DIAPHRAGM SENSING PRESSURE SUSTAINING VALVE
PS7

DESCRIPTION

The ADCA PS7 series direct acting, spring-loaded diaphragm sensing, pressure sustaining valves are designed for use on steam and compressed air and other gases compatible with the materials of construction.
They are suitable for pressure sustaining applications where very small loads are involved. They are also specifically recommended to operate as pilot valves in combination with other pressure regulators.

MAIN FEATURES

Compact design.
Stainless steel diaphragm.

OPTIONS: 1/8” gauge connection on body.
Regulating screw with top cap.
External sensing orifice.
Compressed air top for remote control.
Stainless steel construction.

USE: Steam, compressed air and other gases compatible with the construction.

AVAILABLE MODELS: PS7S – Carbon steel construction.
PS7SS – Stainless steel construction.

SIZES: 1/4” and 3/8”.

CONNECTIONS: Female screwed ISO7/1Rp (BS 21) or NPT.

INSTALLATION: Horizontal installation.
A strainer should be provided upstream the valve.
See IMI – Installation and maintenance instructions.

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

CAPACITIES		
Valve size	**1/4"**	**3/8”**
Kvs (m^3/h)	0,8	0,8

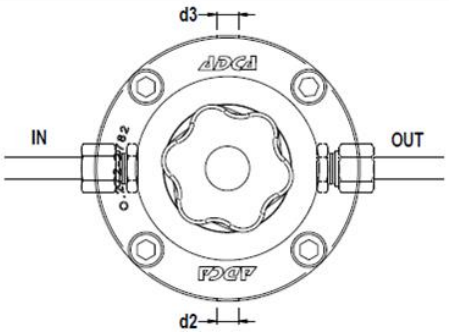
LIMITING CONDITIONS	
Valve model	**PS7**
Body design conditions	PN40
Max. upstream pressure	17 bar
Min. upstream pressure	0,35 bar *
Max. design temperature	300 ºC

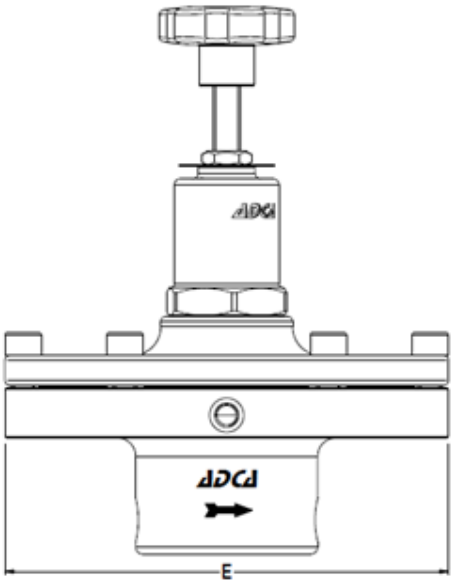
* 0,07 bar with low pressure top (limited at 7 bar inlet).
The low pressure diaphragm should be fitted for outlet pressures from 0,07 up to 0,5 bar.
Pressure and temperature may change if soft seating is used.
The balance pipe connection is recommended to enter upstream pipe at a minimum 1meter from valve for higher accuracy. The valve can also be supplied with an internal sensing orifice instead of external.
Warning: Sustaining valves are not a substitute for safety valves or vacuum relief valves!

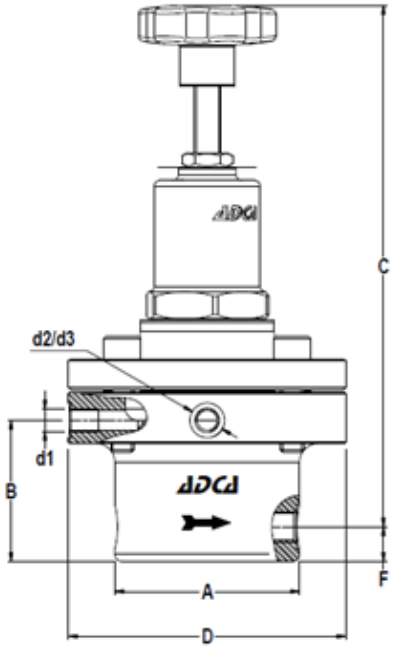
CE MARKING – GROUP 2 (PED – European Directive)	
PN16 – PN40	**Category**
1/4" and 3/8”	SEP

DIMENSIONS (mm)										
SIZE	**A**	**B**	**C**	**D**	**E ***	**F**	**d1 ****	**d2 *****	**d3 *****	**WGT. (kg)**
1/4"	80	61	225	120	195	15	1/8	1/8	1/8	4,8
3/8”	80	61	225	120	195	15	1/8	1/8	1/8	4,8

* Low pressure diaphragm; ** Optional sensing line connection;
*** Optional pressure gauge connections, can be used as sensing line connections.

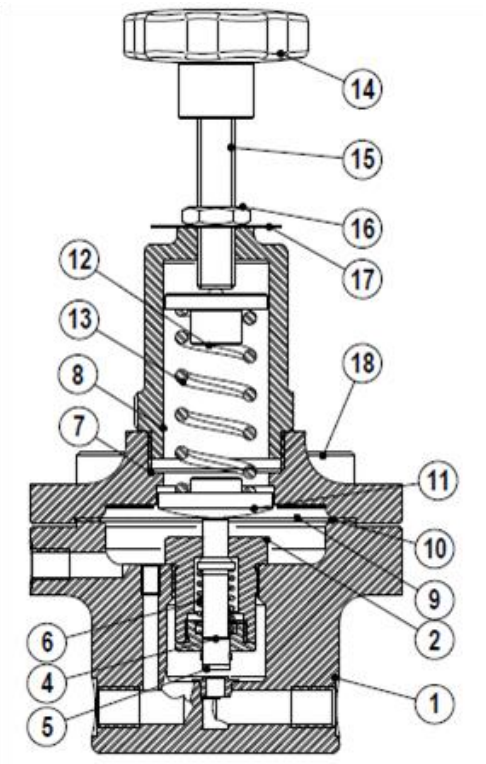






MATERIALS		
POS. Nº	**DESIGNATION**	**MATERIAL**
1	Valve body	S355J2G3 / 1.0570; AISI 316 / 1.4401
2	* Pilot valve body	CF8 / 1.4308
4	Pushrod	AISI 316 / 1.4401
5	* Valve head	AISI 420; EPDM; PTFE, etc.
6	* Spring	AISI 302 / 1.4300
7	Top cover	CF8 / 1.4308
8	Spring cover	CF8 / 1.4308
9	* Diaphragm	AISI 301 / 1.4310
10	* Gasket	Stainless steel / Graphite
11	Lower spring carrier	Brass
12	Top spring carrier	Brass
13	* Adjustment spring	Spring steel
14	Handwheel	Plastic
15	Adjustment screw	AISI 304 / 1.4301
16	Locknut	Stainless steel A2-70
17	Spring Id. plate	Aluminium
18	Bolts	Steel 10.9; 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 PS7										
Valve model	**PS7S**	**.**	**1**	**S**		**S**		**.A**	**08**	
PS7S – Carbon steel pilot regulator	**PS7S**									
PS7SS – Stainless steel pilot regulator	**PS7SS**									
Outlet spring range										
Green			**1**							
Blue			**2**							
Red			**3**							
Black			**4**							
Application										
Steam				**S**						
Gases				**G**						
Seal material										
Metal to metal lapped					**(1)**					
EPDM					**E**					
PTFE					**T**					
FPM / Viton					**V**					
Diaphragm										
Standard diaphragm **a)**						**S**				
Low pressure diaphragm						**L**				
Gauge port 1/8" *										
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										
1/4”									08	
3/8”									10	
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.

a) Two diaphragms will be fitted with black spring

PRESSURE RANGES (bar)				
SPRING COLOUR	**GREEN w/ 1 diaphragm**	**BLUE w/ 1 diaphragm**	**RED with 2 diaphragms**	**BLACK with 2 diaphragms**
Red. Pressure	0,07 to 0,5 *	1,5 to 5,5 **	3,5 to 8,5 **	7 to 17 **
Red. Pressure	0,35 to 2 **	/	/	/

*With low pressure top; **Standard diaphragm.