GO REGULATOR

LB-1 Series

Ultra-miniature Back Pressure Regulators

Introduction

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 choosing 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.



Typical Applications

- Instrumentation systems requiring rapid purge cycles
- Systems with limited space availability
- Analytical instrumentation
- Gas and liquid sampling
- Research labs

Features & Benefits

- Gas or liquid service
- Electro-polished body with better than 25 Ra finish in diaphragm cavity
- Bubble tight shutoff

Technical Data

CONSTRUCTION	316L stainless steel, aluminum, brass, or Monel®
ADJUSTABLE STANDARD PRESSURE RANGES	0–10, 0–25, 0–50, 0–100, 0–250 and 0–500 psig
OPERATING TEMPERATURE	–40° F to +500° F (–40° C to +260° C)
C_V COEFFICIENT	0.2

pressure regulators

GO Regulator
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Maximum Temperature and Control 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)

How to Order

For additional configurations, consult the factory. **Standard items in bold.**

LB1 – 1 A 0 1 D 5 E 1 1 1

Body Material
- **1 316L stainless steel**
- **2** Brass
- **3** Aluminum
- **4** Monel®

Port Configuration
- **A Standard (body "A")**

See pg. 29 for port locations.

Process Port Types
- **0** ⅛″ FNPT (all ports)
- **1** Surface mount
- **A** 1/16″ FNPT (all ports)
- **B** ⅛″ FNPT inlets; 1/16″ FNPT outlets

Cavity Finish
- **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 (C_v)
- **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
- **J** 0–500 psig

Diaphragm Type
- **1 Standard, Nylon diaphragm slip ring (170° F max. temp)**
- **2** Standard, Polyimide diaphragm slip ring (high temp. service)

Diaphragm Facing/Backing/O-ring Material
- **1 Tefzel® seal ring / stainless steel / Teflon®**
- **2** Tefzel® seal ring / Inconel® / Teflon®
- **3** Teflon® facing / Viton® / Viton®
- **7** Tefzel® seal ring / stainless steel / Viton®
- **H** Tefzel® seal ring / Inconel® / Viton®

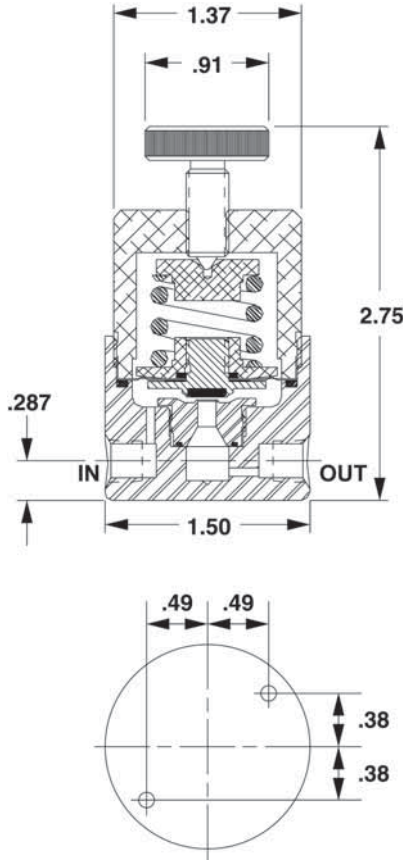
Cap Assembly
- **1 Hand knob (0–100 psig max.)**
- **2** T-handle
- **3** T-handle, panel mount
- **4** Handle knob, panel mount (1–100 psig max.)
- **8** Tamper-proof

For flow curve charts, visit http://www.goreg.com.

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Outline and Mounting Dimensions

Stand Alone Unit



Surface Mount (Manifold) Unit

