

BP-60 Series

High Pressure Back Pressure Regulators

Introduction

The BP-60 Series is the counterpart of the PR-50 pressure reducing series for systems that are higher in pressure and low to moderate flows. This regulator has a diaphragm for maximum sensitivity in providing relief at high pressures. The PTFE stainless seat assembly provides good shutoff in most applications. For economy purposes the cap assembly and knob are of aluminum construction as in the PR-50 companion unit. Good sensitivity and a wide selection of control ranges make this regulator an excellent selection in many research and pilot plant facilities.



Typical Applications

- Sampling Systems
- Pilot plants
- Research labs

Technical Data

| | |
|---------------------------------------|---|
| CONSTRUCTION | 316L stainless steel or brass (alloy 360) Monel® and Hastelloy® C-276 (optional) |
| ADJUSTABLE PRESSURE CONTROL RANGES | 0–500, 0–1000 and 0–2000 psig |
| OPERATING TEMPERATURE | –40° F to +350° F (–40° C to +175° C) |
| C _v COEFFICIENT | 0.04 |
| INLET/OUTLET CONNECTIONS | ¼" FNPT |

Features & Benefits

- Designed for moderate flow applications
- Diaphragm sensing with nylon, PTFE or stainless steel diaphragm
- Bubble tight shutoff

Options

- Various Cv's available – 0.005, 0.01, 0.025, 0.09
- Panel mounting
- ¾" FNPT, AN 10050-4, SAE J514 or MS 33649 connections

GO Regulator

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pressure regulators

High Pressure Back Pressure Regulators

Maximum Temperature and Control Pressures

Nylon Diaphragm Backing

| SEAT MATERIAL | MAXIMUM TEMPERATURE | @ | MAXIMUM CONTROL RANGE |
|---------------|---------------------|---|-----------------------|
| Tefzel® | 175° F (80° C) | @ | 1000 psig (6.89 MPa) |
| PTFE | 175° F (80° C) | @ | 1000 psig (6.89 MPa) |
| Polyimide | 175° F (80° C) | @ | 2000 psig (13.76 MPa) |
| PEEK™ | 175° F (80° C) | @ | 2000 psig (13.76 MPa) |

PTFE Diaphragm Backing

| SEAT MATERIAL | MAXIMUM TEMPERATURE | @ | MAXIMUM CONTROL RANGE |
|---------------|---------------------|---|-----------------------|
| Tefzel® | 175° F (80° C) | @ | 2000 psig (13.76 MPa) |
| PTFE | 175° F (80° C) | @ | 2000 psig (13.76 MPa) |
| Polyimide | 350° F (176° C) | @ | 2000 psig (13.76 MPa) |
| PEEK™ | 350° F (176° C) | @ | 2000 psig (13.76 MPa) |

How to Order

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

BP60 – 1 A 1 1 C E J 1 2 1

Body Material

- 1** 316L stainless steel
- 2 Brass
- 4 Monel®
- 6 Hastelloy® C-276

Port Configuration

A Standard (body “A”)
See pg. 28 for port locations.

Process Port Types

- 1** ¼” FNPT (¼” FNPT gauge ports)
- 2** ¼” Tube stub, 2” long (¼” FNPT gauge ports)
- 4** ⅜” FNPT (¼” FNPT gauge ports)
- 6** ½” Tube stub, 2” long (¼” FNPT gauge ports)
- 7** AN 10050-4 (¼” FNPT gauge ports)
- 8** SAE J514 (¼” FNPT gauge ports)
- 9** M/S 33649 (¼” FNPT gauge ports)

Cavity Finish

- 1** < 25 Ra
- 5** < 25 Ra with 10-32 mounting holes

Actuator Material

- A** Tefzel®
- B** CF PTFE
- C** Polyimide
- I** PTFE
- Q** PEEK™

Cap Assembly

- 1** Standard, aluminum
- 4** Panel mount, aluminum
- 5** Captured vent, aluminum

Diaphragm Facing/Backing Material

| | FACING | BACKING | O-RING | ACTUATOR |
|----------|------------------|---------|------------------|------------------|
| 1 | SS | Nylon | Viton® | SS |
| 2 | none | Nylon | PTFE | SS |
| 7 | Inconel® | Nylon | Viton® | Monel® |
| 8 | Inconel® | Nylon | PTFE | Monel® |
| 0 | Hastelloy® C-276 | Nylon | PTFE | Hastelloy® C-276 |
| A | Hastelloy® C-276 | Nylon | Viton® | Hastelloy® C-276 |
| Q | SS | PTFE | PTFE | SS |
| S | SS | PTFE | PTFE/ Kalrez® | SS (max. 450° F) |
| T | SS | PTFE | Kalrez® | SS (max. 450° F) |
| V | Inconel® | PTFE | PTFE | Monel® |
| W | Hastelloy® C-276 | PTFE | PTFE | Hastelloy® C-276 |

Diaphragm Type

- 1** Standard diaphragm

Control Range

- J** 1–500 psig
- K** 1–1000 psig
- L** 1–2000 psig

Flow Coefficient (C_v)

- C** 0.025
- E** **0.04**
- G** 0.09
- I** 0.005
- J** 0.01

NOTE: The choices above represent an abbreviated list of the more commonly ordered options. For a complete listing of all available options, please see the Selection Wizard on the GO website at www.goreg.com or contact the factory.

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

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Outline and Mounting Dimensions

