

# IBR 2-Way Pneumatic Control Valves with Multispring Actuator

(Normally Close & Normally Open Design)  
Design as per Indian Boiler Regulation-1950

DATA SHEET  
PV-5141A-NC  
PV-5142A-NO

## SPECIFICATIONS

Sizes	: 15mm (1/2") to 100mm.
Flanges	: As per ASME-B-16.5 Cl.300.
Pressure Rating	: As per ANSI Cl. 300.
Pressure Temp. Rating	: As per ASME B16.34.
Gland Packing	: Carbon filled Teflon for temp. upto 425°C.
Design Standard	: ASME B 16.34.
Leakage	: As per ANSI-FCI-70-2 Cl.IV (0.01% of Kv) for 5141/42A Series.
Face to Face	: As per ASME-B 16.10. (All materials).
Testing Standard	: ANSI-FCI-70-2.
Type of Plug	: On-Off, Equal percentage or Linear.
Seat	: Screwed type replaceable.
Body Material	: CS-ASTM A216 WCB (DIN 1.0619 GS-C 25). SS-ASTM A351CF8M(DIN1.4408) (G-X6 Cr.Ni Mo1810) SS-ASTM A351 CF8(DIN1.4301)
Plug Material	: SS AISI 420.
Seat Ring	: SS AISI 420.
Spindle	: 410 Ground, Burnished and Hard Chromed.
Studs	: ASTM A193 Gr. B7.
Hex. Nuts	: ASTM A194 Gr. 2H.
Body Packing	: Cr. Ni Foil coated with graphite.
Rangeability	: Equal Percentage 30:1 Linear 50:1.
Fluid	: Hot Water, Steam .
Note	: 5141A & 5142A are Metal Seated Valves.



## ACTUATOR

Pneumatic diaphragm type Multi Spring Reversible.	
Pressure chambers	: Steel pressing to IS 513CRCD.
Diaphragms	: Nylon inserted high Neoprene, rollform type.
Temperature	: -20°C to +80 ° C
Springs	: EN 47 - Cr. V. Steel.
Max. Pres. Over diaphragm	: Upto 6 bar
Yoke	: Cast carbon steel castings one piece.
Spindle	: Guided through Teflon bearing, leakage prevented by Synthetic seal, protected by rubber bellow.

## SPECIFICATION TABLE FOR TYPE 5141A & 5142A NORMALLY CLOSE & NORMALLY OPEN VALVES.

Actuator Number	Spring Range	Control Pressure	Differential Pressure Table							
			Sizes (mm)							
			15	20	25	40	50	65	80	100
	Bar	Bar	18	22	25	40	50	65	80	100
MSD -250	A - 0.2 - 1.0	1.2	25.8	16.8	12.6	3.8	-	-	-	-
	B - 0.4 - 1.2 @	1.4	38.7	38.7	38.7	15.1	-	-	-	-
	C - 0.8 - 2.4 @	2.7	-	-	-	33.8	-	-	-	-
	D - 1.5 - 2.5 @	3.3	-	-	-	-	-	-	-	-
MSD-400	A - 0.2 - 1.0	1.2	-	-	-	8.3	4.9	2.6	-	-
	B - 0.4 - 1.2 @	1.4	-	-	-	26.2	16.5	9.5	-	-
	C - 0.8 - 2.4 @	2.7	-	-	-	-	35.7	20.9	-	-
	D - 1.7 - 2.7 @	3.3	-	-	-	-	-	32.4	-	-
MSD-800	A - 0.2 - 1.0	1.2	-	-	-	-	12.7	7.2	4.5	2.7
	B - 0.4 - 1.2 @	1.4	-	-	-	-	-	21.1	13.7	8.6
	C - 0.8 - 2.4 @	2.7	-	-	-	-	-	-	29.0	18.4
	D - 2.1 - 3.0 @	3.3	-	-	-	-	-	-	38.7	28.3
	E - 2.0 - 4.0 @	4.5	-	-	-	-	-	-	-	-

Note: (1) @VP(PTP), EPL, FRG needed to be installed on the valve.