

JBPH Series

Back Pressure Regulating Valve



BACK PRESSURE REDUCING VALVE

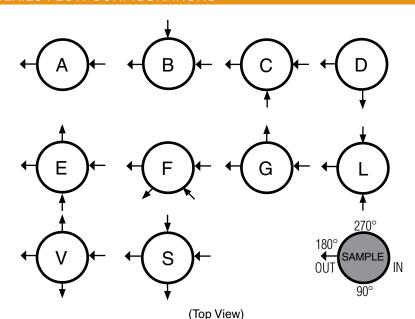
The JBPH Series is a piston operated back pressure regulator. The 0.5 Cv offers increased flows across its 6000 psi inlet range, while the Kel-F soft seat provides ANSI Class VI shutoff. Four set spring ranges and three soft seal options offer flexibility in a number of applications and environments. These valves are designed to regulate a variety of gases and liquids from pump and compressor control to process pressure control where high flows and high pressures are required.

Features:

- In-line removable plug and trim provides for quick cleaning and maintenance
- All wetted materials are 316L or 416 stainless steel; other materials available on application
- Large 0.5 CV offers high flows with setpoints up to 5800 psi
- Optimized internal volume
- Kel-F soft seat for ANSI Class VI shutoff
- Captured vent to monitor seal integrity



JBPH SERIES FLOW CONFIGURATIONS



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www.lowflowvalve.com

Gage ports are 1/4" FNPT

SPECIFICATIONS



JBPH SERIES SPECIFICATIONS

Line Size: 1/2", 3/4", 1" (DN15, 20, 25)

Materials

Body & Trim: 316L SSTSpring Housing: 316L SST

Plug: 416 SSTSeat Insert: KEL-F

Body Seals: Elastomer o-rings (Buna-N, EPDM, Viton)

Inlet Pressure: 6,000 psi (413,8 bar)

Spring Ranges:

Black: 0 – 2150 psi (0 – 148,3 bar)
Black: 0 - 2500 psi (0 - 172,4 bar)
Orange: 0 - 4060 psi (0 - 280 bar)
Green: 0 - 5800 psi (0 - 400 bar)

Seat Diameter: 0.197" (5mm)

Maximum Allowable Pressure: 6,000 psi max inlet @

100°F (413,8 bar @ 38° C)

Maximum Operating Temperature: 4,900 psi max inlet @ 250°F (338 bar max inlet @ 121°C)

End Connections

Threaded Ends – FNPT or BSPP

Socket Weld

Flanged

Gauge Port: 1/4" NPT (optional)

Temperature Range: -29°F to +250°F (-34°C to +121°C) -

actual range depends on choice of seal materials

Shutoff: Class VI

Flow Capacity: Cv 0.5 (0,43 Kv)

Optional Cleaning: For oxygen service, oil free service

Options:

Panel Mounting

Locking Wire

Tamper Proof

Lockout Device

Panel Mount- The panel mount feature utilizes a threaded spring housing and a panel mount ring to secure the regulator to an instrument panel.

Locking Wire- The locking wire option utilizes a lead sealed metal wire to physically hold the adjusting screw in place to prevent any unwanted set point changes.

Tamper Proof- The tamper proof option replaces the standard adjusting knob with a stainless steel acorn nut.

Lockout Device- The lockout device is a 2 piece polypropylene enclosure which encapsulates the adjustment knob and prevents inwanted set point changes. The part number required for this valve is 26971. (Lock not included)

JBPH SIZING

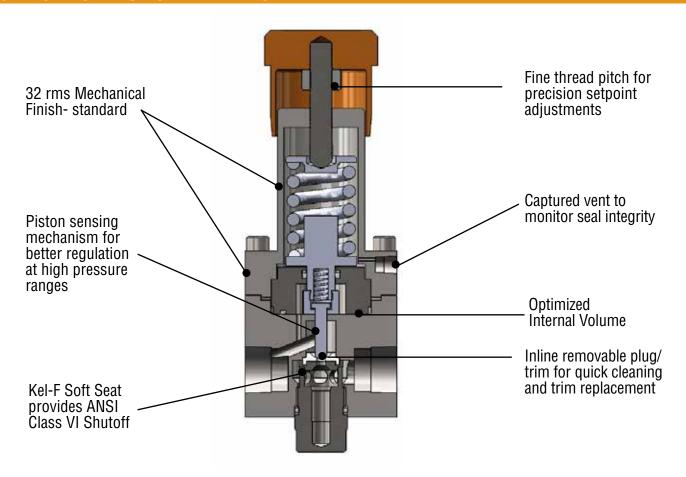
- 1. Use the "LVCV Sizing Software" link found on the www.lowflowvalve.com home page and navigate to LowFlow valve sizing.
- 2. Use the software to size for flow using the listed CV of the valve and the customer's application conditions.
- 3. The JBPH is rated to 50% of the flow value found using LVCV. There is no low-end cutoff limit.

Example:

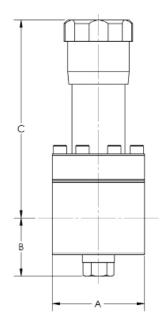
Air, ambient temperature, P1 = 4000 psi, P2 = 0 psi, 1/2° schedule 40 pipe, flow rate 20,000 SCFH Using LVCV to size for flow we find that these conditions and a 0.5 CV will result in a maximum flow of 65,886 scfh. Multiply this value by 0.50 to find the maximum rated flow for the JBPH. Your result will be 32,943 scfh (65,886 x 0.5 = 32,943). Any flow below this result is acceptable for the valve.



JBPH SERIES FEATURES AND BENEFITS



JBPH DIMENSIONS



VALVE SIZE	DIM	ENSIONS, INC	HES	WEIGHT,
VALVE SIZE	A	В	C	LBS
1/2"	2.8	2.1	7.5	7.7
3/4"	3.2	1.8	7.5	9.9
1"	3.2	1.8	7.5	9.9

VALVE CIZE	DI	MENSIONS, M	IM	WEIGHT,
VALVE SIZE	A	В	C	KGS
DN15	71	53	191	3.5
DN20	81	46	191	4.5
DN25	81	46	191	4.5





JBPH SERIES ORDERING SCHEMATIC

Mode		Size		Material		1 & 2	3 & 4	5 & 6	7 & 8	9 & 10	11 & 12	13 & 14	15	16	17
	-		-												

	Model
JBPH	Back Pressure Regulating Valve

Size				
050	1/2"			
075	3/4"			
100	1"			

Material			
6L	Stainless Steel 316L		

1 & 2	Body Feature					
End Co	onnection	P	ort Configuration			
С	FNPT 1/2"	1/2" A Port "A"				
D	FNPT 3/4"	В	Port "B"			
Е	FNPT 1"	С	Port "C"			
F	BSPP 1/2"	D	Port "D"			
G	BSPP 3/4"	Е	Port "E"			
Н	BSPP 1"	F	Port "F"			
		G	Port "G"			
		L	Port "L"			
		V	Port "V"			
		S	Port "S"			
ZZ	Non-Standard					

3 & 4	Trim				
BB	Buna-N				
EE	EPDM				
VV	Viton				
ZZ	Non-Standard				

5 & 6	Seat			
K5	KEL-F Cv 0.5			
ZZ	Non-Standard			

7 & 8	Range Spring			
H1	0 - 2150 psi			
H2	0 - 2500 psi			
НЗ	0 - 4060 psi			
H4	0 - 5800 psi			
ZZ	Non-Standard			

9 & 10	Piston
00	Standard
ZZ	Non-Standard

11 & 12	Actuator			
SK Standard				
ZZ	Non-Standard			

13 & 14	Inlet Gauge							
LL	0 - 3000 PSIG/BAR (Dual)							
MM	0 - 5000 PSIG/BAR (Dual)							
PP	0 - 10000 PSIG/BAR (Dual)							
NN	l None							
ZZ	Standard							

^{*} Customer assumes all responsibility for possible damage or injury if selected gauge span does not fully cover range spring / outlet pressure option

15	Outlet Gauge
K	0-2000 PSIG/ BAR (DUAL)
L	0-3000 PSIG/ BAR (DUAL)
М	0-5000 PSIG/ BAR (DUAL)
Р	0-10000 PSIG/ BAR (DUAL)
N	None
Z	Non-Standard

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16	SEP Compliance						
G	SEP Compliant						
0	0 None						
Z	Non-Standard						



ORDERING SCHEMATIC

JBPH SERIES ORDERING SCHEMATIC

Model		Size		Material		1 & 2	3 & 4	5 & 6	7 & 8	9 & 10	11 & 12	13 & 14	15	16	17
	_				/										

17	Accessories
S	Clean for Oil Free*
Χ	Clean for Oxygen*
0	None
Z	Non-Standard

^{*}Consult factory for compatible gauge options