



# Pressure Reducing Valve RP 4D and RP 4P

## DESCRIPTION

The ADCA RP4 series pressure reducing valves are single seated, operated without auxiliary energy, designed for use on water and other liquids compatible with the construction. They are particularly suitable for reducing water pressure in all industrial process systems where pressures should be kept constant.

## OPERATION

Pressure reduction is achieved by means of variable throttling of the inlet flow at the valve seat by variation of the flow area between seat and disc. The basic control element is composed by a pilot valve type P-20 (see IS P20D.01E), externally piped. It can vary according with the foreseen options, but always with basic function of controlling pressure in the chamber above valve's diaphragm (RP4D) or piston (RP4P)

## MAIN FEATURES

Robust construction  
Wide range of tailor made versions

**OPTIONS:** Anti-cavitation plugs (flow over the seat)  
Pressure sustaining design (SP4...)

**USE:** Water, gases and other fluids compatible with the construction.

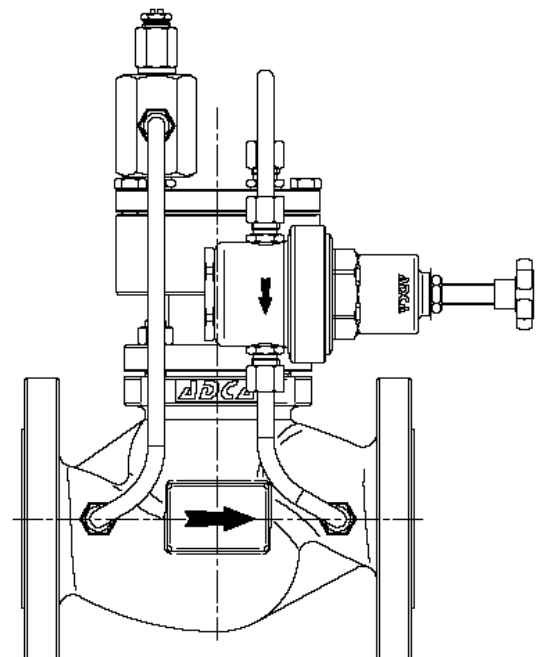
## AVAILABLE MODELS:

RP4DS – PN16 or PN40 diaphragm sensing  
RP4DI – PN16 or PN40 diaphragm sensing  
RP4PS – PN16 or PN40 piston sensing  
RP4PI – PN16 or PN40 piston sensing  
Suffix S : Cast steel construction  
Suffix I : Stainless steel construction

**SIZES:** DN 32 to DN 100  
Flanged EN 1092-1 PN16 and PN40

## CONNECTIONS

**INSTALLATION:** Horizontal installation.  
An "Y" strainer should be provided upstream the valve.



RP4P

CE MARKING (PED - European Directive 97/23/EC)		
PN 16	PN 40	Category
DN32 to DN50	DN32	SEP - art. 3, paragraph3
DN65 to DN100	DN40 to DN80	1 (CE Marked)
/	DN100	2 (CE Marked)

**VALVE BODY LIMITING CONDITIONS**

RP4...S - PN16 *		RP4...I - PN16 *		RP4...S - PN40 *		RP4...I - PN40 *	
ALLOWABLE PRESSURES	RELATED TEMP.	ALLOWABLE PRESSURES	RELATED TEMP.	ALLOWABLE PRESSURES	RELATED TEMP.	ALLOWABLE PRESSURES	RELATED TEMP.
16 bar	-10 /120° C	16 bar	-10 /50° C	40 bar	-10 /50° C	40 bar	-10 /50° C
13,3 bar	200 °C	13,4 bar	200 °C	33,3 bar	200 °C	33,7 bar	200 °C
12,1 bar	250 °C	12,7 bar	250 °C	27,6 bar	300 °C	29,7 bar	300 °C
11 bar	300 °C	11,8 bar	300 °C	25,7 bar	350 °C	28,5 bar	350 °C
10,2 bar	350 °C	11,4 bar	350 °C	23,8 bar	400 °C	27,4 bar	400 °C

\* Rating according to EN1092-1:2007

Maximum temperature limited by the materials used such as o-rings, diaphragms, etc

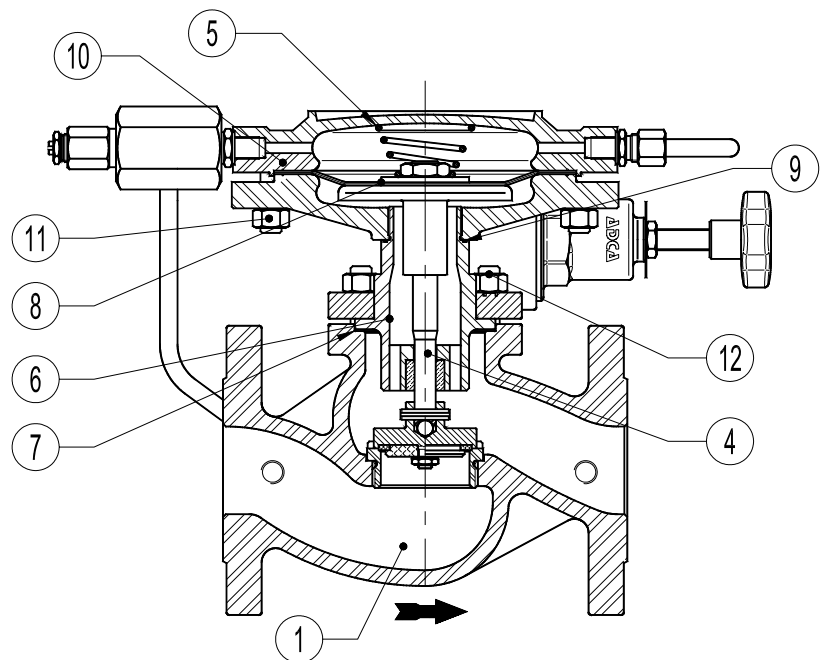
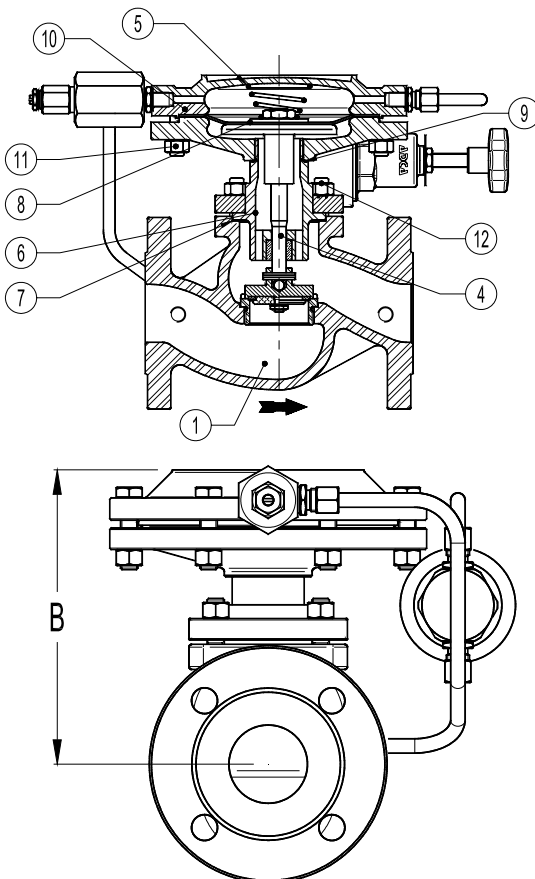
**MATERIALS**

POS.	DESIGNATION	MATERIAL RP4DS	MATERIAL RP4DI
1	Valve Body	ASTM A216WCB / 1.0619 ; GP240GH / 1.0619	CF8M / 1.4408
2	Pilot valve	AISI316 / 1.4401	AISI316 / 1.4401
3	Needle valve	AISI316 / 1.4401	AISI316 / 1.4401
4	Trim	Stainless steel	Stainless steel
5	Spring	AISI302 / 1.4300	AISI302 / 1.4300
6	Bonnet	CF8M / 1.4408	CF8M / 1.4408
7	Gasket	Non asbestos	Non asbestos
8	Diaphragm	Rubber	Rubber
9	Gasket	NBR	NBR
10	Actuator	Steel	St. Steel
11,12	Bolts	Steel 8.8	A2-70

**DIMENSIONS (mm)**

SIZE DN	A	B	WGT. Kgs
32	180	195	17
40	200	200	18,8
50	230	210	26,5
65	290	245	32
80	310	248	38
100	350	255	54

\*Approximate dimensions and weight, consult factory for certified figures.



**FLOW RATE COEFFICIENTS**

	DN32	DN40	DN50	DN65	DN80	DN100
<b>Kvs</b>	11,8	14,4	26,5	51,5	79,5	129,5

Kvs in m3/h , see data sheet IS PV10.00 E ;

For conversion Kvs = Cv(US) x 0,855

**HOW TO SIZE (using Kvs):** please consult formulas on IS PV10.00 E or consult factory.

**MATERIALS**

POS.	DESIGNATION	MATERIAL RP4PS	MATERIAL RP4PI
1	Valve Body	ASTM A216WCB / 1.0619 ; GP240GH / 1.0619	CF8M / 1.4408
2	Pilot valve	AISI316 / 1.4401	AISI316 / 1.4401
3	Needle valve	AISI316 / 1.4401	AISI316 / 1.4401
4	Trim	Stainless steel	Stainless steel
5	Spring	AISI302 / 1.4300	AISI302 / 1.4300
6	Bonnet	CF8M / 1.4408	CF8M / 1.4408
7	Gasket	Non asbestos	Non asbestos
8	Piston	AISI316 / 1.4401	AISI316 / 1.4401
9	O-ring	NBR	NBR
10	Nut	A2-70	A2-70
11	Cover	S355J2G3 / 1.0570	AISI316 / 1.4401
12	O-ring	NBR	NBR
13	Bolts	Steel 8.8	A2-70

**DIMENSIONS (mm)**

SIZE DN	A	B	WGT. Kgs
32	180	275	19,2
40	200	280	22
50	230	290	29
65	290	325	34
80	310	328	40,5
100	350	335	56

\*Approximate dimensions and weight, consult factory for certified figures.

