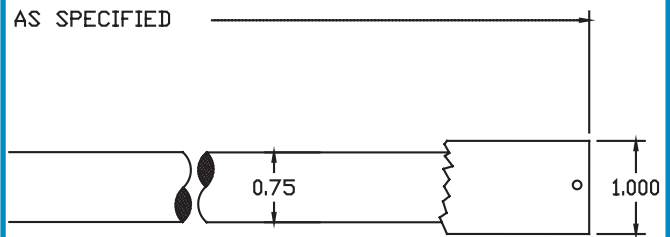
SPECIFICATIONS

Operating Principle:	Magnetostrictive Sensing
Communication:	L&J Tankway
Level Resolution:	.001 inch
Temperature Sensing:	5 Temp. Detectors
Temperature Resolution:	.01°F
Enclosure Size:	Varies with Tank Diameter
Pipe Gauge:	
8150B	5/8" OD 18GA., 316 SS or Kynar
8190A	3/4"
Approvals:	UL Listed 2" or 4" Floats available

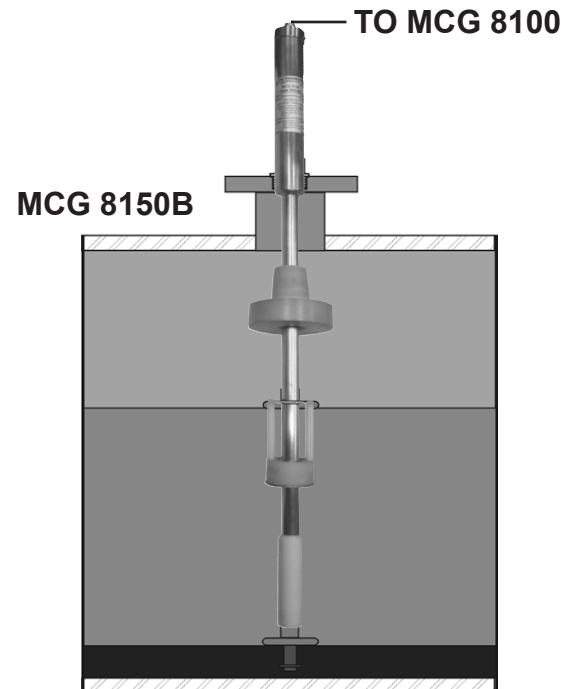
All designs subject to change. Certified dimensions and specifications available upon request.



MCG 8150B



MCG 8190A



INFORMATION REQUIRED TO ORDER:

MCG 8150B - AB - CD - EF

TANK HEIGHT IN FEET _____
 INTERSTITIAL CAPABILITIES _____
 OPENING SIZE AND FLOAT MATERIAL _____

MCG 8190A - ABC - DE - FG - HI

TANK HEIGHT IN FEET _____
 INTERFACE _____
 FLOAT SIZE/TYPE _____
 CONNECTION/OPENING _____

MCG 8150B MAGNETOSTRICTIVE LEVEL PROBE

Includes: Stainless steel magnetostrictive probe with two (2) nitrophenyl floats and 5 RTDs. Up to 50 feet (15.2 m). Riser cap. Mounts into 4" riser pipe. (Other mountings available).

MODEL NUMBER SELECTION:

The model number will have a base number, **MCG 8150B**, followed by six digits. These digits will represent three option tables.

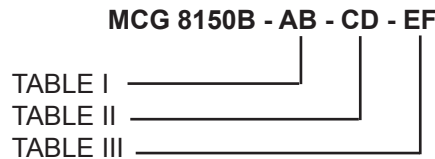


TABLE I - TANK HEIGHT IN FEET

**Probe will be 4 inches taller than the height of the tank*

AB - Rigid Probes (2'-24')

02 - 2' Tank (0.6 m)	14 - 14' Tank (4.2 m)
04 - 4' Tank (1.2 m)	15 - 15' Tank (4.5 m)
05 - 5' Tank (1.5 m)	16 - 16' Tank (4.8 m)
06 - 6' Tank (1.8 m)	17 - 17' Tank (5.1 m)
07 - 7' Tank (2.1 m)	18 - 18' Tank (5.4 m)
08 - 8' Tank (2.4 m)	19 - 19' Tank (5.7 m)
09 - 9' Tank (2.7 m)	20 - 20' Tank (6.0 m)
10 - 10' Tank (3.0 m)	21 - 21' Tank (6.3 m)
11 - 11' Tank (3.3 m)	22 - 22' Tank (6.6 m)
12 - 12' Tank (3.6 m)	23 - 23' Tank (6.9 m)
13 - 13' Tank (3.9 m)	24 - 24' Tank (7.2 m)

AB - Flexible Probes (25'-50')

25 - 25' Tank (7.3 m)	38 - 38' Tank (11.6 m)
26 - 26' Tank (7.9 m)	39 - 39' Tank (11.9 m)
27 - 27' Tank (8.2 m)	40 - 40' Tank (12.2 m)
28 - 28' Tank (8.5 m)	41 - 41' Tank (12.5 m)
29 - 29' Tank (8.8 m)	42 - 42' Tank (12.8 m)
30 - 30' Tank (9.1 m)	43 - 43' Tank (13.1 m)
31 - 31' Tank (9.4 m)	44 - 44' Tank (13.4 m)
32 - 32' Tank (9.7 m)	45 - 45' Tank (13.8 m)
33 - 33' Tank (10.1 m)	46 - 46' Tank (14.0 m)
34 - 34' Tank (10.4 m)	47 - 47' Tank (14.3 m)
35 - 35' Tank (10.7 m)	48 - 48' Tank (14.6 m)
36 - 36' Tank (10.9 m)	49 - 49' Tank (14.9 m)
37 - 37' Tank (11.3 m)	50 - 50' Tank (15.2 m)

**For larger size tanks, consult factory.*

TABLE II - 1 OR 2 LEVELS / INTERSTITIAL CAPABILITIES

CD

- 01 - Product Level & BS&W With Interstitial Capability (shared interface)
- 02 - Product Level & BS&W Without Interstitial Capability
- 12 - Product Level Only

TABLE III - OPENING SIZE AND FLOAT MATERIAL *

EF

- 02 - 2" Nitrophyl Floats/Opening (316 S.S. Probe)
- 03 - 3" Nitrophyl Floats/Opening (316 S.S. Probe)
- 04 - 4" Nitrophyl Floats/Opening (316 S.S. Probe)
- 12 - 2" Stainless Steel Floats/Opening (316 S.S. Probe)
- 13 - 3" Stainless Steel Floats/Opening (316 S.S. Probe)
- 14 - 4" Stainless Steel Floats/Opening (316 S.S. Probe)
- 22 - 2" Monel Floats/Opening (Monel Probe)
- 23 - 3" Monel Floats/Opening (Monel Probe)
- 24 - 4" Monel Floats/Opening (Monel Probe)

* For other materials, consult factory.

MCG 8190 MAGNETOSTRICTIVE LEVEL PROBE WITH PRESSURE SENSOR

Includes: Stainless steel magnetostrictive probe with two (2) urethane floats, pressure sensor and 5 RTDs. Riser cap.

MODEL NUMBER SELECTION:

The model number will have a base number, **MCG 8190A**, followed by nine digits. These digits will represent four option tables.

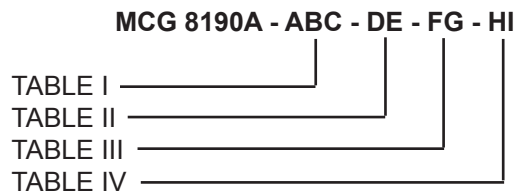


TABLE I - TANK HEIGHT IN FEET

**Probe will be 4 inches taller than the height of the tank*

ABC

- 036 - 3' Tank (0.9 m)
- 048 - 4' Tank (1.2 m)
- 060 - 5' Tank (1.5 m)
- 072 - 6' Tank (1.8 m)
- 084 - 7' Tank (2.1 m)
- 096 - 8' Tank (2.4 m)
- 108 - 9' Tank (2.7 m)
- 120 - 10' Tank (3.0 m)
- 132 - 11' Tank (3.3 m)
- 144 - 12' Tank (3.6 m)
- 156 - 13' Tank (3.9 m)
- 168 - 14' Tank (4.2 m)
- 180 - 15' Tank (4.5 m)
- 192 - 16' Tank (4.8 m)

TABLE II - INTERFACE

DE

- 00 - Pressure Interface (Standard)

TABLE III - FLOAT SIZE / TYPE*

FG

- 00 - 3.75" Urethane Floats (Standard)
- 01 - 2" Float

* For other materials, consult factory.

TABLE IV - CONNECTION / OPENING

HI

- 00 - 4" Riser (Standard)