DIAPHRAGM SENSING PRESSURE SUSTAINING VALVES
PS30SS
(1" to 2" – DN 25 to DN 50)

DESCRIPTION

The ADCA PS30SS is a series of direct acting, spring-loaded, diaphragm sensing pressure sustaining 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 sustaining applications at the point of use in laundry and dyeing machines, food industries, sterilizers, etc.

MAIN FEATURES

Compact design.
Full stainless steel construction.
Various sealing options to meet compatibility requirements.

OPTIONS: 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: PS30SS – stainless steel, diaphragm sensing.

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

CONNECTIONS: Female threaded ISO 7 Rp or NPT.
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 11/4" to 2") or Class 600.

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

LIMITING CONDITIONS					
VALVE MODEL	**PS30SS**				
Body design conditions	Cl. 150	Cl. 300	Cl. 600	PN 40	PN 63 *
Maximum upstream pressure	15 bar				
Minimum upstream pressure	0,2 bar				
Maximum design temperature	80 ºC				
Maximum dome-loading pressure	15 bar				

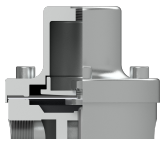
* Rating PN 63 for threaded versions.

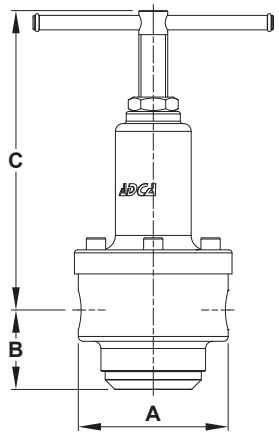
Warning: A pressure sustaining valve is not a safety relief valve and must not be used for that purpose!

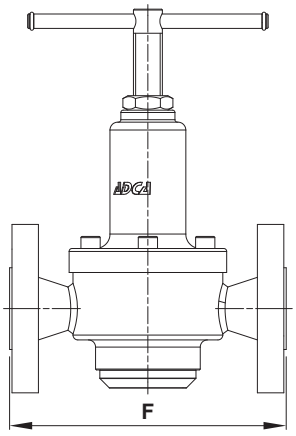
FLOW RATE COEFFICIENTS (m³/h)				
SIZE	**1" – DN 25**	**11/4" – DN 32**	**11/2" – DN 40**	**2" – DN 50**
Kvs	6,5	7,2	12,7	13,7

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 11/4" DN 25 and 32	SEP
–	11/2" and 2" DN 40 and 50	1

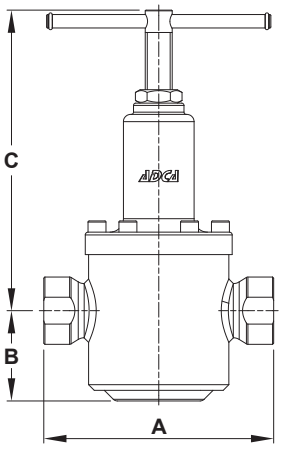
OPTIONS

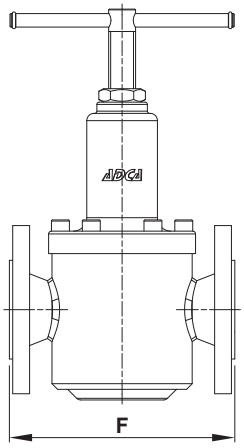
GAUGE CONNECTION	TOP CAP	DOME-LOADING
		



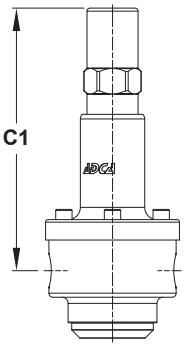


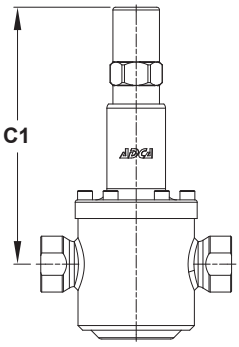
1" and 11/4" – DN 25 and DN 32



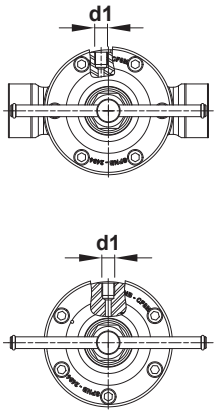


11/2" and 2" – DN 40 and DN 50

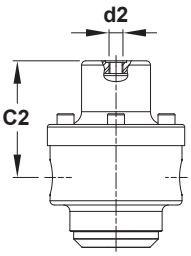


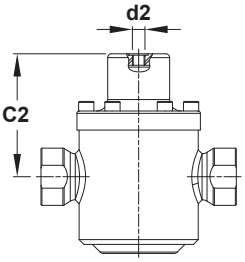


Optional top cap



Optional gauge connection



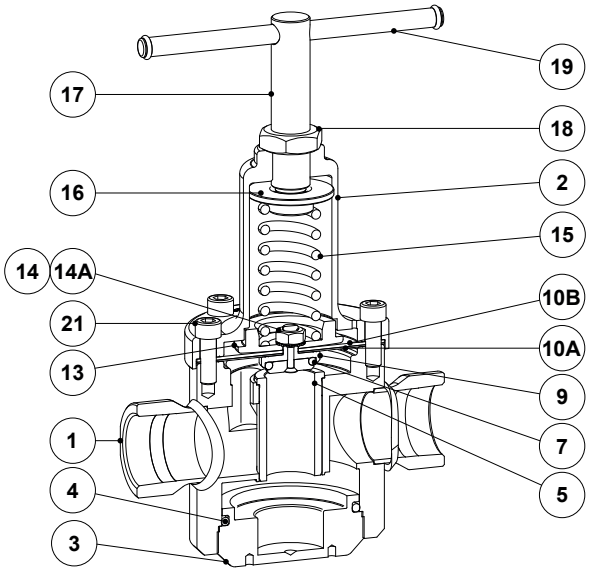


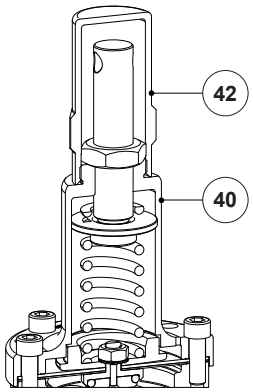
Optional dome-loading

DIMENSIONS (mm)

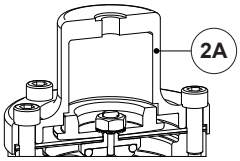
SIZE	THREADED								PN 40		PN 63		CLASS 150		CLASS 300		CLASS 600	
	A	B	C	C1	C2	d1	d2	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)
1" – DN 25 **	125	66	249	257	110	1/4"	1/4"	–	–	–	230	12,8	–	–	–	–	230	11,2
11/4" – DN 32	125	66	249	257	110	1/4"	1/4"	7,5	260	12,6	260	13,7	260	10,5	260	11,6	260	12,4
11/2" – DN 40	205	81	268	276	129	1/4"	1/4"	13	201	16,3	260	20,7	235	16,5	248	18,7	264	19,8
2" – DN 50	205	75	274	270	123	1/4"	1/4"	13,3	230	18,2	300	21,4	254	16,8	267	19,4	300	21,1

* 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.





Optional top cap



Optional dome-loading

MATERIALS		
POS. No.	**DESIGNATION**	**MATERIAL**
1	Valve body	AISI 316 / 1.4401
2	Spring cover	A351 CF8M / 1.4408
2A	Cover	AISI 316L / 1.4404
3	Bottom cover	AISI 316 / 1.4401
4	* O-ring	** NBR; EPDM; FPM
5	Valve seat	AISI 316 / 1.4401
7	Valve seal	** NBR; EPDM; PTFE; FPM
9	Plug	AISI 316 / 1.4401
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; AISI 316 / 1.4401
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; AISI 316L / 1.4404
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 PS30SS

VALVE MODEL	PS30	.	1	W	N	C	R	4	T	.	A	25	
PS30SS – Diaphragm sensing pressure sustaining valve	**PS30**												
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													
15 bar						**C**							
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)**				
Non-relieving with top cap (adjustment screw with cover)									**T**				
Dome-loading top **(c)**									**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**	
11/4" or DN 32												**32**	
11/2" or DN 40												**40**	
2" or DN 50												**50**	
SPECIAL CONSTRUCTION / ADDITIONAL OPTIONS													
A full description must to 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) This option must be chosen in case of dome-loading.