

# Relief Valves

## TYPE JUNIOR



# Relief Valves

## INTRODUCTION & APPLICATIONS

The Jr series Relief Valves are safety devices (SBV) for discharging a certain amount of gas when the pressure at the control point exceeds a given level due to any temporary occurrence such as the momentary shutting of a valve and/or overheating the gas with no flow requirement.

Discharging of the gas can prevent damage to the regulators. It can also limit pressure downstream of service regulators to an acceptably low value, even though such regulators may fail in the wide open position. Finally the Jr Series Relief Valves can be sized so that their maximum capacity is less than 1% of the full fault capacity of the regulator skid or modular unit (British Gas Specifications BFC/PS/E26).

## TYPES JR LP, JR A AND JR B

### TYPE JR LP

Jr LP provides relief action with a minimum build up of system pressure at low settings. This relief valve has a "waved" diaphragm which increases sensitivity and offers improved opening and resealing action. The pitot tube is built into the diaphragm head assembly and is designed to obtain the greatest relief capacity. In order to preserve this pitot booster action no opening vent in the upper casing should be permitted. These type Relief Valves are available in 1"x 1" & 2 x 2 1/2" (outlet) NPT body sizes.

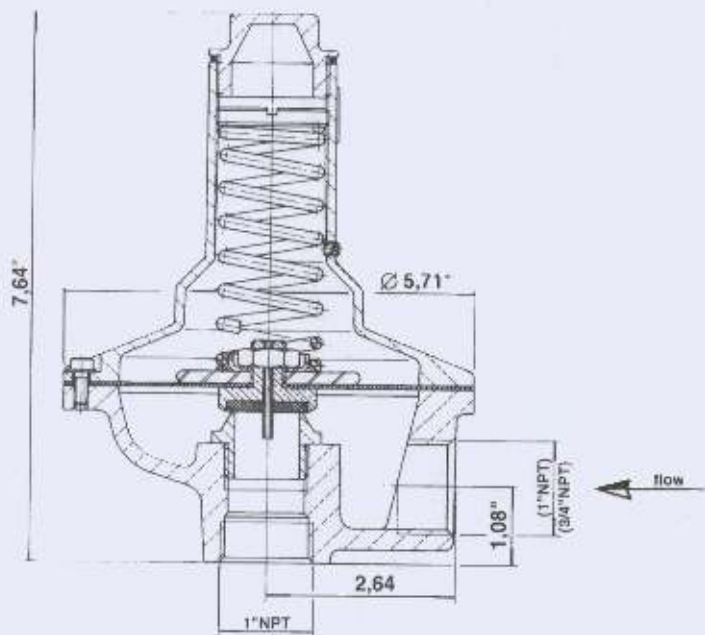
COMPONENT	MATERIAL SPECIFICATION
Body	Aluminum Alloy SAE 323
Cover	Aluminum Alloy SAE 323
Set	Brass
Spring Guide	Acetal Resin (Nulon)
Diaphragm Plate	Aluminum
Valve Disc	Brass
Diaphragm	Nitrile (Buna)
Spring	Carbon Steel
Spring Adjusting Brush	Nylon
Top Cap.	Aluminum Alloy SAE 323



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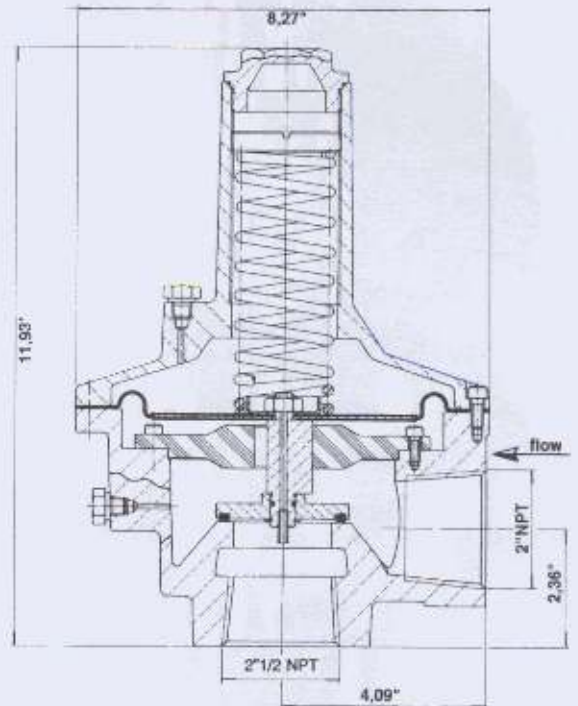
# TYPE JUNIOR

Jr LP 1" x 1"



weight - 1,5 Kg

Jr LP 2" x 2 1/2"



weight - 4,5 Kg

## SPRINGS RANGES

	RANGE	COLOUR
Jr LP 1" x 1"	4"-9" wc	blue
	8"-20" wc	gray
	19"-40" wc	green
	1,3 psig - 3,5 psig	black
Jr LP 2" x 2 1/2"	3" wc - 6" wc	blue
	5,2" wc - 10" wc	green
	9,2" wc - 15,2 wc	gray
	1/2 psig - 1,15 psig	black
	1 psig - 5 psig	black & white

## CAPACITIES (cubic feet per hour) Nat Gas $\delta = 0,61$ (specific gravity)

Jr LP 1" x 1"	Increment of Pressure Above the set Point							
	SET POINT	2" wc	6" wc	1/2 psig	1 psig	2 psig	3 psig	5 psig
	10" wc	400	800	2.000	5.800			
	1/2 psig			4.200	6.000	8.000		
	1 psig			4.000	6.100	8.000		
	2 psig			4.100	6.200	8.300		
Jr LP 2" x 2 1/2"	10" wc	1000	2500	6000	18000	22000		
	1/2 psig			8000	16000	27000	29000	
	1 psig				16000	28000	32000	40000
	2 psig				16000	25000	34000	44000

## TYPE JR A & JR B

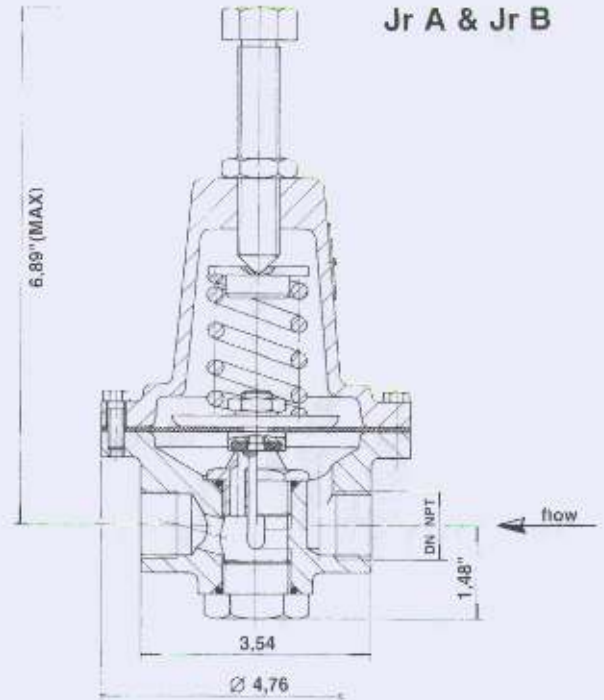
The 1" Jr A & Jr B has aluminum or ductile iron casting to allow for pressure up to 7 bar. Both versions which are designed for natural, liquid petroleum and manufactured gases can be installed in both horizontal and vertical pipelines. The body design permits total advantage on high capacity of these valves.

### SPRING RANGE

Jr B	3 psig	-	15 psig
Jr A	15 psig	-	101 psig

### MATERIALS

Components	Specification
Body	Aluminum SAE 323 or Ductile Iron A536
Cover, Bottom Plug	Aluminum SAE 323
Stem	S.S. AISI 304
Seat, Valve	Brass



weight - 1,7 Kg

### CAPACITIES (cubic Feet per hour) Nat Gas $\delta = 0,61$ (specific gravity)

SET POINT (psig)	Increment of Pressure Above the Set Point (psi)									
	2	4	6	8	10	15	20	25	30	
Jr B 1" x 1"	5	3535	5110	6090	6860	7735	-	-	-	-
	10	3815	5635	6825	7910	8400	-	-	-	-
	15	3920	5740	7280	8085	8645	14040	-	-	-
Jr A 1" x 1"	20	-	5810	-	7630	8400	11375	12285	12740	-
	30	-	5355	-	8925	9905	11830	12530	12985	13195
	50	-	6370	-	10920	12740	14560	15925	18235	19565
	75	-	7875	-	12285	14105	15925	19110	21420	25060



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