

DIAPHRAGM SENSING PRESSURE REDUCING VALVE

P 7
DN 1/4" – 3/8"

DESCRIPTION

The ADCA P7 series *direct acting, spring-loaded diaphragm sensing*, pressure reducing valves, are designed for use on steam and compressed air and other gases compatible with the materials of construction .

They are suitable for pressure reducing stations 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:

Outlet 1/4" gauge connection on body.
Regulating screw with top cap.
Internal sensing orifice
Compressed air top for remote control
Barstock stainless steel construction

USE:

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

AVAILABLE MODELS:

P7SS – Stainless steel construction

SIZES:

DN 1/4" and DN 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
Inlet pressure and required outlet pressure
Capacity (maximum and minimum).

CAPACITIES

Valve Size	1/4"	3/8"
KVs (m3/h)	1	1,1

LIMITING CONDITIONS

Valve model	P7
Body design conditions	PN 40
Max.upstream pressure (steam)	25 bar
Max.upstream pressure (gases)	31 bar
Max.downstream pressure	17 bar
Min.downstream pressure	0,35 bar *
Max.design temperature	300 °C

* 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 downstream pipe at a minimum 1meter from valve for higher accuracy. The valve can also be supplied with an internal sensing orifice instead of external.

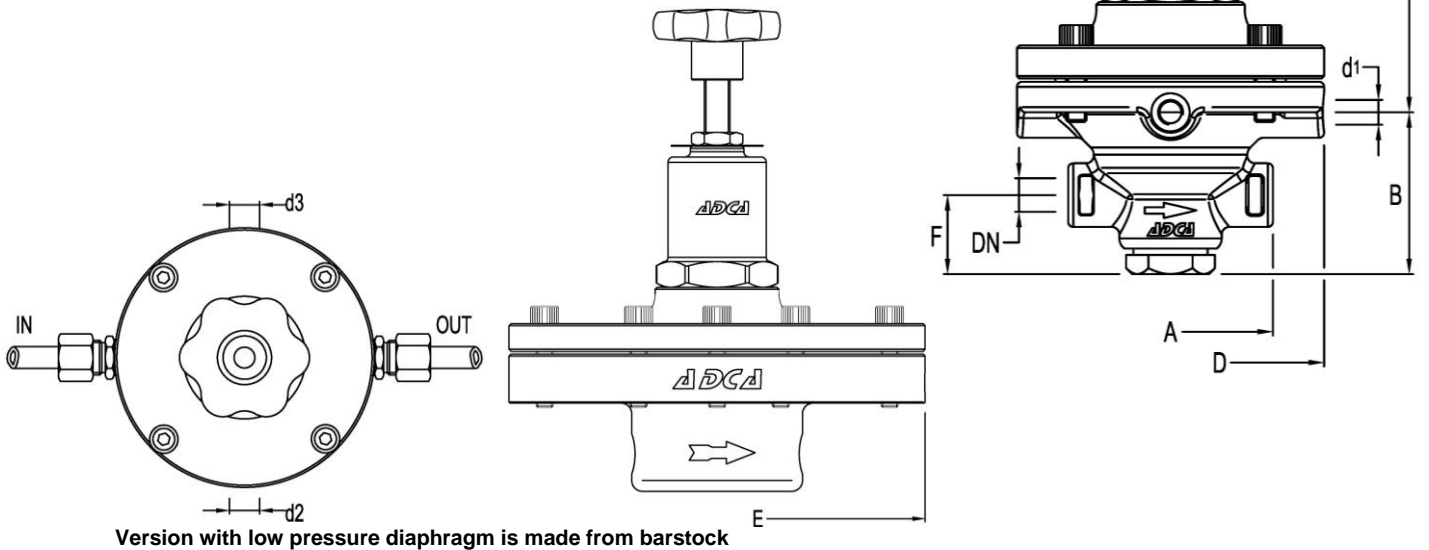
CE MARKING (PED - European Directive 97/23/EC)

PN 16 - PN 40	Category
DN 08 to 10	SEP - art. 3, paragraph3

DIMENSIONS (mm)										
Screwed										
SIZE DN	A	B	C	D	E*	F	d1**	d2***	d3***	WGT. Kgs
1/4"	80	63,5	185	120	195	31	1/8"	1/8"	1/8"	4,8
3/8"	80	63,5	185	120	195	31	1/8"	1/8"	1/8"	4,8

*Low pressure diaphragm ; ** Sensing line connection

*** Optional (pressure gauge connections), can be used also as sensing line connections.

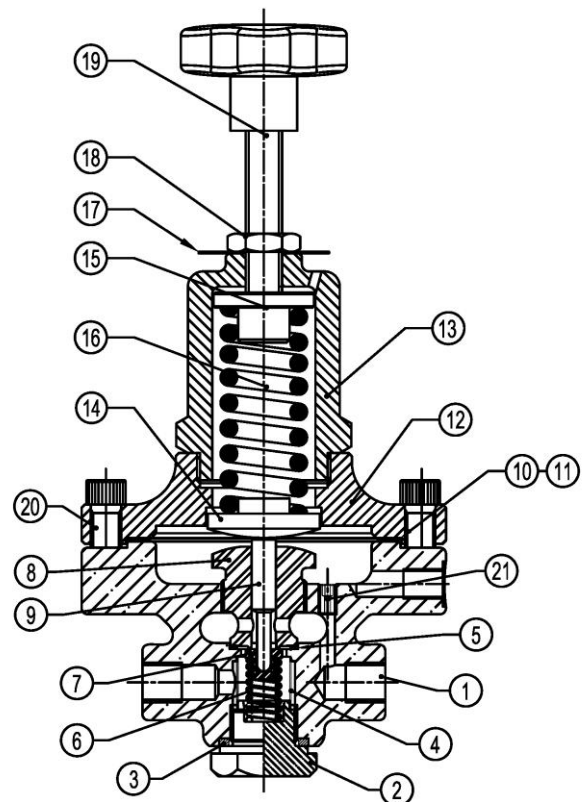


Version with low pressure diaphragm is made from barstock

MATERIALS P7SS		
POS.	DESIGNATION	MATERIAL
1	VALVE BODY	AISI316 / 1.4401 ; CF8M / 1.4408
2	PLUG	AISI316 / 1.4401
3	* GASKET	STAINLESS STEEL / GRAPHITE
4	* STRAINER SCREEN	AISI304 / 1.4301
5	GASKET	COPPER
6	* SPRING	AISI302 / 1.4300
7	* VALVE HEAD	AISI420-EPDM-PTFE, etc
8	* PILOT VALVE BODY	AISI316 / 1.4401
9	* PUSHROD	AISI316 / 1.4401
10	* DIAPHRAGM	AISI301 / 1.4310
11	* GASKET	ST. ST. / GRAPHITE
12	TOP COVER	CF8 / 1.4308
13	COVER SPRING	CF8 / 1.4308
14	LOWER SPRING CARRIER	BRASS
15	TOP SPRING CARRIER	BRASS
16	* ADJUSTMENT SPRING	SPRING STEEL
17	SPRING IDENT. PLATE	ALUMINIUM
18	LOCKNUT	ST. STEEL A2-70
19	HANDWHEEL	PLASTIC
20	BOLTS	ST. STEEL A2-70
21	RESTRICTOR	ST. 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 P7									
Valve Model	P7SS	.	1	S		S		.A	08
P7SS Stainless steel pilot regulator	P7SS								
Outlet spring range (see table)									
Green			1						
Blue			2						
Red (fitted with two diaphragms)			3						
Black (fitted with two diaphragms)			4						
Application									
Steam				S					
Gases				G					
Seal material									
Metal to metal lapped						(1)			
EPDM						E			
PTFE						T			
FPM/VITON						V			
Stainless steel diaphragm									
Standard diaphragm (a)						S			
Low pressure diaphragm						L			
Gauge port 1/8" *									
Without gauge ports						(1)			
Gauge port on the left side (Related to the flow direction)						4			
Gauge port on the right side (Related 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									
DN 1/4"									08
DN 3/8"									10
Special valves / Extras b)									E

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

(1) Omitted if a standard valve is requested

a) Two diaphragms will be fitted with black spring

b) Full description or additional codes have to be added in case of non-standard combination.

PRESSURE RANGES IN bar				
SPRING COLOUR	GREEN W/1 Diaphragm	BLUE W/1 Diaphragm	RED W/2 Diaphragms	BLACK W/2 Diaphragms
Red. Pressure	0,07 to 0,5 bar *	1,5 to 5,5 bar **	3,5 to 8,5 bar **	7 to 17 bar **
Red. Pressure	0,35 to 2 bar **	/	/	/

* With low pressure top; **Standard diaphragm.