

DIAPHRAGM SENSING PRESSURE REDUCING VALVES PRV30SS (1" to 2" – DN 25 to DN 50)

DESCRIPTION

The ADCA PRV30SS is a series of direct acting, spring-loaded, diaphragm 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.
 - Dome-loading.
 - 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:** PRV30SS – stainless steel, diaphragm sensing.

- SIZES:** 1" to 2"; DN 25 to DN 50.

- CONNECTIONS:** Female threaded ISO 7 Rp or NPT (only available from 1 1/4" to 2").
Flanged EN 1092-1 PN 40 (only available from DN 32 to DN 50) or PN 63.
Flanged ASME B16.5 Class 150 or 300 (only available from 1 1/4" to 2") or Class 600.

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



LIMITING CONDITIONS					
VALVE MODEL	PRV30SS				
Body design conditions	Class 150	Class 300	Class 600	PN 40	PN 63 *
Maximum upstream pressure	16 bar	40 bar	50 bar	40 bar	50 bar
Maximum downstream pressure	15 bar				
Min. downstream pressure	0,2 bar				
Maximum design temperature	80 °C				
Max. recommended reducing ratio	40:1				
Maximum dome-loading pressure	15 bar				

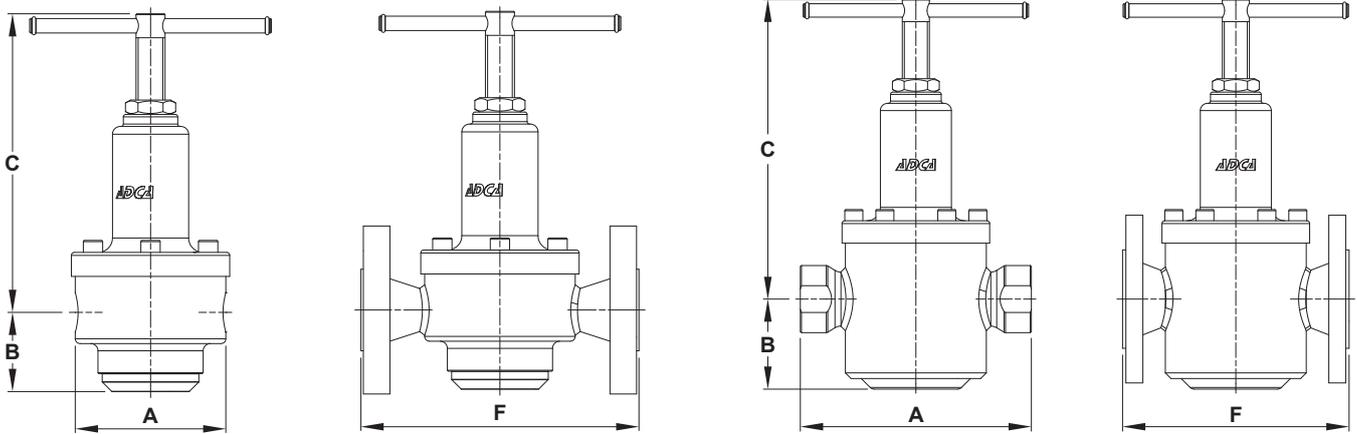
* Rating PN 63 for threaded versions.

CE MARKING – GROUP 2 (PED – EUROPEAN DIRECTIVE)		
CLASS 150	PN 40 / PN 63 CL. 300 / CL. 600	CATEGORY
1" to 2" DN 25 to 50	1" and 1 1/4" DN 25 and 32	SEP
–	1 1/2" and 2" DN 40 and 50	1

FLOW RATE COEFFICIENTS (m³/h)				
SIZE	1" DN 25	1 1/4" DN 32	1 1/2" DN 40	2" DN 50
Kvs	6,5	7,2	12,7	13,7

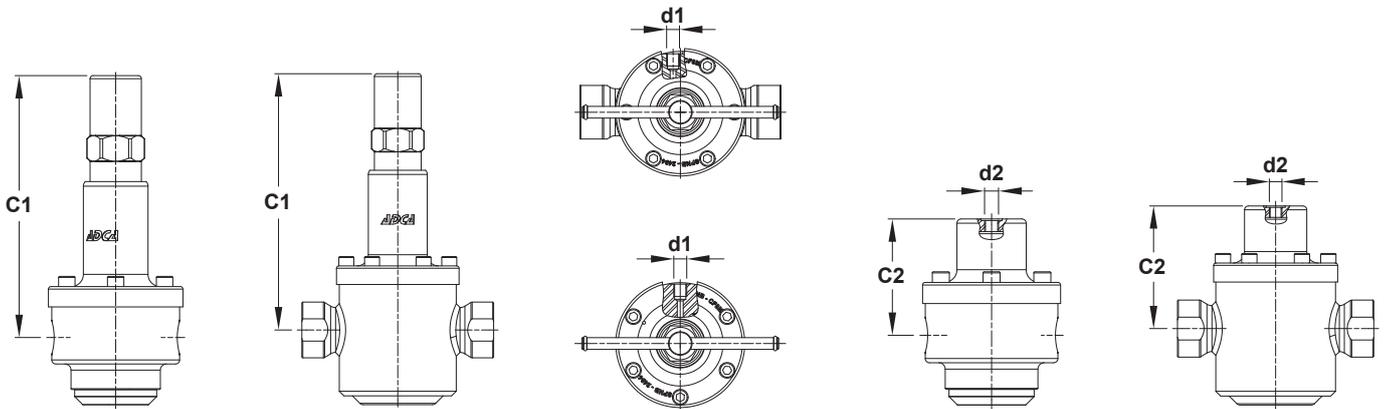
OPTIONS

GAUGE CONNECTION	TOP CAP	DOME-LOADING



1" and 1 1/4" – DN 25 and DN 32

1 1/2" and 2" – DN 40 and DN 50



Optional top cap

Optional gauge connection

Optional dome-loading

DIMENSIONS (mm)

SIZE	THREADED								PN 40		PN 63		CLASS 150		CLASS 300		CLASS 600	
	A	B	C	C1	C2	d1	d2	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)
1" – DN 25 **	125	66	249	257	110	1/4"	1/4"	–	–	–	230	14,1	–	–	–	–	230	12,5
1 1/4" – DN 32	125	66	249	257	110	1/4"	1/4"	8,7	260	12,6	260	14,9	260	11,7	260	12,8	260	13,6
1 1/2" – DN 40	205	81	268	276	129	1/4"	1/4"	12,4	201	16,3	260	20,1	235	15,9	248	18,1	264	19,2
2" – DN 50	205	75	274	270	123	1/4"	1/4"	13,2	230	18,2	300	21,3	254	16,7	267	18,6	300	21

* Different face to face dimensions on request; ** Only available with PN 63 or Class 600 flanged connections.

Remarks: As standard, in versions manufactured with EN 1092-1 flanges or ISO 7 Rp threads, connections d1 and d2 are female threaded ISO 228. In versions with ASME B16.5 flanges or NPT threads, these connections are female threaded NPT.

MATERIALS

POS. No.	DESIGNATION	MATERIAL
1	Valve body	AISI 316 / 1.4401
2	Spring cover	A351 CF8M / 1.4408
2A	Cover	AISI 316 / 1.4401
3	Bottom cover	AISI 316 / 1.4401
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	Pusher disc	AISI 304 / 1.4301
9A	* O-ring	** NBR; EPDM; FPM
10A	* Lower diaphragm	** PTFE
10B	* Upper diaphragm	** NBR
13	Spring plate	AISI 304 / 1.4301
14	Nut	Stainless steel A2-70
14A	* Serrated washer	AISI 304 / 1.4301
15	* Adjustment spring	AISI 302 / 1.4300
16	Top spring plate	Brass
17	Adjustment stem	AISI 304 / 1.4301
18	Lock nut	Stainless steel A2-70
19	Adjustment knob	AISI 304 / 1.4301
21	Bolt	Stainless steel A2-70
40	Cover	A351 CF8M / 1.4408
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 PRV30SS												
VALVE MODEL	R30	.	1	W	N	C	R			.	A	25
PRV30SS – Diaphragm sensing pressure reducing valve	R30											
REGULATING RANGE												
No. 1 – 0,2 to 1,5 bar			1									
No. 2 – 0,3 to 3 bar			2									
No. 3 – 0,8 to 8 bar			3									
No. 4 – 1,5 to 15 bar			4									
0,2 to 15 bar (dome-loading) (a)			A									
APPLICATION												
Water				W								
Gases				G								
Oxygen (degreased)				O								
VALVE SEALING												
NBR					N							
EPDM					E							
PTFE (b)					T							
FPM					V							
MAXIMUM INLET PRESSURE												
30 bar						C						
50 bar (c)						D						
DIAPHRAGM												
NBR / PTFE (only NBR in case of dome-loading)							R					
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	
Dome-loading top (d)											X	
PIPE CONNECTIONS												
Female threaded ISO 7 Rp												A
Female threaded NPT ASME B1.20.1												C
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
SIZE												
1" or DN 25 (only available with PN 63 and Class 600 flanged connections)												25
1 1/4" or DN 32												32
1 1/2" or DN 40												40
2" or DN 50												50
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) The loading control pressure can be up to a maximum of 1,2 bar above the required downstream pressure.

(b) All seals except bottom cover and piston o-ring, which are supplied in FPM or others on request.

(c) Only available with spring No. 4.

(d) This option must be chosen in case of dome-loading.