

# **GO** REGULATOR, INC.

A division of CIRCOR International, Inc.



## **BP-3 Series Adjustable Back Pressure Regulators**

The BP-3 Series is designed for either liquid or gas service in instrumentation systems. Similar in design to pressure reducing control regulators which regulate outlet pressures, back pressure regulators control the inlet pressure. The many features of this regulator, particularly its precise throttling action, make it ideal for this type of application. In low flow or closed systems, over-pressures often are released by pressure relief valves. This type of relief is on-off with no throttling control. In contrast to relief valves, the back pressure control regulator with its throttling action substantially improves system pressure regulation.

### **Features & Specifications**

- Only 316L stainless steel and Teflon® in flow stream
- 316L stainless steel construction
- Operating temperatures of -40° F (-40° C) to +500° F (+260° C)
- Bubble tight shutoff
- Gas or liquid service
- Adjustable pressure control ranges of 0-6, 0-10, 0-25, 0-50, 0-100, 0-250, 0-500, 0-750 & 0-1000 psig
- $C_v$  flow coefficient is 0.2

### **Options**

- Wetted materials of construction brass, Monel, Hastelloy, Titanium
- Extra ports
- Panel mount (requires a 1 3/8" mounting hole)
- High purity connections
- Pressure gauges
- Various orifice sizes: .03, .05, .06, .12, .24, .3, .095, .025, .04, .005 and .01

2301 Wardlow Circle  
Corona, CA 92880  
tel 909.270.6200  
fax 909.270.6201  
www.goreg.com  
sales@goreg.com

# BP-3 SERIES

## Adjustable Back Pressure Regulators

### How to Order

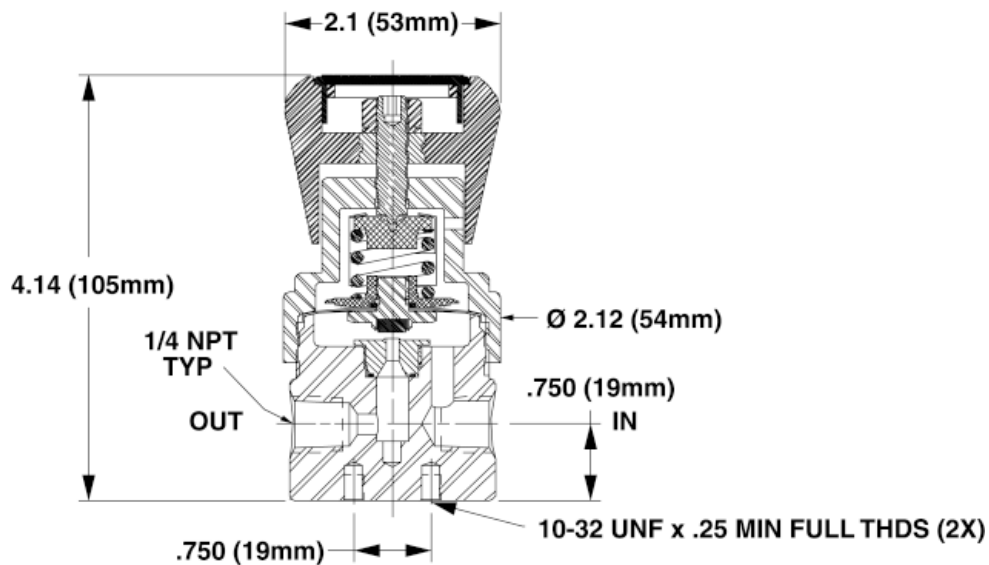
See page 3 for standard configurations. For additional configurations, consult the factory.  
See page 4 for port locations

### Maximum Temperature and Control Pressures

| Seat Material        | Maximum Temperature | @ | Maximum Control Range |
|----------------------|---------------------|---|-----------------------|
| Viton®               | 250° F (121° C)     | @ | 250 psig (1.71 MPa)   |
| Kalrez®              | 300° F (148° C)     | @ | 250 psig (1.72 MPa)   |
| High Density Teflon® | 200° F (93° C)      | @ | 500 psig (5.16 MPa)   |
| Polyimide            | 500° F (260° C)     | @ | 1000 psig (6.88 MPa)  |
| PEEK                 | 500° F (260° C)     | @ | 1000 psig (6.88 MPa)  |

Note: Temperatures in excess of 175° F (80° C) require the use of a metal knob or the tamper proof option.  
Viton®, Kalrez® and Teflon® are registered trademarks of Dupont.

### Outline and Mounting Dimensions



Weight - 1.9 lbs (0.86 kg)

# BP-3 Series - Back Pressure Regulator (US Dollars)

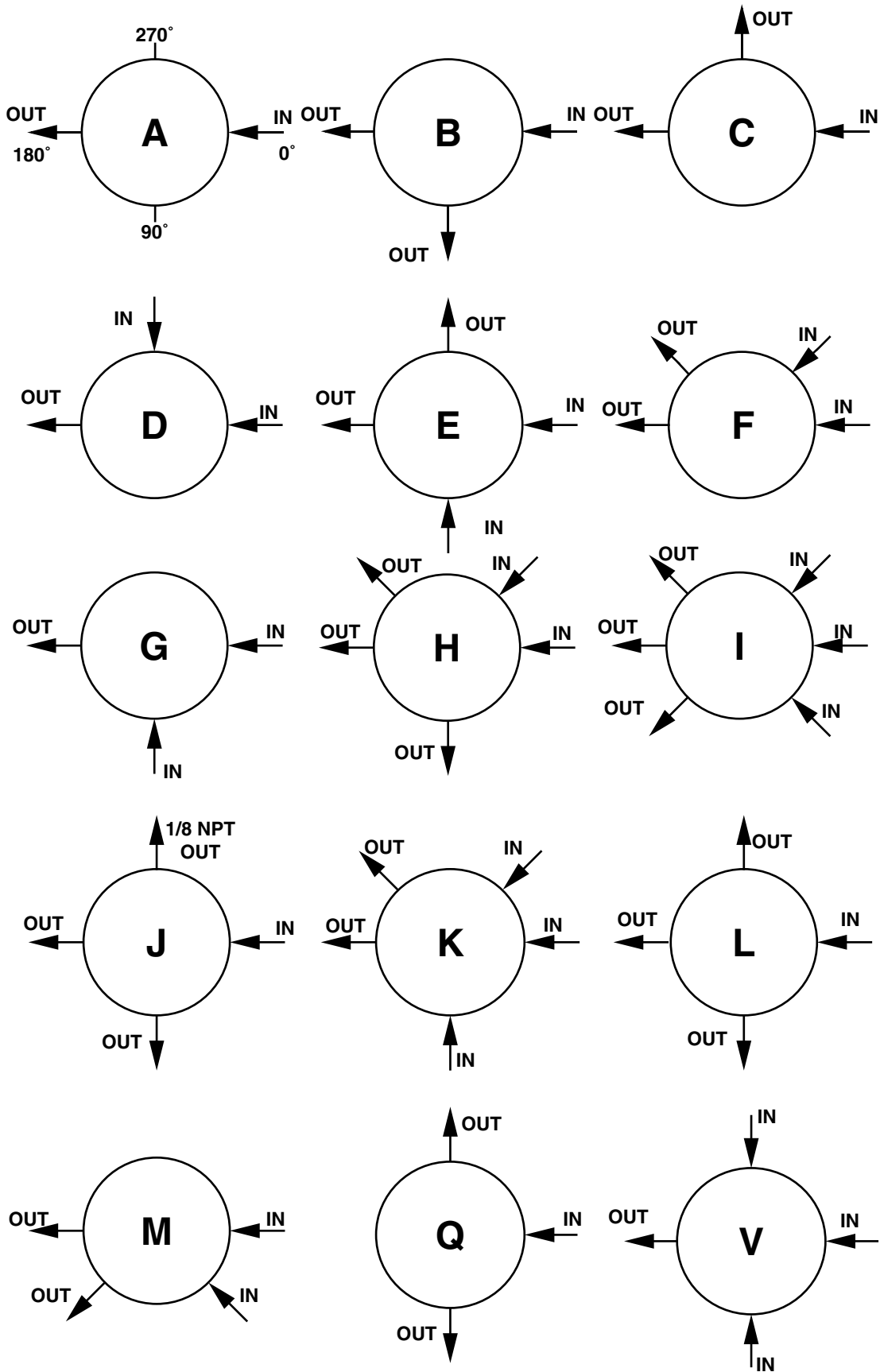
|   |  |   |  |  |  |  |  |  |  |  |  |
|---|--|---|--|--|--|--|--|--|--|--|--|
|   |  | <b>Material of Body</b>                                   |  |  |  |  |  |  |  |  |  |
| 1 | SS 316L                                  |   |  |  |  |  |  |  |  |  |  |
| 2 | Brass                                    |   |  |  |  |  |  |  |  |  |  |
| 4 | Monel                                    |   |  |  |  |  |  |  |  |  |  |
| 5 | Hastelloy B                              |   |  |  |  |  |  |  |  |  |  |
| 6 | Hastelloy C                              |   |  |  |  |  |  |  |  |  |  |
|   |  | <b>Port Configuration (page 28)</b>                       |  |  |  |  |  |  |  |  |  |
|   |  | STANDARD BODY "A" (ONE INLET PORT AND ONE OUTLET PORT)    |  |  |  |  |  |  |  |  |  |
|   |  | <b>Process port types (gauge port type, if specified)</b> |  |  |  |  |  |  |  |  |  |
| 1 | 1/4" FNPT (1/4" FNPT Gauge Ports)        |   |  |  |  |  |  |  |  |  |  |
| 2 | 1/4" Tube (1/4" Tube Gauge Ports)        |   |  |  |  |  |  |  |  |  |  |
| 3 | 1/4" Sch 80 Pipe (1/4" FNPT Gauge Ports) |   |  |  |  |  |  |  |  |  |  |
| 4 | 3/8" FNPT (1/4" FNPT Gauge Ports)        |   |  |  |  |  |  |  |  |  |  |
| 6 | 1/2" Tube (1/4" Tube Gauge Ports)        |   |  |  |  |  |  |  |  |  |  |
| 0 | 1/8" FNPT (1/8" FNPT Gauge Ports)        |   |  |  |  |  |  |  |  |  |  |
|   |  | <b>Surface Finish of Diaphragm Cavity</b>                 |  |  |  |  |  |  |  |  |  |
| 1 | <25 Ra                                   |   |  |  |  |  |  |  |  |  |  |
|   |  | <b>Actuator Material</b>                                  |  |  |  |  |  |  |  |  |  |
| B | CF Teflon                                |   |  |  |  |  |  |  |  |  |  |
| C | Polyimide (Metal Knob is std.)           |   |  |  |  |  |  |  |  |  |  |
| D | Viton                                    |   |  |  |  |  |  |  |  |  |  |
| I | High Density Teflon                      |   |  |  |  |  |  |  |  |  |  |
| K | Kalrez                                   |   |  |  |  |  |  |  |  |  |  |
| Q | PEEK                                     |   |  |  |  |  |  |  |  |  |  |
|   |  | <b>Flow Coefficient (Cv)</b>                              |  |  |  |  |  |  |  |  |  |
| 5 | 0.2                                      |   |  |  |  |  |  |  |  |  |  |
|   |  | <b>Control Range</b>                                      |  |  |  |  |  |  |  |  |  |
| B | 0 - 6 Psig                               |   |  |  |  |  |  |  |  |  |  |
| C | 0 - 10 Psig                              |   |  |  |  |  |  |  |  |  |  |
| D | 0 - 25 Psig                              |   |  |  |  |  |  |  |  |  |  |
| E | 0 - 50 Psig                              |   |  |  |  |  |  |  |  |  |  |
| G | 0 - 100 Psig                             |   |  |  |  |  |  |  |  |  |  |
| I | 0 - 250 Psig                             |   |  |  |  |  |  |  |  |  |  |
| J | 0 - 500 Psig                             |   |  |  |  |  |  |  |  |  |  |
|   |  | <b>Diaphragm Type</b>                                     |  |  |  |  |  |  |  |  |  |
| 1 | Standard Diaphragm                       |   |  |  |  |  |  |  |  |  |  |
| 4 | Vacuum Assist Spring, Standard Diaphragm |   |  |  |  |  |  |  |  |  |  |
|   |  | <b>Diaphragm Facing / Backing Material</b>                |  |  |  |  |  |  |  |  |  |
| 1 | Teflon / SS                              |   |  |  |  |  |  |  |  |  |  |
| 6 | Tefzel Ring / SS                         |   |  |  |  |  |  |  |  |  |  |
| 7 | Viton / SS                               |   |  |  |  |  |  |  |  |  |  |
| 8 | Teflon / Inconel                         |   |  |  |  |  |  |  |  |  |  |
| 9 | Teflon / Hastelloy B                     |   |  |  |  |  |  |  |  |  |  |
| 0 | Teflon / Hastelloy C                     |   |  |  |  |  |  |  |  |  |  |
| A | Teflon / Tantalum                        |   |  |  |  |  |  |  |  |  |  |
|   |  | <b>Cap Assembly</b>                                       |  |  |  |  |  |  |  |  |  |
| 1 | Standard                                 |   |  |  |  |  |  |  |  |  |  |
| 4 | Panel Mount                              |   |  |  |  |  |  |  |  |  |  |
| 8 | Tamper Proof                             |   |  |  |  |  |  |  |  |  |  |
| E | Tamper Proof, Panel Mount                |   |  |  |  |  |  |  |  |  |  |
| G | Metal Knob                               |   |  |  |  |  |  |  |  |  |  |
| H | 1/4" FNPT Dome Loaded                    |   |  |  |  |  |  |  |  |  |  |
| L | BP-6 Top Works, S.S.                     |   |  |  |  |  |  |  |  |  |  |
| O | BP-6 Top Works, Panel Mount, S.S.        |   |  |  |  |  |  |  |  |  |  |

BP 3 -

|  |  |  |   |  |  |  |  |  |  |  |
|--|--|--|---|--|--|--|--|--|--|--|
|  |  |  | 1 |  |  |  |  |  |  |  |
|--|--|--|---|--|--|--|--|--|--|--|

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

# PORT LOCATIONS (BACK PRESSURE REGULATORS)



LOCATION OF PORTS FROM TOP VIEW