

High Pressure Regulators



The Jordan Valve J Series line of high pressure regulators have the ability to handle very high pressures and very low flows. These valves are typically used in research and sampling systems for corrosive and specialty gases and liquids. Typical applications include gas & liquid chromatography, and flame ionization detectors, as well as other industrial controls.

The J Series are available in a variety of alloy materials and in the following configurations:

- JPR – Versatile low flow pressure regulator
- JHR – Larger capacity pressure regulator with Cv of 0.6 (0,05 Kv)
- JHP – High pressure version with setpoints to 1500 psi (103 bar)
- JBP – High pressure back pressure regulator
- JCYL – One stage cylinder pressure regulator
- JCYL-2 – Two stage cylinder pressure regulator



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JPR/JHR

Low Flow Pressure Regulator

The Jordan JPR and JHR pressure reducing regulators are designed for gas or liquid service and with inlet pressures up to 3600 psi (248 bar). Standard adjustable outlet ranges are from 1 - 10 psig (0,07 - 0,69 Barg) thru 10 - 750 psig (0,69 - 51,7 Barg). The JPR/JHR Series can be manufactured from various barstock materials, and is ideally suited for either corrosive or non-corrosive services.

The JPR/JHR Series is ideally suited for the following applications: corrosive gases, sampling systems, chemical/petrochemical plants, instrumentation systems, research facilities, and chromatography.



FEATURES

- High Pressure Capability - maximum inlet pressure to 3600 psig (248 bar); full pressure drop capability
- Barstock Body - can be used in applications that require purity greater than 99.995%; available in a variety of exotic materials
- Suitable for corrosive applications
- Low operating torque
- Accurate adjustment
- 40 micron integral filter

SPECIFICATIONS

Line Sizes

- JPR: 1/4" (DN8) — Standard
- JPR: 3/8" (DN10) — Optional
- JHR: 1/2" (DN15) — Standard
- JHR: 3/8" (DN10) — Optional

End Connections

- FNPT – standard
- Tube End – optional
- Other threads available upon request

Materials

- Body & Spring Chamber: 316L SST/316 SST, Chrome Brass, 6061 AL Hastelloy C-276/316 SST, Monel R-405/316 SST, Titanium/316 SST
- Seat: Kel-F®, Polyimide, Ceramic-filled Teflon®

Supply Pressure Effect

- JPR: 0.5/100 psig (0,03/6,99 Barg)
- JHR: 2/100 psig (0,14/6,9 Barg)

Setpoint Spring Ranges

- 1-10 psig (0,07-0,69 Barg)
- 2-25 psig (0,14-1,7 Barg)
- 2-50 psig (0,14-3,4 Barg)
- 2-100 psig (0,14-6,9 Barg)
- 3-250 psig (0,21-17,2 Barg)
- 5-500 psig (0,34-34,5 Barg)
- 10-750 psig (0,69-51,7 Barg) (JPR Only)

Internal Volume

- JPR: 6.9 cc
- JHR: 10 cc

CV/Kv

- JPR: 0.06 (0,05) — Standard
- JPR: 0.02 (0,017), 0.2 (0,17) — Optional
- JHR: 0.60 (0,52) — Standard

Operating Temperatures

- Kel-F® — -45°F to 185°F (-42.7°C to 85°C)
- Polyimide — -45°F to 575°F (-42.7°C to 301°C)
- TFE — -45°F to 275°F (-42.7°C to 135°C)

Options/Accessories: Tamper Proof, Mounting Bracket, Captured Vent, Panel Mount, Oxygen Cleaned, Relief Valve: 3-50 psig, Relief Valve: 50-150 psig, Relief Valve: 150-350 psig, Relief Valve 350-600 psig, Self-Relieving

Approximate Weight

- JPR — 2.2 lbs (0,99 kg)
- JHR — 4.5 lbs (2,05 kg)

Ratings

- Design Proof Pressure 7200 psig/496 bar
- Design Burst Pressure 14400 psig/996 bar
- Outboard leakage <1x10⁻⁹ scc/sec He
- Inboard leakage <1x10⁻⁹ scc/sec He

OPTION DEFINITION (REFER TO ORDERING SCHEMATIC #10)

TAMPER PROOF

The control knob is removed and replaced with an acorn nut. The user can set the outlet pressure and securely tighten the nut, preventing any unwanted adjustments on the regulator.

MOUNTING BRACKET

The mounting bracket is a base, or step type. The material is 303 stainless steel. The bracket mounts to the back of the single stage, and back pressure regulators, via 10/32 screws.

CAPTURED VENT

The captured vent design is for maximum safety for the user when handling toxic or hazardous media. The user can easily pipe this vent to a safe location. It features a 1/8" FNPT port located on the spring housing. This feature can be incorporated into a self-relieving regulator that provides an additional port to permit the piping away from the expelled media.

PANEL MOUNT

The panel mount feature requires a panel cut out of 1-3/8", complete with a threaded spring housing, and a panel mount ring to secure the regulator.

CLEANED FOR OXYGEN SERVICE

This is a requirement for gaseous oxygen-rich environments.

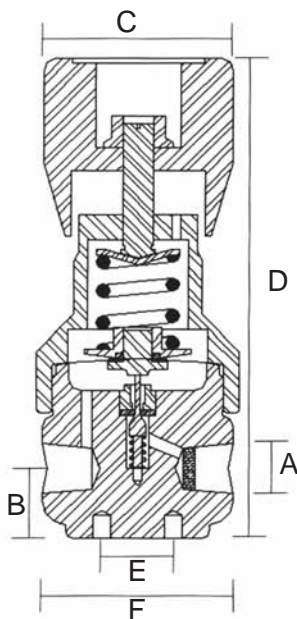
RELIEF VALVE

The relief valve's main function is to relieve excess downstream pressure due to system malfunctions. This feature prevents over-pressurization by automatically venting of gas or liquid. The valve is fully adjustable, is 1/4" male x 1/4" male.

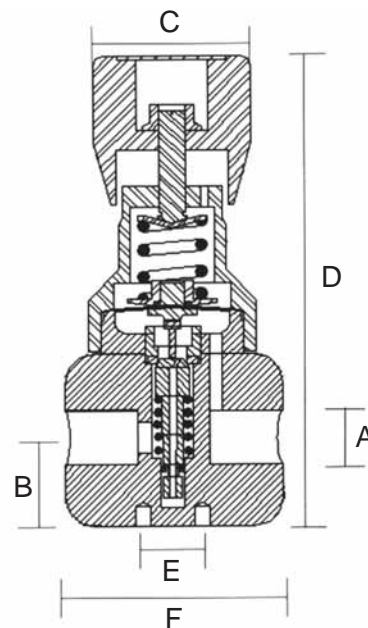
SELF-RELIEVING (JPR ONLY)

The self relieving option features an integral mechanism allowing downstream pressure to be vented to atmosphere as the outlet pressure setting is decreased. This allows the user to easily and rapidly decrease the pressure in a closed, or low volume system without an auxiliary bleed valve. In addition, this option also functions as a sensitive relief valve. The pressure at which it relieves is automatically determined by the outlet pressure setting of the regu-

DIMENSIONS — JPR



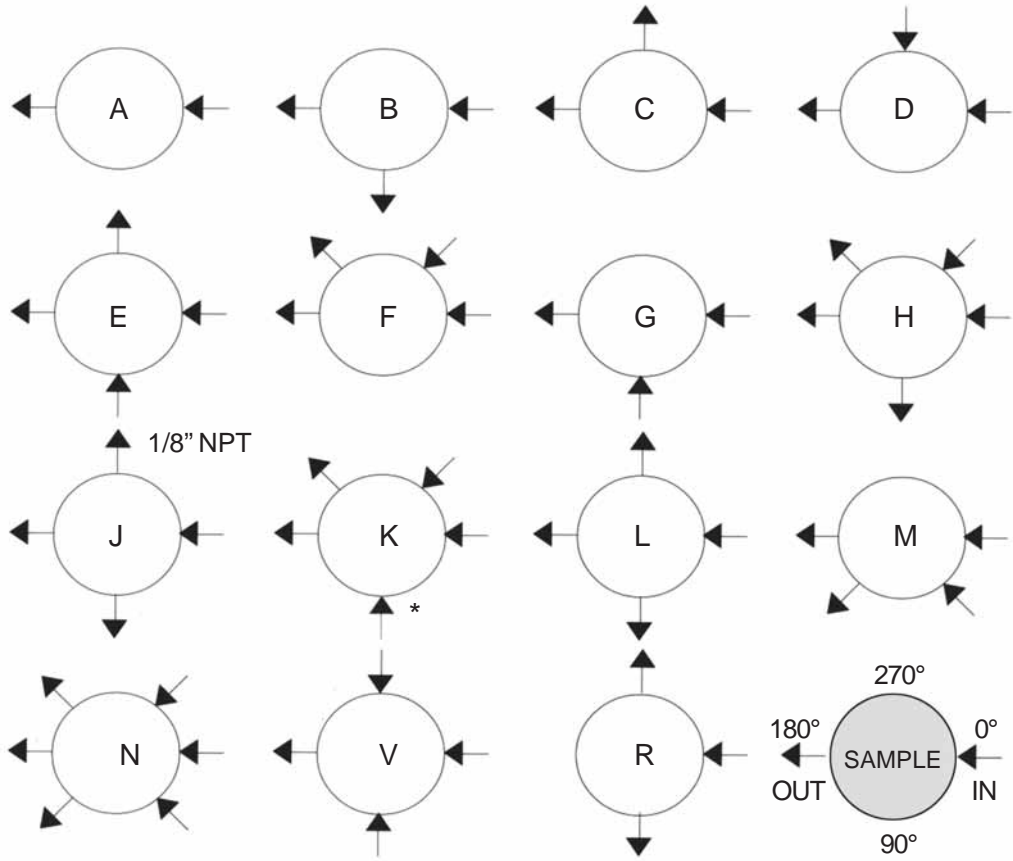
DIMENSIONS — JHR



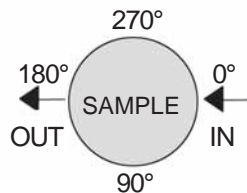
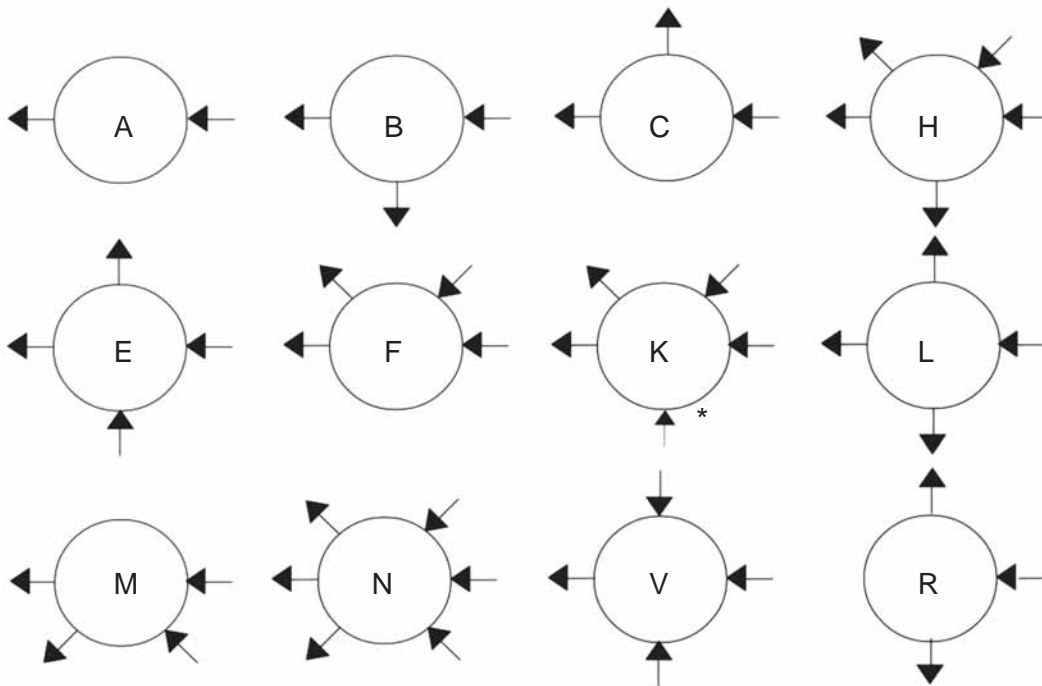
A	B	C	D	E	F	Weight
1/4"	0.75"	1.99"	5.125"	0.75"	2.00"	2.2 lbs
DN8	(19,1mm)	(50,5mm)	(130,2mm)	(22,2mm)	(50,8mm)	(0,99 kg)
3/8"	0.75"	1.99"	5.125"	0.75"	2.00"	2.2 lbs
DN10	(19,1mm)	(50,5mm)	(130,2mm)	(22,2mm)	(50,8mm)	(0,99 kg)

A	B	C	D	E	F	Weight
3/8"	1.125"	1.99"	6.125"	0.75"	2.75"	2.2 lbs
DN10	(28,5mm)	(50,5mm)	(155,5mm)	(22,2mm)	(69,8mm)	(0,99 kg)
1/2"	1.125"	1.99"	6.125"	0.75"	2.75"	2.2 lbs
DN15	(28,5mm)	(50,5mm)	(155,5mm)	(22,2mm)	(69,8mm)	(0,99 kg)

PORTING CONFIGURATION GUIDE — JPR



PORTING CONFIGURATION GUIDE — JHR



* Used as a purge port

Note: Location of ports from top view

ORDERING SCHEMATIC

How to order a JPR/JHR Low Flow Pressure Regulator

1	—	2	—	3	/	4	5	6	7	8	9	10
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1	Model	
JPR	Standard	
JHR	High Flow	

2	Body Size/Cv (Kv)			
	Size		Cv	Kv
6	3/8" FNPT (DN10) (JPR only)		0.20	0,17
5	3/8" FNPT (DN10) (JPR only)		0.06	0,052
4	3/8" FNPT (DN10) (JPR only)		0.02	0,017
3	1/4" FNPT (DN8) (JPR only)		0.20	0,17
2	1/4" FNPT (DN8) (JPR only)		0.06	0,052
1	1/4" FNPT (DN8) (JPR only)		0.02	0,017
B	3/8" FNPT (DN10) (JHR only)		0.60	0,52
A	1/2" FNPT (DN15) (JHR only)		0.60	0,52

3	Body/Spring Chamber Material	
S	316L SST/316 SST	
B	C360 Chrome Plated Brass/6061 AL	
M	Monel R-405/316 SST	
H	Hastelloy - C -276/316 SST	
T	Titanium/316 SST	

4	Trim Material - JPR Only		
	Seat Material	Diaphragm, Seat Retainer, Poppet, Poppet Spring & Poppet O-ring	
1	PCTFE	302SST with Tefzel ring, 316L SST, 316L SST, Inconel X-750	
2	Polyimide	(Not available with Monel R-405 Body)	
3	TFE		
4	PCTFE	Inconel with TFE liner, Monel R-405, Monel R-405, Inconel X-750	
5	Polyimide	Inconel with TFE liner, Monel R-405, Monel R-405, Inconel X-750	
6	TFE		
A	PCTFE	Hastelloy C with TFE Liner, Hastelloy C-276, Hastelloy C 276, Hastelloy C-276	
B	Polyimide	Hastelloy C with TFE Liner, Hastelloy C-276, Hastelloy C 276, Hastelloy C-276	
C	TFE		
D	PCTFE	Hastelloy C-276 with TFE Liner, Titanium Titanium, Titanium	
E	Polyimide	Hastelloy C-276 with TFE Liner, Titanium Titanium, Titanium	
F	TFE		

4	Trim Material - JHR Only		
	Seat Material	Diaphragm, Seat Retainer, Poppet, Poppet Spring & Poppet O-ring	
G	PCTFE	302SST with Tefzel ring, 316L SST, 316L SST, Inconel X-750 Viton/TFE Back-up	
T	Polyimide	(Not available with Monel R-405 Body)	
U	TFE		
V	PCTFE	Inconel with TFE liner, Monel R-405, Inconel X-750	
W	Polyimide	Inconel with TFE liner, Monel R-405, Inconel X-750	
X	TFE		
Y	PCTFE	Hastelloy C with TFE Liner, Hastelloy C-276, Hastelloy C 276, Hastelloy C-276	
Z	Polyimide	Hastelloy C with TFE Liner, Hastelloy C-276, Hastelloy C 276, Hastelloy C-276	
%	TFE		
&	PCTFE	Hastelloy C-276 with TFE Liner, Titanium Titanium, Titanium	
\$	Polyimide	Hastelloy C-276 with TFE Liner, Titanium Titanium, Titanium	
#	TFE		

5	Porting Configuration			
A ⁴	See Porting Chart	N ³	J ² (JPR Only)	See Porting Chart
B ²				
C ²				
D ¹ (JPR Only)				
E ³				
F ³				
G ¹ (JPR Only)				
H ³				

6	End Connection	
1	FNPT	
T	Tube End	

7	Range Spring/Outlet Pressure		
	psig	Barg	
1	1-10	0,07-0,69	
2	2-25	0,14-1,7	
3	2-50	0,14-3,4	
4	2-100	0,14-6,9	
5	3-250	0,21-17,2	
6	5-500	0,34-34,5	
7	10-750 (JPR only)	0,69-51,7	

8	Outlet Gauge (optional)*		
	psig	Barg	
A	0-15	0-1,0	
B	0-30	0-2,1	
C	0-60	0-4,1	
D	0-100	0-6,9	
E	0-160	0-11,0	
F	0-300	0-20,7	
G	0-600	0-41,4	
H	0-1000 (JPR only)	0-69,0 (JPR only)	
0	No Outlet Gauge		

9	Inlet Gauge (optional)*					
	psig	Barg		psig	Barg	
A	0-15	0-1,0	G	0-600	0-41,4	
B	0-30	0-2,1	H	0-1000	0-69,0	
C	0-60	0-4,1	I	0-2000	0-137,9	
D	0-100	0-6,9	J	0-3000	0-206,9	
E	0-160	0-11,0	K	0-5000	0-275,9	
F	0-300	0-20,7	0	No Inlet Gauge		

10	Options (optional)*	
5	Mounting Bracket	
C	Panel Mount	
2	Black Knob	
8	Blue Knob	
9	Green Knob	
W	Red Knob	

NOTES: When specifying Tables 8 and 9, review numbers in Table 5: ¹ Inlet gauge port only; ² Outlet gauge port only; ³ Inlet & Outlet gauge ports; ⁴ No gauge ports available. * Use an asterisk (*) in blocks 8, 9, and 10 if no option is required.

JHP

Low Flow Pressure Regulator

The Jordan JHP is designed for gases and liquids with inlet pressure to 3600 psig (248 Barg). Standard adjustable outlet ranges from 50 - 1500 psig (3,4 - 103 Barg). Flow coefficient of 0.06. This general purpose use regulator can be ordered with a variety of options to meet your system demands.

FEATURES

- General purpose
- Non-venting standard
- Compact and lightweight
- Panel or surface mounting
- Safe and reliable piston design

TYPICAL APPLICATIONS

- Injection moulding equipment
- High pressure gas booster systems
- Gas cabinets
- Research and development laboratories

SPECIFICATIONS

Line Sizes: 1/4" (DN8)

End Connections: FNPT

Maximum Inlet Pressure: 3600 psig (248,2 Barg)

Outlet Pressure: 50 - 1500 psig (3,4 - 103 Barg)

Materials

- Body & Spring Chamber: Electropolished 316L SST/
316L SST

Maximum Temperature PCTFE: -15 to 175°F (-26 to 79°C)

Approximate Weight: 3.0 lbs (1,36 kg)

Design Proof Pressure: 7200 psig (496,4 Barg)

Design Burst Pressure: 14400 psig (995,6 Barg)

Internal Volume: 2.5 cc

Seat Leakage: Bubble tight

Design Leakage Outboard: 1×10^{-5} scc/sec He

Cv Capability: 0.06



OPTION DEFINITION (REFER TO ORDERING SCHEMATIC #10)

MOUNTING BRACKET

The mounting bracket is a base, or step type. The material is 303 stainless steel. The bracket mounts to the back of the single stage, and back pressure regulators, via 10/32 screws.

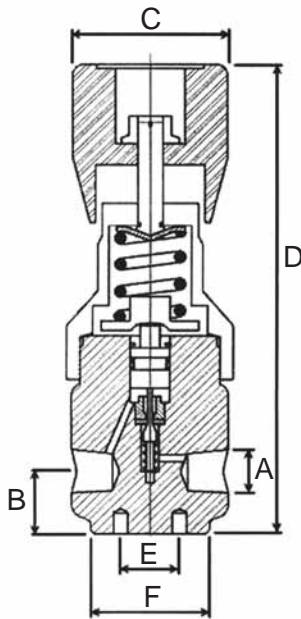
PANEL MOUNT

The panel mount feature requires a panel cut out of 1-3/8", complete with a threaded spring housing, and a panel mount ring to secure the regulator.

COLORED KNOBS

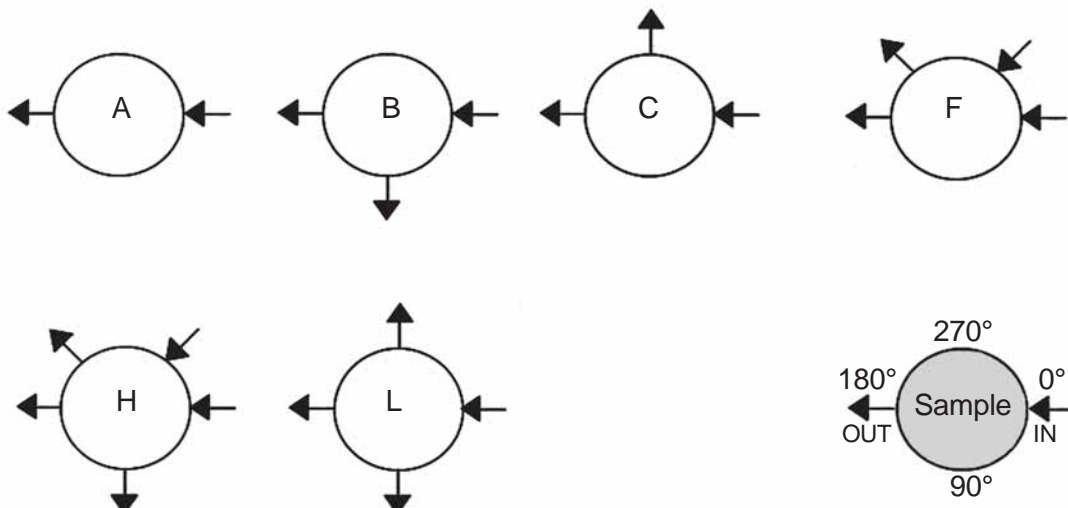
In this feature the control knob is anodized aluminum either in black, blue, green or red, compared to the standard red composite knob. This allows for color coding of processes.

DIMENSIONS



A	B	C	D	E	F	Weight
1/4" (DN8)	0.75" (19,1mm)	1.99" (50,5mm)	5.63" (143,0mm)	0.75" (22,2mm)	2.00" (50,8mm)	3.0 lbs (1,36 kg)

PORTING CONFIGURATION GUIDE



ORDERING SCHEMATIC

How to order a JHP High Pressure Regulator

1	—	2	—	3	/	4	5	6	7	8	9	10

1 Model	
JHP	Standard

7 Range Spring/Outlet Pressure			
		psig	Barg
	A	50 - 1500	0,34 - 1,03

2 Body Size/Cv (Kv)				
		Size	Cv	Kv
	2	1/4" FNPT (DN8) (FNPT)	0.06	0,052

8 Outlet Gauge (optional)*			
		psig	Barg
	1	0-2000	0-137,9
	0	No Outlet Gauge	

3 Body/Spring Chamber Material	
S	316L SST/316L SST

9 Inlet Gauge (optional)*			
		psig	Barg
	C	0 - 60	0 - 4,1
	D	0 - 100	0 - 6,9
	E	0 - 160	0 - 11,0
	F	0 - 300	0 - 20,7
	G	0 - 600	0 - 41,4
	H	0 - 1000	0 - 69,0
	I	0 - 2000	0 - 137,9
	J	0 - 3000	0 - 206,9
	K	0 - 5000	0 - 344,9
	0	No Inlet Gauge	

4 Trim Material - JPR Only			
		Seat Material	Diaphragm, Seat Retainer, Poppet, Poppet Spring & Poppet O-ring
	1	PCTFE	Viton O-Ring; 316L SST Piston, Seat Retainer & Poppet; Inconel X-750 Poppet Spring

5 Porting Configuration		
	A ⁴	See Porting Chart
	B ²	
	C ²	
	F ³	
	H ³	
	L ²	

6 End Connection	
1	FNPT

10 Options (optional)*	
5	Mounting Bracket
C	Panel Mount
2	Black Knob
8	Blue Knob
9	Green Knob
W	Red Knob

NOTES: When specifying Tables 8 and 9, review numbers in Table 5: ¹ Inlet gauge port only; ² Outlet gauge port only; ³ Inlet & Outlet gauge ports; ⁴ No gauge ports available. * Use an asterisk (*) in blocks 8, 9, and 10 if no option is required.

JBP

Low Flow Back Pressure Regulator

The Jordan JBP back pressure regulator is designed for gas or liquid service up to 750 psig (52,0 bar). Flow coefficients are available in 0.10, 0.20 and 0.30. The back pressure regulator controls the inlet pressure. It is used to maintain a pressure in a process, or act in a relief valve capacity. It can be manufactured in a variety of barstock materials, and is ideally suited for either corrosive or non-corrosive services. Standard construction includes machined aluminum knob with anodized finish, diffusion resistant stainless steel diaphragm.

The JBP is ideally suited for the following applications: manufacturing, research facilities, sampling systems, pump bypass, analyzer back pressure and economizer circuit.

FEATURES

- High Pressure Capability - maximum inlet pressure to 750 psig (52 bar); full pressure drop capability
- Barstock Body - can be used in applications that require purity greater than 99.995%; available in a variety of exotic materials
- Low operating torque
- Accurate adjustment

SPECIFICATIONS

Line Sizes

- Standard — 1/4" (DN8)
- Optional — 3/8" (DN10)

End Connections

- FNPT
- Tube Ends
- Other threads available upon request

Materials

- Body & Spring Chamber: 316L SST/316 SST, Chrome Brass, 6061 AL Hastelloy C-276/316 SST, Monel R-405/316 SST, Titanium/316 SST
- Seat: TFE, Kalrez, Viton



Setpoint Spring Ranges

- 1-10 psig (0,07-0,69 Barg)
- 2-25 psig (0,14-1,7 Barg)
- 2-50 psig (0,14-3,4 Barg)
- 2-100 psig (0,14-6,9 Barg)
- 3-250 psig (0,21-17,2 Barg)
- 5-500 psig (0,34-34,5 Barg)
- 10-750 psig (0,69-51,7 Barg)

Internal Volume

- 6.9 cc

CV/Kv

- 0.20 (0,17) — Standard
- 0.10 (0,086) — Optional
- 0.30 (0,258) — Optional

Operating Temperatures

- TFE — -45°F to 400°F (-42.7°C to 204°C)
- Kalrez — -45°F to 575°F (-42.7°C to 301°C)
- Viton — -45°F to 300°F (-42.7°C to 149°C)

Options/Accessories: Tamper Proof, Panel Mount, Oxygen Cleaned, Mounting Bracket, Captured Vent

Approximate Weight

- 2.2 lbs (0,99 kg)

Ratings

- Design Proof Pressure 2xW.P.
- Design Burst Pressure 2xW.P.
- Outboard Leakage <1x10⁻⁹ scc/sec He
- Inboard Leakage <1x10⁻⁹ scc/sec He

OPTION DEFINITION (REFER TO ORDERING SCHEMATIC #9)

TAMPER PROOF

The control knob is removed and replaced with an acorn nut. The user can set the outlet pressure and securely tighten the nut, preventing any unwanted adjustments on the regulator.

PANEL MOUNT

The panel mount feature requires a panel cut out of 1-3/8", complete with a threaded spring housing, and a panel mount ring to secure the regulator.

CLEANED FOR OXYGEN SERVICE

This is a requirement for gaseous oxygen-rich environments.

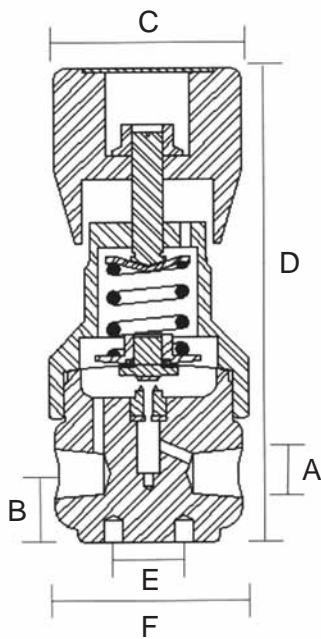
MOUNTING BRACKET

The mounting bracket is a base, or step type. The material is 303 stainless steel. The bracket mounts to the back of the single stage, and back pressure regulators, via 10/32" screws.

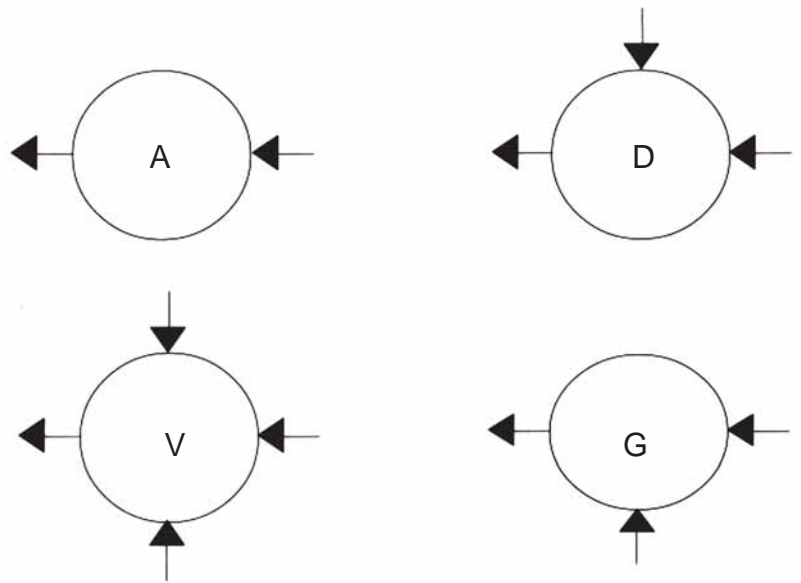
CAPTURED VENT

The captured vent design is for maximum safety for the user when handling toxic or hazardous media. The user can easily pipe this vent to a safe location. It features a 1/8" FNPT port located on the spring housing. This feature can be incorporated into a self-relieving regulator that provides an additional port to permit the piping away from the expelled media.

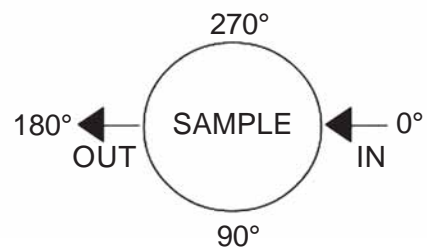
DIMENSIONS



PORTING CONFIGURATION GUIDE



A	B	C	D	E	F	Weight
1/4"	0.75"	1.99"	5.125"	0.75"	2.00"	2.2 lbs
DN8	(19,1mm)	(50,5mm)	(130,2mm)	(22,2mm)	(50,8mm)	(0,99 kg)
3/8"	0.75"	1.99"	5.125"	0.75"	2.00"	2.2 lbs
DN10	(19,1mm)	(50,5mm)	(130,2mm)	(22,2mm)	(50,8mm)	(0,99 kg)



Note: Location of ports from top view

ORDERING SCHEMATIC

How to order a JBP Low Flow Back Pressure Regulator

1	-	2	-	3	/	4	5	6	7	8	9

1 Model	
JBP	Standard

6 End Connection	
1	FNPT
T	Tube End*

2 Body Size/Cv (Kv)				
		Size	Cv	Kv
	C	3/8" FNPT (DN10)	0.30	0,26
	B	3/8" FNPT (DN10)	0.20	0,17
	A	3/8" FNPT (DN10)	0.10	0,09
	8	3/8" FNPT (DN10)	0.05	0,04
	6	1/4" FNPT (DN8)	0.30	0,26
	5	1/4" FNPT (DN8)	0.20	0,17
	4	1/4" FNPT (DN8)	0.10	0,09
	2	1/4" FNPT (DN8)	0.05	0,04

7 Range Spring/Outlet Pressure			
		psig	Barg
	1	1-10	0,07-0,69
	2	2-25	0,14-1,7
	3	2-50	0,14-3,4
	4	2-100	0,14-6,9
	5	3-250	0,21-17,2
	6	5-500	0,34-34,5
	7	10-750	0,69-51,7

3 Body/Spring Chamber Material	
S	316L SST/316 SST
B	C360 Chrome Plated Brass/6061 AL
M	Monel R-405/316 SST
H	Hastelloy - C -276/316 SST
T	Titanium/316 SST

8 Inlet Gauge (optional)*						
		psig	Barg		psig	Barg
	A	0-15	0-1,0	G	0-600	0-41,4
	B	0-30	0-2,1	H	0-1000	0-69,0
	C	0-60	0-4,1	I	0-2000	0-137,9
	D	0-100	0-6,9	J	0-3000	0-206,9
	E	0-160	0-11,0	K	0-5000	0-275,9
	F	0-300	0-20,7	0	No Inlet Gauge	

4 Trim Material			
	Seat Material	Diaphragm and Seal Retainer	
	7* TFE	302SST with Tefzel ring, 316L SST with PCTFE seal	
	8* Kalrez		
	9* Viton		
	H TFE	Inconel with Teflon liner, Monel R-405 with PCTFE seal	
	J Kalrez		
	K Viton		
	L TFE	Hastelloy C-276 with Teflon liner, Hastelloy C-276 with Teflon seal	
	M Kalrez		
	N Viton		
	P TFE	Hastelloy C-276 with Teflon liner, Titanium with Teflon seal	
	R Kalrez		
	S Viton		

9 Options (optional)*	
1	Tamper Proof
C	Panel Mount
M	Oxygen Cleaned
5	Mounting Bracket
6	Captured Vent

5 Porting Configuration		
	4A	See Porting Chart
	1D	
	1G	
	1V	

NOTES: When specifying Tables 8 and 9, review numbers in Table 5: ¹ Inlet gauge port only; ² Outlet gauge port only; ³ Inlet & Outlet gauge ports; ⁴ No gauge ports available. * Use an asterisk (*) in blocks 8 and 9 if no option is required.

JCYL/JCYL-2

Cylinder Pressure Regulators

The Jordan JCYL Cylinder Pressure Regulator and JCYL-2 Two Stage Cylinder Pressure Regulator are designed for gas or liquid service with inlet pressures up to 3600 psig (248 Barg). Standard adjustment outlet ranges from 1 - 10 psig (0,07 - 0,69 Barg) thru 10 - 750 psig (0,69 - 51,7 Barg). The JCYL Series is designed to handle fluctuations in supply pressure while maintaining precise, accurate outlet pressure control. Manufactured from a variety of barstock, it is ideal for corrosive and non-corrosive gas services. Standard construction includes 40 micron integral filter, machined aluminum knob with anodized finish, and diffusion resistant stainless steel diaphragm. Gauges and CGA fitting are optional.

The JCYL Series is ideally suited for the following applications: Cylinder Gases, Chromatography, Sampling Systems, Calibration Control, and Instrumentation. The JCYL-2 Series is ideally suited for Cylinder, Carrier, Calibration, Laser and Medical Gases.



FEATURES

- One Stage (JCYL) and Two Stage (JCYL-2) cylinder pressure regulators
- High Pressure Capability - maximum inlet pressure to 3600 (248 bar); full pressure drop capability
- Barstock Body - can be used in applications that require purity greater than 99.995%; available in a variety of exotic materials

SPECIFICATIONS

Line Sizes: Standard — 1/4" (DN8)

End Connections

- FNPT
- CGA End Connection

Materials

- Body & Spring Chamber: 316L SST/316 SST, Chrome Brass, 6061 AL Hastelloy C-276/316 SST, Monel R-405/316 SST, Titanium/316 SST
- Seat: PCTFE, Polyimide, TFE

Supply Pressure Effect

- JCYL – 0.5/100 psig (0.03/6,9 Barg)
- JCYL-2 – 0.01/100 psig (0,0007/6,9 Barg)

Temperature Coefficient: JCYL – 0.2 psig/°F (0,01 Barg/°C)

Setpoint Spring Ranges

- 1-10 psig (0,07-0,69 Barg)
- 2-25 psig (0,14-1,7 Barg)
- 2-50 psig (0,14-3,4 Barg)
- 2-100 psig (0,14-6,9 Barg)
- 3-250 psig (0,21-17,2 Barg)
- 5-500 psig (0,34-34,5 Barg)
- 10-750 psig (0,69-51,7 Barg) (JCYL Only)

CV/Kv

- 0.06 (0,05) — Standard
- 0.20 (0,17) — Optional
- 0.02 (0,017) — Optional

Operating Temperatures

- PCTFE — -45°F to 185°F (-42.7°C to 85°C)
- Polyimide — -45°F to 575°F (-42.7°C to 301°C)
- TFE — -45°F to 275°F (-42.7°C to 135°C)

Options/Accessories: See Ordering Schematic on Page 12

Approximate Weight

- 3.0 lbs (1,36 kg) — JCYL
- 3.9 lbs (1,77 kg) — JCYL-2

Ratings

- Design Proof Pressure7,200 psig (496,4 Barg)
- Design Burst Pressure14,440 psig (995,6 Barg)
- Outboard Leakage <1x10⁻⁹ scc/sec He
- Inboard Leakage <1x10⁻⁹ scc/sec He
- Internal Volume (JCYL/JCYL/2). 6.9 cc/13/8 cc

OPTION DEFINITION (REFER TO ORDERING SCHEMATIC #10)

TAMPER PROOF (1)

The control knob is removed and replaced with an acorn nut. The user can set the outlet pressure and securely tighten the nut, preventing any unwanted adjustments on the regulator.

MOUNTING BRACKET (5)

The mounting bracket is a base, or step type. The material is 303 stainless steel. The bracket mounts to the back of the single stage, and back pressure regulators, via 10/32" screws.

CAPTURED VENT (N, D, E OR 6)

The captured vent design is for maximum safety for the user when handling toxic or hazardous media. The user can easily pipe this vent to a safe location. It features a 1/8" FNPT port located on the spring housing. This feature can be incorporated into a self-relieving regulator that provides an additional port to permit the piping away from the expelled media.

PANEL MOUNT (A, B OR C)

The panel mount feature requires a panel cut out of 1-3/8", complete with a threaded spring housing, and a panel mount ring to secure the regulator.

DIAPHRAGM VALVE (F)

The diaphragm valve is a shut off valve. The resolution is coarse. The extended leg allows easy access to the knob when it is attached to a regulator. The valve is 1/4" male x 1/4" female outlet.

PACKED VALVE (G)

The packed valve is a metering valve. The resolution is very fine. The packing around the stem is Teflon and the valve is 1/4" male x 1/4" male outlet.

CLEANED FOR OXYGEN SERVICE (M)

This is a requirement for gaseous oxygen-rich environments.

RELIEF VALVE (H, J, K, OR L)

The relief valve's main function is to relieve excess downstream pressure due to system malfunctions. This feature prevents over pressurization by automatically venting the gas or liquid. The valve is fully adjustable, and is 1/4" male x 1/4" male.

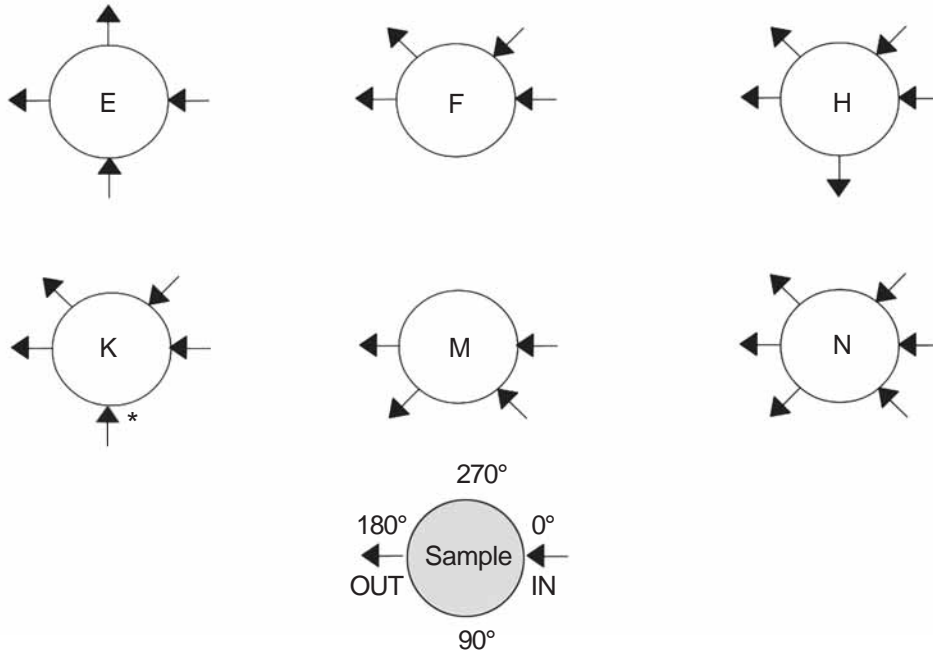
SELF-RELIEVING (S) (STANDARD ON JCYL ONLY)

The self-relieving option features an integral mechanism allowing downstream pressure to be vented to atmosphere as the outlet pressure setting is decreased. This allows the user to easily and rapidly decrease the pressure in a closed, or low volume system, without an auxiliary bleed valve. In addition, this option also functions as a sensitive relief valve. The pressure at which it relieves is automatically determined by the outlet pressure setting off the regulator.

ABOUT TWO STAGE REGULATORS

Two stage regulators provide precise outlet pressure control of gases with variation in supply pressure. The JCYL-2 features low operating torque, accurate adjustment and is capable of high flows with minimal pressure drop.

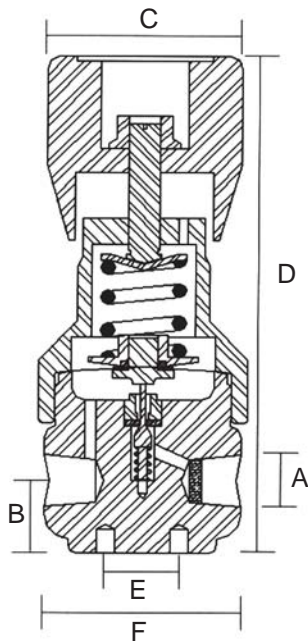
PORTING CONFIGURATION GUIDE



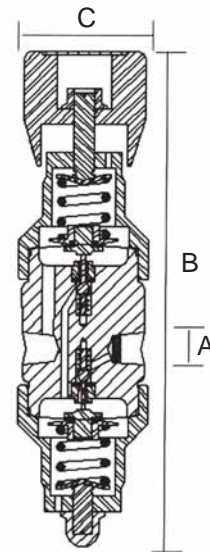
* Used as a purge port

Note: Location of ports from top view

DIMENSIONS — JCYL



DIMENSIONS — JCYL-2



A	B	C	D	E	F	Weight
1/4" DN8	0.75" (19,1mm)	1.99" (50,5mm)	5.125" (130,2mm)	0.75" (22,2mm)	2.00" (50,8mm)	3.0 lbs (1,37 kg)

A	B	C	Weight
1/4" DN8	8.75" (209,6mm)	1.99" (50,5mm)	3.9 lbs (1,77 kg)

ORDERING SCHEMATIC

How to order a JCYL/JCYL-2 Cylinder Pressure Regulator

1	—	2	—	3	/	4	5	6	7	8	9	10

1	Model	
JCYL	One Stage	
JCYL-2	Two Stage	

2	Body Size/Cv (Kv)		
	Size	Cv	Kv
3	1/4" FNPT (DN8 FNPT)	0.20	0,17
2		0.06	0,052
1		0.02	0,17

3	Body/Spring Chamber Material	
S	316L SST/316 SST	
B	C360 Chrome Plated Brass/6061 AL	
M	Monel R-405/316 SST	
H	Hastelloy - C -276/316 SST	
T	Titanium/316 SST	

4	Trim Material	
	Seat Material	Diaphragm, Seat Retainer, Poppet & Poppet Spring
1*	PCTFE	302SST with Tefzel ring, 316L SST, 316L SST, Inconel X-750
2*	Polyimide	
3*	TFE	
4	PCTFE	Inconel with TFE liner, Monel R-405, Monel R-405, Inconel X-750
5	Polyimide	
6	TFE	
A	PCTFE	Hastelloy C-276 with TFE liner, Hastelloy C-276, Hastelloy C-276 Hastelloy C-276
B	Polyimide	
C	TFE	
D	PCTFE	Hastelloy C-276 with TFE liner Titanium, Titanium, Titanium
E	Polyimide	
F	TFE	

* Not available with Monel R-405 body

5	Porting Configuration	
F	See Porting Chart	
H		
M		
K		
E		
N		

6	End Connection	
1	FNPT	
5	CGA End Connection #330	
2	CGA End Connection #346	
3	CGA End Connection #350	
A	CGA End Connection #540	
H	CGA End Connection #580	
L	CGA End Connection #590	
R	CGA End Connection #660	

Note: Consult factory for other CGA connections.

7	Range Spring/Outlet Pressure		
	psig	Barg	
1	1-10	0,07-0,69	
2	2-25	0,14-1,7	
3	2-50	0,14-3,4	
4	2-100	0,14-6,9	
5	3-250	0,21-17,2	
6	5-500	0,34-34,5	
7	10-750 (JCYL Only)		0,69-51,7

8	Outlet Gauge		
	psig	Barg	
A	0-15	0-1,0	
B	0-30	0-2,1	
C	0-60	0-4,1	
D	0-100	0-6,9	
E	0-160	0-11,0	
F	0-300	0-20,7	
G	0-600	0-41,4	
H	0-1000 (JCYL Only)		0-69,0

9	Inlet Gauge					
	psig	Barg		psig	Barg	
A	0-15	0-1,0	G	0-600	0-41,4	
B	0-30	0-2,1	H	0-1000	0-69,0	
C	0-60	0-4,1	I	0-2000	0-137,9	
D	0-100	0-6,9	J	0-3000	0-206,9	
E	0-160	0-11,0	K	0-5000	0-275,9	
F	0-300	0-20,7	0	No Inlet Gauge		

10	Options			
	JCYL		JCYL-2	
1	Tamper Proof	A	Panel Mount 1st Stage	
5	Mounting Bracket	B	Panel Mount 2nd Stage	
6	Captured Vent	N	Captured Vent 1st Stage	
C	Panel Mount	D	Captured Vent 2nd Stage	
F	Diaphragm Valve	E	Captured Vent 1st & 2nd Stage	
G	Packed Valve	F	Diaphragm Valve	
M	Oxygen Cleaned	G	Packed Valve	
H	Relief Valve: 3-50 psig	H	Relief Valve: 3-50 psig	
J	Relief Valve: 50-150 psig	J	Relief Valve: 50-150 psig	
K	Relief Valve: 150-350 psig	K	Relief Valve: 150-350 psig	
L	Relief Valve: 350-600 psig	L	Relief Valve: 350-600 psig	
S	Self-Relieving	M	Oxygen Cleaned	

NOTE: * Use an asterisk (*) in all unused squares.



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