

Spring Loaded Regulator

A spring loaded pressure regulator used for quick control of outlet pressure. Accurate, economic and manually adjustable. Ideal for low to medium pressure applications.



Standard Features

Valve Size:

- 1/16" UNBALANCED

Materials of construction:

BODY - BRASS - BS EN12164 CW614N

SPRING HOUSING - ALUMINIUM - L168-T6511

SEAT - STAINLESS STEEL - BS EN 10088 1.4401

TRIM - PCTFE

ELASTOMERS - HIGH NITRILE

HANDWHEEL - PLASTIC

Connections:

LINE 1/4" BSPP; GAUGE 1/8" BSPP (INLET & OUTLET)

Maximum Inlet Pressure:

210 BAR (3047 PSI)

Outlet Pressure Range:

0 - 10 BAR (0 - 145 PSI)

Media:

GASES

Weight:

0.68Kg (1.5lbs)

Additional Features

- LIMIT STOP DEVICE
- LOCKING DEVICE
- BASE MOUNTING
- DIFFERENTIAL CONTROL
- RELIEF VALVE
- SUITABLE FOR LIQUID
- 450 BAR (6530 PSI) INLET PRESSURE
- METAL DIAPHRAGM

Options

Valve Size:

3/32" UNBALANCED

Materials of construction:

BODY - STAINLESS STEEL - BS EN 10088 1.4401

ELASTOMERS - FLUOROCARBON OR EPDM

Connections:

3/8" BSPP LINE, GAUGE 1/4" BSPP (INLET & OUTLET)

1/4" NPT LINE, GAUGE 1/4" BSPP (INLET & OUTLET)

3/8" NPT LINE, GAUGE 1/4" BSPP (INLET & OUTLET)

Applications

- Gas distribution
- Pressure test rigs
- Piloting for dome-loaded regulators
- Gas mixing
- Oxygen Service
- Chemical processing
- Air compressors
- Differential regulation applications
- Analyser systems
- Sampling

Ordering Information

TYPE	VALVE SEAT SIZE	MATERIAL OPTION	CONNECTIONS	OUTLET PRESSURE	LIQUID OR GAS USE	ELASTOMER	RELIEF	ADJUSTER OPTIONS	SPRING HOUSING
J20	Y (1/16") Z (3/32")	A9 (St. Stl.) R1 (Brass)	E1 (1/4" BSPP) E2 (3/8" BSPP) A1 (1/4" NPT) A2 (3/8" NPT)	E (0 - 0.7 BAR) J (0 - 2 BAR) R (0 - 7 BAR) P (0.1-10 BAR)	L (LIQUID) G (GAS)	N (NITRILE) V (FLUOROCARBON) E (EPDM) P (PCTFE & METAL DIAPHRAGM)	(BLANK NOT REQUIRED) R (RELIEF FITTED)	(BLANK NOT REQUIRED) L (LOCKING) S (LIMIT STOP)	(BLANK FOR BASIC) D (DIFFERENTIAL)

ORDERING INFORMATION EXAMPLE:

J20YA9E1PGNR

Notes

Technical Specifications

Pressure

	PRESSURE	BODY MATERIAL
TEST (PROOF) PRESSURE	675 BAR (9794 PSI) 315 BAR (4571 PSI)	STAINLESS STEEL ONLY BRASS ONLY
MAXIMUM INLET PRESSURE	450 BAR (6530 PSI) 210 BAR (3047 PSI)	STAINLESS STEEL ONLY BRASS ONLY

Outlet Pressure Ranges

PRESSURE	SENSING
0 - 0.7 BAR (0 - 10 PSI)	DIAPHRAGM
0 - 2 BAR (0 - 29 PSI)	DIAPHRAGM
0 - 7 BAR (0 - 101 PSI)	DIAPHRAGM
0.1 - 10 BAR (1.5 - 145 PSI)	DIAPHRAGM

Leakage

STANDARD ON REQUEST	BUBBLE TIGHT (TYPICALLY 10^{-6} AT $CM^3 SEC^{-1}$) HELIUM LEAK TESTED TO 10^{-8} AT $CM^3 SEC^{-1}$
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Temperature Range

	TEMPERATURE	BODY MATERIAL
STANDARD	-10°C TO +100°C	ALL
OPTION	-40°C TO +150°C	CONSULT IVP

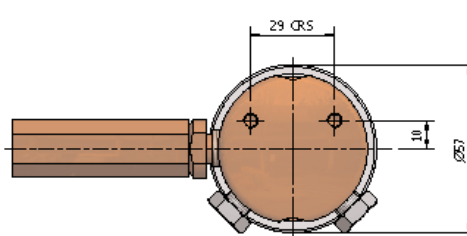
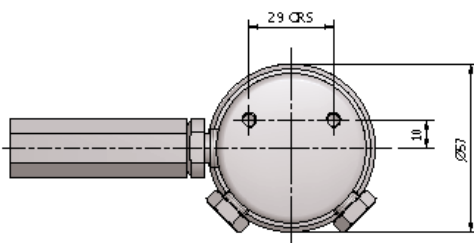
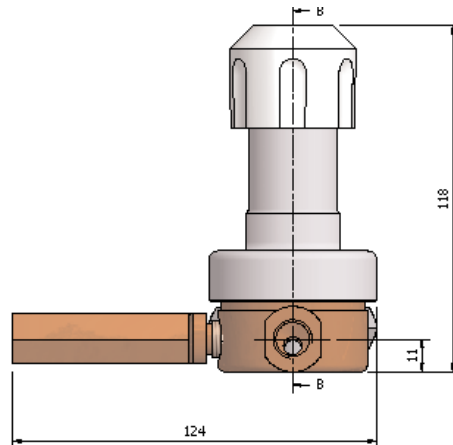
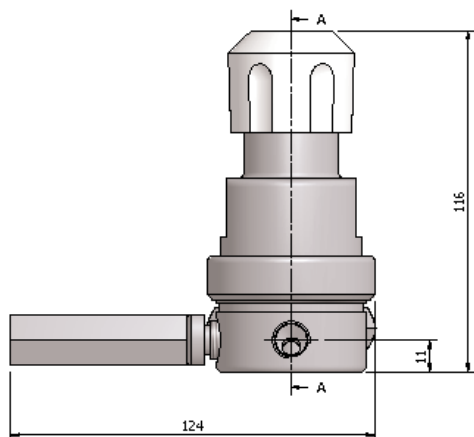
Valve Size

	1/16"	3/32"
NOMINAL SIZE	1.6mm (1/16")	2.4mm (3/32in")
ORIFICE AREA A1	0.9mm ² (0.0014in ²)	3.35mm ² (0.0052in ²)
PORT AREA A2	32mm ² (0.05in ²)	32mm ² (0.05in ²)
FLOW COEFFICIENT	Kv = 0.025 (Cv = 0.03)	Kv = 0.1 (Cv = 0.12)

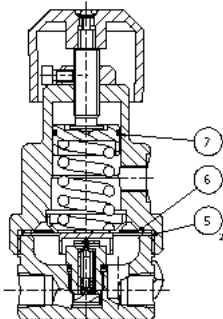
Spares Code

SPARES	VALVE SEAT SIZE	ELASTOMER	SPRING HOUSING
J20SPS	Y (1/16") Z (3/32")	N (NITRILE) V (FLUOROCARBON) E (EPDM) P (PCTFE & METAL DIAPHRAGM)	(BLANK FOR BASIC) D (DIFFERENTIAL)

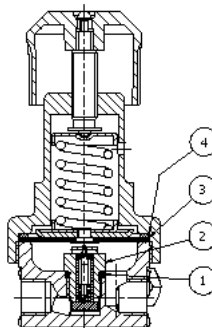
Technical Specifications



SECTION VIEW 'A-A'
DIFFERENTIAL SPRING HOUSING
METAL DIAPHRAGM - WITH LIMIT STOP



SECTION VIEW 'B-B'
BASIC SPRING HOUSING
RUBBER DIAPHRAGM



Spares BOM

ITEM	DESCRIPTION	MATERIAL	REQUIRED			
1	'O' RING/WASHER	Rubber/PCTFE	*	*	*	*
2	VALVE CAPSULE ASSEY	Various	*	*	*	*
3	DIAPHRAGM ASSY	Various	*	*	*	*
4	GASKET	PCTFE	*	*	*	*
5	GASKET	Composite		*	*	*
6	METAL DIAPHRAGM	St. Sti.		*	*	*
7	'O' RING	Rubber			*	*

BASIC SPRING HOUSING (NON PCTFE)

BASIC SPRING HOUSING (PCTFE)

DIFFERENTIAL SPRING HOUSING (NON PCTFE)

DIFFERENTIAL SPRING HOUSING (PCTFE)