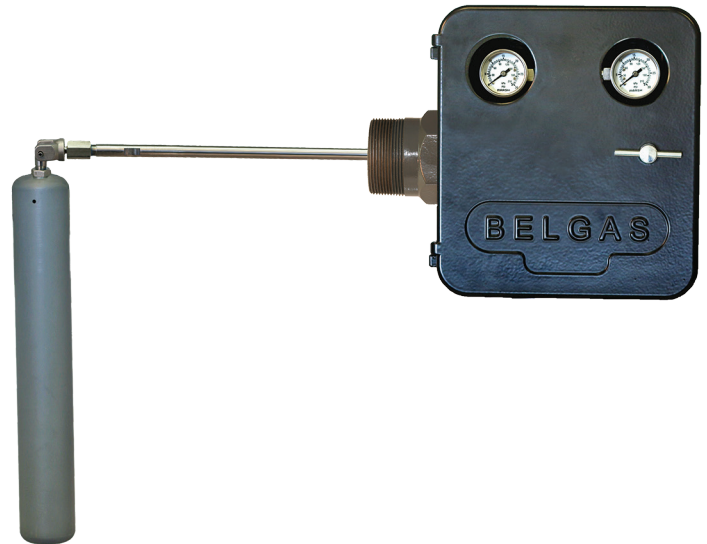


The BelGAS CP P8100 series is a mechanically operated liquid level controller with a flexible yet rugged design that allows it to perform optimally in the harshest environments. Trim options for the pilot valve, arm, spring, and displacer provide the versatility to set the controller to a wide range of spans, levels, and use in most fluids.

- **Snap or Throttle Pilot Valves:** The snap pilot provides an output of 0 to full supply within the desired span; while the throttle pilot provides a proportional output of 0 to full supply across the entire desired span.
- **Sealed and Vented Case:** The case is designed to keep the internal mechanism isolated from the weather while also allowing gasses from the pilot valves to escape.
- **Field Reversible:** The unit can easily be reoriented to left handed or right handed and direct or reverse acting in the field using the instructions included.
- **Adjustable Level and Span:** With simple internal adjustments to the spring (level) and sensitivity arm (span) the unit can provide a wide range of options. Instructions are listed on the inside of the door for easy access.



Applications

- Separators
- Compressor Scrubbers
- Tanks

Specifications

Pilot	Input (PSIG)	Output (% of Input)	Span (% of Input)
Snap	0-30/0-60	100%	5% to 100%
Throttling	0-30/0-60	0-100%	5% to 100%

Displacer Material	Seal Material	Temperature Limits (°F)	Max Pressure (PSIG)
PVC	Nitrile	-40 to 140	6000
Acrylic		-40 to 180	6000
316 SS		-40 to 225	2000 at 180°F 1500 at 400°F
PVC	Fluorocarbon	-40 to 140	6000
Acrylic		-40 to 180	6000
316 SS		-40 to 225	2000 at 180°F 1500 at 400°F

Materials of Construction

Part	Material
Displacer	PVC, Acrylic, or 316 Stainless Steel
Spring	Steel
Door/Case	Cast Aluminum
Body	1018 Carbon Steel
Torque Bar	Aluminum
Displacer Bar	316 Stainless Steel
Gauges	316 Stainless Steel
Bearing Block	316 Stainless Steel
Bearing	Chrome Steel/Rubber
Flapper Bar	Stainless Steel
Level Adjustment Bar	Aluminum

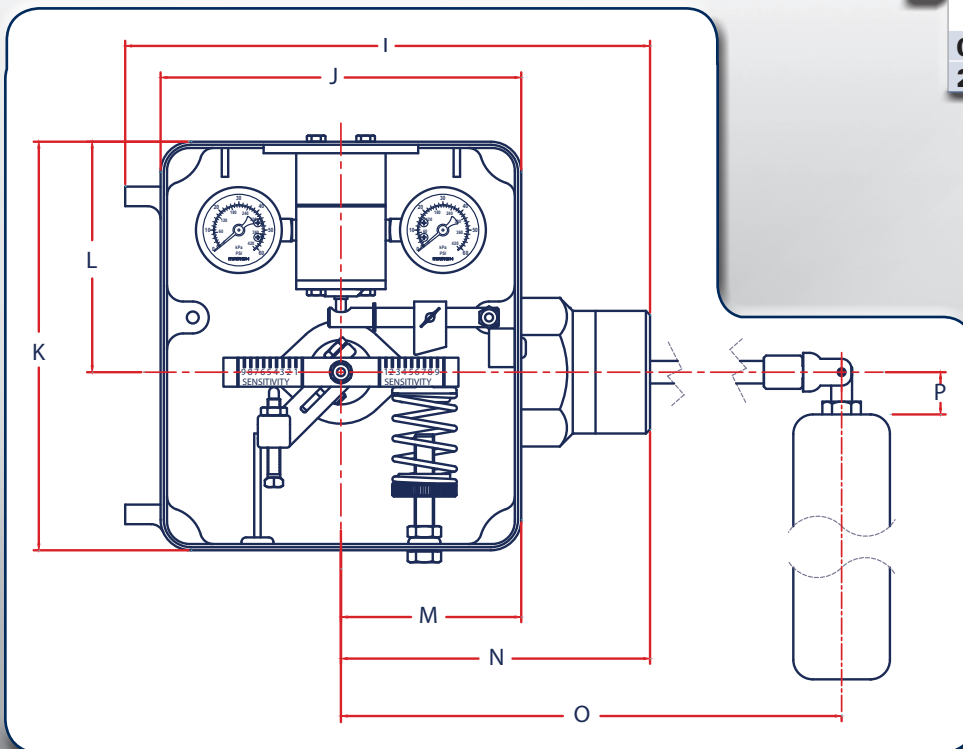
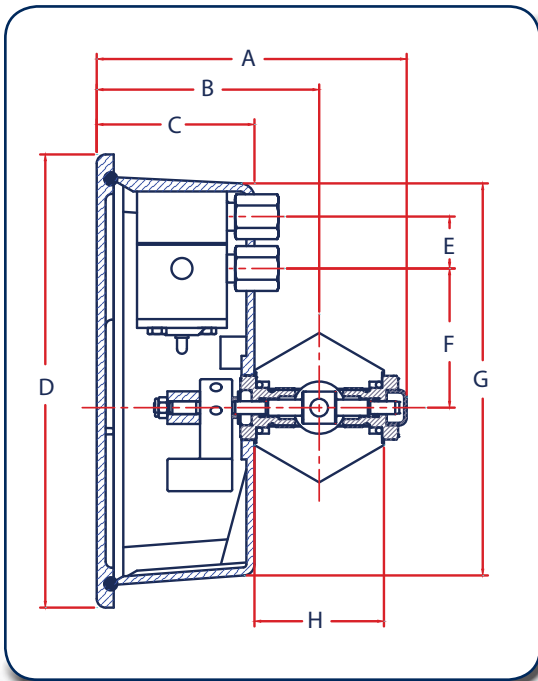
P8100 Series

Body Connection	1.5" or 2" MNPT
Pilot Connection	1/4" FNPT

Displacer	Displacer Arm (in)	Minimum Allowable Fluid Specific Gravity	
		Top Level Control	Liquid-Liquid Interface Level Control
1.88" dia. X 12"	15	0.3	0.035

P8100 Series Part Matrix (Initial Offering)

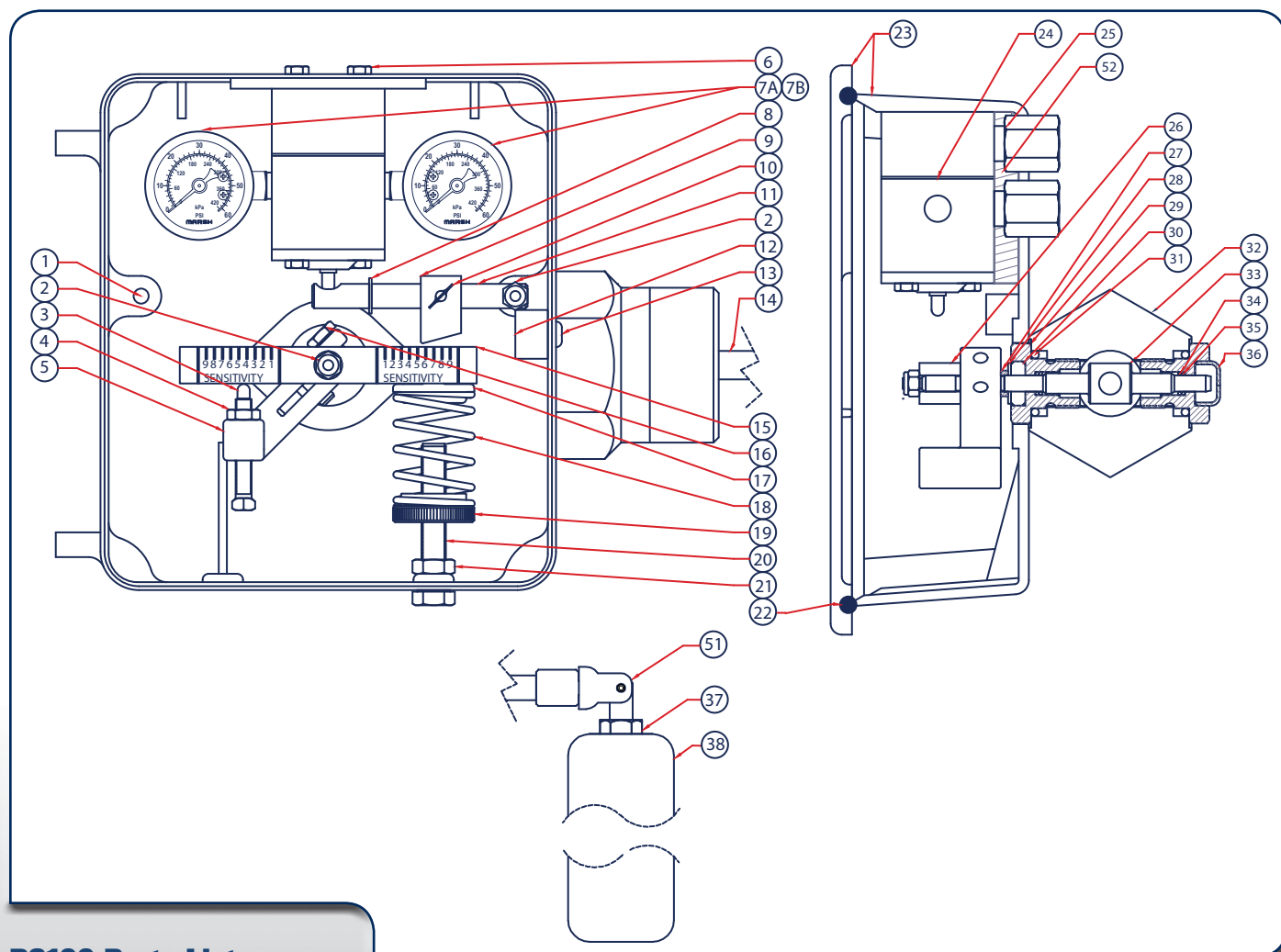
P8100 Dimensions



P81	01			MS	0	N										A	
	01																Controller Case
																	Standard Case
																	Arm Length
																	15"
																	12.5"
																	7.75"
																	End Connection
																	1.5"
																	2"
																	End Connection Type
																	Screwed MNPT
																	End Connection Rating
																	ANSI 1500*
																	* MNPT @4000 PSIG @ 200°F
																	Materials of Construction: Body, Shaft, Bearing Block
																	1018 / 316SS, Nace
																	Pilot
																	Snap (Pneumatic On/Off)
																	Throttling (Pneumatic Modulating)
																	Mounting/Controller Action
																	Left Hand/Direct
																	Left Hand/Reverse
																	Right Hand/Direct
																	Right Hand/Reverse
																	Seal Material
																	Nitrile
																	Fluorocarbon
																	Displacer
																	1.88 X 12 / PVC
																	1.88 X 12 / Acrylic
																	1.66 X 12 / 316SS
																	Gauge Type (Range/Material)
																	0-30 PSI/ 316SS
																	0-60 PSI/ 316SS
																	Enclosure
																	Standard Case (8101)
																	Spring**
																	Light
																	Medium
																	Heavy
																	Extra Heavy

Dimension (in.)																
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
6.00	4.30	3.05	8.75	1.00	2.69	7.57	2.50	10.19	7.00	7.93	4.47	3.50	6.00	16.00*	0.82	

*With 15in displacer arm

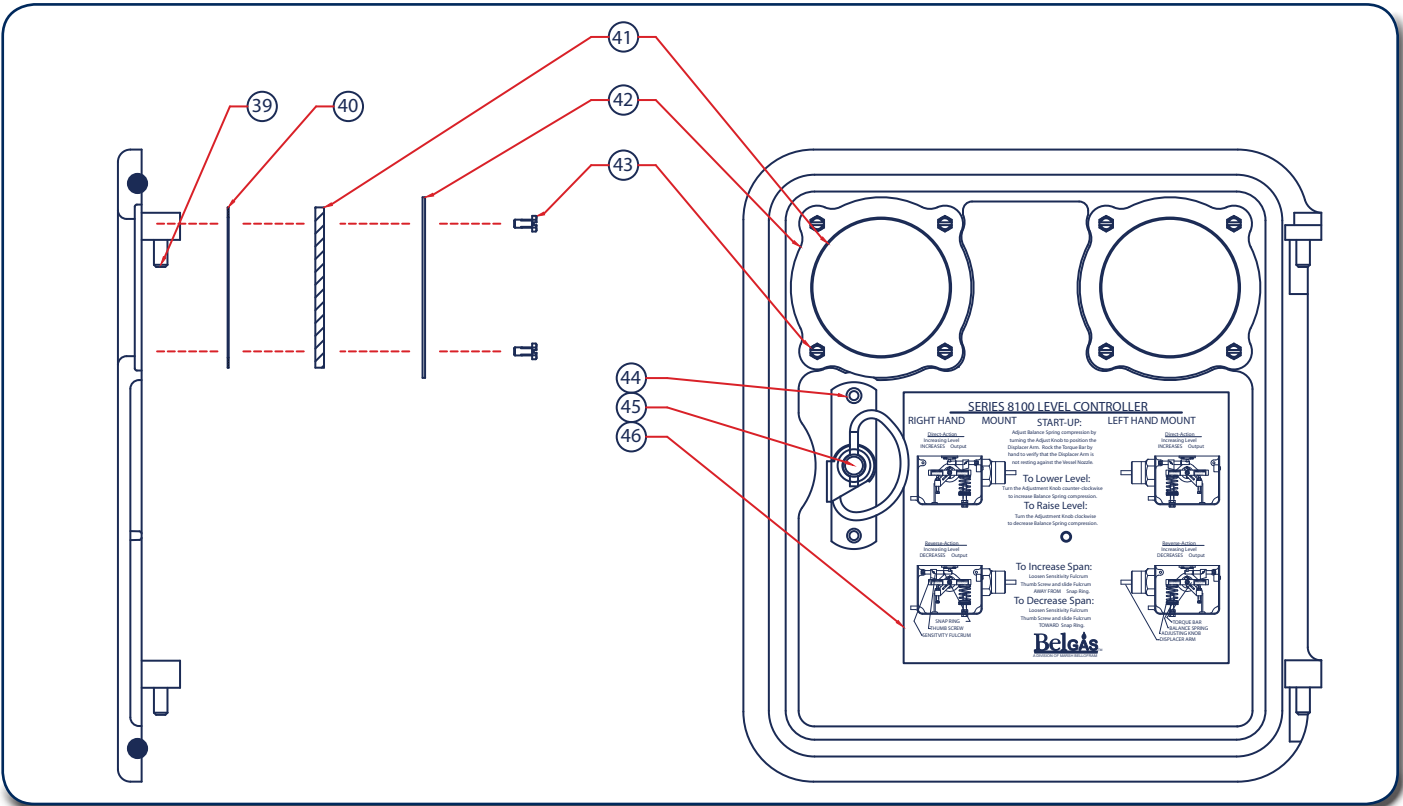


P8100 Parts List

Item	Description	Qty.	Part Number
1	Stud	2	657-018-000
2	Stop Nut	2	634-208-000
3	Adjustment Screw	1	648-558-000
4	Adj. Screw Jam Nut	1	634-209-000
5	Level Adjustment Bar	1	670-038-000
6	Pilot Assembly Screw	2	648-562-000
7A	Gauge 30 PSIG	2	GG1530F8SS
	60 PSIG		GG1560F8SS
7B	Gauge 30 PSIG	2	GG1530G8SS
	60 PSIG		GG1560G8SS
8	Retaining Ring	1	693-030-000
9	Fulcrum	1	694-002-001
10	Thumb Screw	1	648-565-000
11	Flapper Bar	1	670-037-000
12	Latch	1	607-310-000
13	Latch Rivet	2	645-031-000
			646-549-001
14	Displacer Bar 15 in.	1	646-549-000
	12.5 in.		646-549-002
	7.75 in.		
15	Sensitivity Adj. Plate	1	632-568-000
16	Level Adjustment Screw	2	648-563-001
17	Upper Spring Retainer	1	643-217-000
18	Spring Light	1	655-761-000
	Medium		655-762-000
	Heavy		655-763-000
	Extra Heavy		655-764-000

Item	Description	Qty.	Part Number
19	Lower Spring Retainer	1	643-219-000
20	Spring Bolt	1	648-564-000
21	Spring Bolt Jam Nut	1	634-209-001
22	Gasket	1	5314L0028-00250-22
23	Door/Case	1	842-002-000
24	Pilot	1	815-000-459
	Snap Throttle		815-000-460
25	Pipe Adapter	2	622-071-000
26	Bar Torque	1	670-040-000
27	Spacer	1	654-191-000
28	Washer	1	662-431-000
29	Bearing Block	2	602-130-000
30	Radial Ball Bearing	1	602-132-000
31	Bearing Block Nitrile	2	649-332-000
	Fluorocarbon O-ring		649-000-237
32	Body 1.5" NPT	1	664-414-000
	2" MNPT		664-411-000
33	Shaft	1	651-104-000
34	Shaft O-ring Nitrile	2	649-000-003
	Fluorocarbon		649-000-343
35	Shaft Back-Up Ring	2	649-333-000
36	Bearing Block Cap	1	610-079-000
37	Hex Bushing	1	608-085-000
38	Dis-placer 1.88" x 12" PVC	1	660-106-000
	1.88" x 12" Acrylic		660-107-000
	1.66" x 12" Stainless Steel		818-008-000

P8100 Series



Item	Description	Qty.	Part Number
39	Hinge Pin	2	635-082-000
40	Lens Gasket	2	624-095-000
41	Lens	2	619-070-000
42	Lens Holder	2	643-216-000
43	Lens Holder Screw	8	648-561-000
44	Push Nut	2	634-474-000
45	Latch	1	669-032-000
46	Door Nameplate	1	632-569-000
47	Nameplate	1	632-566-000
48	Bearing Tolerance Ring	1	644-311-000
49	Screen	1	647-019-000
50	Body Assembly Screw	2	648-563-000
51	Vertical Displacer Kit	1	821-000-003
52	Sealing Sponge	1	649-344-060
53	Washer	1	662-246-060
54	Body Gasket	1	624-110-060
55	Name Plate Drive Screw	2	648-573-066

P8100 Repair Kits

971P81				Repair Kit for Pressure Gauges
	↑	↑	↑	
	0	0		Range
			1	0-30 PSIG Gauges (Left and Right)
			2	0-60 PSIG Gauges (Left and Right)

971P81				Repair Kit for Pilot Valves
	↑	↑	↑	Range
	1			Pilot Valve Only (w/connections and sponge)
	2			Pilot Valve with Gauges (w/connections and sponge)
	4			Pilot Valve with Gauges (wo/connections and sponge)
				Type of Valve
		1		Snap
		2		Throttle
				Part Combination
			1	Pilot Valve Only (w/connections and sponge)
			2	Pilot Valve with Gauges (w/connections and sponge)
			4	Pilot Valve with Gauges (wo/connections and sponge)

971P81			0	Repair Kit for Elastomeric Parts
	↑	↑	↑	
	3			Elastomer Repair Kits
				Material
		1		Nitrile
		2		Fluorocarbon
			0	