

GO REGULATOR, INC.

A division of CIRCOR International, Inc.

LB-1 Series Ultra Miniature Back Pressure Regulator



The LB-1 is an ultra-miniature back pressure regulator that employs many of the same features found in the time tested design of the CBP-3 & BP-3 Series back pressure regulators. Designed for surface, panel or manifold mounting, the LB-1 offers the utmost in versatility to the systems designer. It's low internal volume of less than 3cc makes the LB-1 the perfect choice for systems that require rapid purge cycles. Standard features permit using this regulator in a wide variety of services, including corrosive fluids. The LB-1 can be tailored to virtually any application by utilizing the optional features. This regulator is designed to allow the construction of compact and sophisticated analytical instrumentation where the optimum in back pressure control is required and space is at a premium.

Features & Specifications

- Gas or liquid service
- 316L stainless steel, aluminum, brass, or Monel construction
- Electro polished body with better than 25 Ra finish in diaphragm cavity
- Bubble tight shutoff
- Adjustable pressure control ranges are 0–10, 0–25, 0–50, 0–100, 0–250 and 0–500 psig
- C_v flow coefficient 0.2

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LB-1 Series

Ultra Miniature Back Pressure Regulator

How to Order

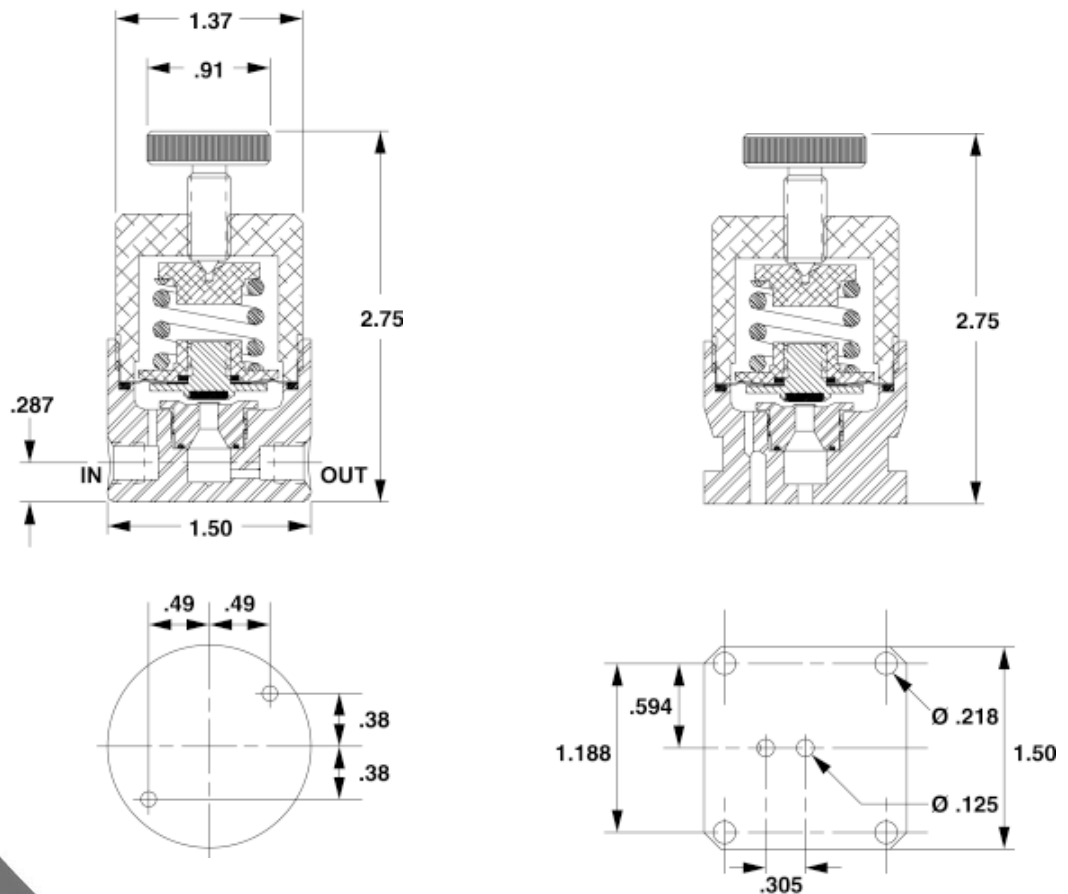
See page 3 for standard configurations. For additional configurations, consult the factory.
See page 4 for port locations.

Maximum Temperature & Operating Inlet Pressures

Seat Material	Maximum Temperature	@	Maximum Control Range
Viton®	250° F (121° C)	@	250 psig (1.72 MPa)
Kalrez®	300° F (148° C)	@	250 psig (1.72 MPa)
Tefzel®	175° F (80° C)	@	500 psig (3.44 MPa)
Polyimide	500° F (260° C)	@	500 psig (3.44 MPa)
PEEK	500° F (260° C)	@	500 psig (3.44 MPa)

Viton®, Kalrez® and Tefzel® are registered trademarks of Dupont.

Outline and Mounting Dimensions



For flow curve charts, go to www.goreg.com/catalog/pr/back/lb1/lb1_flow.htm.

LB-1 Series - Back Pressure Regulator

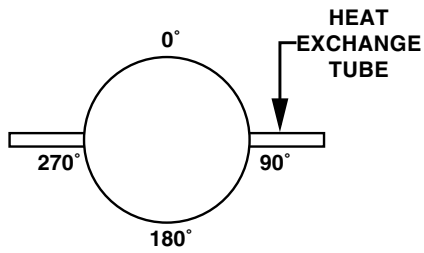
Material of Body	
1	SS 316L
2	Brass
3	Aluminum
4	Monel
Port Configuration (page 29) STANDARD BODY "A" (ONE INLET PORT AND ONE OUTLET PORT)	
A	
Port Type	
0	1/8" FNPT (All Ports)
1	Surface Mount
A	1/16" FNPT (All Ports)
B	1/8" FNPT Inlets; 1/16" FNPT Outlets
Surface Finish of Diaphragm Cavity	
1	<25 Ra
Actuator Material	
A	Tefzel
C	Polyimide
D	Viton (0 - 250 Psig Max)
K	Kalrez (0 - 250 Psig Max)
Q	PEEK
Flow Coefficient (Cv)	
1	0.03
2	0.05
3	0.06
4	0.12
5	0.2
6	0.24
7	0.3
A	0.095
C	0.025
E	0.04
I	0.005
J	53
Control Range	
C	0 - 10 Psig
D	0 - 25 Psig
E	0 - 50 Psig
G	0 - 100 Psig
I	0 - 250 Psig (Requires T-Handle or Tamper Proof)
J	0 - 500 Psig (Requires T-Handle or Tamper Proof)
Diaphragm Type	
1	Standard, Nylon Dia. Slip Ring (170° F Max. Temp.)
2	Standard, Polyimide Dia. Slip Ring (High Temp. Service)
Dia. Facing / Backing / O-Ring Material	
1	Tefzel Seal Ring / SS Backing / Teflon O-Ring
2	Tefzel Seal Ring / Inconel Backing / Teflon O-Ring
3	Teflon Facing / Viton Backing / Viton O-Ring
7	Tefzel Seal Ring / SS Backing / Viton O-Ring
H	Tefzel Seal Ring / Inconel Backing / Viton O-Ring
Cap Assembly	
1	Hand Knob (0-100 Psig Max)
2	T-Handle
3	T-Handle, Panel Mount
4	Hand Knob, Panel Mount (0-100 Psig Max)
8	Tamper Proof

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Material	
Port Config.	
Port Style	
Cavity Finish	
Actuator Material	
Flow (Cv)	
Control Range	
Diaphragm Type	
Diaphragm / O-Ring Material	
Cap Assembly	

PORTING OPTIONS FOR LB-1 BACK PRESSURE VALVE

STEAM HEATED REGULATOR REFERENCE CLOCK



ELECTRICALLY HEATED REGULATOR REFERENCE CLOCK

