

1800 Pneumatic & Electric Liquid Level Control, Low Pressure No-Bleed

Application

The WellMark 1800 Liquid Level Control offers design simplicity, easy installation, adjustment, and reliable liquid-level monitoring. The Model 1800 can be equipped with a snap action 3-way 2-port valve (1800M) or an electrical contact switch (1800E).

The Model 1800 is actuated by movable arms that permit the control range to be adjusted easily and accurately set to the range desired. With the liquid level below the float, the 3-way 2-port valve, or micro switch, will be in low level position and will remain there until the float rises to the pre-set high level. The 3-way 2-port valve, or micro switch, reverses positions as the float rises or drops through the pre-set level.

The 1800 Liquid Level Control can be used in oil and gas processing, manufacturing plants, hazardous waste disposal, food processing, petro-chemical facilities, or wherever fluid levels need to be monitored or controlled.

Installation

The WellMark Model 1800 is available with various standard pipe closures such as ANSI flanges and grooved connections.

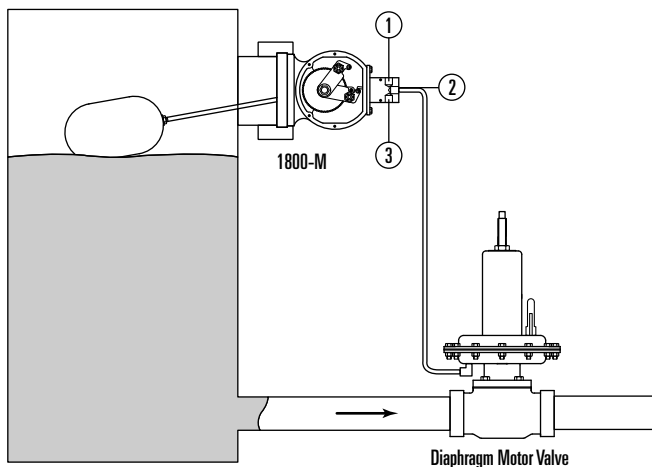


Figure 1

Pneumatic Control Valve Piping

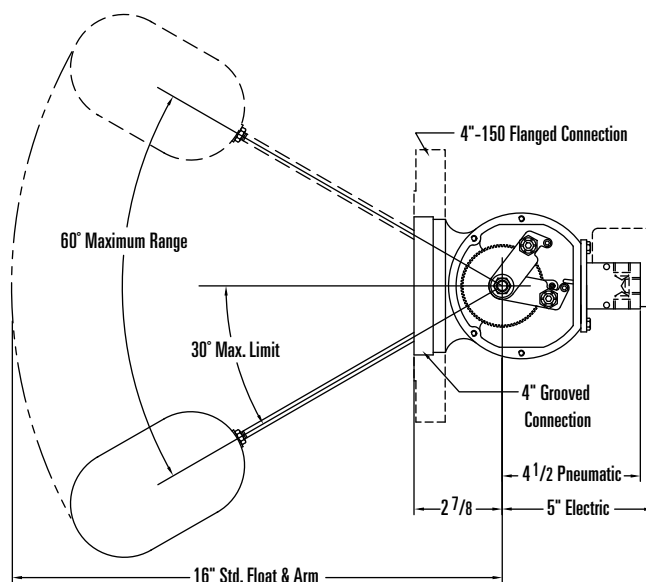
The WellMark Model 1800 Pneumatic Level Control is equipped with a 3-way 2-port valve with three 1/4" NPT ports. The 3-way 2-port valve has a standard working pressure of 100 psi.

The connections to the ports depend on the control action desired. Port positions are shown below. Reference figure 1.

| With Float At Low Level | With Float At High Level |
|-------------------------|--------------------------|
| PORT 1 CLOSED TO 2 | PORT 1 OPEN TO 2 |
| PORT 2 COMMON | PORT 2 COMMON |
| PORT 3 OPEN TO 2 | PORT 3 CLOSED TO 2 |



Dimensional Data



The WellMark Model 1800 Electric Level Control provides electrical contact switch closure for alarm or control functions. Reference figure 2.

Explosion Proof

Electric Switch, SPDT

UL and CSA listed: "L96" 15 amps, 125, 250, or 480 VAC; 1/8 HP-125 VAC, 1/4 HP-250 VAC

1/2 amp-125 VDC, 1/4 amp-250 VDC

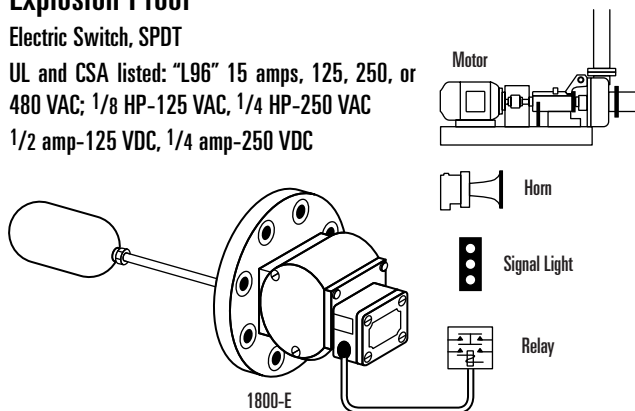
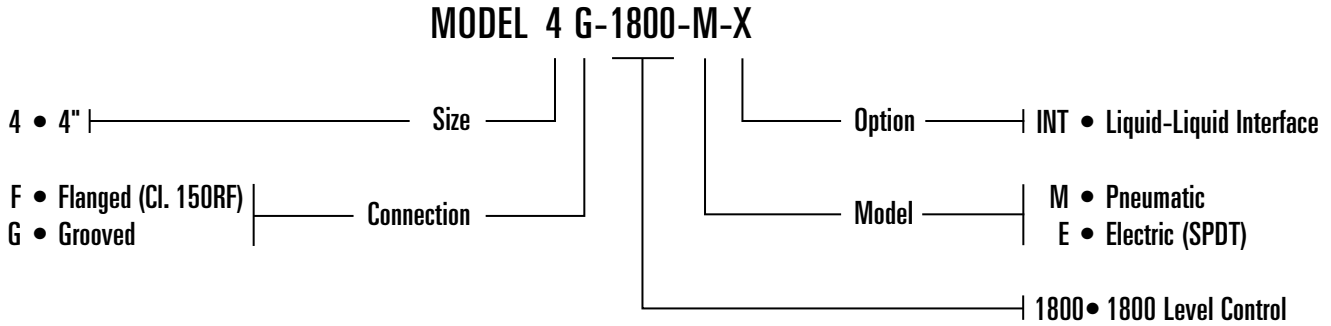


Figure 2

1800 Pneumatic & Electric Liquid Level Control, Low Pressure No-Bleed

Determining the Model Number

Example given: Standard Model 4G-1800-M—Series 1800, 4" Grooved Connection, Pneumatic Type Control.



Parts List

| Item | Description | Qty. | Part No. | |
|------|---|------|------------|------------|
| | | | 1800-M | 1800-E |
| 1 | BODY, 4" GROOVED, DUCTILE IRON | 1 | 05010-7010 | 05010-7010 |
| | BODY, 4" FLANGED, CL. 150RF, DUCTILE IRON | 1 | 40176 | 40176 |
| 2 | STEM, 303 STAINLESS STEEL | 1 | 05010-7028 | 05010-7028 |
| 3 | STEM RETAINER, BRASS | 1 | 05010-1757 | 05010-1757 |
| 4 | BACK UP RING, TEFLON® | 2 | 05011-3612 | 05011-3612 |
| 5* | O-RING, BUNA-N | 1 | 05000-0041 | 05000-0041 |
| 6* | O-RING, BUNA-N | 2 | 05000-0058 | 05000-0058 |
| 7 | PIN, 316 STAINLESS STEEL | 1 | 05011-4149 | 05011-4149 |
| 8 | GEAR COLLAR, 303 S.S. | 1 | 05010-7044 | 05010-7044 |
| 9 | GEAR COLLAR, 303 S.S. | 1 | 05010-7051 | 05010-7051 |
| 10 | GEAR, STEEL NICKLE PLATED | 1 | 05010-7127 | 05010-7127 |
| 11 | ACTUATOR ARM, 303 S.S. | 4 | 05010-7119 | 05010-7119 |
| 12 | NUT, STEEL PLATED | 1 | 05000-1809 | 05000-1809 |
| 13 | PINION GEAR, BRASS | 2 | 05010-7192 | 05010-7192 |
| 14 | NUT, STEEL PLATED | 2 | 05000-1973 | 05000-1973 |
| 15 | ARM, 303 S.S. | 2 | 05010-7184 | — |
| 16 | SPACER, 303 S.S. | 2 | 05010-7176 | 05010-7176 |
| 17 | SCREW, STEEL PLATED | 2 | 05000-1452 | 05000-1452 |
| 18* | 3-WAY VALVE, ALUMINUM/S.S. | 1 | 06000-0577 | — |
| 19 | RETAINER, BRASS | 1 | 05010-7077 | 05010-7077 |
| 20 | MOUNTING PLATE, ALUMINUM | 1 | 05010-7242 | 05010-7036 |
| 21 | SCREW, STEEL PLATED | 2/1 | 10047 | 05000-2302 |
| 22 | CAP SCREW, STEEL PLATED | 4/3 | 05000-1668 | 05000-1668 |
| 23 | COVER, STEEL | 2 | 05010-7093 | 05010-7093 |
| 24 | SCREW, STEEL PLATED | 4 | 05000-1536 | 05000-1536 |
| 25 | PIN, 17-4PH | 1 | 05010-7069 | 05010-7069 |
| 26 | STOP/SWITCH ARM, STEEL | 1/2 | 05010-6707 | 05010-6707 |
| 27 | FLOAT 3 1/2"X6", STAINLESS STEEL | 1 | 10128 | 10128 |
| 28 | FLOAT ARM, STAINLESS STEEL, 10" STD. | 1 | 20028 | 20028 |
| 29 | JAM NUT, STAINLESS STEEL | 1 | 10007 | 10007 |
| 30 | MICRO SWITCH, EX-AR16 | 1 | — | 10219 |
| 31 | SPRING, STAINLESS STEEL | 1 | — | 05010-4314 |
| 32 | PLUG, DELRIN® | 1 | — | 05010-4298 |
| 33 | COLLAR, BRASS | 1 | — | 05010-4132 |
| 34 | SET SCREW, STEEL PLATED | 1 | — | 05000-2468 |
| 35 | ACTUATOR BLOCK, ALUMINUM | 1 | — | 05010-7101 |
| 36 | ACTUATOR BLOCK, ALUMINUM | 1 | — | 05011-2754 |

*Recommended Spare Part

