



**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**

## The L&J Engineering MCG 1090 Level Alarm Probe

### **Reliable Protection... the only probe on the market with complete self testing**

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 tankside 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.

## Applications

**Hi, HiHi, Lo Level Alarm Applications**

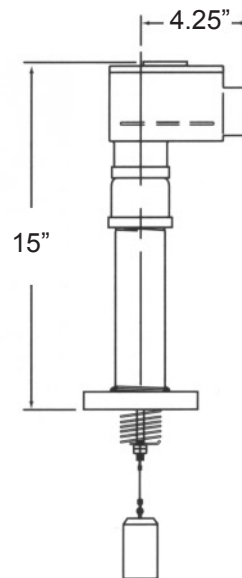
**Pump, Valve actuating**

### 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 SS 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

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

### DIMENSIONS



### INFORMATION REQUIRED TO ORDER:

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

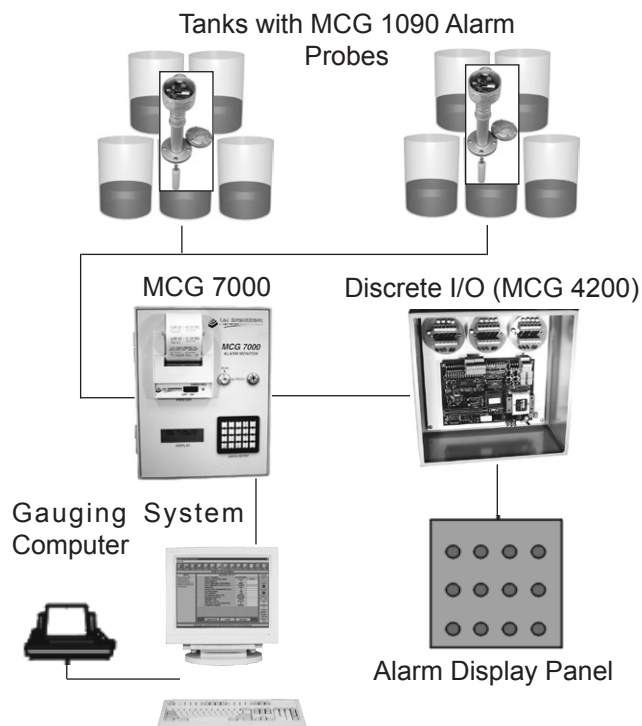
BODY SIZE/LENGTH \_\_\_\_\_

MOUNTING \_\_\_\_\_

COMM. TYPE/CHECKER/APPROVAL \_\_\_\_\_

I/O CONFIGURATION \_\_\_\_\_

DISPLACER SIZE AND CONFIGURATION \_\_\_\_\_

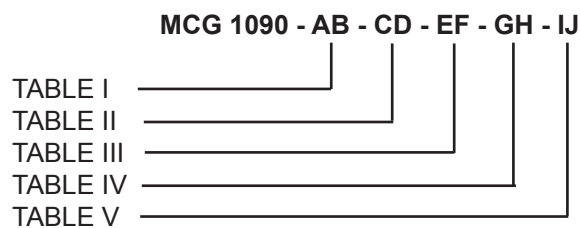


### MCG 1090 LEVEL ALARM PROBE

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 have a base number, **MCG 1090**, followed by 10 digits. These digits will represent 5 sets of option tables.



#### TABLE I - BODY SIZE / LENGTH

##### AB

- 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

#### TABLE II - MOUNTING

(All S.S. Flanges Welded, unless otherwise specified)

##### BODY

##### C

- 0** - Special
- 2** - 1.5" stainless steel body (304 S.S.)
- 3** - 2.0" stainless steel body (304 S.S.)

##### CONNECTIONS

##### D

- 1** - 1.5" NPT (No flange)
- 2** - 2.0" 300 # RF flange (304 S.S.)
- 3** - 2.0" NPT (No flange)
- 4** - 1.5" 300 # RF flange (304 S.S.)
- 5** - 6.0" 150 # RF flange (304 S.S.)
- 6** - 2.0" 150 # RF flange (304 S.S.)
- 7** - 4.0" 150 # RF flange (304 S.S.)
- 8** - 6.0" 300 # RF flange (304 S.S.)
- 9** - 4.0" 300 # RF flange (304 S.S.)

#### TABLE III - COMM. TYPE / CHECKER / AGENCY APPROVAL

##### EF

- 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)

#### TABLE IV - I/O CONFIGURATION

Options 01, and 21, can only be used with Table III options 03, 04, 33, 34.  
(Standalone) options 02, 11, 12, and 13 can only be used with Table III options 01, 02, 31, 32.

##### GH

- 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

#### TABLE V - DISPLACER SIZE AND CONFIGURATION

##### IJ

- 00 - 1.5" Nylon Single Displacer (S.G.: .65-1.00)
- 01 - 1.5" Nylon Dual Displacer (S.G.: .65-1.00)
- 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.: .65-1.00)
- 21 - 1.5" 316 S.S. Dual Displacer (S.G.: .65-1.00)
- 24 - 1.5" 316 S.S. Single Displacer (S.G.: .50-.80)
- 25 - 1.5" 316 S.S. Dual Displacer (S.G.: .50-.80)