

## DIAPHRAGM SENSING PRESSURE SUSTAINING VALVES PS4

### DESCRIPTION

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

The valve main purpose is to maintain the upstream pressure under control in applications where small loads are involved. These valves are also specifically recommended to operate as pilot valves in combination with other pressure regulators.

### MAIN FEATURES

Compact design.  
External diaphragm sensing connection.

**OPTIONS:** Different soft valves for water and gases.  
Gauge connection on body.

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

**AVAILABLE MODELS:** PS4S – carbon steel.  
PS4i – stainless steel.

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

**CONNECTIONS:** Female threaded ISO 7 Rp or NPT.

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



#### CE MARKING – GROUP 2 (PED – European Directive)

PN 40	Category
1/2" to 1"	SEP

#### LIMITING CONDITIONS

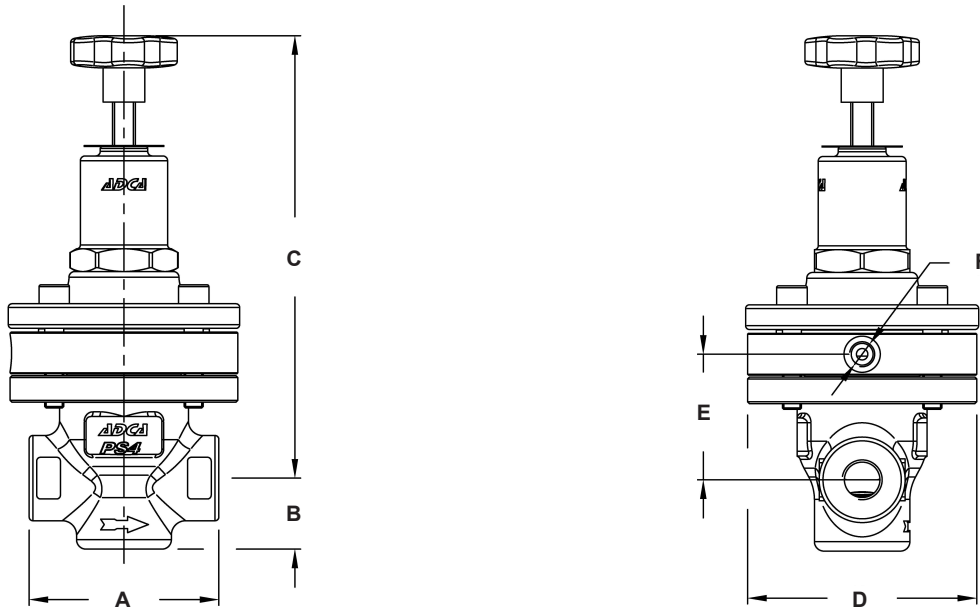
Valve model	PS4
Body design conditions	PN 40
Maximum upstream pressure	15 bar
Minimum upstream pressure	0,35 bar
Maximum design temperature *	80 °C

\* Others on request.

**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	1/2"	3/4"	1"
Kvs	3,6	3,6	3,7

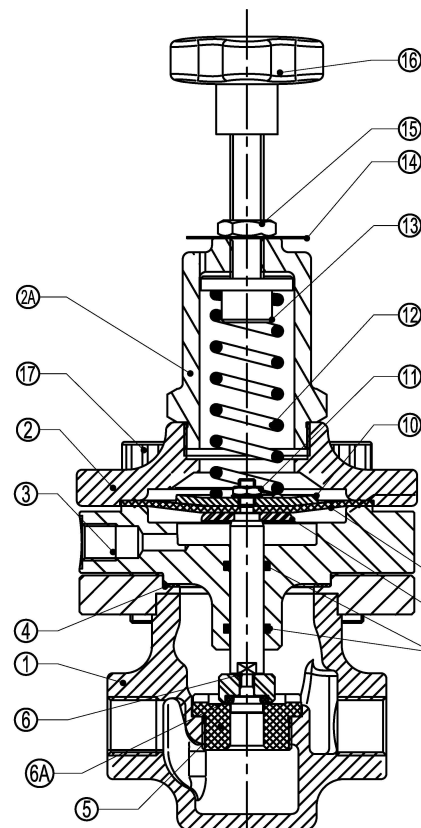


**DIMENSIONS (mm)**

SIZE	A	B	C	ØD	E	F	WEIGHT (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. N°	DESIGNATION	PS4S	PS4i
1	Valve body	A216 WCB / 1.0619	A351 CF8M / 1.4408
2	Top cover	A351 CF8 / 1.4308	A351 CF8 / 1.4308
2A	Cover spring	A351 CF8 / 1.4308	A351 CF8 / 1.4308
3	Guide plate	S355JR / 1.0045	AISI 316 / 1.4401
4	* Gasket	** Stainless steel / Graphite	** Stainless steel / Graphite
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	** EPDM; PTFE; NBR	** NBR; EPDM; PTFE
7	* O-ring	** EPDM	** EPDM
8	Pusher disc	AISI 316 / 1.4401	AISI 316 / 1.4401
9	* Diaphragm	** NBR	** NBR
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. \*\* Others on request.

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	E	N		A	15	
PS4S – carbon steel pressure sustaining valve	PS4S									
PS4i – stainless steel pressure sustaining valve	PS4I									
<b>Regulating range</b>										
Green spring – 0,35 to 2 bar – single diaphragm			1							
Blue spring – 1,5 to 5,5 bar – single diaphragm			2							
Red spring – 3,5 to 8,5 bar – double diaphragm			3							
Black spring – 7 to 17 bar – double diaphragm			4							
<b>Application</b>										
Water				W						
Gases				G						
<b>Seal material a)</b>										
EPDM					E					
PTFE					T					
FPM / Viton					V					
NBR					N					
<b>Diaphragm</b>										
NBR						N				
<b>Gauge port options</b>										
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			
<b>Pipe connection</b>										
Female threaded ISO 7 Rp								A		
Female threaded NPT ASME B1.20.1								C		
<b>Size</b>										
1/2"									15	
3/4"									20	
1"									25	
<b>Special valves / Extras</b>										
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) Valve limited to the materials maximum operating temperature. Contact manufacturer for more details.