

# GO REGULATOR

## BP-8 Series High Flow Back Pressure Regulator



This series is designed to control back pressure at low to moderate pressure ranges with relatively high flow. While designed primarily for instrumentation systems and similar to the PR-7, the BP-8 is also suitable for pilot plant, research and development activities. Special diaphragm and spring combinations give the user a selection of pressure ranges that are near atmospheric. The glass filled Teflon® / stainless seat assembly gives tight shut off even at lower flows for most applications.

The 316 SS and Teflon® body assembly give service for most chemical environments and brass models are available for those applications not requiring that sort of corrosion resistance. If special requirements demand other materials of construction, please contact the factory with your needs.

### Features & Specifications

- Pressure control of large flows with  $C_v$  flow coefficient of 1.2
- 316L stainless steel or brass construction
- Operating temperatures of -40° F (-40° C) to +250° F (+121° C)
- Standard stainless steel diaphragm, Teflon® faced for adjustable pressure control ranges of 0–10, 0–25, 0–50, 0–100, 0–250, and 0–500 psig
- Inlet and outlet connections 1/4" FNPT standard

### Options

- Panel mounting
- 3/8" FNPT, 1/2" FNPT, 1/4" tube weld, 1/4" pipe weld, 1/2" tube weld
- Monel or Hastelloy C construction
- Extra ports
- $C_v$  flow coefficient—0.40, 0.70

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# BP-8 SERIES

## High Pressure Back Pressure Regulator

### How to Order

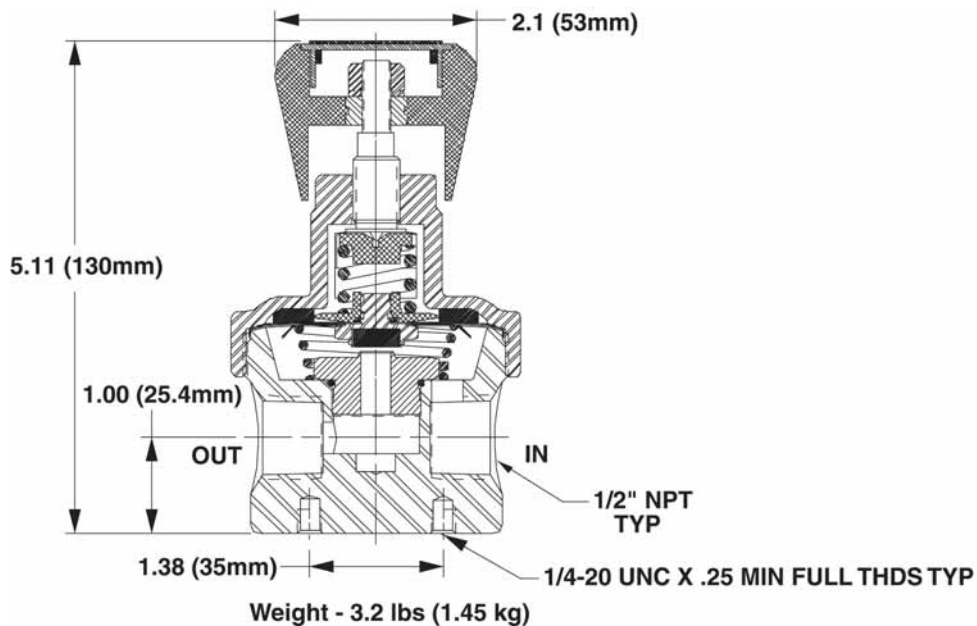
See page 3 for standard configurations. For additional configurations, consult the factory.  
See page 4 for port locations.

### Maximum Temperature and Control Pressures

| Seat Material        | Maximum Temperature* | @ | Maximum Control Range |
|----------------------|----------------------|---|-----------------------|
| Viton®               | 250° F (121° C)      | @ | 250 psig (1.72 MPa)   |
| Glass Filled Teflon® | 250° F (121° C)      | @ | 500 psig (3.44 MPa)   |

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

### Outline and Mounting Dimensions

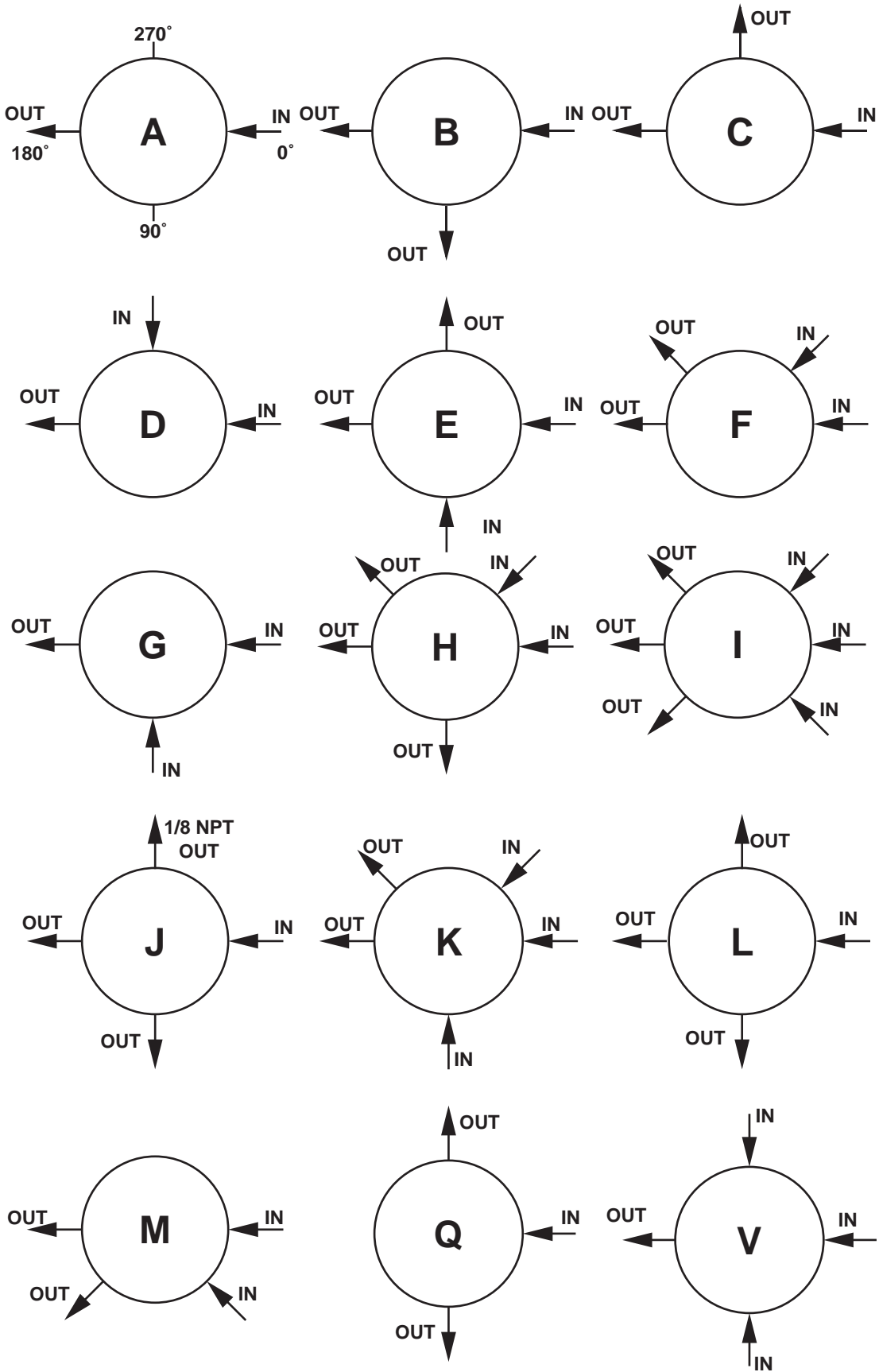


|   |  |  |  |
|---|--|--|--|
|   |  | <b>Material of Body</b>                                |  |
| 1   | SS 316L                                  |  |  |
| 2   | Brass                                    |  |  |
| 4   | Monel                                    |  |  |
| 6   | Hastelloy C                              |  |  |
|   |  | <b>Port Configuration (page 4)</b>                     |  |
|   |  | STANDARD BODY "A" (ONE INLET PORT AND ONE OUTLET PORT) |  |
| A   |  |  |  |
| <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)        |  |  |
| 5   | 1/2" FNPT (1/4" FNPT Gauge Ports)        |  |  |
| 6   | 1/2" Tube (1/4" Tube Gauge Ports)        |  |  |
| <b>Surface Finish of Diaphragm Cavity</b>                 |  |  |  |
| 1   | <25 Ra                                   |  |  |
| <b>Actuator Material</b>                                  |  |  |  |
| D   | Viton                                    |  |  |
| L   | Glass Filled Teflon                      |  |  |
| <b>Flow Coefficient (Cv)</b>                              |  |  |  |
| 9   | 1.2                                      |  |  |
| K   | 0.7                                      |  |  |
| L   | 0.4                                      |  |  |
| <b>Control Range</b>                                      |  |  |  |
| 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                                 |  |  |
| <b>Diaphragm Facing / Backing Material</b>                |  |  |  |
| 1   | Teflon / SS                              |  |  |
| 2   | Teflon / Viton                           |  |  |
| 6   | Tefzel Ring / SS                         |  |  |
| 8   | Teflon / Inconel                         |  |  |
| 0   | Teflon / Hastelloy C                     |  |  |
| <b>Cap Assembly</b>                                       |  |  |  |
| 1   | Standard, S.S.                           |  |  |
| 2   | T-Handle, S.S.                           |  |  |
| 3   | T-Handle, Panel Mount, S.S.              |  |  |
| 4   | Panel Mount, S.S.                        |  |  |
| 5   | Captured Vent, Aluminum                  |  |  |
| 6   | Captured Vent, Panel Mount, Aluminum     |  |  |
| 7   | Captured Vent, S.S.                      |  |  |
| 8   | Tamper Proof, S.S.                       |  |  |
| H   | 1/4" NPT Dome Loaded, S.S.               |  |  |

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|          |              |            |               |                   |           |               |                |                    |              |
|----------|--------------|------------|---------------|-------------------|-----------|---------------|----------------|--------------------|--------------|
|          |              |            |               |                   |           |               |                |                    |              |
| 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