

MCG 8140 Wireless Magnetostrictive Level Probe

An Integrated Approach

The MCG 8140 Wireless Magnetostrictive Level Probe is a highly accurate, continuous measurement device that is easy to install and maintain. The MCG 8140 combines our highly reliable magnetostrictive technology with our wireless Spread Spectrum Technology (frequency hopping) to provide both highly accurate, reliable level data transmission without the need of any power or signal wire. The MCG 8140's compact design allows for the collection and transmission of an impressive amount of data. In addition to measuring two levels (product and interface), five temperature sensors are embedded in the probe at different levels to provide average temperature measurement of the product. With its flexible probe available in lengths up to 70 feet (15.2 meters), the MCG 8140 Wireless Magnetostrictive Level Probe can be installed in nearly any type of storage or process vessel; aboveground or underground. Standard mounting options can accommodate 2", 3", and 4" openings. Flanged connections are also available.

Wireless Technology

The MCG 8140 features an integrated radio and antenna design eliminating hardwire cable and conduit connections to the control room. The wireless Spread Spectrum Technology provides a transparent, wireless RF link to the MCG 5102 Wireless Base Station connected to your gauging system of choice such as the MCG 3900 Inventory Management System. The wireless technology is compatible with all existing L&J protocols and many other standard protocols.

Level Measurement & Point Switch...All in One

Because of the probe's packaging and its high degree of resolution (+/- .001"), the MCG 8140 can provide both level gauging data and act as a point switch for process vessels or overspill alarms.

Standalone/Low Power/Cost Effective

The battery powered operation of the MCG 8140 allows it to act as a standalone, cost effective level gauging solution. If field power to the tank farm were to fail there would be no effect on the MCG 8140 because of this. The power draw of the MCG 8140 is minimal so constant battery changing and servicing is not required.

Proven Technology

The magnetostrictive technology that is employed in the MCG 8140 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.



Features

- Wireless Technology
- Battery Operation
- High resolution of +/- .001"
- Two Separate Levels Simultaneously Measured
- Average Temperature with Internal Sensors

Applications

- Can be used in various types of storage or process vessel; above or underground
- Level measurement on food and beverage process tanks
- Level control on chemical process vessels
- Stand-alone operation due to battery power & wireless data transmission

Specifications:

Operating Principle:
Magnetostrictive Sensing

Temperature Resolution:
.01°F

Communication:
Wireless

Floats:
2" or 3" Polyurethane or Stainless Steel Floats
Available

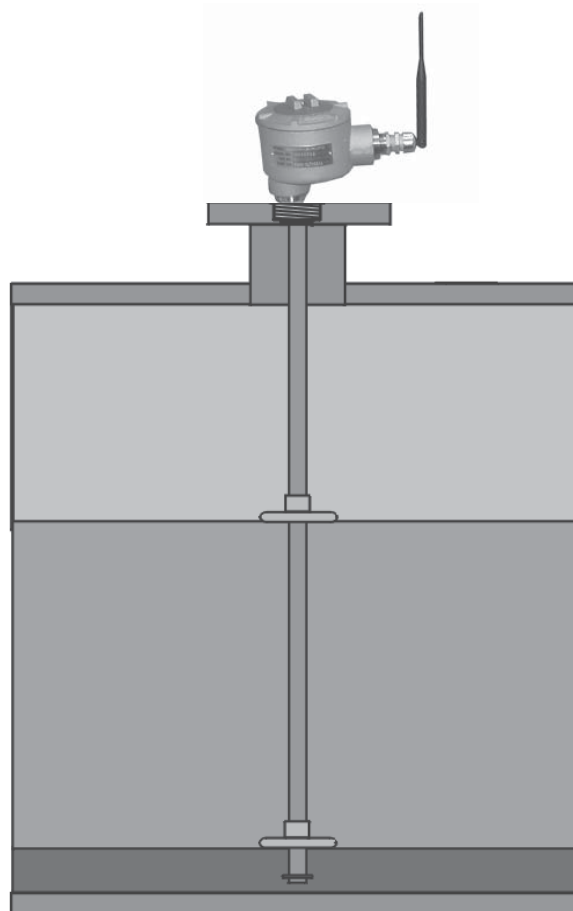
Resolution Level:
.001 inch

Probe Material:
Flexible PVDF

Temperature Sensing:
Average Temperature (5 Internal RTD's)

Typical System Layout

WIRELESS DATA TRANSMISSION



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

MCG 8140 Ordering Guide

MCG 8140 Wireless Magnetostrictive Level Probe

Includes: Flexible magnetostrictive probe with one or two nitrophenyl floats and 5 RTDs.

Up to 70 feet. Mount into 2", 3", 4" openings.

Model Number Selection:

The model number will consist of a base number **MCG 8140** followed by 7 digits. These digits will represent 3 sets of option tables:

MCG 8140 - ABC - DE - FG

| ABC - Tank Height in Inches | | |
|----------------------------------|----------------------------------|----------------------------------|
| ABC - ABC | ABC - ABC | ABC - ABC |
| 044" - 096" (3'8" - 8') | 445" - 456" (37'1" - 38') | 649" - 660" (54'1" - 55') |
| 097" - 120" (8'1" - 10') | 457" - 468" (38'1" - 39') | 661" - 672" (55'1" - 56') |
| 121" - 144" (10'1" - 12') | 469" - 480" (39'1" - 40') | 673" - 684" (56'1" - 57') |
| 145" - 192" (12'1" - 16') | 481" - 492" (40'1" - 41') | 685" - 696" (57'1" - 58') |
| 193" - 216" (16'1" - 18') | 493" - 504" (41'1" - 42') | 697" - 708" (58'1" - 59') |
| 217" - 240" (18'1" - 20') | 505" - 516" (42'1" - 43') | 709" - 720" (59'1" - 60') |
| 241" - 264" (20'1" - 22') | 517" - 528" (43'1" - 44') | 721" - 732" (60'1" - 61') |
| 265" - 288" (22'1" - 24') | 529" - 540" (44'1" - 45') | 733" - 744" (61'1" - 62') |
| 289" - 312" (24'1" - 26') | 541" - 552" (45'1" - 46') | 745" - 756" (62'1" - 63') |
| 313" - 336" (26'1" - 28') | 553" - 564" (46'1" - 47') | 757" - 768" (63'1" - 64') |
| 337" - 360" (28'1" - 30') | 565" - 576" (47'1" - 48') | 769" - 780" (64'1" - 65') |
| 361" - 384" (30'1" - 32') | 577" - 588" (48'1" - 49') | 781" - 792" (65'1" - 66') |
| 385" - 396" (32'1" - 33') | 589" - 608" (49'1" - 50') | 793" - 804" (66'1" - 67') |
| 397" - 408" (33'1" - 34') | 609" - 624" (50'1" - 52') | 805" - 816" (67'1" - 68') |
| 409" - 420" (34'1" - 35') | 625" - 636" (52'1" - 53') | 817" - 828" (68'1" - 69') |
| 421" - 432" (35'1" - 36') | 637" - 648" (53'1" - 54') | 829" - 840" (69'1" - 70') |
| 433" - 444" (36'1" - 37') | | |

| DE - 1 or 2 Levels / Interstitial Capabilities | |
|--|--|
| 01 | Product Level & BS&W With Interstitial Capability |
| 02 | Product Level & BS&W Without Interstitial Capability |
| 11 | Product Level Only With Interstitial Capability |
| 12 | Product Level Only Without Interstitial Capability |

| FG - Float Material / Opening Size* | |
|-------------------------------------|--|
| 03 | 3" Polyurethane Float / 3" Opening |
| 04 | 3" Polyurethane Float / 4" Opening |
| 12 | 2.05" Stainless Steel Float / 2" Opening |
| 13 | 2.05" Stainless Steel Float / 3" Opening |
| 14 | 2.05" Stainless Steel Float / 4" Opening |

*For other materials, consult factory.