

PISTON SENSING PRESSURE REDUCING VALVES PRV31SS (1/2" to 1" – DN 15 to DN 25)

DESCRIPTION

The ADCA PRV31SS is a series of direct acting, spring-loaded, piston sensing and balanced plug pressure reducing valves. These regulators are designed for use with compressed air, water and other gases and liquids compatible with the construction materials and valve design. They are suitable for pressure reducing applications at the point of use in laundry and dyeing machines, food industries, sterilizers, etc.

MAIN FEATURES

- Compact design.
- Built-in strainer.
- Balanced valve plug.
- Full stainless steel construction.
- Various sealing options to meet compatibility requirements.

- OPTIONS:**
- Self relieving.
 - Gauge connection on body.
 - Different soft sealings for liquids and gases.
 - Top cap (adjustment screw with cover).
 - Degreased for oxygen application.

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

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

- SIZES:** 1/2" to 1"; DN 15 to DN 25.

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

- INSTALLATION:** Horizontal installation.
See IMI – Installation and maintenance instructions.



LIMITING CONDITIONS				
VALVE MODEL	PRV31SS			
Body design conditions	Class 150	Class 300	PN 40	PN 63 *
Maximum upstream pressure	16 bar	40 bar	40 bar	50 bar
Maximum downstream pressure	50 bar			
Minimum downstream pressure	3 bar			
Maximum design temperature	80 °C			
Max. recommended reducing ratio	40:1			

* Rating PN 63 for threaded versions.

CE MARKING – GROUP 2 (PED – EUROPEAN DIRECTIVE)	
PN 63	CATEGORY
1/2" to 1" – DN 15 to 25	SEP

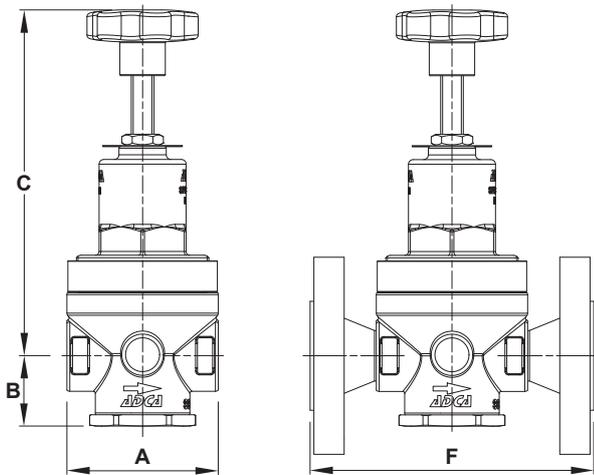
FLOW RATE COEFFICIENTS (m³/h)			
SIZE	1/2" – DN 15	3/4" – DN 20	1" – DN 25
Kvs	3	3,5	7,5

OPTIONS

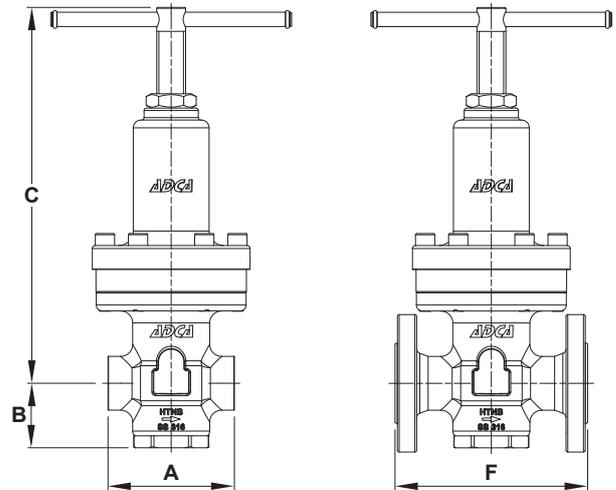
GAUGE CONNECTION



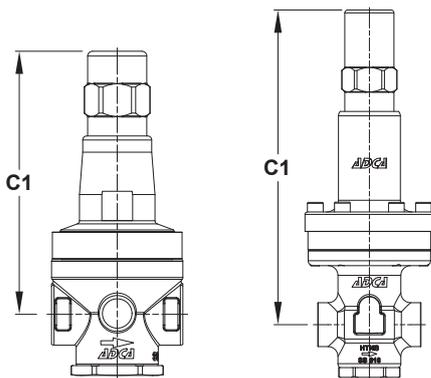
TOP CAP



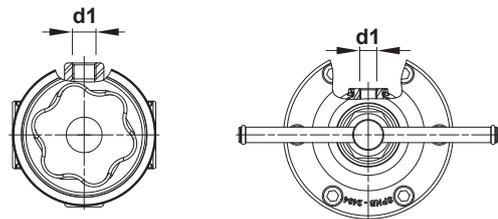
1/2" and 3/4" – DN 15 and DN 20



1" – DN 25



Optional top cap



Optional gauge connection

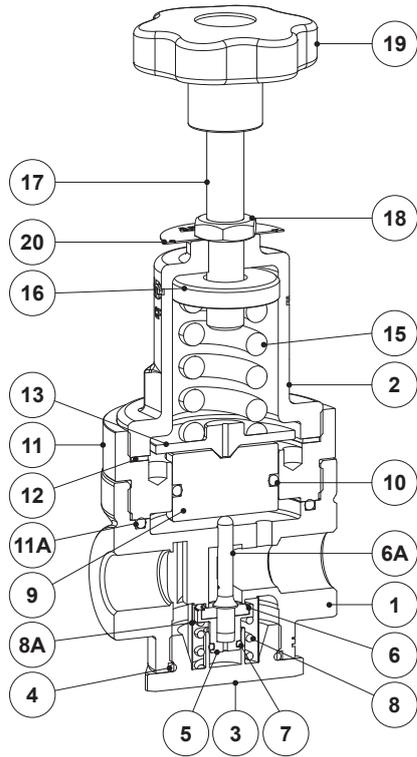
DIMENSIONS (mm)

SIZE	THREADED						PN 40		CLASS 150		CLASS 300	
	A	B	C	C1	d1	WEIGHT (kg)	F *	WEIGHT (kg)	F **	WEIGHT (kg)	F *	WEIGHT (kg)
1/2" – DN 15	80	38	184	162	1/4"	2,8	150	4,9	150	4,2	150	5,2
3/4" – DN 20	80	38	184	162	1/4"	2,7	150	5,4	150	4,6	150	5,6
1" – DN 25	105	54	315	322	1/4"	9,2	160	11,8	230	11,1	230	12,2

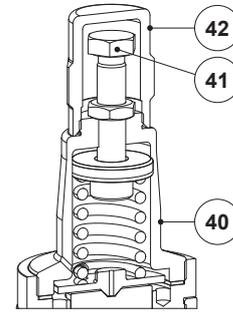
* Different face to face dimensions on request.

Remarks: As standard, in versions manufactured with EN 1092-1 flanges or ISO 7 Rp threads, connection d1 is female threaded ISO 228. In versions with ASME B16.5 flanges or NPT threads, this connection is female threaded NPT.

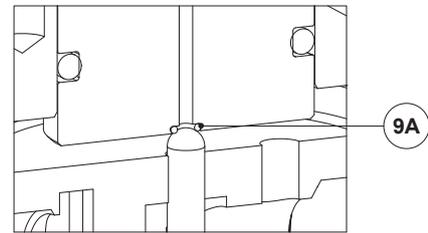
MATERIALS



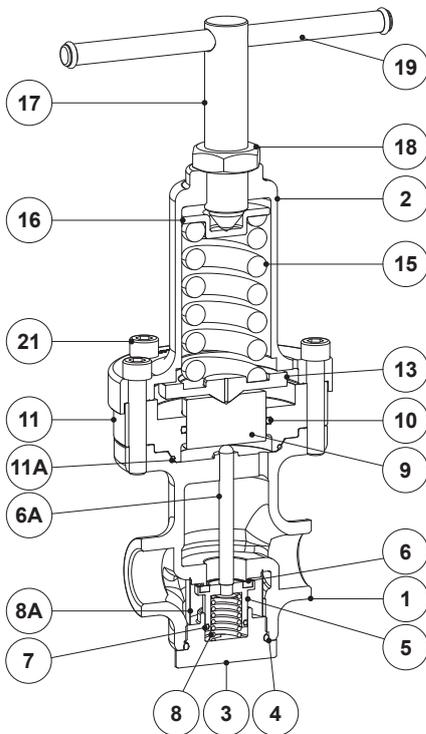
1/2" and 3/4" – DN 15 and DN 20



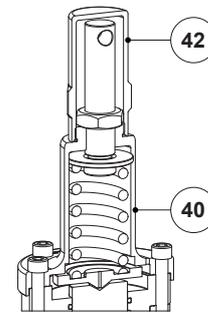
Optional top cap



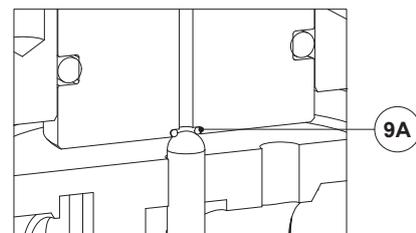
Optional relieving version



1" – DN 25



Optional top cap



Optional relieving version

MATERIALS

POS. No.	DESIGNATION	MATERIAL
1	Valve body	A351 CF8M / 1.4408
2	Spring cover	A351 CF8M / 1.4408
3	Bottom cover	A351 CF8M / 1.4408
4	* O-ring	** NBR; EPDM; PTFE; FPM
5	* Piston	AISI 316 / 1.4401
6	* Valve seal	** NBR; EPDM; PTFE; FPM
6A	* Pushrod	AISI 316 / 1.4401
7	* Piston o-ring	** NBR; EPDM; FPM
8	* Valve spring	AISI 302 / 1.4300
8A	* Strainer screen	AISI 304 / 1.4301
9	Piston	AISI 304 / 1.4301
9A	* O-ring	NBR; EPDM; FPM
10	* O-ring	NBR; EPDM; FPM
11	Piston sleeve	AISI 316 / 1.4401
11A	* O-ring	** NBR; EPDM; PTFE; FPM
12	Gasket	Aluminium
13	Spring plate	AISI 304 / 1.4301
15	* Adjustment spring	AISI 302 / 1.4300
16	Top spring plate	Brass; AISI 316 / 1.4401
17	Adjustment stem	AISI 304 / 1.4301
18	Lock nut	Stainless steel A2-70
19	Adjustment knob	Plastic; AISI 304 / 1.4301
20	Spring identification plate	Aluminium
21	Bolt	Stainless steel A2-70
40	Cover	A351 CF8M / 1.4408; AISI 316L / 1.4404
41	Adjustment screw	Stainless steel A2-70
42	Top cap	AISI 316L / 1.4404

* Available spare parts. ** Others on request.

Remark: 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	15
PRV31SS – Piston sensing pressure reducing valve	R31											
REGULATING RANGE												
No. 5 – 3 to 30 bar			5									
No. 6 – 5 to 50 bar			6									
APPLICATION												
Water				W								
Gases				G								
Oxygen (degreased)				O								
VALVE SEALING												
NBR					N							
EPDM					E							
PTFE (a)					T							
FPM					V							
MAXIMUM INLET PRESSURE												
30 bar						C						
50 bar						D						
GAUGE CONNECTIONS												
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		
TOP CAP AND RELIEVING												
Non-relieving										(1)		
Relieving (only for non-dangerous gases)										R		
Non-relieving with top cap (adjustment screw with cover)										T		
Relieving with top cap (adjustment screw with cover, only for non-dangerous gases)										V		
PIPE CONNECTIONS												
Female threaded ISO 7 Rp											A	
Female threaded NPT ASME B1.20.1											C	
Flanged EN 1092-1 PN 40											N	
Flanged ASME B16.5 Class 150											U	
Flanged ASME B16.5 Class 300											V	
SIZE												
1/2" or DN 15												15
3/4" or DN 20												20
1" or DN 25												25
SPECIAL CONSTRUCTION / ADDITIONAL OPTIONS												
A full description must be provided and validated in case of a non-standard construction												E

(1) Omitted if a standard valve is requested.

(a) All seals except piston o-ring, which is supplied in FPM or others on request.