

## DIAPHRAGM SENSING PRESSURE SUSTAINING VALVE PS4

### DESCRIPTION

The ADCA PS4 series direct acting, spring-loaded diaphragm sensing, pressure sustaining valves are designed for use on compressed air, water, and other gases or liquids compatible with the materials of the construction.

This valve main purpose is to maintain the upstream pressure under control. They are suitable for pressure sustaining applications where small loads are involved. They are also specifically recommended to operate as pilot valves in combination with other pressure regulators. Connections are female screwed.

### MAIN FEATURES

Compact design.  
High sensibility external diaphragm sensing connection.

**OPTIONS:** Different soft valves for water and gases.  
1/4" pressure gauge connection on body.  
Regulating screw with top cap.

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

### AVAILABLE MODELS:

PS4S – Cast steel.  
PS4I – Wetted parts in stainless steel (complete stainless steel on request).

**SIZES:** 1/2" to 1".

**CONNECTIONS:** Female screwed ISO7/1Rp (BS21) or NPT.

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

### ORDER REQUIREMENTS:

Type of fluid.  
Maximum operating temperature.  
Required opening pressure.  
Capacity (maximum and minimum).



CE MARKING – GROUP 2 (PED – European Directive)	
PN16 – PN40	Category
1/2" to 1"	SEP

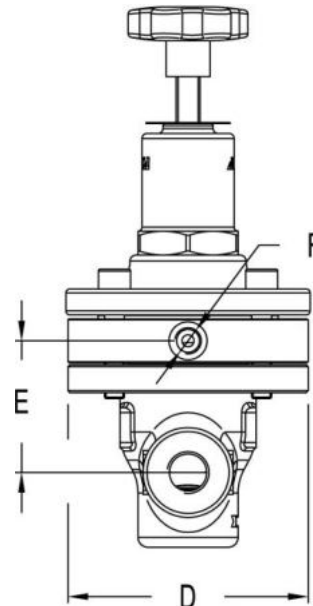
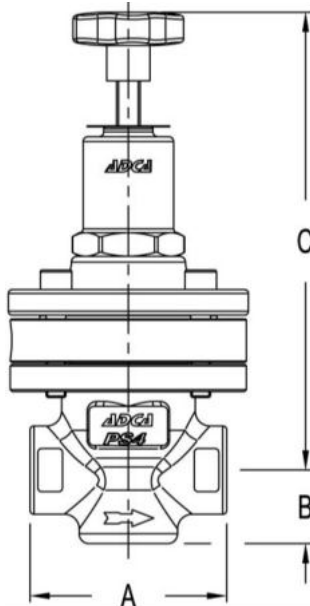
CAPACITIES			
Valve size	1/2"	3/4"	1"
Kvs (m <sup>3</sup> /h)	3,6	3,6	3,7

LIMITING CONDITIONS	
Valve model	PS4
Body design conditions	PN40
Max. upstream pressure	15 bar
Min. upstream pressure	0,35 bar
Max. design temperature *	80 °C

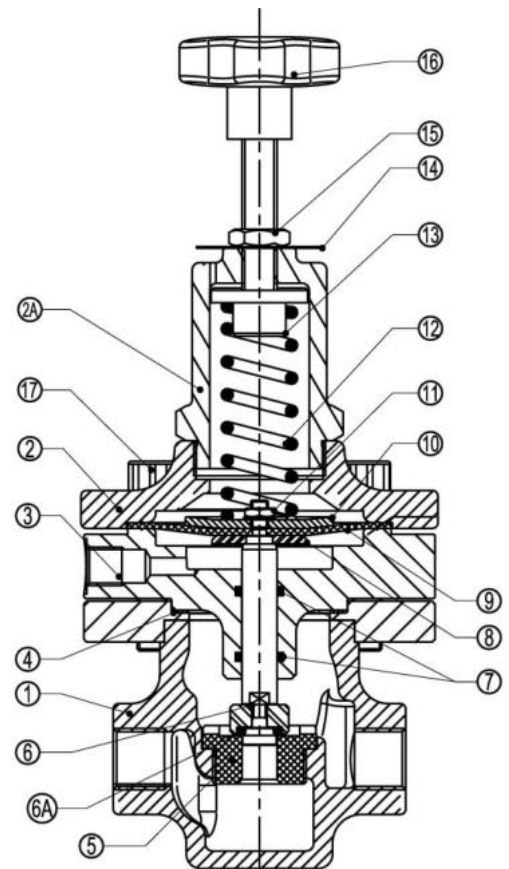
\* Other on request.

**Warning: Sustaining valves are not a substitute for safety valves or vacuum relief valves.**

DIMENSIONS (mm)							
SIZE	A	B	C	D	E	F	WGT. (kg)
1/2"	100	37,5	247	120	66	1/4"	8,6
3/4"	100	37,5	247	120	66	1/4"	8,6
1"	100	37,5	247	120	66	1/4"	8,6



MATERIALS			
POS. Nº	DESIGNATION	MATERIAL PS4S	MATERIAL PS4I
1	Valve body	ASTM A216WCB / 1.0619	CF8M / 1.4408
2	Top cover	CF8 / 1.4308	CF8 / 1.4308
2A	Cover spring	CF8 / 1.4308	CF8 / 1.4308
3	Guide plate	S355J2G3 / 1.0570	AISI 316 / 1.4401
4	* Gasket	Graphite; EPDM; PTFE	Graphite; EPDM; PTFE
5	* Valve seat	AISI 316 / 1.4401	AISI 316 / 1.4401
6	* Stem and plug	AISI 316 / 1.4401	AISI 316 / 1.4401
6A	* Valve sealing	NBR; EPDM; PTFE; etc.	NBR; EPDM; PTFE; etc.
7	* O-ring	NBR; EPDM; PTFE; etc.	NBR; EPDM; PTFE; etc.
8	Pusher disc	AISI 316 / 1.4401	AISI 316 / 1.4401
9	* Diaphragm	NBR; EPDM; PTFE; etc.	NBR; EPDM; PTFE; etc.
10	Spring plate	AISI 304 / 1.4301	AISI 304 / 1.4301
11	Nut	Stainless steel A2-70	Stainless steel A2-70
12	* Adjustment spring	Spring steel	Spring steel
13	Top spring plate	Brass	Brass
14	Spring Id. plate	Aluminium	Aluminium
15	Locknut	Stainless steel A2-70	Stainless steel A2-70
16	Handwheel	Plastic	Plastic
17	Bolts	Steel 8.8	Stainless steel A2-70



\* 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.

ORDERING CODES PS4										
Valve model	PS4S	.	1	W	T	N		.A	15	
PS4S – Carbon steel pilot regulator	PS4S									
PS4I – Stainless steel pilot regulator	PS4I									
Outlet spring range										
Green (0,35 to 2 bar)			1							
Blue (1,5 to 5,5 bar)			2							
Red (3,5 to 8,5 bar)			3							
Black (7 to 17 bar)			4							
Application										
Water				W						
Gases				G						
Seal material										
EPDM					E					
PTFE					T					
FPM / Viton					V					
Diaphragm										
NBR						N				
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		
Pipe connection										
Threaded BSP ISO 7/1 Rp									A	
Threaded NPT ANSI B1.20.1									C	
Size										
1/2"										15
3/4"										20
1"										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.

\* Gauge port can also be used as external sensing line.