Back Pressure Regulator

BPR, BPH Series

FITOK Group

FITOK GmbH (Headquarter)
Sprendlinger Landstr. 115, 63069 Offenbach, Germany
Tel.: +49 69 8900 4498
Fax: +49 69 8900 4495

FITOK INC.
13000 Murphy Road, Suite 116, Stafford, TX 77477, USA
Tel.: +1 281 888 0077
Fax: +1 281 888 0033

FITOK INCORPORATED
Yingtailong Industrial Park, Shenzhen, 518109, China
Tel.: +86 755 2803 2500
Fax: +86 755 2803 2619

info@fitokgroup.com
www.fitokgroup.com

FG14040813

FITOK
Valves and Fittings

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BPR Series

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General Purpose Back Pressure Regulator

BPR Series

BPR series, stainless steel diaphragm pressure transmission, accurate regulation designed to control back pressure levels upstream of the regulator, applied to pure gases, corrosive gases and non-corrosive gases.

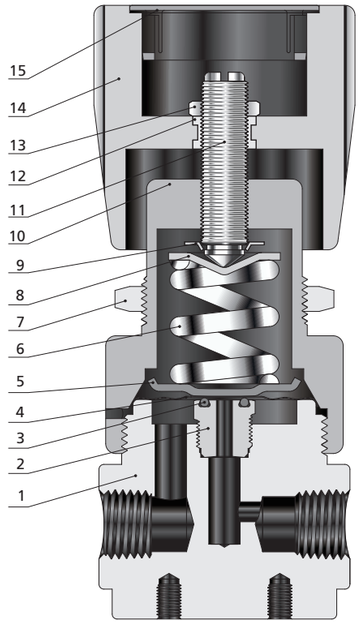
Features

- Convoluted diaphragm provides accurate pressure adjustment
- Metal-to-metal diaphragm seal
- Panel mounting available

Technical Data

- Maximum control pressure: 250 psig
- Controlled pressure ranges: 0 ~ 25, 0 ~ 50, 0 ~ 100, 0 ~ 250 psig
- Flow coefficient (Cv): 0.3
- Working temperature: -15°F to 165°F (-26°C to 74°C)
- Leak rate — Internal: Bubble-tight
  External: $2x10^{-8}$ atm · cc/sec He (Maximum inboard leak rate)
- Weight: 1.98 lb. (0.9 KG)
- Ports: inlet, outlet, gauge ports — 1/4 female NPT

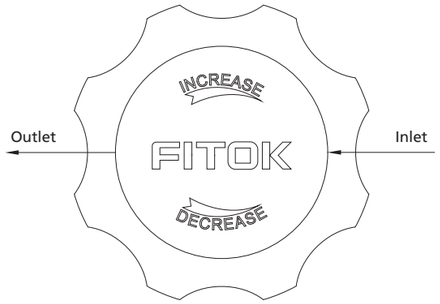
Materials of Construction



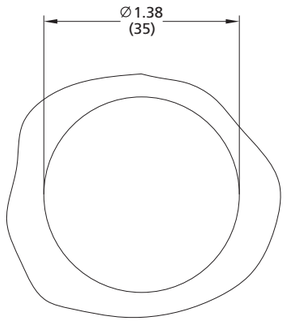
Component		Material Grade/ASTM Specification
1	Body	316L SS/A479
2	Seat retainer	PEEK
3	Seat	Viton®
4	Diaphragm	316L SS/A240
5	Stop plate	304 SS/A240
6	Range spring	Chromium alloy steels
7	Mounting nut	304 SS/A276
8	Spring button	304 SS/A240
9	Lock ring	304 SS/A240
10	Bonnet	304 SS/A479
11	Stem	C36000/B16
12	Embeded nut	C36000/B16
13	Stem nut	C36000/B16
14	Knob handle	ABS
15	Hole plug	ABS

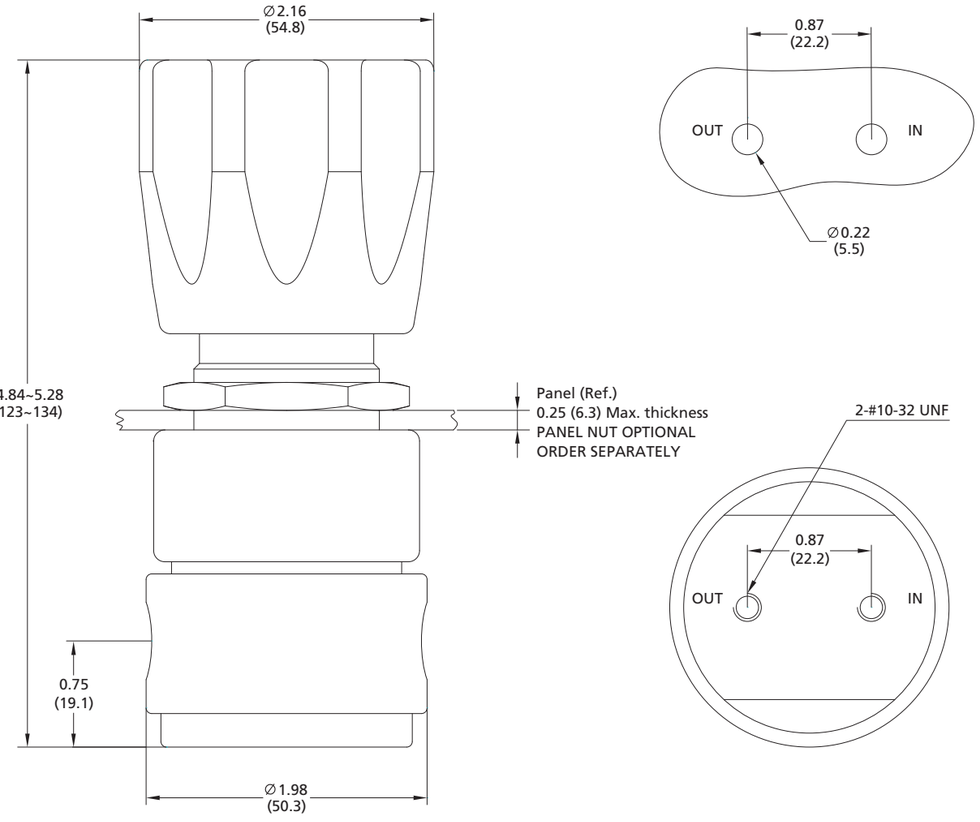
Dimensions

Dimensions, in. (mm), are for reference only and are subject to change.



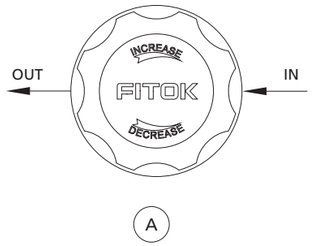
PANEL CUT-OUTS

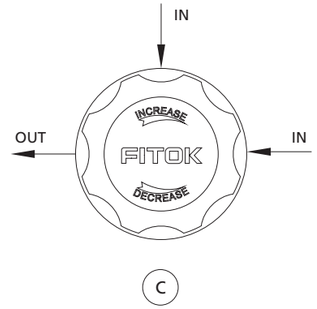




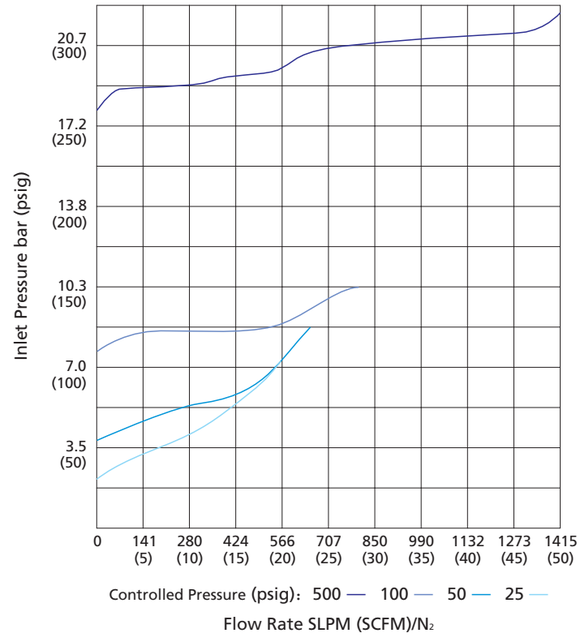
Porting configurations

(View from the knob handle)





Flow charts



Part Number Description

BPR6L – A2W – ML6 – FNS4 – ZZ – F2

BPR						
Series						
Body Material	6L	316L SS				
	SS	316 SS				
	B	Brass				
Ports	A	1 In 1 Out				
	C	2 In 1 Out				
Controlled pressure	4	0-250 psig				
	3	0-100 psig				
	2	0-50 psig				
	1	0-25 psig				
Inlet Gauge	M	With Gauge (Mpa)				
	P	With Gauge (psig)				
	B	With Gauge (bar)				
	W	Without Gauge				
Inlet Type	FNS	Female NPT				
	NS	Male NPT				
	FL	Fractional Tube Fitting				
	ML	Metric Tube Fitting				
		Other type available				
Inlet Size	2	1/8"				
	4	1/4"				
	6	3/8" or 6 mm				
	8	1/2 " or 8 mm				
		Other size available				
Outlet Type		Same as inlet type and size				
Outlet Size						
Seat Material		Viton®	Kalrez®			
		NO	YES			
Panel			Z			
Cleaning and Packing		FC-01	FC-02			
			F2			

Note: "Part Number Description" is used for composition rules of FITOK product model,
Not suitable for specific product part number selection, not random combinations.
If in doubt, please contact FITOK company or authorized agents.

General Purpose Back Pressure Regulator

BPH Series

BPH series, stainless steel piston pressure transmission to control back pressure levels upstream of the regulator, applied to general gases.

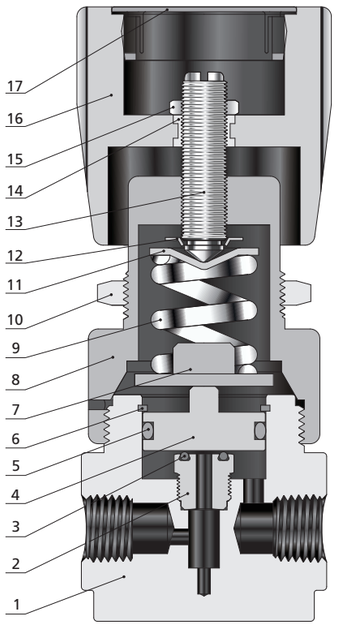
Features

- Low cost 316 stainless steel or brass regulator
- Robust piston sensed design
- Low hand knob torque
- Panel mounting available

Technical Data

- Maximum control pressure: 300 psig
- Controlled pressure ranges: 0 ~ 50, 0 ~ 100, 0 ~ 300 psig
- Flow coefficient (Cv): 0.3
- Working temperature: -15°F to 200°F (-26°C to 93°C)
- Leak rate: Bubble-tight
- Weight: 1.98 lb. (0.9 KG)
- Ports: inlet, outlet, gauge ports — 1/4 female NPT

Materials of Construction



Component		Material Grade/ASTM Specification	
1	Body	316 SS/A479	Brass
2	Seat retainer	PEEK	
3	Seat	Viton®	
4	Piston	316L SS/A276	
5	Seal ring	Viton®	
6	Stretch block	304 SS	
7	Spring surpport	304 SS/A276	
8	Bonnet	304 SS/A479	
9	Range spring	Chromium alloy steels	
10	Mounting nut	304 SS/A276	
11	Spring button	304 SS/A240	
12	Lock ring	304 SS/A240	
13	Stem	C36000/B16	
14	Embeded nut	C36000/B16	
15	Stem nut	C36000/B16	
16	Knob handle	ABS	
17	Hole plug	ABS	

Dimensions

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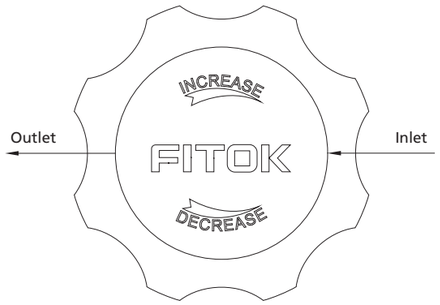
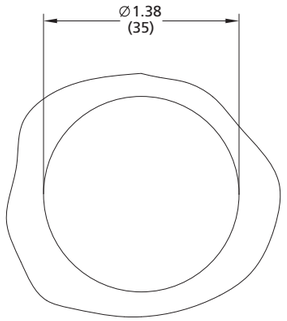
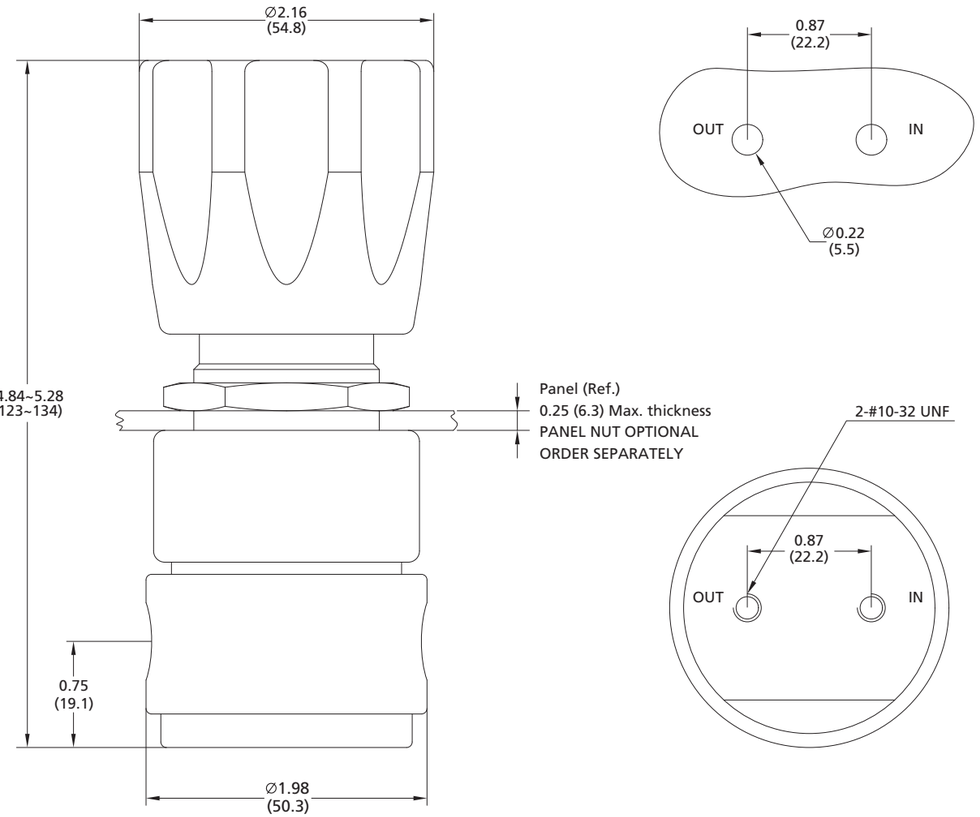


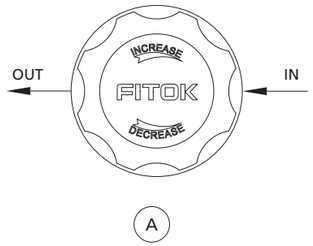
PANEL CUT-OUTS

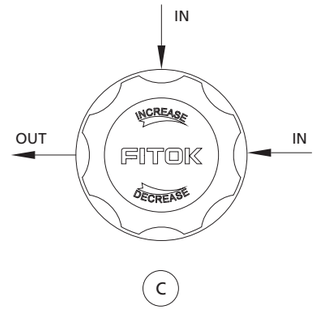




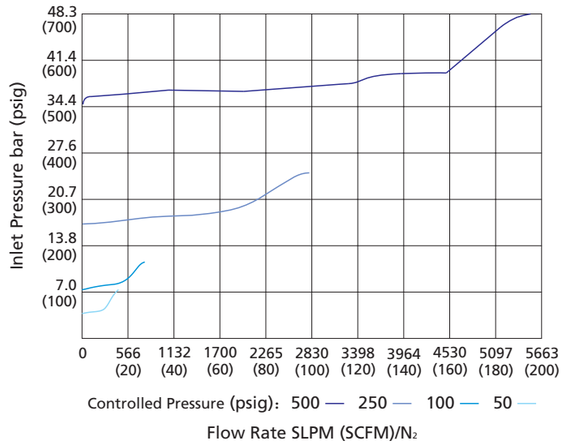
Porting configurations

(View from the knob handle)





Flow charts



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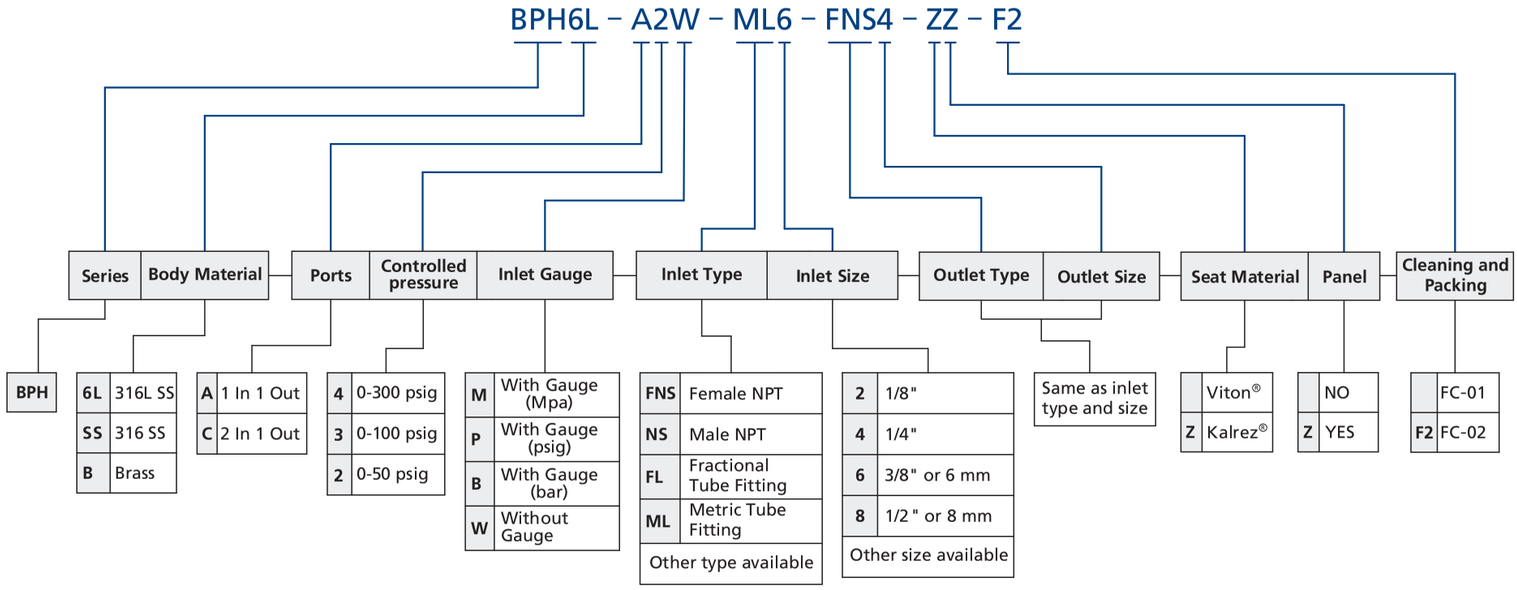

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