

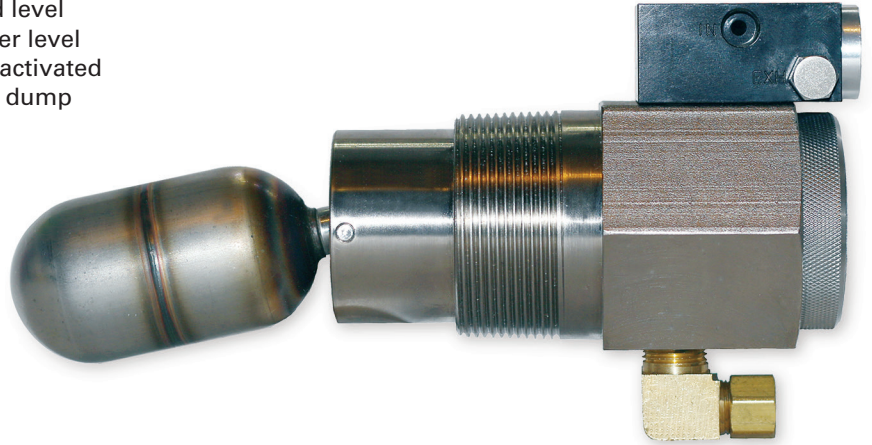
The BelGAS^{CP} P8600 series is a snap-acting liquid level switch primarily used for gas compressor scrubber level applications. The pneumatic signal (30-70 PSI) is activated by the P8600 float and then used to open/close a dump valve or similar devices.

Applications

- Gas Compressor Scrubber Level Control
- Other Level Control Applications

Features

- NACE MR0175 Compliant
- Manual Push Button Override
- Simple Repair and Maintenance



Specifications

Maximum Operating Pressure	1500 PSIG
Operating Temperature	-15°F to 300°F, 400°F Available (Fluorocarbon Elastomer) -30°F to 250°F (Nitrile Elastomer)
Process Connection	2" NPT
Supply Pressure, Pneumatic Signal	30 PSIG (Minimum) to 70 PSIG
Pneumatic Connection	1/8" NPT
Valve	3 Way Normally Closed with Manual Override
Specific Gravity	0.66

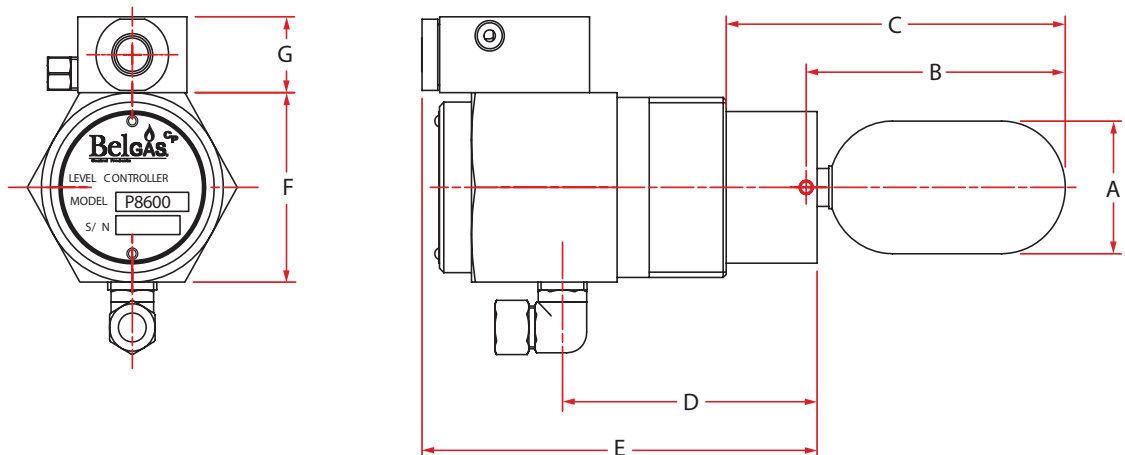
Materials of Construction

Part	Standard Material	Optional Material
Float	316 Stainless Steel	—
Arm with Counterweight	316 Stainless Steel	—
Wire	316 Stainless Steel	—
Body	Nickel Plated Carbon Steel	304 Stainless Steel
Nozzle	Stainless Steel	—
Seat	Fluorocarbon	Nitrile
Cap	Stainless Steel	—
Valve Housing	6061 Aluminum	—
Valve Diaphragm	Fluorocarbon	Nitrile
Valve Stem	Stainless Steel	—
Valve Plug	Fluorocarbon	Nitrile
O-rings	Fluorocarbon	Nitrile

Dimensional Data (in.)

Level Controller	A	B	C	D	E	F	G
P8600, No Extension	1.75	3.56	4.66	3.50	5.43	1.00	2.50

Figure 1



P8600 Part Number Matrix

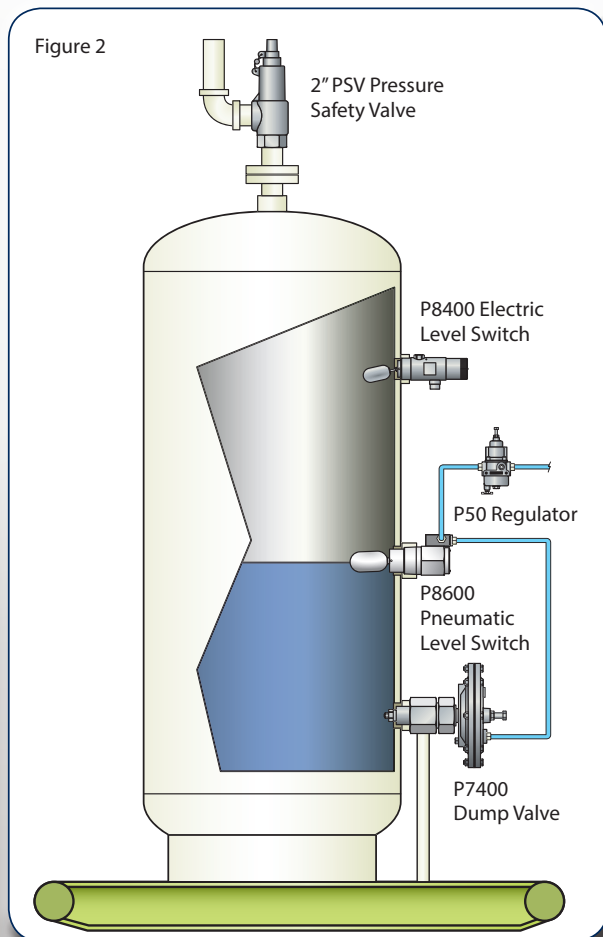
P8600		0	0	1	1	1	1		0	0
Body Material										
Carbon Steel, Nickel Plated	0									
Stainless Steel	1									
Float Material										
316 Stainless Steel	0									
Polyurethane	1									
Float Arm Extension										
No Extension			0							
1"			1							
Seat/Elastomer Material										
Nitrile								0		
Fluorocarbon								2		
External Cage										
Without									0	
With									1	
Airset Regulator										
Without										0

Repair Kits Part Number Matrix

Pneumatic Valve	971-860-00	
Elastomer Material		
Nitrile		0
Fluorocarbon		2

Elastic Materials	971-861-00	
Elastomer Material		
Nitrile		0
Fluorocarbon		2

Note: Trim repair kits include seat, quad ring and o-rings.



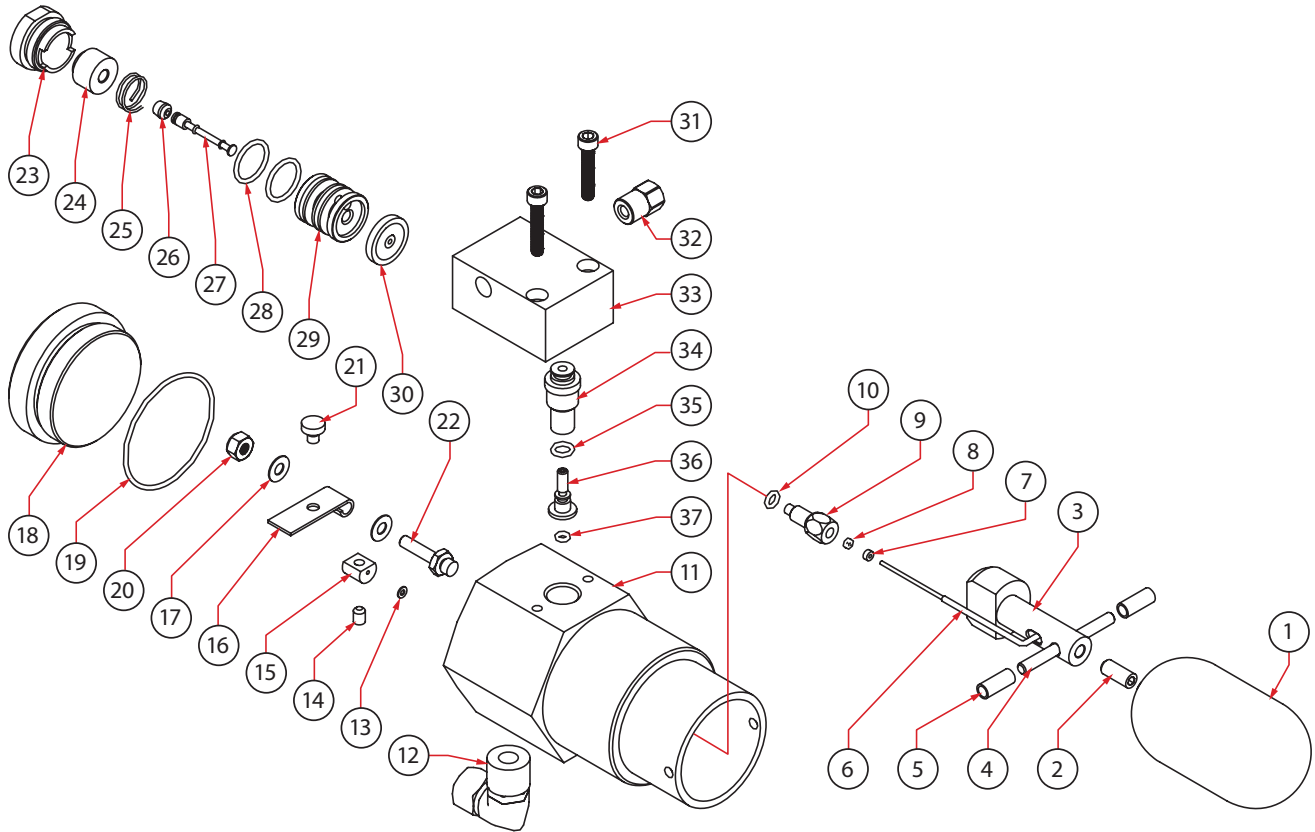
The BelGAS^{CP} Scrubber System Package

Our gas compressor scrubber system is designed with BelGAS^{CP} series products that provide complete control of liquid with a high level switch to trigger an alarm or shutdown and a pneumatic switch that controls operation of a dump valve which protects the compressor by removing excess liquid.

- **P8400 Electric Level Switch:** The Stainless Steel float actuated high level switch engages alarm or shutdown.
- **P8600 Pneumatic Level Switch:** The pneumatic pressure that opens and closes the dump valve is controlled by this float actuated snap-acting level switch.
- **P7400 Pneumatic Dump Valves:** Dumps fluid from the compressor scrubber after receiving a pneumatic signal from the P8600 Pneumatic Level Switch.

P8600 Parts List

Figure 3

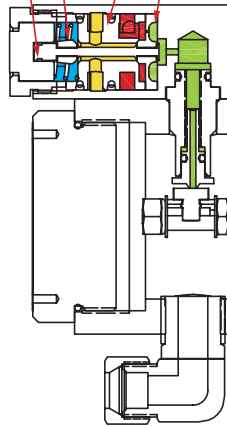


Item	Description	Qty.	Part Number
1	Float	1	715-013-000
2	Set Screw	1	648-000-426
3	Arm with Counterweight	1	703-018-000
4	Pin	1	635-097-000
5	Spacer	2	654-205-000
6	Wire	1	663-072-000
7	Spacer	1	654-204-000
8	Quad Ring	1	Fluorocarbon 649-386-000 Nitrile 649-386-001
9	Post	1	626-129-000
10	O-ring	1	Fluorocarbon 649-297-000 Nitrile 649-000-001
11	Body	1	Carbon Steel 664-621-001 Stainless Steel 664-621-000
12	Vent Assembly	1	819-016-000
13	Washer	1	662-253-000
14	Set Screw	1	648-000-425
15	Cam	1	691-024-000
16	Actuator	1	638-116-000
17	Washer	2	662-254-000
18	Cap	1	610-109-000
19	O-ring	1	Fluorocarbon 649-387-002 Nitrile 649-309-014
20	Nyloc Nut	1	634-478-000
21	Seat	1	Fluorocarbon 650-217-000 Nitrile 650-217-001

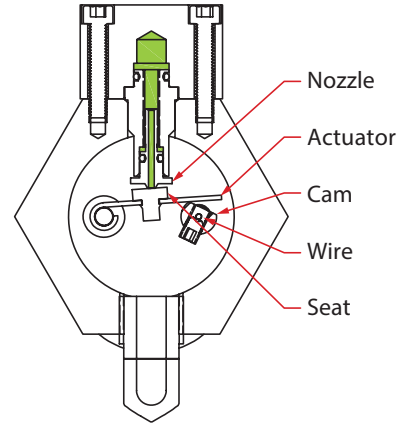
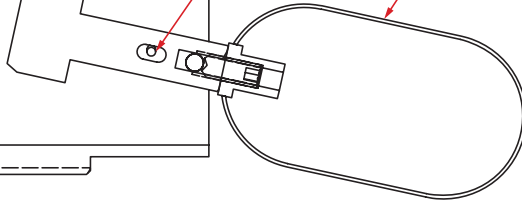
Item	Description	Qty.	Part Number
22	Post	1	657-019-000
23	Pilot Cap	1	610-110-000
24	Manual Button	1	609-001-000
25	Spring	1	655-809-000
26	Plug	1	Fluorocarbon 639-164-001 Nitrile 639-164-000
27	Stem	1	689-033-000
28	O-ring	2	Fluorocarbon 649-387-000 Nitrile 649-000-007
29	Spool	1	629-277-000
30	Diaphragm	1	Fluorocarbon 618-124-001 Nitrile 618-124-000
31	Screw	2	648-000-080
32	Breather	1	639-148-001
33	Pilot Housing	1	629-276-000
34	Nozzle Body	1	664-620-000
35	O-ring	1	Fluorocarbon 649-000-343 Nitrile 649-000-003
36	Nozzle	1	680-029-000
37	O-ring	1	Fluorocarbon 010-097-000 Nitrile 649-000-193
38	Name Plate (Not Shown)	1	
	CS Body, Fluorocarbon Elastomer		632-600-001
	SS Body, Fluorocarbon Elastomer		632-600-002
	CS Body, Nitrile Elastomer		632-600-003
	SS Body, Nitrile Elastomer		632-600-004

Plug
Stem
Spool
Diaphragm

Figure 4

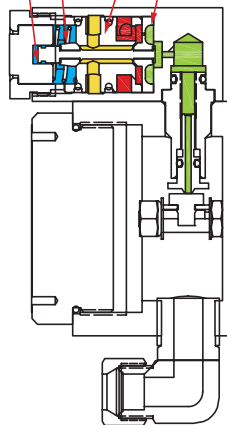


Wire
Float

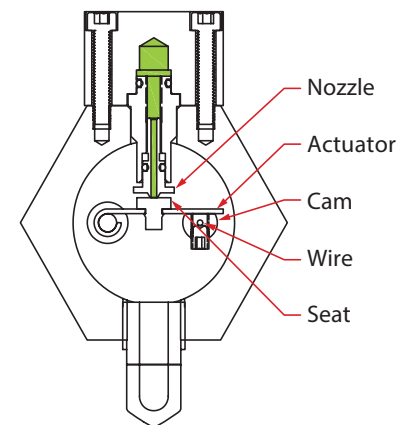
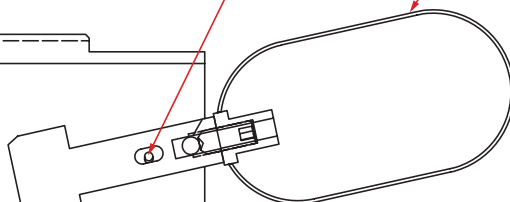


Plug
Stem
Spool
Diaphragm

Figure 5



Wire
Float



■ Supply Pressure ■ Output Pressure ■ Vent ■ Back Pressure

Operational Principle

Assume the float is at the position illustrated in figure 4. The cam will rotate to the right and the actuator will rotate in a counterclockwise direction. The seat will also move with the actuator and it will be closer to the nozzle. This will cause the back pressure to increase. The increased back pressure acting on the diaphragm will move it to the left and seal against the spool. In the meantime, the stem will also move to the left and it will cause the plug to move away from the spool, which will cause the output pressure to vent into the atmosphere. At this time, the P8600 liquid level controller will send a pneumatic signal of 0 PSI to the dump valve or any other connected devices.

When the float moves up with the liquid level as shown in figure 5, the cam will rotate to the left and the actuator will rotate in a clockwise direction. The seat will move away from the nozzle. This will cause the back pressure to decrease. Under decreased back pressure, the diaphragm will move to the right and away from the spool. In the meantime, the stem will also move to the right and the plug will seal against the spool. No output pressure will vent into the atmosphere. At this time, the P8600 liquid level controller will send a pneumatic signal, which is equal to the input pressure, to the dump valve or any other connected devices.

Contact your BelGAS^{CP} representative or go to www.BelGASCP.com to learn more about our products.

BelGAS^{CP}
Control Products

**Trusted.
Proven.
Better.**

8019 Ohio River Blvd.
Newell, WV 26050
Toll Free: 800-727-5646
sales@belgas.net
www.BelGASCP.com

2221 SE 69th Street
Oklahoma City, OK 73149
Toll Free: 800-833-3127