

PL61 Pilot Regulator

The BelGAS PL61 is a pneumatic pilot regulator designed to be used in conjunction with a control valve. This pilot regulator is designed to withstand the severely corrosive mediums associated with the oil and gas industry. PL61 pilots are used with P99 or P1098 control valves. They can be mounted directly to their paired control valve as is the case with the P99.



PL61 Series pilots are available in many different construction options: low pressure (L), high pressure (H), and extra high pressure (HP). In addition to this, the low pressure version can be divided into three different proportional bands: normal (L), narrow (LD), and wide (LE).

The PL61 has no atmospheric bleed path available. It is recommended that the PL61 is installed with an external relief valve.

Applications

The PL61 is for use in applications where a P1098 or a P99 is required. Paired with the appropriate control valve, it offers a broad range of controlled pressure ranges and capacities in a wide variety of distribution, industrial, and commercial applications.

Specifications

Maximum Inlet Pressure	PL61LD	160 PSIG
	PL61L, PL61LE, and PL61H	300 PSIG
	PL61HP	600 PSIG
Output Pressure Ranges	See Table 2	
Maximum Differential Pressure Across Bleed Valve	PL61LD	15 PSIG
	PL61L, PL61LE, and PL61H	35 PSIG
Connections	Relay Valve Body	1/4" NPT
	Lower Casing	1/2" NPT
Temperature Ranges	-20°F to 150°F (-29°C to 66°C)	
Approximate Weight	L, LD, LE	16.5 lbs
	H	24.5 lbs
	HP	9.5 lbs

Output Pressure Ranges

Pilot Type	Output Pressure Ranges		Part Number	Color Code	Wire Diameter	
	PSIG	bar			inches	mm
PL61L	3 - 12" WC (1)	5 - 10 mbar (1)	655-734-010	Plain	0.08	2.03
	0.25 - 2	0.02 - 0.14	655-734-002	Red	0.11	2.77
	1 - 5	0.07 - 0.35	655-734-007	Yellow	0.14	3.61
	2 - 10	0.14 - 0.69	755-734-003	Blue	0.17	4.37
	5 - 15	0.35 - 1.00	655-734-008	Brown	0.19	4.75
	10 - 20	0.69 - 1.40	655-734-009	Green	0.21	5.26
PL61H	10 - 65	0.69 - 4.50	655-659-003	Green Stripe	0.36	9.22
PL61HP	35 - 100	2.41 - 6.89	655-734-012	Blue	0.2	5.16

(1) PL61LD only.

PL61 Pilot Part Matrix

PL61	02	S	00	
				Configuration
	02			1/4" NPT Configuration
				Output Pressure
	12D			3-12" WC (LD) Output Pressure
	002			.25-2 PSIG (L) Output Pressure
	D02			.25-2 PSIG (LD) Output Pressure
	E02			.25-2 PSIG (LE) Output Pressure
	005			1-5 PSIG (L) Output Pressure
	D05			1-5 PSIG (LD) Output Pressure
	E05			1-5 PSIG (LE) Output Pressure
	010			2-10 PSIG (L) Output Pressure
	D10			2-10 PSIG (LD) Output Pressure
	E10			2-10 PSIG (LE) Output Pressure
	015			5-15 PSIG (L) Output Pressure
	D15			5-15 PSIG (LD) Output Pressure
	E15			5-15 PSIG (LE) Output Pressure
	020			10-20 PSIG (L) Output Pressure
	D20			10-20 PSIG (LD) Output Pressure
	E20			10-20 SPIG (LE) Output Pressure
	065			10-65 PSIG (H) Output Pressure
	100			35-100 PSIG (HP) Output Pressure
		S		Configuration
				Standard Configuration
				Max Inlet Pressure
		1		25 PSIG Max Inlet Pressure
		5		250 PSIG Max Inlet Pressure
		6		300 PSIG Max Inlet Pressure
		7		400 PSIG Max Inlet Pressure
		8		1000 PSIG Max Inlet Pressure
		00		Placeholder
				Seat Material
		0		Nitrile (NBR) Seat
		2		Fluorocarbon (FKM) Seat
				Filter Material
		5		Stainless Steel Filter
		B		Brass Filter

Item	Part Number	Description	Quantity
1	604-262-000	Bonnet (L, LD, and LE)	1
	604-263-000	Bonnet (H)	
	604-563-000	Bonnet (HP)	
2	664-380-000	Relay Valve Body (L, LD, LE and H)	1
	664-573-000	Relay Valve Body (HP)	
3	664-673-001	Lower Casing (L, LD, LE and H)	1
	664-673-002	Lower Casing (HP)	
4	670-035-000	Relay Yoke (L, LD, LE and H)	1
	654-193-000	Relay Yoke (HP)	2
5	610-056-00	Closing Cap (L, LD, and LE)	1
6	648-499-000	Adjusting Screw (L, LD and LE)	1
	648-462-002	Adjusting Screw (H)	
	648-566-000	Adjusting Screw (HP)	
7	See Table 2	Control Spring	1
8	688-055-000	Relay Orifice (L, LD, LE, and H)*	1
	688-055-001	Low Pressure Relay Orifice	1
	688-055-002	Relay Orifice .300 PSI (L, LE)	1
9	822-042-000	Disk Holder Assembly (L, LD, LE and H)*	1
10	688-056-000	Bleed Orifice (L, LD, LE and H)*	1
	688-064-000	Bleed Orifice (HP)*	
11	634-200-000	Diaphragm Nut (L, LD, LE and H)	1
12	649-309-002	O-Ring (L, LD, LE, and H)*	1
13	655-734-011	Relay Spring (LD)*	1
	655-734-000	Relay Spring (L and LE)*	
	655-734-001	Relay Spring (H)*	
	655-734-014	Relay Spring (HP)*	
14	618-098-000	Upper Relay Diaphragm (L, LD, LE, H)*	1
	618-106-000	Upper Relay Diaphragm (HP)*	
15	618-099-000	Lower Relay Diaphragm (L, LD, and LE)*	1
	618-100-000	Lower Relay Diaphragm (H)*	
	618-107-000	Lower Relay Diaphragm (HP)*	
16	638-076-000	Upper Relay Head (L, and LD)	1
	638-077-000	Upper Relay Head (LE, and H)	1
	638-085-000	Upper Relay Head (HP)	4
17	638-076-001	Lower Relay Head (L, LD, and LE)	1
	638-078-000	Lower Relay Head (H)	
18	650-175-000	Spring Seat (L, LD, and LE)	1
	650-173-000	Spring Seat (H)	

(Parts List continues on next page)

PL61 Parts cont.

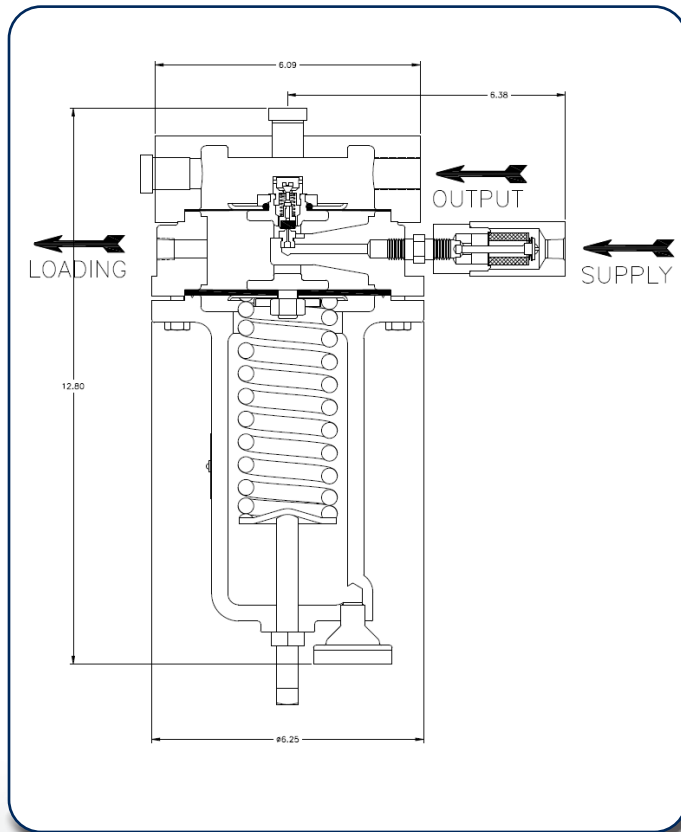
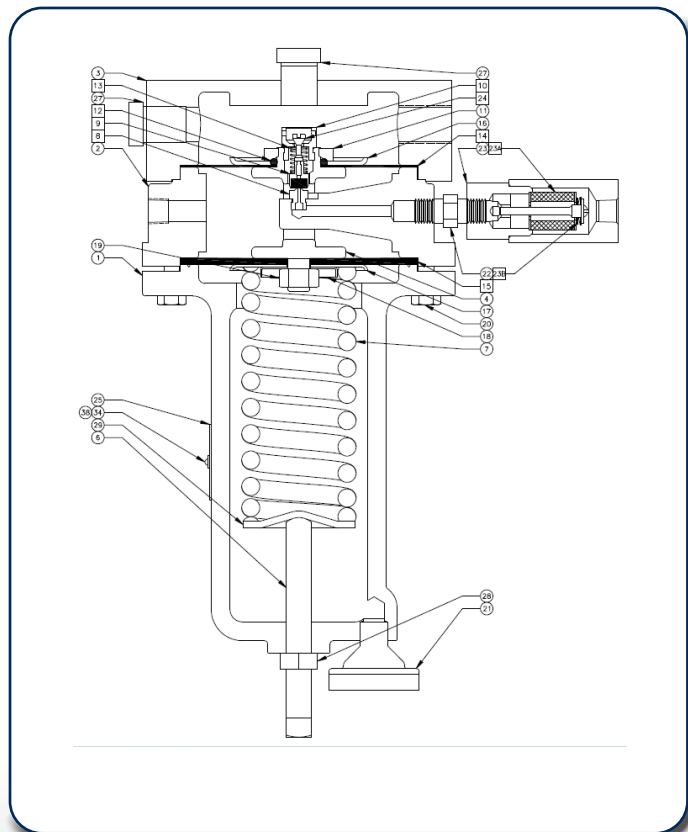
Item	Part Number	Description	Quantity
19	634-199-000	Hex Nut (L, LD, LE, and H)	1
	634-151-000	Hex Nut (HP)	2
20	648-463-015	Cap Screw (L, LD, LE, and H)	8
	648-567-001	Cap Screw (HP)	6
21	836-004-000	Vent Assembly (L, LD, and LE)	1
	836-008-000	Vent Assembly (H)	
22	633-022-000	Pipe Nipple	1
23	P594	Filter Assembly (Stainless Steel)	1
	P595	Filter Assembly (Brass)	
23A	677-052-000	Filter Element*	1
23B	624-062-000	Filter Gasket*	1
24	636-058-001	Bleed Valve (LD)*	1
	636-058-000	Bleed Valve (L, LE, and H)*	
	813-054-000	Bleed Valve (HP)*	
25	632-547-000	Nameplate (L, LD, LE, and H)	1
	632-570-000	Nameplate (HP)	
26	624-069-000	Closing Cap Gasket (L, LD, and LE)*	1
27	639-119-000	Pipe Plug	2
28	634-000-056	Hex Nut (H)	1
	634-475-000	Hex Nut (HP)	
29	626-077-000	Spring Seat (H)	1
	650-191-000	Spring Seat (HP)	
30	610-092-000	Upper Yoke Cap (HP)	1
31	650-190-000	Valve Spring Seat (HP)	1
32	648-000-175	Cap Screw (HP)	6
33	648-568-000	Machine Screw (HP)	4
34	648-464-001	Drive Screw	2
35	624-097-000	Diaphragm Insert (HP)*	2
36	610-092-002	Lower Yoke Cap (HP)	1
37	639-189-000	Bleed Plug (HP)	1
38	662-422-000	Nameplate Washer	2
39	662-239-000	Sealing Washer	6

*Parts included in Repair Kit, 971-P61-XXX

PL61H

PL6102065XX00XX (PL61H)

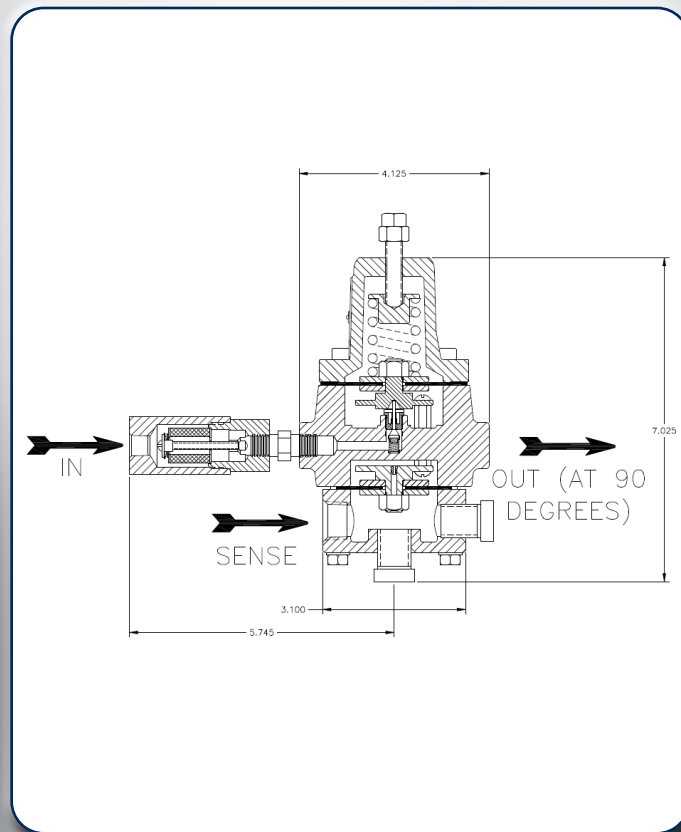
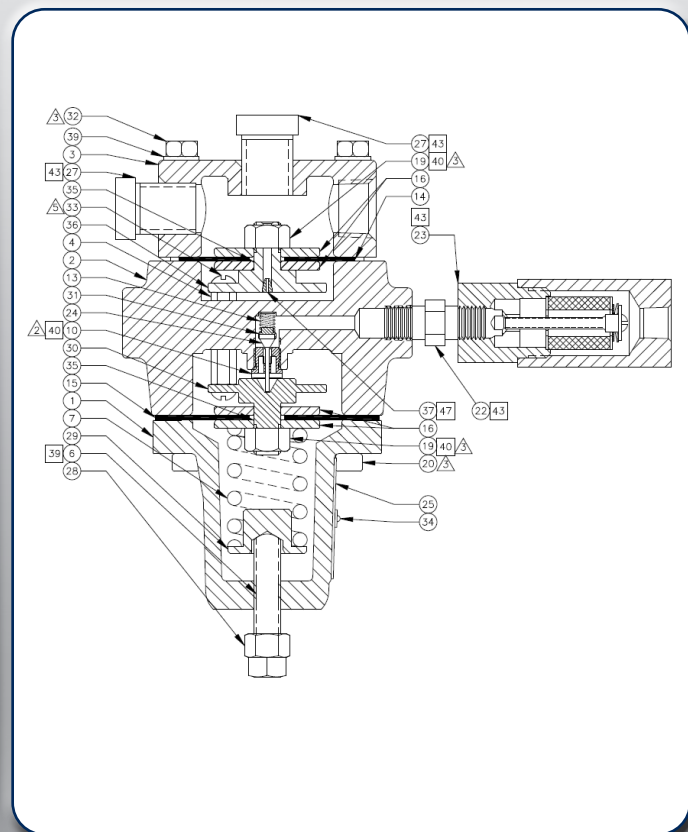
DIMENSIONS (inches)



PL61HP

PL6102100XX00XX (PL61HP)

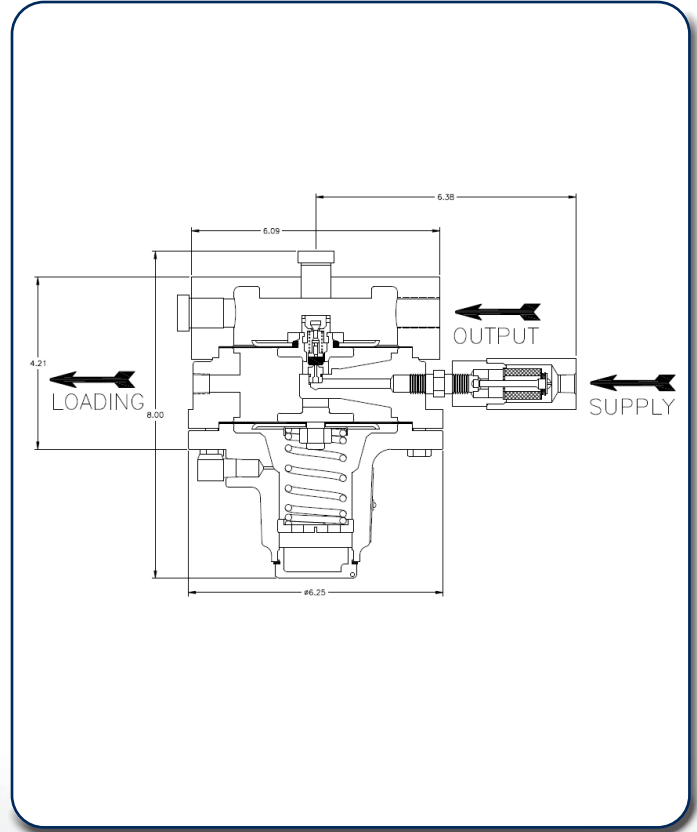
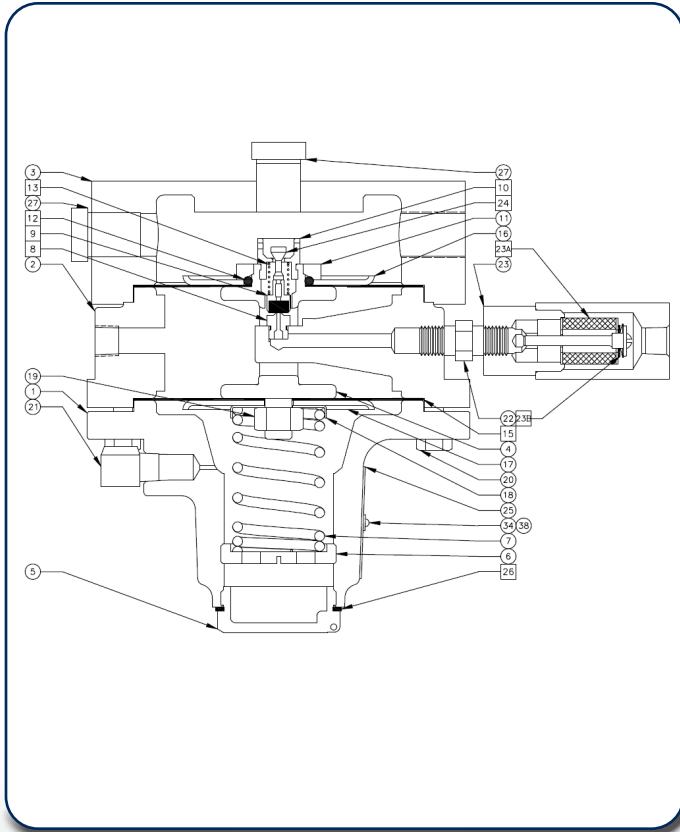
DIMENSIONS (inches)



PL61L

PL6102XXXXX00XX (PL61L)

DIMENSIONS (inches)



PL61 Repair Kits

PL61LD		
971-P61-000	PL61LD	Filter Element, Filter Gasket, Relay Orifice, Disk Holder Assembly, Bleed Orifice, O-Ring, Relay Spring, Upper Relay Diaphragm, Lower Relay Diaphragm, Bleed Valve, Gasket
PL61L, PL61LE		
971-P61-001	PL61L, PL61LE	Filter Element, Filter Gasket, Relay Orifice, Disk Holder Assembly, Bleed Orifice, O-Ring, Relay Spring, Upper Relay Diaphragm, Lower Relay Diaphragm, Bleed Valve, Gasket
PL61H		
971-P61-002	PL61H	Filter Element, Filter Gasket, Relay Orifice, Disk Holder Assembly, Bleed Orifice, O-Ring, Relay Spring, Upper Relay Diaphragm, Lower Relay Diaphragm, Bleed Valve
PL61HP		
971-P61-003	PL61HP	Filter Element, Filter Gasket, Bleed Orifice, Relay Spring, Upper Relay Diaphragm, Lower Relay Diaphragm, Bleed Valve, Diaphragm Insert

BelGAS

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