

## DIAPHRAGM SENSING PRESSURE REDUCING VALVE P 20DS DN 1/4" – 1/2"

**DESCRIPTION**

The ADCA P20DS series *direct acting, spring-loaded diaphragm sensing* pressure reducing valves, are designed for use on steam, compressed air and other gases or liquids compatible with the materials of construction .

They are suitable for pressure reducing stations where small loads are involved. They are also specifically recommended to operate as pilot valves in combination with other pressure regulators.

**MAIN FEATURES**

Compact design.  
Machined from barstock materials or investment casting.  
Ultrasonically cleaned and degreased



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

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

**AVAILABLE MODELS:** P20DS – Stainless steel diaphragm sensing

**SIZES:** DN 1/4" to DN 1/2"

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

**INSTALLATION:** Horizontal or vertical 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"	1/2"
KVs (m3/h)	1,2	1,8	1,8

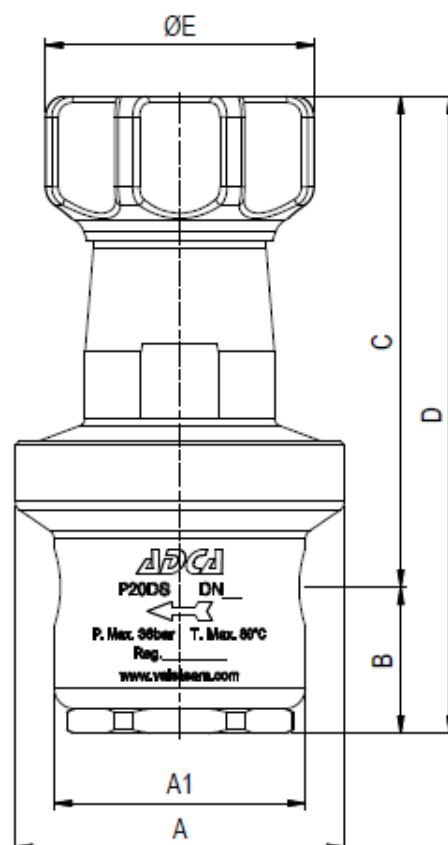
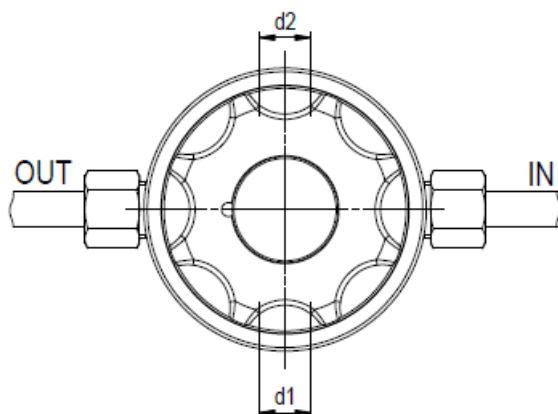
LIMITING CONDITIONS	
Valve model	P20DS
Body design conditions	PN 25
Max.upstream pressure	14 bar
Max.downstream pressure	8 bar
Min.downstream pressure	0,2 bar
Max.design temperature *	200 °C
Max.recommended reducing ratio	10:1

\*Other on request.

CE MARKING (PED - European Directive 97/23/EC)	
PN 25	Category
DN 08 to 15	SEP - art. 3, paragraph3

DIMENSIONS (mm)									
Screwed									
SIZE DN	A	A1	B	C	D	ØE	d1*	d2*	WGT. Kgs
1/4"	80	61	35,5	120,5	156	69	1/4"	1/4"	1,8
3/8"	80	61	35,5	120,5	156	69	1/4"	1/4"	1,8
1/2"	80	80	35,5	120,5	156	69	1/4"	1/4"	2,5

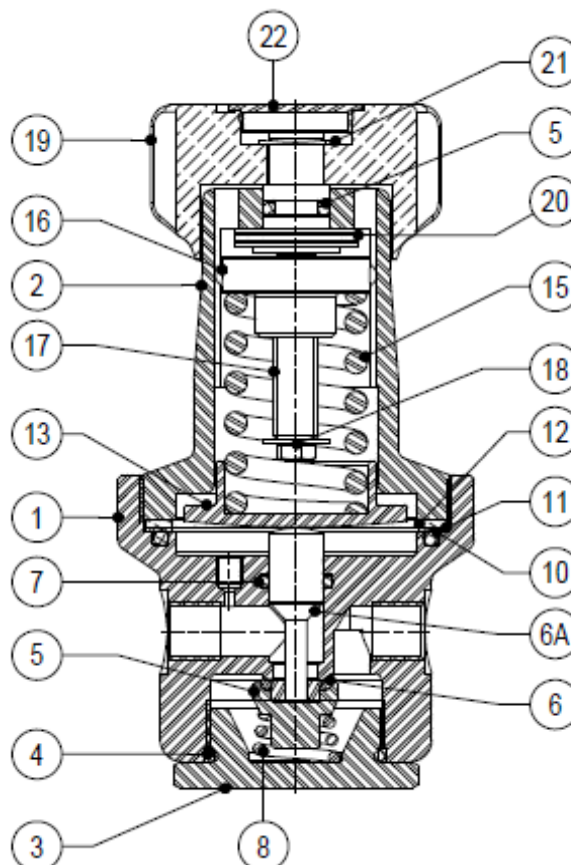
\* Optional



MATERIALS		
POS.	DESIGNATION	MATERIAL
1	VALVE BODY	AISI316 / 1.4401 ; CF8M / 1.4408
2	TOP COVER	AISI316 / 1.4401 ; CF8M / 1.4408
3	SEAT COVER	AISI316 / 1.4401 ; CF8M / 1.4408
4	* O-RING	VITON
5	* PISTON VALVE	AISI316 / 1.4401
6	* VALVE HEAD	VITON
6A	PUSHROD	AISI316 / 1.4401
7	* O-RING	VITON
8	VALVE SPRING	AISI302 / 1.4300
10	* GASKET	COMPRESSED ARAMID FIBER
11	* DIAPHRAGM	AISI301 / 1.4410
12	GASKET	ALUMINIUM
13	SPRING PLATE	AISI304 / 1.4301
15	* ADJUSTMENT SPRING	SPRING STEEL
16	TOP SPRING PLATE	BRASS
17	ADJUSTMENT SCREW	AISI304 / 1.4301
18	RETAINING WASHER	ST. STEEL A2
19	HANDWHEEL	ALUMINIUM PAINTED
20	BEARING	CORROSION RES. STEEL
21	EXT. BOWED SHAFT RING	STAINLESS STEEL
22	COVER NUT	PLASTIC

\* 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 P20DS									
Valve Model	P20DS	.	1	S	T	S		.A	08
P20DS - Diaphragm sensing	P20DS								
<b>Outlet spring range</b>									
Nº1 - 0,2 to 1,5 bar			1						
Nº2 - 0,3 to 3 bar			2						
Nº3 - 0,8 to 8 bar			3						
<b>Application</b>									
Steam				S					
Gases				G					
Oxygen (Degreased)				O					
<b>Seal material</b>									
NBR					N				
EPDM					E				
PTFE					T				
FPM/VITON					V				
<b>Diaphragm material</b>									
Stainless steel						S			
<b>Gauge port 1/4" *</b>									
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		
<b>Pipe connection</b>									
Threaded BSP ISO 7/1 Rp								A	
Threaded NPT ANSI B1.20.1								C	
<b>Size</b>									
DN 1/4"									08
DN 3/8"									10
DN 1/2"									15
<b>Special valves / Extras b)</b>									E

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

(1) Omitted if a standard valve is requested

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