

## PISTON SENSING PRESSURE REDUCING VALVE PRV31 (1/2" – 3/4"; DN 15 – DN 20)

### DESCRIPTION

The ADCA PRV31 series direct acting, spring-loaded piston sensing, balanced plug 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.

### MAIN FEATURES

- Compact design.
- Balanced valve plug.
- Machined from bar stock materials or investment casting.

- OPTIONS:**
- Different soft valves for water and gases.
  - Relieving – Internal relief valve to allow reduced outlet pressure in a no-flow condition.
  - Built-in strainer.
  - 1/4" outlet gauge connection on body.
  - Top cap (adjustment screw with cover).

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

- AVAILABLE MODELS:**
- PRV31SS – stainless steel, piston sensing.

- SIZES:**
- 1/2" and 3/4"; DN 15 and DN 20.

- CONNECTIONS:**
- Female threaded ISO 7 Rp or NPT.
  - Flanged EN 1092-1 PN 40 or PN 63.
  - Flanged ASME B16.5 Class 150 or 300.

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

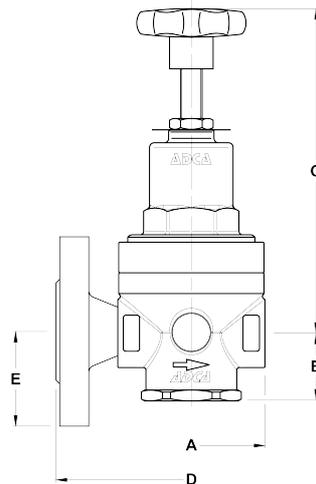


FLOW RATE COEFFICIENTS (m <sup>3</sup> /h)		
SIZE	1/2" – DN 15	3/4" – DN 20
<b>Kvs</b>	3	3,5

LIMITING CONDITIONS	
Valve model	PRV31SS
Body design conditions	PN 63
Maximum upstream pressure	50 bar
Maximum downstream pressure	50 bar
Minimum downstream pressure	3 bar
Maximum design temperature *	80 °C
Maximum recommended reducing ratio	40:1

\* Others on request.

CE MARKING – GROUP 2 (PED – European Directive)	
PN 63	Category
1/2" to 3/4" – DN 15 to 20	SEP



**DIMENSIONS (mm)**

THREADED					PN 40			PN 63		
SIZE	A	B	C	WEIGHT (kg)	D *	E	WEIGHT (kg)	D *	E	WEIGHT (kg)
1/2" – DN 15	80	38	175	2,6	150	47,5	4	210	52,5	4,9
3/4" – DN 20	80	38	175	2,6	150	52,5	4,7	230	70	6,9

\* Different lengths on request.

Remarks: DN 15 PN 40 face to face dimensions were adopted as per DN 20; For flanged ASME versions dimensions, consult manufacturer.

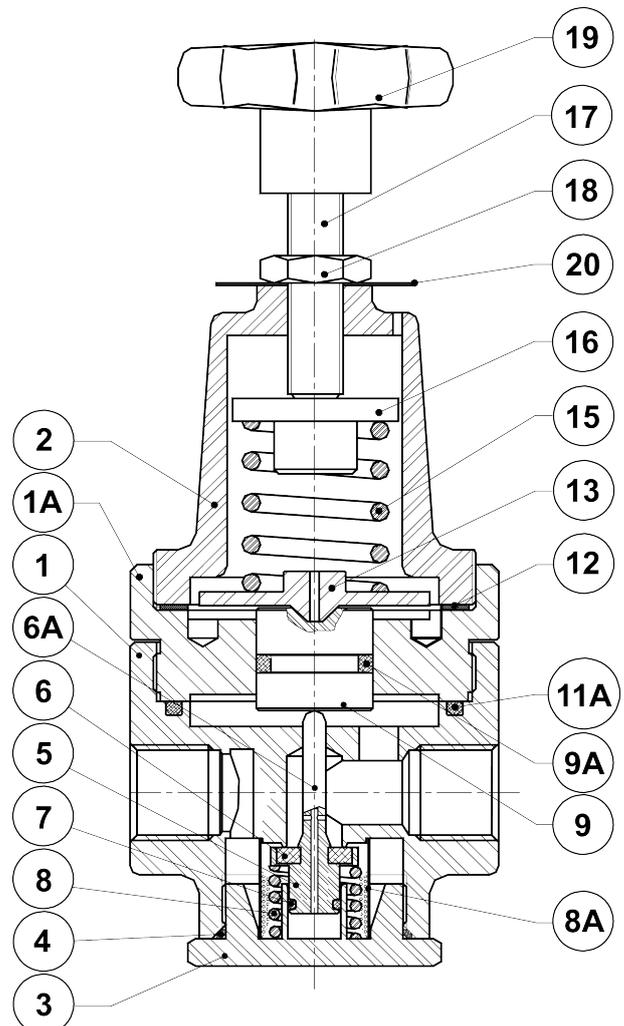
**MATERIALS**

POS. N°	DESIGNATION	MATERIAL
1	Valve body a)	A351 CF8M / 1.4408 (AISI 316 / 1.4401)
1A	Piston sleeve	AISI 316 / 1.4401
2	Top cover a)	A351 CF8M / 1.4408 (AISI 316 / 1.4401)
3	Seat cover a)	A351 CF8M / 1.4408 (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
8A	* Strainer screen	AISI 304 / 1.4301
9	Piston	AISI 316 / 1.4401
9A	* O-ring	NBR ; EPDM ; Viton ; etc.
11A	* O-ring	NBR ; EPDM ; PTFE ; etc.
12	Gasket	Aluminium
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
19	Handwheel	Plastic
20	Spring id. plate	Aluminium

\* 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.

a) Bar stock execution on request.



ORDERING CODES PRV31												
<b>Valve model</b>	R31	.	5	W	N	C	4	R	.	A	15	
PRV31SS – piston sensing pressure reducing valve	R31											
<b>Regulating 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 a)</b>												
NBR				N								
EPDM				E								
PTFE b)				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>												
Female threaded ISO 7 Rp											A	
Female threaded NPT ASME B1.20.1											C	
Socket weld (SW) ASME B16.11											H	
Butt weld (BW) ASME B16.25											I	
Flanged EN 1092-1 PN 40											N	
Flanged EN 1092-1 PN 63											O	
Flanged ASME B16.5 Class 150											U	
Flanged ASME B16.5 Class 300											V	
Flanged ASME B16.5 Class 600											W	
<b>Size</b>												
1/2" or DN 15											15	
3/4" or DN 20											20	
<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.

a) Valve limited to the materials' maximum operating temperature. Consult manufacturer for more details.

b) Valve seal only, other seals in Viton.