

The BelGAS<sup>CP</sup> P8700 series is a low pressure liquid level controller offered in Pneumatic or Electric outputs. The P8700 series offers several options which allow it to control liquid levels in a range of vessels.

### Applications

- Low Pressure Separators
- Treater Applications
- Other vessels which require liquid level monitor



### Features

- **Manual Override Cable Access:** The body is designed to allow for manual override access. Optional cable can be selected for factory set-up.
- **Body Mounting Options:** The body is offered in 1" NPT, 2" NPT or 4" with optional hammer union in ACME or NPSL threads.
- **Pneumatic Valve:** Offers block and bleed design.
- **Control:** Monitors either high or low liquid levels.
- **Optional Float Sizes:** Choose from several different float sizes to best suit your application needs.
- **Sour Gas Service:** Standard with NACE MR0175 compliant parts.

### Specifications

Unit	
Working Pressure	500 PSIG
Operating Temperature	-20° to 212°F (-29° to 100°C)
Floats	
Working Pressure	500 PSIG
Collapse Pressure	750 PSIG
Operating Temperature	Up to 250°F (121.1°C)
Valve	
Supply Pressure	100 PSI (250 PSI Available)
Pilot Connections	1/4" FNPT
Electric Switch	
UL/CSA Rating	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
Switch	Single Pole/Double Throw
Ex	Explosion Proof
Conduit Connection	1/2"-14 FNPT

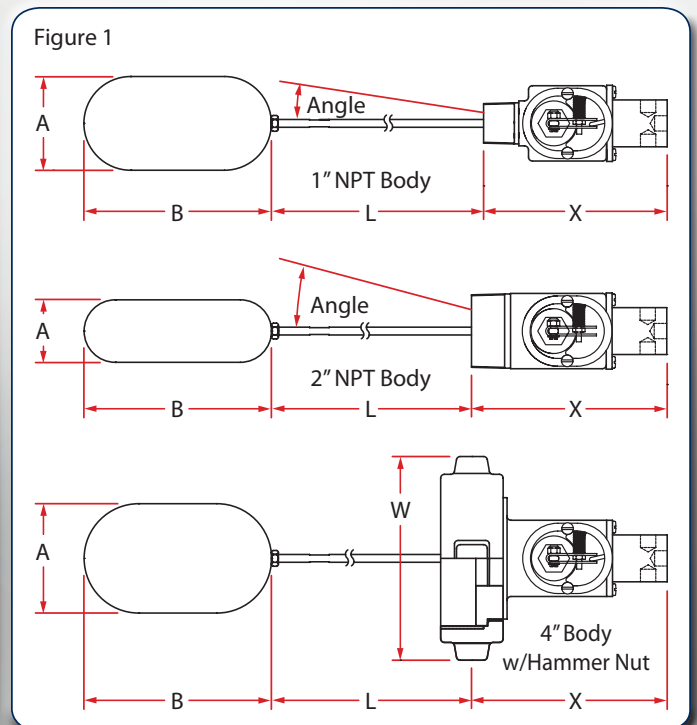
### Dimensional Data (in.)

Body (in.)	Standard Float			Angle (Max)	Valve*	Electric Switch	W
	A	B	L		X	X	
1 NPT	3.0	6	7.25	9°	5.88	6.41	—
2 NPT	2.0	6	6.88	15°	6.25	6.75	—
4 w/Union	3.5	5	7.00	—	6.13	6.65	6.25

Note: Dimensions shown are approximate with standard options.  
\* Valve shown

### Materials of Construction

Part	Material
Body	Carbon Steel
Float	Stainless Steel
Float Arm	Stainless Steel
Bushing	Stainless Steel
Actuator	Stainless Steel
Trunnion	Stainless Steel
Seals	Fluorocarbon (Optional Nitrile)



## P8700 Part Number Matrix and Repair Kits

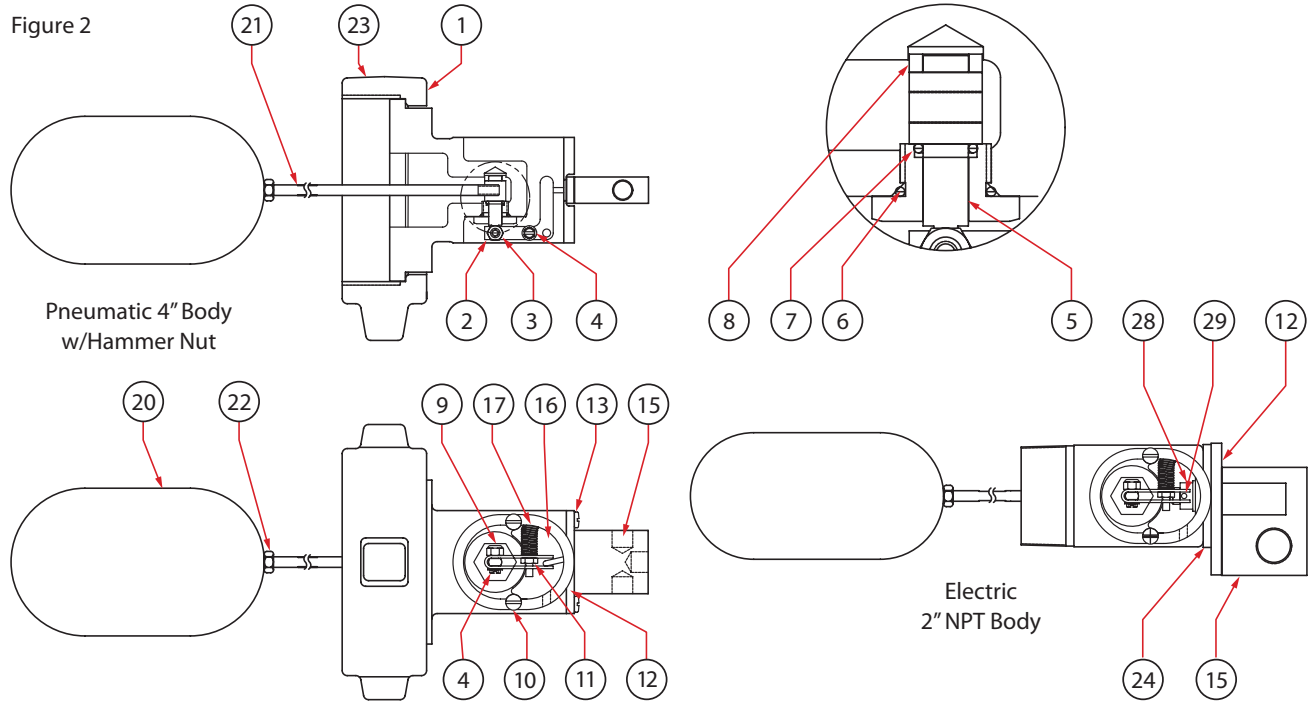
P87												X
<b>Style</b>												
Pneumatic	<b>P</b>											
Electric	<b>E</b>											
<b>Body Size</b>												
1" NPT	<b>08</b>											
2" NPT	<b>16</b>											
4" Body	<b>32</b>											
<b>End Connections</b>												
None	<b>0</b>											
4" Hammer Union (4-8 NPSL Threads)	<b>1</b>											
4" Hammer Union (4.5-6 ACME 2G Threads)	<b>2</b>											
<b>Float Arm Length (in.)</b>												
10 (Standard)	<b>10</b>											
6	<b>06</b>											
8	<b>08</b>											
12	<b>12</b>											
14	<b>14</b>											
<b>Float</b>												
2" X 6" (Standard w/2" NPT Body)	<b>1</b>											
3" X 6" (Standard w/1" NPT Body)	<b>2</b>											
3.5" X 6" (Standard w/4" Body)	<b>3</b>											
<b>Output Options</b>												
Supply Pressure 100 PSI (Pneumatic)	<b>A</b>											
Supply Pressure 250 PSI (Pneumatic)	<b>B</b>											
Electric Switch	<b>C</b>											
<b>Seal Material</b>												
Nitrile	<b>0</b>											
Fluorocarbon	<b>2</b>											
<b>Weldneck Length (4" Pipe)</b>												
None	<b>0</b>											
5" Length	<b>5</b>											
8" Length	<b>8</b>											
<b>4" Seal</b>												
None	<b>N</b>											
4" Seal (Nitrile)	<b>0</b>											
4" Seal (Fluorocarbon)	<b>2</b>											
<b>Manual Override Cable</b>												
None	<b>0</b>											
20' Cable	<b>1</b>											

Repair Kit Matrix											
<b>971P87</b>											
<b>Type</b>											
Nitrile	<b>0</b>										
Fluorocarbon	<b>2</b>										
<b>4" Seal</b>											
None	<b>N</b>										
4" Seal (Nitrile)	<b>0</b>										
4" Seal (Fluorocarbon)	<b>2</b>										
<b>Output Options</b>											
None	<b>0</b>										
4" Supply Pressure, 100 PSI (Pneumatic)	<b>A</b>										
4" Supply Pressure, 250 PSI (Pneumatic)	<b>B</b>										

Repair Kit Options				
Item	Description		Qty.	Part Number
6	O-ring / Bushing	Nitrile	1	649-000-149
		Fluorocarbon		649-307-002
7	O-ring / Trunnion	Nitrile	1	649-000-004
		Fluorocarbon		649-323-000
8	Bearing Sleeve		1	602-136-000
26	O-ring (4") (Not Shown)	Nitrile	1	649-381-001
		Fluorocarbon		649-383-001
13	Screw (Mtg. Plate to Body)	Pneumatic	2	648-605-000
		Electric		648-607-000
15	3-Way Valve	100 PSI	1	678-064-000
		250 PSI		678-064-001
	Electric Switch		659-006-000	

# P8700 Parts List

Figure 2

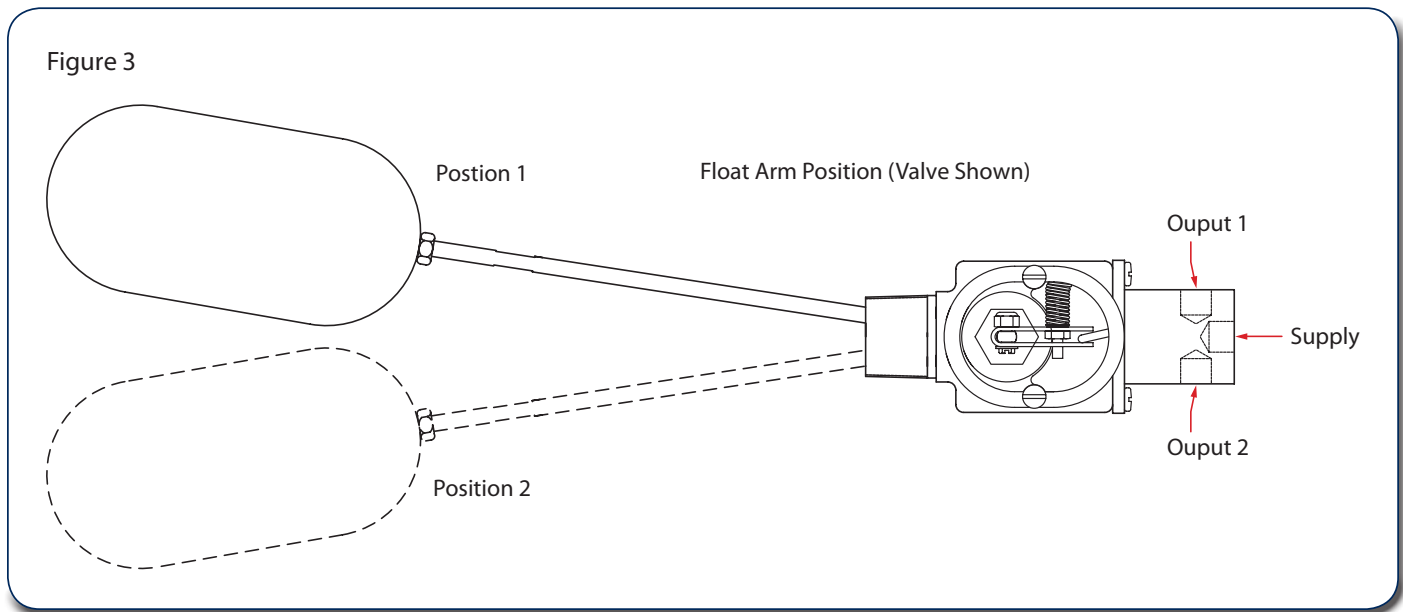


Item	Description		Qty.	Part Number
1	1"NPT Body	Pneumatic	1	664-603-000
		Electric		664-604-000
	2"NPT Body	Pneumatic		664-606-000
		Electric		664-608-000
	4" Body	Pneumatic		664-610-000
		Electric		664-611-000
2	Actuator	Pneumatic	1	703-015-000
		Electric		703-016-000
3	Locknut		1	634-484-000
4	Screw		2	648-606-000
5	Trunnion		1	649-003-000
6	O-ring / Bushing	Nitrile	1	649-000-149
		Fluorocarbon		649-307-002
7	O-ring / Trunnion	Nitrile	1	649-000-004
		Fluorocarbon		649-323-000
8	Bearing Sleeve		1	602-136-000
9	Bushing		1	608-095-000
10	Cover Screw		4	648-605-001
11	Jam Nut		1	634-146-003
12	Mounting Plate	Pneumatic	1	638-103-000
		Electric		638-105-000
13	Screw (Mtg. Plate to Body)	Pneumatic	2	648-605-000
		Electric*		648-607-000
14	Screw* (Mtg. Plate to)	Valve	2	648-607-000
		Electric Switch		648-598-000
15	3-Way Valve	100 PSI	1	678-064-000
		250 PSI		678-064-001
	Electric Switch			659-006-000

Item	Description		Qty.	Part Number
16	Spring Keeper		1	656-001-001
17	Spring		1	655-796-000
18	Cover Plate		1	614-069-000
19	Nameplate		1	632-593-000
20	Float (2"X6", Std. w/2" NPT Body)		1	715-000-000
	Float (3"X6", Std. w/1" NPT Body)			715-000-001
	Float (3.5"X6", Std. w/4" Body)			715-000-002
21	Float Arm	10" Std.	1	651-115-000
		6"		651-115-001
		8"		651-115-002
		12"		651-115-003
		14"		651-115-004
22	Jam Nut		1	634-146-004
23	Cap Plug	Pneumatic	3	639-000-004
		Electric	1	639-000-006
24	Spacer (Electric)		1	638-104-000
25	Hammer Union	4-8NPSL	1	634-224-000
		4.5-6 ACME 2G		634-225-000
26	O-ring (4")*	Nitrile	2	649-381-001
		Fluorocarbon		649-383-001
27	Weldneck*	4"X5", 4-8NPSL	2	716-003-000
		4"X8", 4-8NPSL		716-003-001
		4"X5", 4.5-6 ACME 2G	1	716-004-000
		4"X8", 4.5-6 ACME 2G		716-004-001
28	Adapter Collar		1	653-061-000
29	Adapter Shaft		1	651-117-000

\* Not shown

## P8700 Operation Principle



### Position Instructions (Figure 3)

#### Valve

- **Position 1:** Float arm in the upward direction, toggle position on valve would be in downward direction. Supply pressure applied would produce output 1 pressure to equal supply pressure.
- **Position 2:** Float arm in the downward direction, toggle position on valve would be in upward direction. Supply pressure applied would produce output 2 pressure to equal supply pressure.
- **Note:** No bleed will come from output port not engaged.

#### Electric Switch

- **Position 1:** Float arm up, actuator angled down; normally closed engaged.
- **Position 2:** Float arm down, actuator angle upward; normally open engaged.

Contact your BelGAS<sup>CP</sup> representative or go to [www.BelGASCP.com](http://www.BelGASCP.com) to learn more about our products.



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