

MCG 1090 Level Alarm Probe

The Only True Self Testing Probe

The MCG 1090 Level Alarm Probe brings state of the art technology to overfill protection. The competitors systems typically only check the wiring and probe electronics. The MCG 1090 includes a solenoid to physically move the displacer as an actual level would. In keeping with the L&J tradition, the MCG 1090 has gone a step further than the competition in providing high reliability and low maintenance. The MCG 1090 offers the most reliable protection available against dangerous and costly overfills.

Remote Self-Checking

Typically, a high level alarm probe is mounted in a poor environment and sits inactive for years at a time. This makes regularly scheduled testing the most important factor in reliability. The optional remote self-testing feature of the MCG 1090 makes regular testing of the probe easy and convenient. The probe can be wired to be tested from tank side or the control room. If coupled with the L&J MCG 7000 Alarm System, all probes can be automatically tested at pre-programmed intervals, complete with a printout of probe conditions.

Field Wiring

Two wiring configurations are available with the MCG 1090 Probe. Where independent wiring is required, individual wiring from each probe may be run directly to the control room or alarm panel. If independent wiring is not required, a standard 4-wire data highway can be used to multiplex up to 128 probes to the MCG 7000 Alarm System.

Remote Data Acquisition

For a complete alarm system the MCG 1090 probe can be coupled to the MCG 7000 Alarm System. The MCG 7000 provides automatic self-checking, printouts, and discrete outputs for horns, emergency shut-off, as well as an optional communications port. The MCG 1090 can be configured with the standard L&J 4-Wire Data Highway port to provide remote alarm data acquisition for your gauging system along existing wiring.



Features

- Industry's Only True Complete Self-Testing Level Alarm Probe
- Meets State Fire Codes for Independent Alarms
- Reliable Protection Due to Simplified Mechanics
- Optional Remote Self-Testing
- Multiplexing or Independent Wiring

Applications

- Hi, HiHi, Lo Level Alarm Applications
- Pump, Valve actuating

Specifications

Mounting Connection:

1.5" NPT or 2" NPT
2", 4", 6" Flange

Alarms:

Hi, HiHi, Lo

I/O:

NC/NO, L&J, NC/NC

Self-Testing:

Automatic (L&J Tankway),
Manual (24VDC), None

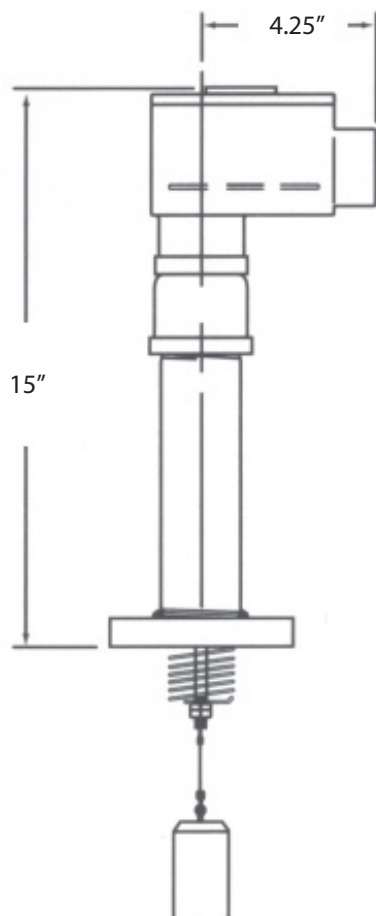
Material:

304 Stainless Steel Housing (Standard)
Nylon Displacer (Standard)
(Other Materials Available)

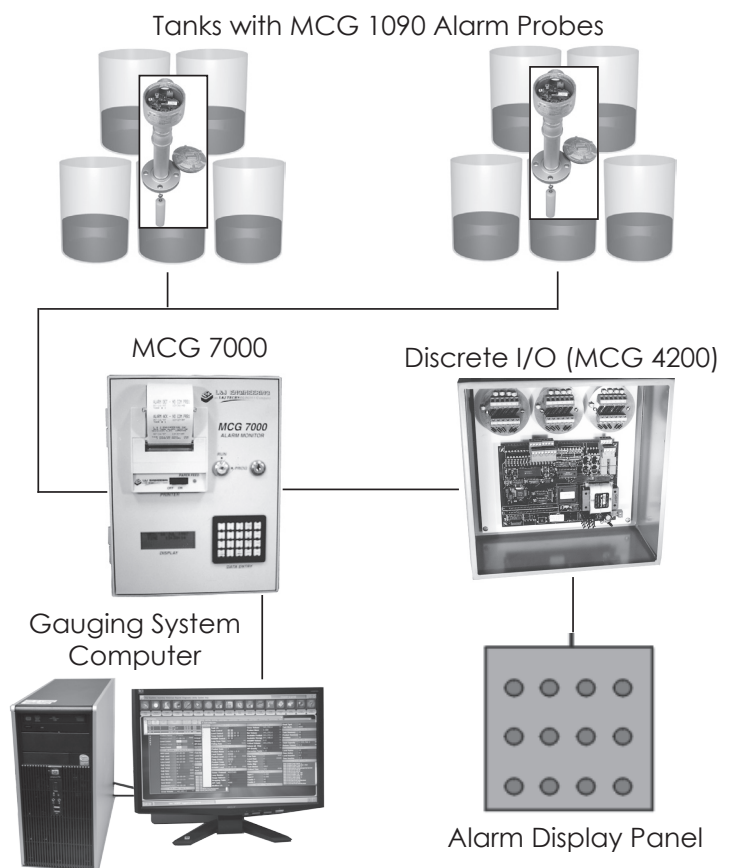
Safety Approvals:

UL, Explosion Proof
Class I Div. 1, Groups C & D,
CENELEC/ATEX
II 1/2 G EEx d IIB T6

Dimensions



Typical System Layout



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

MCG 1090 Ordering Guide

MCG 1090 Level Alarm Probe

Includes: Probe, Displacer, 10 Ft. (3 m) of 302 S.S. Cable. Special longer cables available at an additional cost per foot and/or meter. Please specify actual cable length. Standalone outputs provided by Dry Contacts.

Model Number Selection:

The model number will consist of a base number **MCG 1090** followed by 10 digits. These digits will represent 6 option tables:

MCG 1090 - AB - CD - EF - GH - IJ

| AB – Body Size / Length | |
|-------------------------|---|
| 10 | 1.5" body; 10 ft. (3 m) of 302 S.S. Cable |
| 12 | 1.5" body; 30 ft. (9.1 m) of 302 S.S. Cable |
| 21 | 2.0" body; 10 ft. (3 m) of 302 S.S. Cable |
| 22 | 2.0" body; 30 ft. (9.1 m) of 302 S.S. Cable |
| 31 | 1.5" body; 10 ft. (3 m) of 316 S.S. Cable |
| 32 | 1.5" body; 30 ft. (9.1 m) of 316 S.S. Cable |
| 41 | 2.0" body; 10 ft. (3 m) of 316 S.S. Cable |
| 42 | 2.0" body; 30 ft. (9.1 m) of 316 S.S. Cable |

| C – Body | |
|--|---|
| (All Stainless Steel Flanges Welded, unless otherwise specified) | |
| 0 | Special |
| 2 | 1.5" 304 Stainless Steel Body |
| 3 | 2.0" 304 Stainless Steel Body |
| 4 | 1.5" 304 Stainless Steel Body - No Silicone |
| 5 | 2.0" 304 Stainless Steel Body - No Silicone |

| GH - I/O Configuration | |
|---|--|
| Options 01, and 21, can <i>only</i> be used with Table III options 03, 04, 33, 34. (Standalone) options 02, 11, 12, and 13 can <i>only</i> be used with Table III options 01, 02, 31, 32. | |
| 01 | NC/NO Switch Configuration (Standalone) |
| 02 | L&J Tankway (Standard) |
| 11 | L&J Tankway, NC/NO Switch Configuration and 1 Discrete Input |
| 12 | L&J Tankway Out and 1 Discrete Input |
| 13 | L&J Tankway Out and Dual Relays |
| 21 | NC/NC Switch Configuration (Standalone) |
| 31 | L&J Tankway, NC/NC Switch Configuration and 1 Discrete Input |
| 32 | Dual DPDT Output |

| D – Connections | |
|--|--|
| (All Stainless Steel Flanges Welded, unless otherwise specified) | |
| 1 | 1.5" NPT (No Flange) |
| 2 | 2.0" 300 lb. RF Flange (304 Stainless Steel) |
| 3 | 2.0" NPT (No Flange) |
| 4 | 1.5" 300 lb. RF Flange (304 Stainless Steel) |
| 5 | 6.0" 150 lb. RF Flange (304 Stainless Steel) |
| 6 | 2.0" 150 lb. RF Flange (304 Stainless Steel) |
| 7 | 4.0" 150 lb. RF Flange (304 Stainless Steel) |
| 8 | 6.0" 300 lb. RF Flange (304 Stainless Steel) |
| 9 | 4.0" 300 lb. RF Flange (304 Stainless Steel) |

| EF - Comm. Type/Checker/Agency Approval | |
|---|---|
| 01 | L&J Tankway - No Remote Checker, (UL) |
| 02 | L&J Tankway - Remote Checker, (UL) |
| 03 | Standalone (24VDC), No Remote Checker, (UL) |
| 04 | Standalone (24VDC), Remote Checker, (UL) |
| 31 | L&J Tankway - No Remote Checker, (ATEX) |
| 32 | L&J Tankway - Remote Checker, (ATEX) |
| 33 | Standalone (24VDC), No Remote Checker, (ATEX) |
| 34 | Standalone (24VDC), Remote Checker, (ATEX) |

| I J - Displacer Size and Configuration | |
|--|--|
| 00 | 1.5" Nylon Single Displacer (S.G.: .65-1.0) |
| 01 | 1.5" Nylon Dual Displacer (S.G.: .65-1.0) |
| 04 | 1.5" Nylon Single Displacer (S.G.: .50-.80) |
| 05 | 1.5" Nylon Dual Displacer (S.G.: .50-.80) |
| 20 | 1.5" 316 S.S. Single Displacer (S.G.: .65-1.0) |
| 21 | 1.5" 316 S.S. Dual Displacer (S.G.: .65-1.0) |
| 24 | 1.5" 316 S.S. Single Displacer (S.G.: .50-.80) |
| 25 | 1.5" 316 S.S. Dual Displacer (S.G.: .50-.80) |
| 30 | 1.5" Graphite Single Displacer (S.G.: .65-1.0) |
| 31 | 1.5" Graphite Dual Displacer (S.G.: .65-1.0) |
| 34 | 1.5" Graphite Single Displacer (S.G.: .50-.80) |
| 35 | 1.5" Graphite Dual Displacer (S.G.: .50-.80) |

S.G. = Specific Gravity Range of Product)