

## Spring Loaded Regulator

J53 & 54 are balanced valve, diaphragm or piston sensed, spring-loaded pressure regulators. They are compact & lightweight and used for quick control of outlet pressure. They incorporate an internal vent, making them very accurate and reliable through manual operation, ideal for high and low pressure applications. For an operational overview, please refer to pages 18 and 19.



### Standard Features

<b>Valve Size:</b>	<b>J53</b>	<b>J54</b>	
	1/4" BALANCED	5/16" BALANCED	
<b>Materials of construction:</b>			
<ul style="list-style-type: none"> <li>• BODY - BRASS - BS EN 12164 CW614N</li> <li>• SPRING HOUSING - ALUMINIUM - L168 T6511</li> <li>• SEAT - STAINLESS STEEL - BS EN 10088 1.4305</li> <li>• TRIM - PCTFE</li> <li>• ELASTOMERS - HIGH NITRILE</li> <li>• HANDWHEEL - ALUMINIUM</li> </ul>			
<b>Connections:</b>	<b>J53</b>	<b>J54</b>	
	LINE 3/8" NPT, GAUGE 1/4" NPT (INLET & OUTLET)	LINE 1/2" NPT, GAUGE 1/4" NPT (INLET & OUTLET)	
<b>Maximum Inlet Pressure:</b>			
<ul style="list-style-type: none"> <li>• 350 BAR (5075 PSI)</li> </ul>			
<b>Outlet Pressure Range:</b>	<b>J53</b>	<b>J53</b>	<b>J54</b>
	0-10 BAR (0-145 PSI)	3-30 BAR (43.5-435 PSI)	7-70 BAR (101.6-1016 PSI)
<b>Pressure Release for down stream venting:</b>			
<ul style="list-style-type: none"> <li>• INTERNAL VENTING (NOT CAPTURED)</li> </ul>			
<b>Media:</b>			
<ul style="list-style-type: none"> <li>• LIQUID AND GASES</li> </ul>			
<b>Weight:</b>	<b>J53</b>	<b>J54</b>	
	1.8 Kg (4 lb)	2.5 Kg (5.5 lb)	

### Additional Features

- NON VENTING
- PANEL MOUNTING
- INTERNAL FILTER - 25 MICRON (J54 & GASES ONLY)

### Options

#### Materials of construction:

- BODY-STAINLESS STEEL- BS EN 10088 1.4401
- ELASTOMERS - FLUOROCARBON OR EPDM

#### Connections:

- BSPP CONNECTIONS

## Applications

- Chemical processing
- Medical applications
- Oxygen service
- Portable diving panels
- Decompression chambers

## Ordering Information

TYPE	VALVE SEAT SIZE	MATERIAL OPTION	CONNECTIONS	OUTLET PRESSURE	RELEASE OPTION	ELASTOMER
J53	C (1/4")	R1 (BRASS)	E2 (3/8" BSPP) A2 (3/8" NPT) E1 (1/4" BSPP) A1 (1/4" NPT)	P (0 - 10 BAR) T (3 - 30 BAR) R (0 - 20 BAR)	R (RELEASE) N (NO RELEASE)	N (NITRILE) V (FLUOROCARBON) E (EPDM)
J54	D (5/16")	R1 (BRASS)	E3 (1/2" BSPP) A3 (1/2" NPT)	X (7 - 70 BAR)	R (RELEASE) N (NO RELEASE)	N (NITRILE) V (FLUOROCARBON) E (EPDM)

ORDERING INFORMATION EXAMPLE:

J53CR1E2PRN

## Notes

## Technical Specifications

### Pressure

	J53	J54
TEST (PROOF) PRESSURE	525 BAR (7615 PSI)	525 BAR (7615 PSI)
MAXIMUM INLET PRESSURE	350 BAR (5075 PSI)	350 BAR (5075 PSI)
REDUCED OUTLET PRESSURE RANGES	SEE TABLE BELOW	SEE TABLE BELOW

### Outlet Pressure Ranges

J53		J54	
PRESSURE	SENSING	PRESSURE	SENSING
0-10 BAR (0-145 PSI)	DIAPHRAGM	7-70 BAR (101.5 - 1015 PSI)	PISTON
3-30 BAR (43.5-435 PSI)	PISTON		

### Leakage

STANDARD	BUBBLE TIGHT (TYPICALLY $10^{-6}$ atm.cm <sup>3</sup> /sec <sup>-1</sup> )
ON REQUEST	HELIUM LEAK TESTED TO $10^{-8}$ atm.cm <sup>3</sup> /sec <sup>-1</sup>

### Temperature Range

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

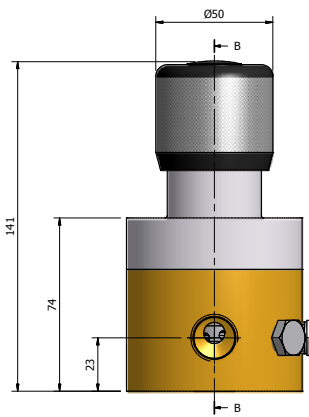
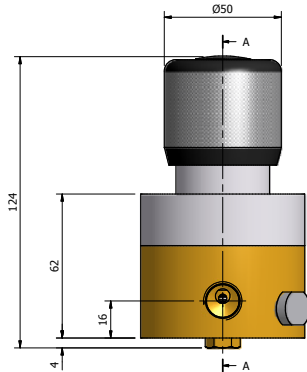
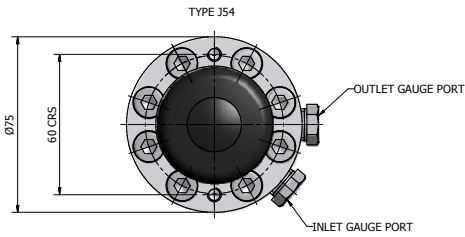
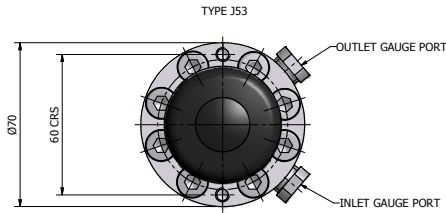
### Valve Size and Flow Area

	J53	J54
NOMINAL SIZE	6.35mm (1/4")	7.8mm (5/16")
ORIFICE AREA A1	23.2mm <sup>2</sup> (0.036 in <sup>2</sup> )	41.7mm <sup>2</sup> (0.067 in <sup>2</sup> )
PORT AREA A2	90.3mm <sup>2</sup> (0.140in <sup>2</sup> )	208mm <sup>2</sup> (0.322in <sup>2</sup> )
FLOW COEFFICIENT	Kv = 0.55 (Cv = 0.64)	Kv = 0.98 (Cv = 1.0)

### Spares Code

SPARES	OUTLET PRESSURE	RELEASE OPTION	ELASTOMER
J53S J54S	P (0-10 BAR) T (3 - 30 BAR) R (0 - 20 BAR)	R (RELEASE) N (NO RELEASE)	N (NITRILE) V (FLUOROCARBON) E (EPDM)

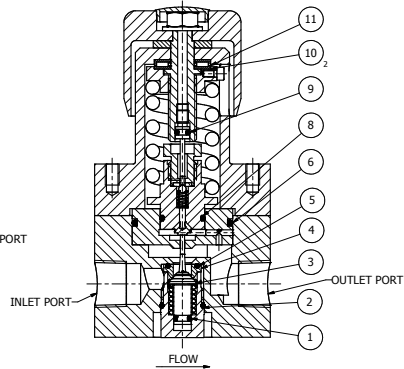
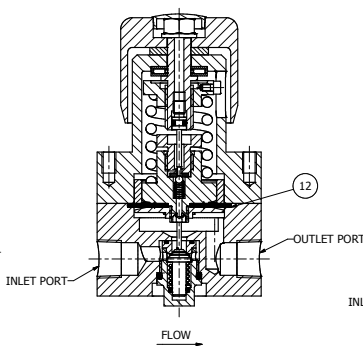
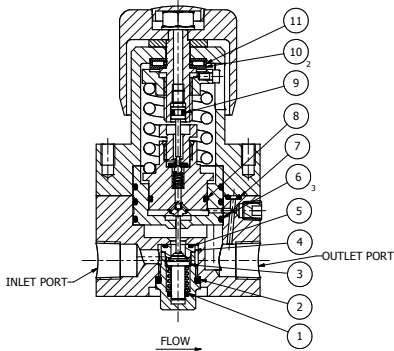
## Technical Specifications



TYPE J53  
SECTION VIEW 'A-A'  
PISTON - RELEASE OPTION

TYPE J53  
SECTION VIEW 'A-A'  
DIAPHRAGM - RELEASE OPTION

TYPE J54  
SECTION VIEW 'B-B'  
PISTON - RELEASE OPTION



## Spares BOM

ITEM	DESCRIPTION	MATERIAL	QTY	REQUIRED			
				*	*	*	*
1	'O' RING	Rubber	1	*	*	*	*
2	'O' RING	Rubber	1	*	*	*	*
3	VALVE	Various	1	*	*	*	*
4	SEAT	St/Stl BS 10088 1.4401	1	*	*	*	*
5	'O' RING	Rubber	1	*	*	*	*
6	'O' RING	Rubber	3	*	*	*	*
7	'O' RING	Rubber	1	*	*	*	*
8	'O' RING	Rubber	1	*	*	*	*
9	'O' RING	Rubber	1	*	*	*	*
10	BEARING WASHER	Steel	2	*	*	*	*
11	NEEDLE ROLLER BEARING	Steel	1	*	*	*	*
12	DIAPHRAGM	Rubber	1	*	*	*	*

PISTON VARIANT - RELEASE

PISTON VARIANT - NON RELEASE

DIAPHRAGM VARIANT - RELEASE

DIAPHRAGM VARIANT - NON RELEASE