

# GO REGULATOR

## 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

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# BP-3 SERIES

## Adjustable Back Pressure Regulators

### How to Order

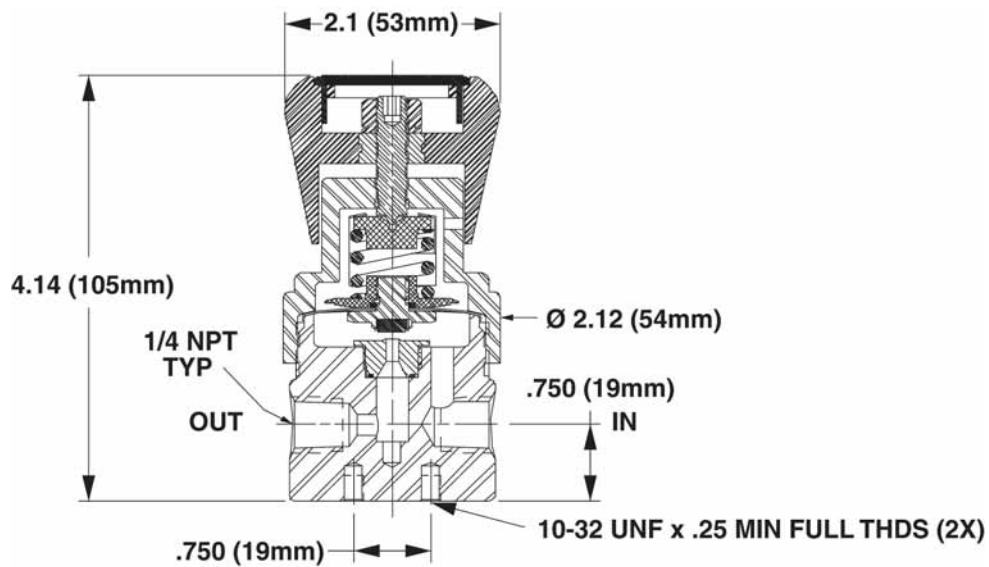
See page 19 for standard configurations. For additional configurations, consult the factory.  
See page 28 for port locations

### 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)

# GO REGULATOR



## BP-6 Series High Flow Back Pressure Regulator

The BP-6 Series was originally designed as a back pressure regulator for reverse osmosis water purification systems. It may also be easily used in pilot facilities and large instrumentation systems. The standard 316 stainless steel seat assembly, which was intended for long term usage in sea water, may also be useful in various chemical environments. While the stainless steel seat assembly does not offer tight shutoff as it is not normally required in high flow systems. If more positive shutoff is required a Teflon®/stainless steel seat assembly is available.

The BP-6 Series is normally provided in 316 stainless construction but other materials may be available.

### Features & Specifications

- $C_v$  flow coefficient of 3.0
- Gas or liquid service
- Adjustable standard pressure ranges 0–100, 0–250, 0–500 and 0–1000 psig
- Sensing with Teflon® lined stainless diaphragm
- 316L stainless steel construction
- Metal to metal seat
- Operating temperatures of -40° F (-40° C) to +500° F (+260° C)
- 1/2" FNPT inlet and outlet connections

### Options

- Monel, Hastelloy C or Titanium construction
- Soft seat for bubble tight shutoff
- Panel mounting
- Extra ports
- Special welded connections
- Pressure gauges

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# BP-6 SERIES

## High Flow Back Pressure Regulator

### How to Order

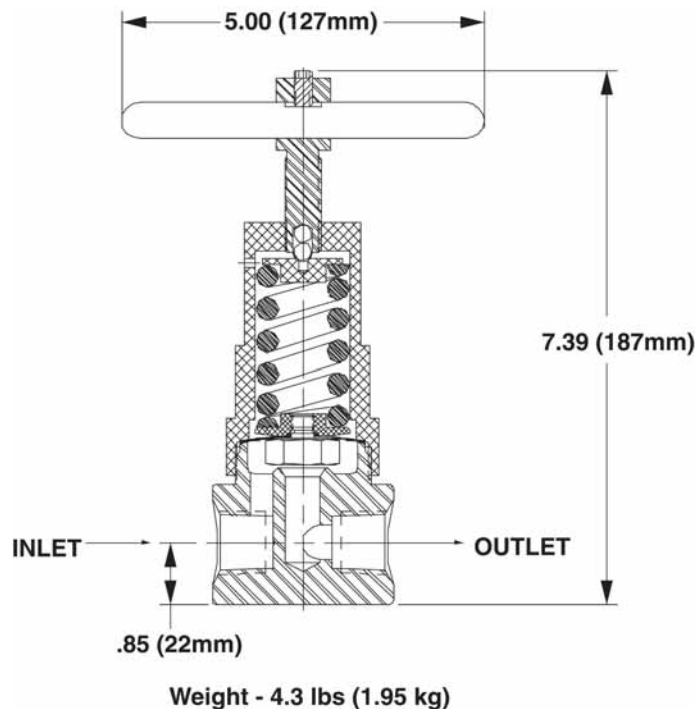
See page 20 for standard configurations. For additional configurations, consult the factory.  
See page 28 for port locations.

### Maximum Temperature & Control Pressures

Seat Material	Maximum Temperature	@	Maximum Control Range
Teflon®	200° F (93° C)	@	1000 psig (6.88 MPa)
316L SS	500° F (260° C)	@	1000 psig (6.88 MPa)
Monel	500° F (260° C)	@	1000 psig (6.88 MPa)
Hastelloy C	500° F (260° C)	@	1000 psig (6.88 MPa)
Titanium	500° F (260° C)	@	1000 psig (6.88 MPa)

Teflon® is a registered trademark of Dupont.

### Outline and Mounting Dimensions



# 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

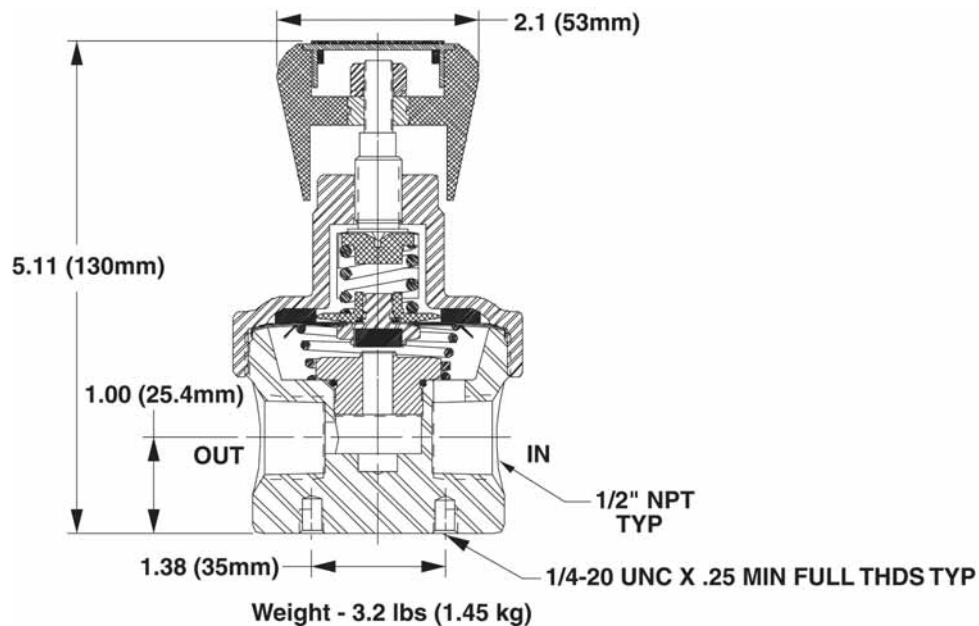
See page 21 for standard configurations. For additional configurations, consult the factory.  
See page 28 for port locations.

### 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



# GO REGULATOR

## BP-8LF Series High Sensitivity Back Pressure Regulator



The BP-8LF Series back pressure regulator is designed to furnish precise low back pressure control in analytical instrumentation. With the combination of the large diaphragm sensing area of the BP-8 Series Regulator and the low flow seat assembly of the BP-3 Series pressure regulator, pressure control down to 10 inches of water is easily obtainable.

### Features & Specifications

- Sensitive pressure control
- Low pressure adjustability
- Stainless steel
- Optional Monel or Hastelloy C construction
- Adjustable pressure ranges 0–6, 0–25, 0–50, 0–75, 0–125, 0–250 & 0–500 psig
- $C_v$  flow coefficient 0.2 standard
- Teflon® / Viton® diaphragm, standard (optional: Teflon / Stainless Steel)
- Operating temperatures of -40° F (-40° C) to +500° F (+260° C)
- Inlet and outlet connections 1/4" FNPT
- Optional  $C_v$ —0.03, 0.05, 0.06, 0.12, 0.24, 0.3, 0.095, 0.025, 0.04, 0.005, 0.01

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# BP-8LF SERIES

## High Pressure Back Pressure Regulator

### How to Order

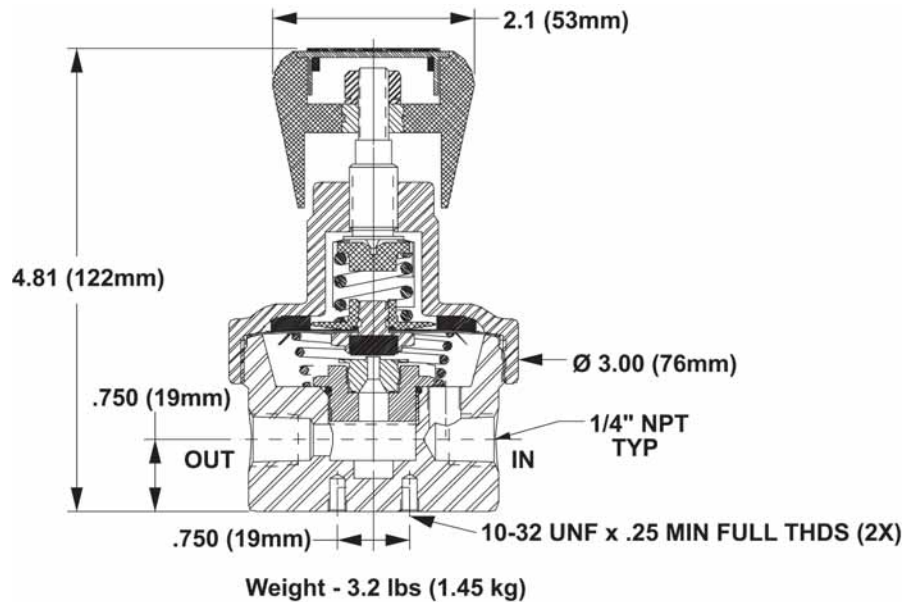
See page 22 for standard configurations. For additional configurations, consult the factory.  
See page 28 for port locations.

### Maximum Temperature & Control Pressures

Seat Material	Maximum Temperature*	@	Maximum Control Range Pressure
Viton®	250° F (121° C)	@	500 psig (5.16 MPa)
Kalrez®	300° F (148° C)	@	500 psig (5.16 MPa)
High Density Teflon®	200° F (93° C)	@	500 psig (5.16 MPa)
Polyimide	500° F (260° C)	@	500 psig (5.16 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



For flow curve charts, go to [www.goreg.com/catalog/pr/back/bp8lf/bp8lf\\_flow.htm](http://www.goreg.com/catalog/pr/back/bp8lf/bp8lf_flow.htm).

# GO REGULATOR



## CBP-3 Series Compact Stainless Steel Back Pressure Regulator

The CBP-3 Series is a compact back pressure regulator with some of the time proven features of the BP-3 Series and some new features evolving the compact size. This regulator is designed to allow the construction of compact sophisticated analytical instrumentation where the optimum in back pressure control is required. Standard features allow service in many varied applications including corrosive fluids and with the optional features available, the user can tailor this regulator to virtually any application requiring small to moderate flow rates.

### Features & Specifications

- Gas or liquid service
- 316L stainless steel construction
- Bubble tight shutoff
- Compact size
- Adjustable outlet pressure ranges of 0–10, 0–25, 0–50, 0–100, 0–250 & 0–500 psig
- $C_v$  flow coefficient 0.2
- Tefzel®, or Kalrez® in flow stream
- Operating temperatures of -40° F (-40° C) to +500° F (+260° C)
- Inlet/outlet connections 1/8" FNPT

### Options

- Various  $C_v$  available—0.03, 0.05, 0.06, 0.12, 0.24, 0.3, 0.095, 0.025, 0.04, 0.005, 0.01
- Panel mount (requires a 1 3/8" mounting hole)
- Extra ports
- Special welded connections
- Pressure gauges

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# CBP-3 Series

## Compact Stainless Steel Back Pressure Regulator

### How to Order

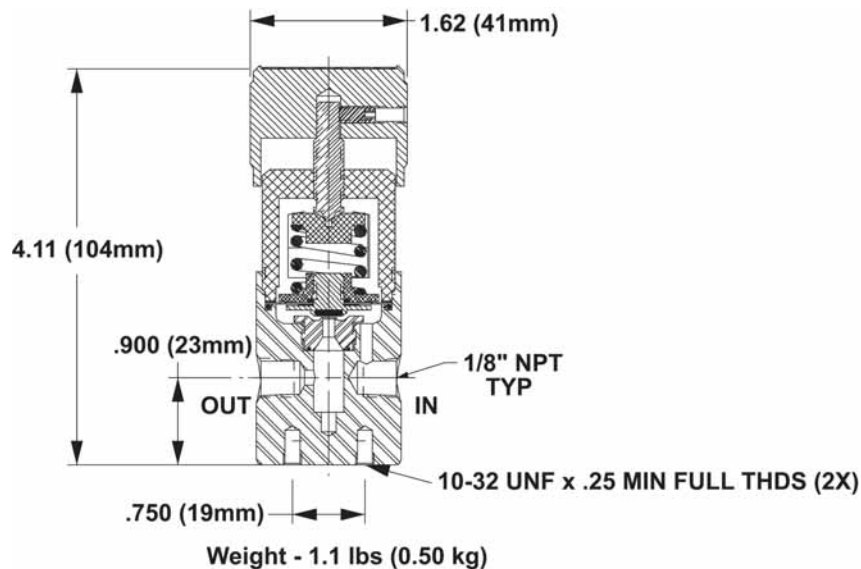
See page 23 for standard configurations. For additional configurations, consult the factory.  
See page 28 for port locations.

### Maximum Temperature and Control Pressures

Seat Material	Maximum Temperature	@	Maximum Control Range
Viton®	250° F (121° C)	@	250 psig (1.72 MPa)
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)

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

### Outline and Mounting Dimensions



For flow curve charts, go to [http://www.goreg.com/catalog/pr/back/cbp3/cbp3\\_flow.htm](http://www.goreg.com/catalog/pr/back/cbp3/cbp3_flow.htm).

# GO REGULATOR

## 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

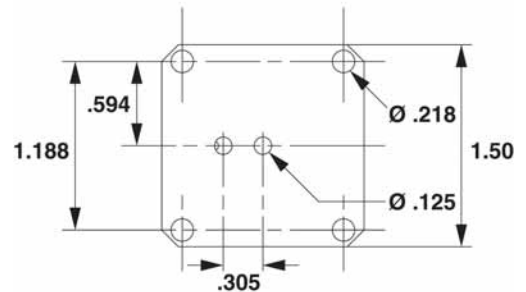
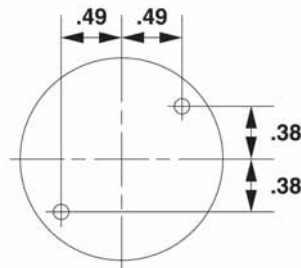
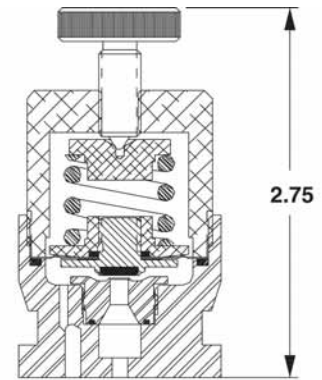
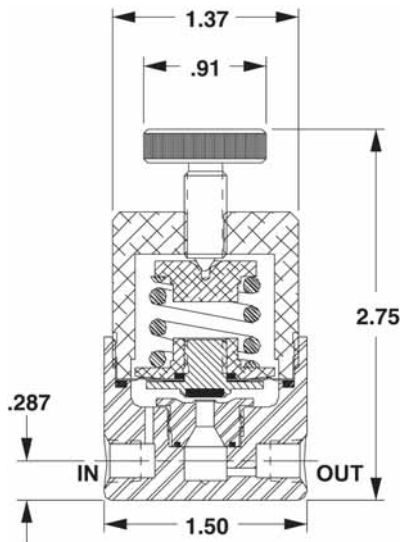
See page 24 for standard configurations. For additional configurations, consult the factory.  
See page 29 for port locations.

### 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](http://www.goreg.com/catalog/pr/back/lb1/lb1_flow.htm).

# GO REGULATOR



## SBPR Series Subatmospheric Back Pressure Regulator

The SBPR Series subatmospheric back pressure regulator is designed to provide precise upstream vacuum control. One example of this could be to introduce a sample gas at a positive pressure into a vacuum chamber. Downstream of this chamber would be the SBPR and a vacuum pump. The positive pressure will build up in the chamber causing the SBPR to open and allow the chamber to return to the vacuum desired. The SBPR will then close and the process will repeat. The large diameter diaphragm aided by a vacuum assist spring, provides the user with optimum sensitivity for subatmospheric pressure control.

### Features & Specifications

- Subatmospheric or positive back pressure control
- Stainless steel or brass construction
- Large diaphragm for sensitive pressure control
- Adjustable pressure control range 1-30 psia (-27.7in. H<sub>2</sub>O to 15.3 psig)
- C<sub>v</sub> flow coefficient 0.2
- Operating temperatures -40° F (-40° C) to +300° F (+148° C)
- Inlet / outlet connections 1/4" FNPT

### Options

- Extra ports
- Panel mount (requires a 1 3/8" mounting hole)
- Pressure gauges
- Optional welded connections
- Smaller orifice size available—0.03
- Monel and Hastelloy

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# SBPR Series

## Subatmospheric Back Pressure Regulator

### How to Order

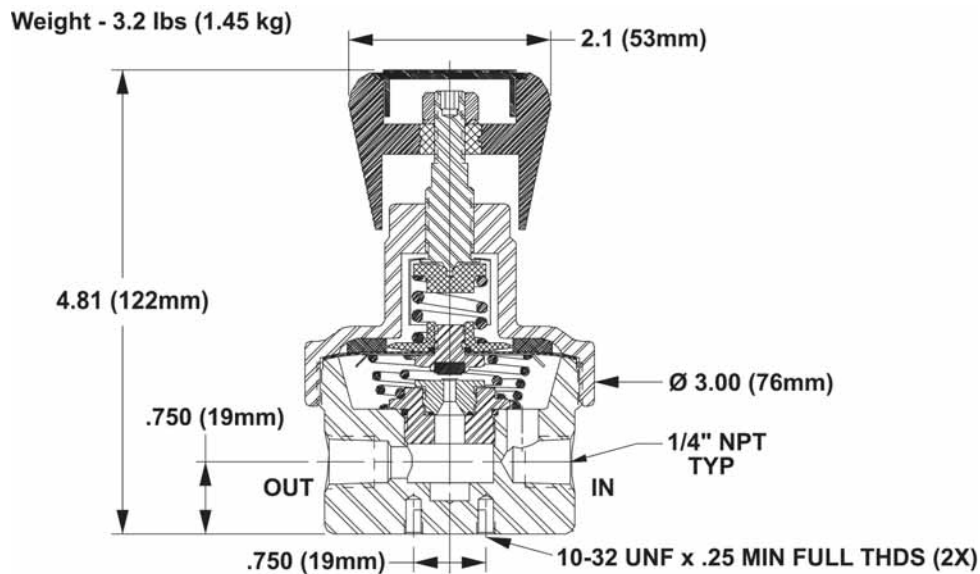
See page 25 for standard configurations. For additional configurations, consult the factory.  
See page 28 for port locations.

### Maximum Temperature & Control Pressures

Seat Material	Maximum Temperature*	@	Maximum Control Range
Viton®	250° F (121° C)	@	1 - 30 psia
Kalrez®	300° F (148° C)	@	1 - 30 psia
Teflon®	200° F (93° C)	@	1 - 30 psia

\* 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



For flow curve charts, go to [www.goreg.com/catalog/pr/back/sbpr/sbpr\\_flow.htm](http://www.goreg.com/catalog/pr/back/sbpr/sbpr_flow.htm).

# GO REGULATOR



## BP-60 Series High Pressure Back Pressure Regulator

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 Teflon® 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.

### Features & Specifications

- Adjustable pressure control ranges of 0–500, 0–1000 and 0–2000 psig
- 316L stainless steel or brass (alloy 360) body construction
- Designed for moderate flow applications with standard  $C_v$  flow coefficient of 0.04
- Diaphragm sensing with nylon, Teflon® or stainless steel diaphragm
- Operating temperatures of -40° F (-40° C) to +350° F (+175° C)
- Bubble tight shutoff
- Inlet/outlet connections 1/4" FNPT

### Options

- Various orifice sizes available—0.025, 0.005, 0.01
- Panel mounting
- 3/8" FNPT, AN 10050-4, SAE J514 or MS 33649 connections
- Monel and Hastelloy C body construction

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# BP-60 Series

## High Pressure Back Pressure Regulator

### How to Order

See page 26 for standard configurations. For additional configurations, consult the factory.  
See page 28 for port locations.

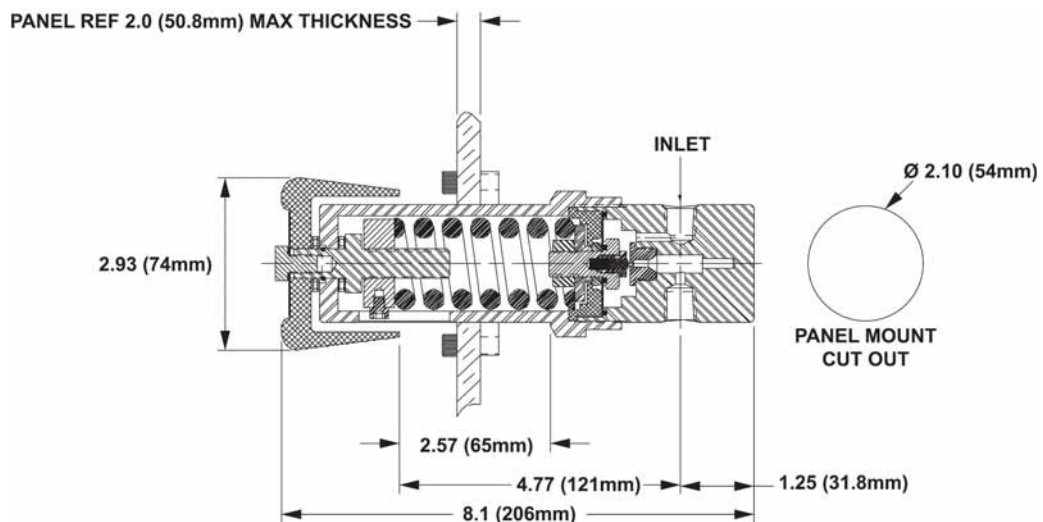
### Maximum Temperature and Control Pressures

Nylon Diaphragm Backing			
Seat Material	Maximum Temperature	@	Maximum Control Range
Tefzel®	175° F (80° C)	@	1000 psig (6.89 MPa)
Teflon®	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)

Teflon Diaphragm Backing			
Seat Material	Maximum Temperature	@	Maximum Control Range
Tefzel®	175° F (80° C)	@	2000 psig (13.76 MPa)
Teflon®	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)

Tefzel® and Teflon® are registered trademarks of Dupont.

### Outline and Mounting Dimensions



For flow curve charts, go to [www.goreg.com/catalog/pr/back/bp60/bp60\\_flow.htm](http://www.goreg.com/catalog/pr/back/bp60/bp60_flow.htm).

# GO REGULATOR



## BP-66 Series High Pressure Back Pressure Regulator (10,000 PSIG)

The BP-66 Series is the counterpart of the PR-57 pressure reducing series for systems that are higher in pressure and low to moderate flows. This regulator has piston sensing to provide relief at high pressures. The Polyimide/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-57 companion unit. Good sensitivity and a selection of control ranges make this regulator an excellent selection in many research and pilot plant facilities.

### Features & Specifications

- 316L stainless steel construction
- Adjustable pressure control ranges of 0–2000, 0–4000, 0–6000, 0–7500 and 0–10,000 psig
- Spring loaded piston sensor
- Gas and liquid service
- $C_v$  flow coefficient—0.04
- Operating temperature of -40° F (-40° C) to +350° F (+176° C)
- 1/4" FNPT connections standard

### Options

- Monel and Titanium body construction
- Different  $C_v$ 's—0.01 and 0.12
- Panel mounting
- AN 10050-4, SAE J514, MS 33649, or 3/8" FNPT connections

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# BP-66 Series

## High Pressure Back Pressure Regulator (10,000 PSIG)

### How to Order

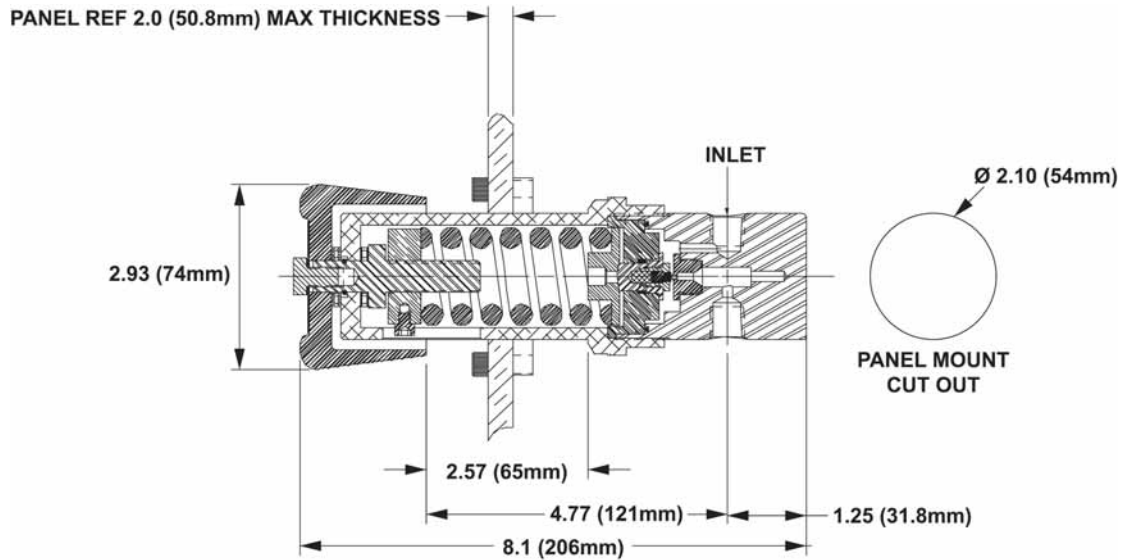
See page 27 for standard configurations. For additional configurations, consult the factory.  
See page 28 for port locations.

### Maximum Temperature and Control Pressures

Seat Material	Maximum Temperature	@	Maximum Control Range
Polyimide	350° F (176° C)	@	10,000 psig (68.8 MPa)
PEEK	350° F (176° C)	@	10,000 psig (68.8 MPa)

Teflon® is a registered trademark of Dupont.

### Outline and Mounting Dimensions



For flow curve charts, go to [http://www.goreg.com/catalog/pr/back/bp66/bp66\\_flow.htm](http://www.goreg.com/catalog/pr/back/bp66/bp66_flow.htm).

<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)	
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)
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.

B P 3 -

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

BP-6 Series - Back Pressure Regulator (US Dollars)

<b>Material of Body</b>	
1	SS 316L
4	Monel
6	Hastelloy C
7	Titanium
<b>Port Configuration (page 28)</b> STANDARD BODY "A" (ONE INLET PORT AND ONE OUTLET PORT)	
A	
<b>Process port types (gauge port type, if specified)</b>	
5	1/2" FNPT (1/4" FNPT Gauge Ports)
6	1/2" Tube (1/4" Tube Gauge Ports)
E	3/4" Tube (1/4" Tube Gauge Ports)
<b>Surface Finish of Diaphragm Cavity</b>	
1	<25 Ra
<b>Actuator Material</b>	
G	316L SS
I	Teflon
N	Monel
P	Hastelloy C
W	Titanium
<b>Flow Coefficient (Cv)</b>	
0	3.0
<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
K	0 - 1000 Psig
<b>Diaphragm Type</b>	
1	Standard
<b>Diaphragm Facing / Backing Material</b>	
1	Teflon / SS
8	Teflon / Inconel
0	Teflon / Hastelloy C
A	Teflon / Tantalum
<b>Cap Assembly</b>	
1	T Handle, S.S.
4	T Handle, Panel mount, S.S.
L	BP-3 Top Works, S.S.
O	BP-3 Top Works, Panel mount, S.S.

BP 6 - [ ] [ ] [ ] 1 [ ] 0 [ ] 1 [ ] [ ]

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

		<b>Material of Body</b>	
1	SS 316L		
2	Brass		
4	Monel		
6	Hastelloy C		
		<b>Port Configuration (page 28)</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.		

BP 8 -

Material	Port Config.	Port Style	Cavity Finish	Actuator Material	Flow (Cv)	Control Range	Diaphragm Type	Diaphragm Material	Cap Assembly
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# 22 BP-8LF Series - Back Pressure Regulator

		<b>Material of Body</b>	
1	SS 316L		
2	Brass		
4	Monel		
		<b>Port Configuration (page 28)</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)		
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>	
B	CF Teflon		
C	Polyimide		
D	Viton		
I	High Density Teflon		
K	Kalrez		
		<b>Flow Coefficient (Cv)</b>	
5	0.2		
		<b>Control Range</b>	
B	0 - 6 Psig		
D	0 - 25 Psig		
E	0 - 50 Psig		
F	0 - 75 Psig		
H	0 - 125 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		
5	Viton / SS		
6	Tefzel Ring / SS		
7	Tefzel Ring / Hastelloy C		
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.		
9	Fine Adjust, 1/2" Panel Mount, S.S.		

BP 8 L -

Material	Port Config.	Port Style	Cavity Finish	Actuator Material	Flow (Cv)	Control Range	Diaphragm Type	Diaphragm Material	Cap Assembly
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# 23 CBP-3 Series - Back Pressure Regulator

1		SS 316L		<b>Material of Body</b>	
A				<b>Port Configuration (page 28)</b> STANDARD BODY "A" (ONE INLET PORT AND ONE OUTLET PORT)	
2		1/4" Tube (1/4" Tube Gauge Ports)		<b>Process port types (gauge port type, if specified)</b>	
0		1/8" FNPT (1/8" FNPT Gauge Port), Standard			
1		<25 Ra		<b>Surface Finish of Diaphragm Cavity</b>	
A		Tefzel		<b>Actuator Material</b>	
C		Polyimide			
D		Viton			
K		Kalrez			
5		0.2		<b>Flow Coefficient (Cv)</b>	
C		0 - 10 Psig		<b>Control Range</b>	
D		0 - 25 Psig			
E		0 - 50 Psig			
G		0 - 100 Psig			
I		0 - 250 Psig			
J		0 - 500 Psig			
1		Standard, Nylon Dia. Slip Ring (170° F Max. Temp.)		<b>Diaphragm Type</b>	
2		Standard, Polyimide Dia. Slip Ring (High Temp. Service)			
1		Tefzel Seal Ring / SS Backing / Teflon O-Ring		<b>Dia. Facing / Backing / O-Ring Mat'l</b>	
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			
1		Standard, Aluminum		<b>Cap Assembly</b>	
4		Panel Mount, Aluminum			
8		Tamper Proof, Aluminum			
9		Fine Adjust, 1/2" Panel Mount, Aluminum			
0		Fine Adjust, 1 3/8" Panel Mount, Aluminum			
E		Tamper Proof, Panel Mount, Aluminum			

CBP 3 -

1			1							
Material	Port Config.	Port Style	Cavity Finish	Actuator Material	Flow (Cv)	Control Range	Diaphragm Type	Diaphragm / O-Ring Material	Cap Assembly	

LB-1 Series - Back Pressure Regulator

<b>Material of Body</b>	
1	SS 316L
2	Brass
3	Aluminum
4	Monel
<b>Port Configuration (page 29)</b> STANDARD BODY "A" (ONE INLET PORT AND ONE OUTLET PORT)	
<b>Port Type</b>	
0	1/8" FNPT (All Ports)
1	Surface Mount
A	1/16" FNPT (All Ports)
B	1/8" FNPT Inlets; 1/16" FNPT Outlets
<b>Surface Finish of Diaphragm Cavity</b>	
1	<25 Ra
<b>Actuator Material</b>	
A	Tefzel
C	Polyimide
D	Viton (0 - 250 Psig Max)
K	Kalrez (0 - 250 Psig Max)
Q	PEEK
<b>Flow Coefficient (Cv)</b>	
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
<b>Control Range</b>	
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)
<b>Diaphragm Type</b>	
1	Standard, Nylon Dia. Slip Ring (170° F Max. Temp.)
2	Standard, Polyimide Dia. Slip Ring (High Temp. Service)
<b>Dia. Facing / Backing / O-Ring Material</b>	
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
<b>Cap Assembly</b>	
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

L B 1 -

Material	Port Config.	Port Style	Cavity Finish	Actuator Material	Flow (Cv)	Control Range	Diaphragm Type	Diaphragm / O-Ring Material	Cap Assembly
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<b>Material of Body</b>	
1	SS 316L
2	Brass
4	Monel
6	Hastelloy C
<b>Port Configuration (page 28)</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)
4	3/8" FNPT (1/4" FNPT Gauge Ports)
5	1/2" FNPT (1/4" FNPT Gauge Ports)
<b>Surface Finish of Diaphragm Cavity</b>	
1	<25 Ra
<b>Actuator Material</b>	
D	Viton
I	Teflon
K	Kalrez
<b>Flow Coefficient (Cv)</b>	
1	0.03
5	0.2
<b>Control Range</b>	
A	1 - 30 Psia
<b>Diaphragm Type</b>	
1	Standard
<b>Diaphragm Facing / Backing Material</b>	
1	Teflon / SS
2	Teflon / Viton
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.
9	Fine Adjust, 1/2" Panel Mount, S.S.
0	Fine Adjust, 1 3/8" Panel Mount, S.S.
C	Captured Vent, Panel Mount, S.S.
E	Tamper Proof, Panel Mount, S.S.
H	1/4" NPT Dome Loaded, S.S.



<b>Material of Body</b>				
1	SS 316L			
2	Brass			
4	Monel			
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)			
4	3/8" FNPT (1/4" FNPT Gauge Ports)			
6	1/2" Tube (1/4" Tube Gauge Ports)			
7	AN 10050-4 (1/4" FNPT Gauge Ports)			
8	SAE J514 (1/4" FNPT Gauge Ports)			
9	M/S 33649 (1/4" FNPT Gauge Ports)			
<b>Surface Finish of Diaphragm Cavity</b>				
1	<25 Ra			
5	<25 Ra with 10-32 Mounting Holes			
<b>Actuator Material</b>				
A	Tefzel			
B	CF Teflon			
C	Polyimide			
I	Teflon			
Q	PEEK			
<b>Flow Coefficient (Cv)</b>				
C	0.025			
E	0.04			
I	0.005			
J	0.01			
<b>Control Range</b>				
J	0 - 500 Psig			
K	0 - 1000 Psig			
L	0 - 2000 Psig			
<b>Diaphragm Type</b>				
1	Standard			
<b>Diaphragm Facing / Backing Material</b>				
	<b>Facing</b>	<b>Backing</b>	<b>O-Rings</b>	<b>Actuator</b>
1	SS	Nylon	Viton	SS
2	None	Nylon	Teflon	SS
7	Inconel	Nylon	Viton	Monel
8	Inconel	Nylon	Teflon	Monel
0	Hastelloy C	Nylon	Teflon	Hastelloy C
A	Hastelloy C	Nylon	Viton	Hastelloy C
Q	SS	Teflon	Teflon	SS
S	SS	Teflon	Teflon/Kalrez	SS (Max 450° F)
T	SS	Teflon	Kalrez	SS (Max 570° F)
V	Inconel	Teflon	Teflon	Monel
W	Hastelloy C	Teflon	Teflon	Hastelloy C
<b>Cap Assembly</b>				
1	Standard, Aluminum			
4	Panel Mount, Aluminum			
5	Captured Vent, Aluminum			

B P 6 0 -

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

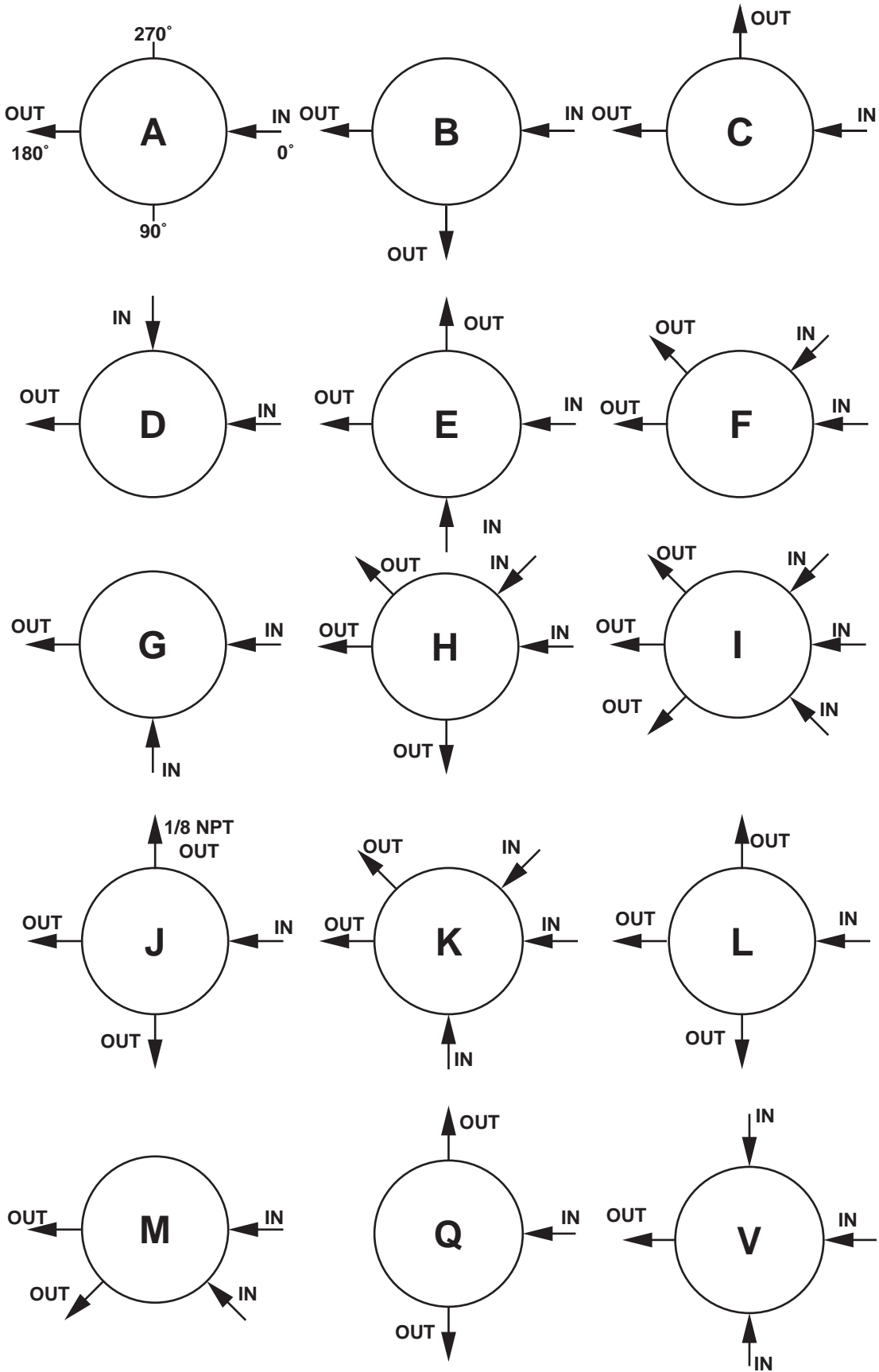
# BP-66 Series - Back Pressure Regulator

<b>Material of Body</b>	
1	SS 316L
4	Monel
7	Titanium
<b>Port Configuration (page 28)</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)
4	3/8" FNPT (1/4" FNPT Gauge Ports)
6	1/2" Tube (1/4" Tube Gauge Ports)
7	AN 10050-4 (1/4" FNPT Gauge Ports)
8	SAE J514 (1/4" FNPT Gauge Ports)
9	M/S 33649 (1/4" FNPT Gauge Ports)
<b>Surface Finish of Diaphragm Cavity</b>	
1	<25 Ra
5	<25 Ra with 10-32 Mounting Holes
<b>Actuator Material</b>	
C	Polyimide
Q	PEEK
<b>Flow Coefficient (Cv)</b>	
4	0.12
E	0.04
J	0.01
<b>Control Range</b>	
L	0 - 2000 Psig
N	0 - 4000 Psig
O	0 - 6000 Psig
P	0 - 7500 Psig
Q	0 - 10,000 Psig
<b>Piston Type</b>	
1	Standard
<b>Piston Material</b>	
5	Stainless Steel
B	Monel
S	Titanium
<b>Cap Assembly</b>	
1	Standard, Aluminum
4	Panel Mount, Aluminum
5	Captured Vent, Aluminum
6	Captured Vent, Panel Mount, Aluminum
7	Captured Vent, S.S.
F	S.S.

B P 6 6 -

Material	Port Config.	Port Style	Cavity Finish	Actuator Material	Flow (Cv)	Control Range	Piston Type	Piston Material	Cap Assembly
							1		

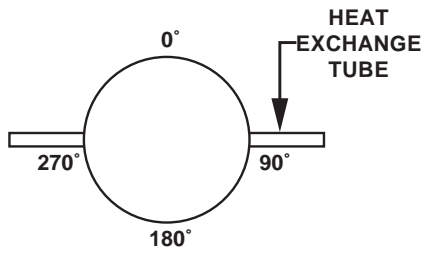
# PORT LOCATIONS (BACK PRESSURE REGULATORS)



LOCATION OF PORTS FROM TOP VIEW

# PORTING OPTIONS FOR LB-1 BACK PRESSURE VALVE

**STEAM HEATED REGULATOR REFERENCE CLOCK**



**ELECTRICALLY HEATED REGULATOR REFERENCE CLOCK**

