

## PISTON SENSING PRESSURE REDUCING VALVE PRV31SS 1 1/2" – 2"; DN 40 – DN 50

### DESCRIPTION

The ADCA PRV31 series direct acting, spring-loaded piston sensing, balanced valve pressure reducing valves, are designed for use on compressed air, water and other gases or liquids compatible with the materials of the construction.

They are suitable for pressure reducing stations at the point of use on laundry machines, dyeing, food industries, sterilizers, etc.

Connections are female screwed or flanged.

### MAIN FEATURES

Compact design.  
Balanced valve.  
Machined from barstock materials.

**OPTIONS:** Different soft valves for water and gases.  
Relieving-Internal relief valve to allow reduce outlet pressure in a no-flow condition.  
Built-in strainer.  
Outlet 1/4" gauge connection on body.  
Regulating screw with top cap.

**USE:** Compressed air, water and other gases and liquids compatible with the construction.

**AVAILABLE MODELS:** PRV31SS – Stainless steel.

**SIZES:** 1 1/2" and 2".  
DN 40 and DN 50.

**CONNECTIONS:** Female screwed ISO7/1 Rp (BS 21) or NPT.  
DN40-Flanged EN1092-1 Type11 B PN 40-63.  
DN50-Flanged EN1092-1 Type01 A PN 40\*.  
DN50-Flanged EN1092-1 Type11 B PN 63.  
\*Type 11 B PN40 welding neck available, with different face to face dimension.

**INSTALLATION:** Horizontal installation.  
An "Y" strainer should be provided upstream of the valve.  
See IMI – Installation and maintenance instructions.

**ORDER REQUIREMENTS:** Type of fluid.  
Maximum operating temperature.  
Inlet pressure and required outlet pressure.  
Capacity (maximum and minimum).



Type 11 B  
Flanges



Type 01 A  
Flanges

CE MARKING – GROUP 2 (PED – European Directive)	
PN63	Category
DN 40 to 50	1 (CE marked)

CAPACITIES		
Valve size	1 1/2" – DN 40	2" – DN 50
Kvs (m <sup>3</sup> /h)	14,4	15,4

LIMITING CONDITIONS	
Valve model	PRV31SS
Body design conditions	PN63
Max. upstream pressure	50 bar
Max. downstream pressure	50 bar
Min. downstream pressure	3 bar
Max. design temperature *	80 °C
Max. recommended reducing ratio	40:1

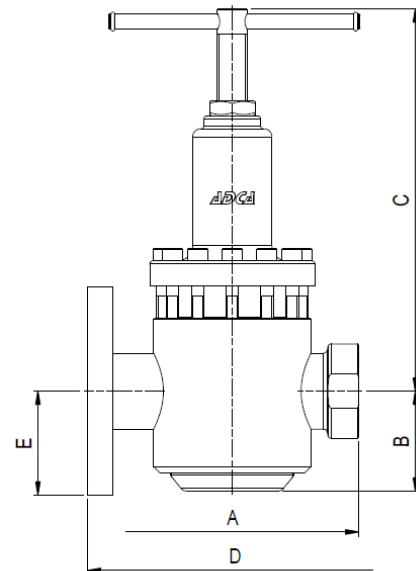
\* Other on request.

**DIMENSIONS (mm)**

Screwed				PN16/40			PN63/100				ANSI 150 lb			ANSI 300 lb			
SIZE	A	B	C	WGT. (kg)	D *	E	WGT. (kg)	D *	E PN63	E PN100	WGT. (kg)	D *	E	WGT. (kg)	D *	E	WGT. (kg)
1 1/2" – DN 40	205	86	305	14,8	201	75	18,1	260	85	85	22,1	235	63,5	17,5	248	78	20
2" – DN 50	201	80	305	15,1	230 **	82,5	20,3	300	90	97,5	24,6	254	76	20	267	82,5	21,7

\* Different lengths and ANSI flanges available on request.

\*\* Only available with flat flanges EN 1092-1 type 01 A. Welding neck type 11 B flanges as option with 300mm minimum face to face dimensions.

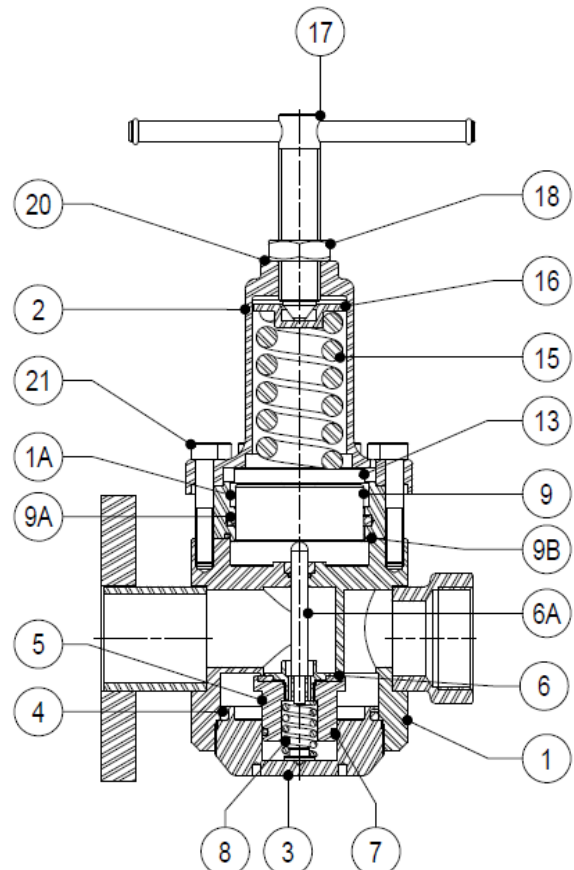


**MATERIALS**

POS. Nº	DESIGNATION	MATERIAL
1	Valve body	AISI 316 / 1.4401
1A	Piston sleeve	AISI 316 / 1.4401
2	Top cover	CF8M / 1.4408
3	Seat cover	AISI 316 / 1.4401
4	* O-ring	NBR
5	* Piston valve	AISI 316 / 1.4401
6	* Valve head	NBR ; EPDM ; PTFE; etc.
6A	Pushrod	AISI 316 / 1.4401
7	* O-ring	NBR ; EPDM ; PTFE; etc.
8	* Valve spring	AISI 302 / 1.4300
9	Piston	AISI 316 / 1.4401
9A	* O-ring	NBR ; EPDM ; PTFE; etc.
9B	* O-ring	NBR ; EPDM ; PTFE; etc.
13	Spring plate	AISI 304 / 1.4301
15	* Adjustment spring	Spring steel
16	Top spring plate	Brass
17	Adjustment screw	AISI 304 / 1.4301
18	Locknut	Stainless steel A2-70
20	Spring id. plate	Aluminium
21	Bolts	Stainless steel A2-70

\* Available spare parts.

Remarks: All valves have a serial number. In case of non standard valves this number must be supplied if spare parts are ordered.



ORDERING CODES PRV31SS												
Valve model	R31	.	5	W	N	C		.	A	40		
PRV31SS – Piston sensing	R31											
<b>Outlet spring range</b>												
N°5 – 3 to 30 bar				5								
N°6 – 5 to 50 bar				6								
<b>Application</b>												
Water				W								
Gases				G								
Oxygen (degreased)				O								
<b>Seal material</b>												
NBR					N							
EPDM					E							
PTFE					T							
FPM / Viton					V							
<b>Maximum inlet pressure</b>												
30 bar						C						
50 bar						D						
<b>Gauge port 1/4"</b>												
Without gauge ports										(1)		
Gauge port on the left side (relative to the flow direction)										4		
Gauge port on the right side (relative to the flow direction)										3		
Gauge ports on both sides										2		
<b>Relieving</b>												
Non-relieving										(1)		
Relieving (only for non dangerous gases)										R		
<b>Pipe connection</b>												
Threaded BSP ISO 7/1										A		
Threaded NPT ANSI B1.20.1										C		
Socket weld SW ANSI B16.11										H		
Butt weld BW ANSI B16.25										I		
Flanged EN 1092-1 PN40										N		
Flanged EN 1092-1 PN63										O		
Flanged ANSI B16.5 150 lb										U		
Flanged ANSI B16.5 300 lb										V		
Flanged ANSI B16.5 600 lb										W		
<b>Size</b>												
1 1/2" or DN 40											40	
2" or DN 50											50	
<b>Special valves / Extras</b>												
Full description or additional codes have to be added in case of non-standard combination.												E

(1) Omitted if a standard valve is requested.