

DIAPHRAGM SENSING PRESSURE REDUCING VALVE P20DS

DESCRIPTION

The ADCA P20DS series pressure reducing valves are direct acting, spring loaded, diaphragm sensing balanced plug regulators designed for use with steam, nitrogen, compressed air, water and other gases and liquids compatible with the materials of construction. Particularly suitable for general purpose applications where low flow and high temperatures are involved.

MAIN FEATURES

- Compact design.
- Non-rising adjustment knob.
- Machined from bar stock materials or investment casting.
- Ultrasonically cleaned and degreased.

- OPTIONS:**
- Different soft valves for water and gases.
 - 1/4" outlet gauge connection on body.
 - Top cap (adjustment screw with cover).
 - Connection for external sensing line.

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

- AVAILABLE MODELS:**
- P20DS – stainless steel, diaphragm sensing.

- SIZES:**
- 1/4" to 1/2".

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

- INSTALLATION:**
- Horizontal or vertical installation.
 - See IMI – Installation and maintenance instructions.

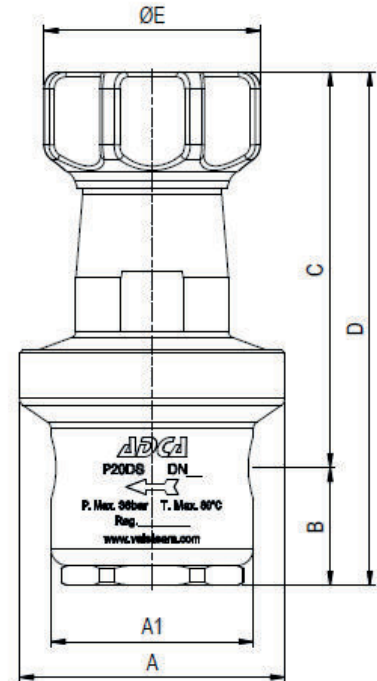
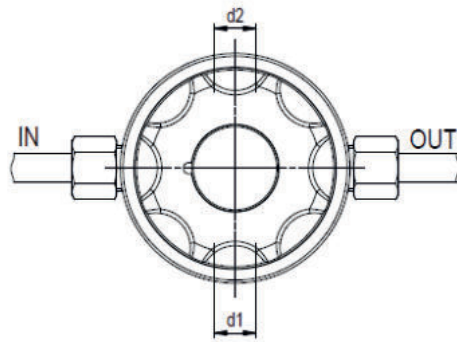


FLOW RATE COEFFICIENTS (m ³ /h)			
SIZE	1/4"	3/8"	1/2"
Kvs	1,2	1,8	1,8

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

* Others on request.

CE MARKING – GROUP 2 (PED – European Directive)	
PN 25	Category
1/4" to 1/2"	SEP



DIMENSIONS (mm)

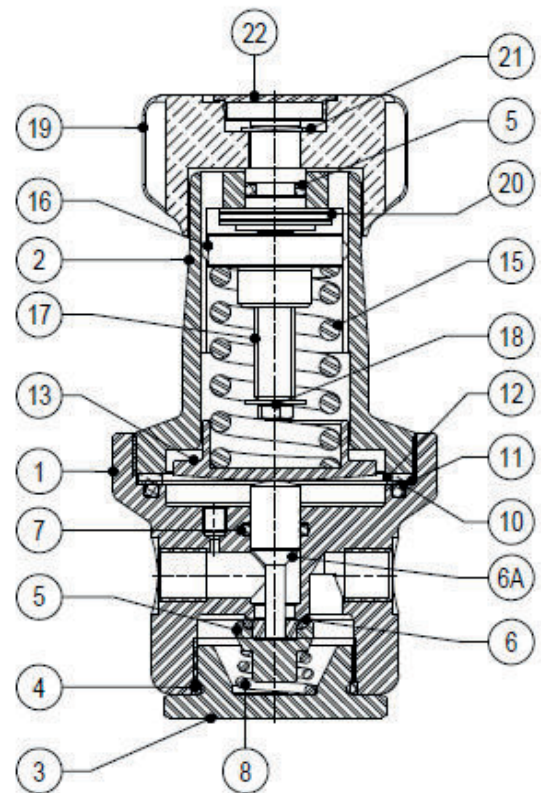
SIZE	A	A1	B	C	D	E	d1 *	d2 *	WEIGHT (kg)
1/4"	80	61	35,5	120,5	156	69	1/4"	1/4"	1,8
3/8"	80	61	35,5	120,5	156	69	1/4"	1/4"	1,8
1/2"	80	80	35,5	120,5	156	69	1/4"	1/4"	2,5

* Optional: Captured vent connection (d1); Pressure gauge (d2).

Remark: all optional threaded connections are supplied in accordance with the main connections.

MATERIALS

POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316 / 1.4401; A351 CF8M / 1.4408
2	Top cover	AISI 316 / 1.4401; A351 CF8M / 1.4408
3	Seat cover	AISI 316 / 1.4401; A351 CF8M / 1.4408
4	* O-ring	Viton
5	* Piston valve	AISI 316 / 1.4401
6	* Valve head	Viton
6A	Pushrod	AISI 316 / 1.4401
7	* O-ring	Viton
8	Valve spring	AISI 302 / 1.4300
10	* Gasket	Compressed aramid fiber
11	* Diaphragm	AISI 301 / 1.4410
12	Gasket	Aluminium
13	Spring plate	AISI 304 / 1.4301
15	* Adjustment spring	Spring steel
16	Top spring plate	Brass
17	Adjustment screw	AISI 304 / 1.4301
18	Retaining washer	Stainless steel A2-70
19	Handwheel	Aluminium painted
20	Bearing	Corrosion resistant 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	N	S	4	.	A	08	
P20DS – diaphragm sensing pressure reducing valve	P20DS										
Regulating range											
N°1 – 0,2 to 1,5 bar			1								
N°2 – 0,3 to 3 bar			2								
N°3 – 0,8 to 8 bar			3								
Application											
Steam				S							
Gases				G							
Oxygen (degreased)				O							
Seal material a)											
NBR					N						
EPDM					E						
PTFE					T						
FPM / Viton					V						
Diaphragm											
Stainless steel						S					
Gauge port 1/4" 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				
Pipe connection											
Female threaded ISO 7 Rp									A		
Female threaded NPT ASME B1.20.1									C		
Size											
1/4"										08	
3/8"										10	
1/2"										15	
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.

a) Valve limited to the materials' maximum operating temperature. Consult manufacturer for more details.

b) Gauge port can also be used as external sensing line.