

## DIAPHRAGM SENSING PRESSURE SUSTAINING VALVE PS30SS

### 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 valves for liquids and gases.  
 Dome-loaded version.  
 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:** 1/2" 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.

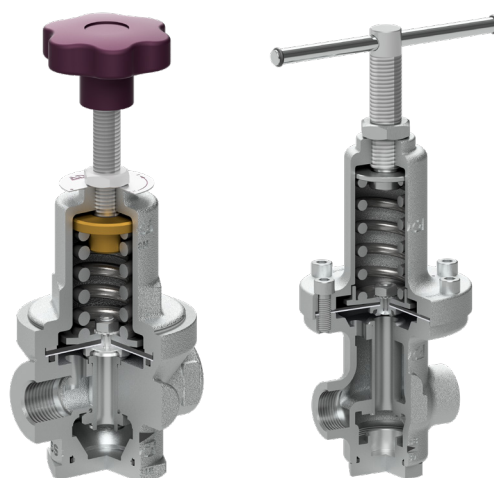
**INSTALLATION:** Horizontal installation.  
 See IMI – Installation and maintenance instructions.



1/2" to 3/4" – DN 15 to DN 20



1" – DN 25



1/2" to 3/4" – DN 15 to DN 20

1" – DN 25

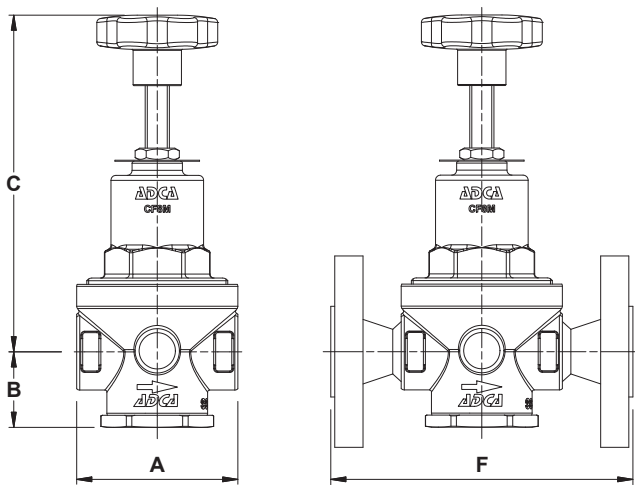
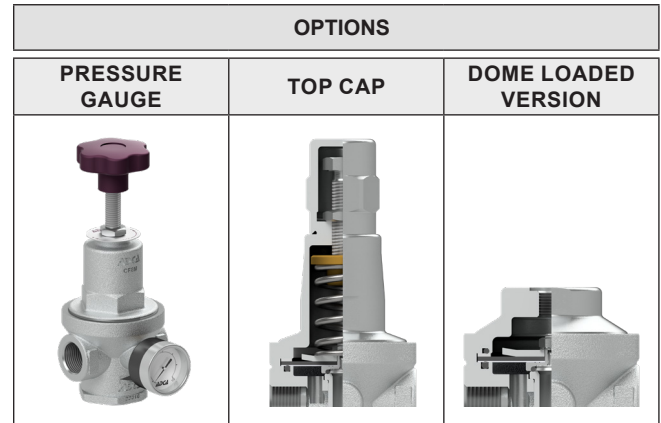
CE MARKING – GROUP 2 (PED – European Directive)	
PN 63	Category
1/2" to 1" – DN 15 to 25	SEP

FLOW RATE COEFFICIENTS (m³/h)			
SIZE	1/2" – DN 15	3/4" – DN 20	1" – DN 25
Kvs	2,1	2,4	6,5

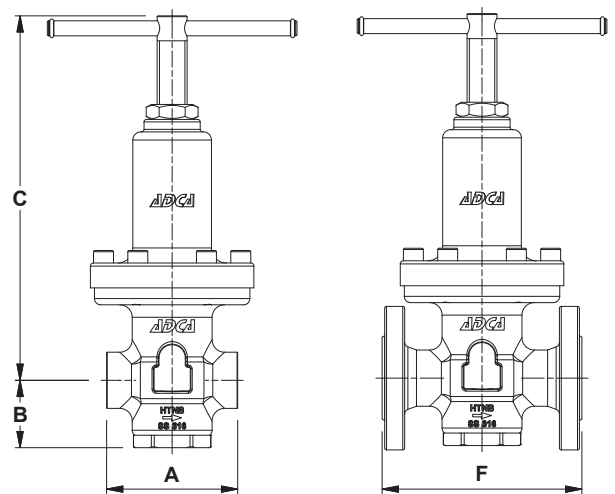
LIMITING CONDITIONS				
<b>Valve model</b>	<b>PS30SS</b>			
Body design conditions	Cl. 150	Cl. 300	PN 40	PN 63 *
Max. upstream pressure	15 bar			
Min. upstream pressure	0,2 bar			
Max. design temperature	80 °C			
Maximum dome-loading pressure	15 bar			

\* Rating PN 63 for threaded versions.

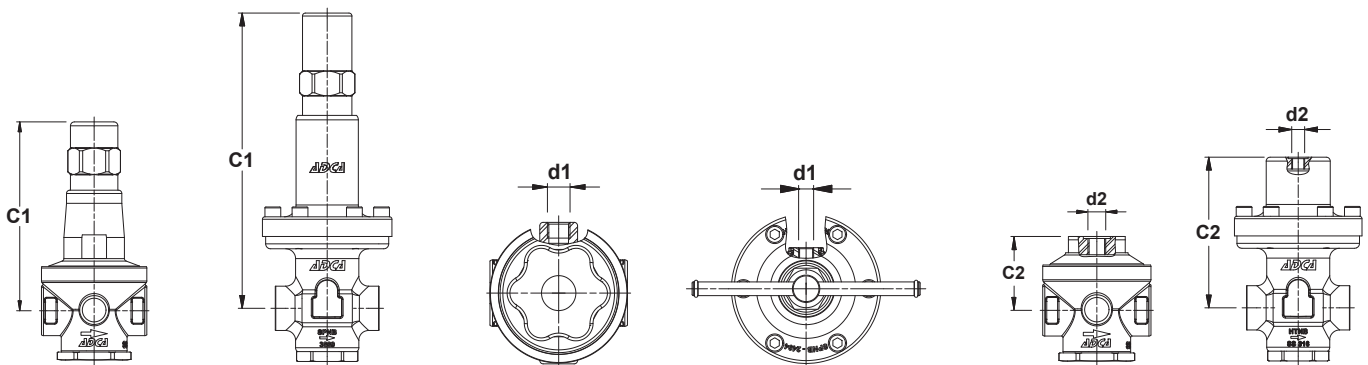
**Warning:** A pressure sustaining valve is not a safety relief valve and must not be used for that purpose!



1/2" to 3/4" – DN 15 to DN 20



1" – DN 25



Optional top cap

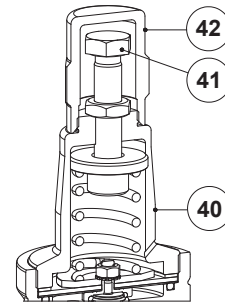
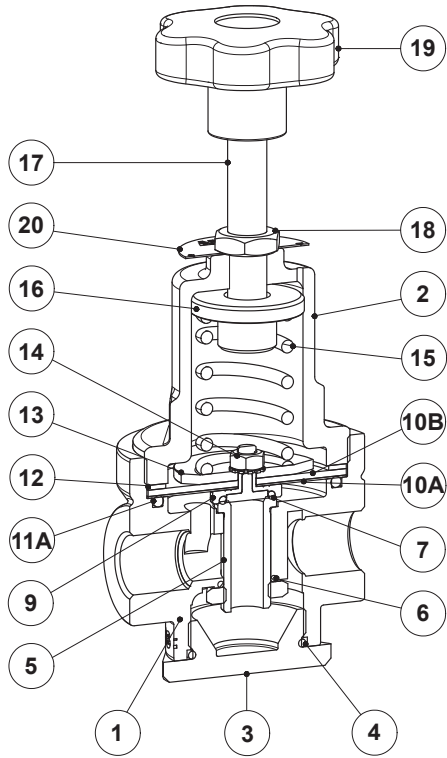
Optional pressure gauge connection

Optional dome-loaded version

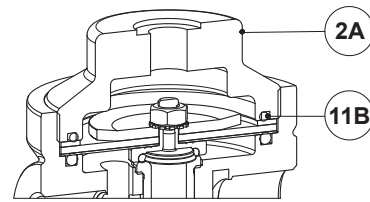
DIMENSIONS (mm)															
THREADED									PN 40		CLASS 150		CLASS 300		
SIZE	A	B	C	C1	d1	C2	d2	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)	
1/2" – DN 15	80	38	167	145	1/4"	55	1/4"	2,1	150	3,6	150	2,9	150	3,9	
3/4" – DN 20	80	38	167	145	1/4"	55	1/4"	2	150	4,1	150	3,3	150	4,3	
1" – DN 25	105	54	292	300	1/4"	153	1/4"	6,6	160	9,3	230	8,5	230	9,7	

\* Different face to face dimensions on request.

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

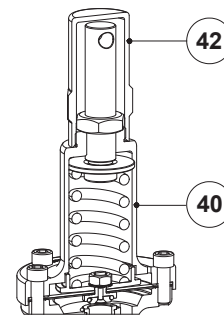
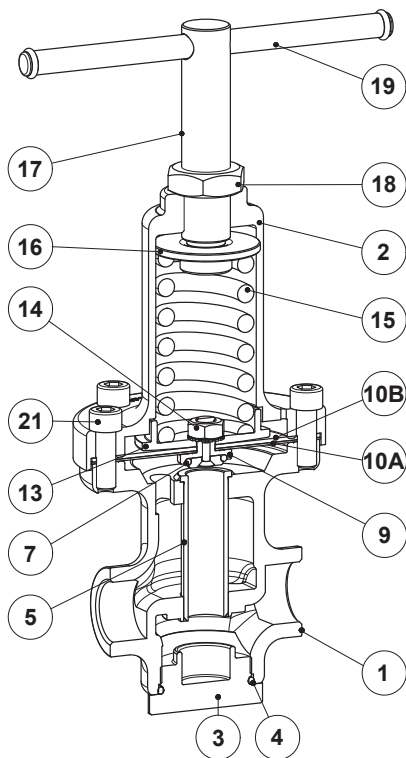


Optional top cap

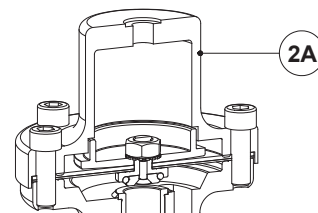


Optional dome-loaded version

1/2" to 3/4" – DN 15 to DN 20



Optional top cap



Optional dome-loaded version

1" – DN 25

MATERIALS			
POS. N°	DESIGNATION	1/2" to 3/4" – DN 15 to DN 20	1" – DN 25
1	Valve body	A351 CF8M / 1.4408	A351 CF8M / 1.4408
2	Spring cover	A351 CF8M / 1.4408	A351 CF8M / 1.4408
2A	Cover	AISI 316L / 1.4404	AISI 316L / 1.4404
3	Bottom cover	A351 CF8M / 1.4408	A351 CF8M / 1.4408
4	* O-ring	NBR; EPDM; PTFE; FPM	NBR; EPDM; PTFE; FPM
5	Valve seat	AISI 316 / 1.4401	AISI 316 / 1.4401
6	* O-ring	NBR; EPDM; PTFE; FPM	–
7	* O-ring	NBR; EPDM; PTFE; FPM	NBR; EPDM; PTFE; FPM
9	Pusher disc	AISI 316 / 1.4401	AISI 316 / 1.4401
10A	* Lower diaphragm	PTFE	PTFE
10B	* Upper diaphragm	NBR	NBR
11A	* O-ring	NBR; EPDM; PTFE; FPM	–
11B	* O-ring	NBR; EPDM; PTFE; FPM	–
12	Gasket	Aluminium	–
13	Spring plate	AISI 304 / 1.4301	AISI 304 / 1.4301
14	Nut	Stainless steel A2-70	Stainless steel A2-70
15	* Adjustment spring	AISI 302 / 1.4300	AISI 302 / 1.4300
16	Top spring plate	Brass	AISI 316 / 1.4401
17	Adjustment stem	AISI 304 / 1.4301	AISI 304 / 1.4301
18	Locknut	Stainless steel A2-70	Stainless steel A2-70
19	Handwheel	Plastic	AISI 304 / 1.4301
20	Spring id. plate	Aluminium	–
21	Bolts	–	Stainless steel A2-70
40	Cover	AISI 316L / 1.4404	A351 CF8M / 1.4408
41	Adjustment screw	Stainless steel A2-70	–
42	Top cap	AISI 316L / 1.4404	AISI 316L / 1.4404

\* Available spare parts.

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	R	.	A	15	
PS30SS – diaphragm sensing pressure sustaining valve	PS30												
Regulating range													
N° 1 – 0,2 to 1,5 bar			1										
N° 2 – 0,3 to 3 bar			2										
N° 3 – 0,8 to 8 bar			3										
N° 4 – 1,5 to 15 bar			4										
0,2 to 15 bar (dome-loaded) a)			A										
Application													
Water				W									
Gases				G									
Oxygen (degreased)				O									
Seal material													
NBR					N								
EPDM					E								
PTFE b)					T								
FPM / Viton					V								
Maximum inlet pressure													
15 bar						C							
Diaphragm													
NBR / PTFE (only NBR in case of dome-loaded version)							R						
Gauge port 1/4"													
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-loaded top c)													X
Pipe connection													
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 valves / Extras													
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) The loading control pressure can be up to a maximum of 1,2 bar above the required downstream pressure.

b) All seals except piston o-ring, which is supplied in FPM/Viton or others on request.

c) This option must be chosen in case of dome-loaded version.