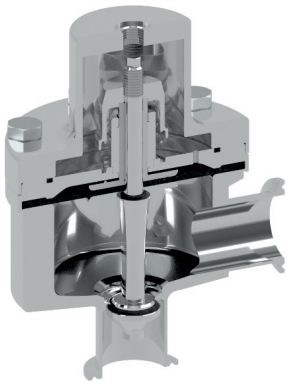
SANITARY PRESSURE REDUCING VALVE
P160A

DESCRIPTION

The ADCA P160A series direct acting, dome loaded, diaphragm sensing pressure reducing valves are designed for use with clean steam, compressed air, water and other gases or liquids compatible with the construction materials.



MAIN FEATURES

Compact design.
Completely machined from bar stock material, no castings or forgings are used on the standard version.
Set point can be adjusted remotely using a relieving gas pressure regulator or through an I/P converter.
Ease operation during the sterilization or cleaning process (SIP – CIP), by remotely increasing the set point, ensures that the valve stays totally open during the process.

STANDARD SURFACE FINISH

Internal wetted parts: ≤ 0,51 micron Ra – SF1.
External: ≤ 0,76 micron Ra – SF3.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

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

USE: Clean steam, compressed air, water and other gases and liquids compatible with the construction.

AVAILABLE MODELS: P160A – dome loaded.

SIZES: 3/4” to 2”; DN 20 to DN 50.

REGULATING RANGE: 0,8 – 6 bar.

CONNECTIONS: ASME BPE, DIN and ISO clamp ferrules.
Others on request.

PACKAGING: Assembling and packaging in a clean room certified according to ISO 14644-1.
The product is end capped and sealed with recyclable thermo-shrinkable plastic film, to avoid contamination.

INSTALLATION: Horizontal installation. Vertical inlet and horizontal outlet angle connection.
See IMI – Installation and maintenance instructions.

LIMITING CONDITIONS	
Valve model	**P160A**
Body design conditions	PN 16
Maximum upstream pressure	8 bar
Maximum downstream pressure	6 bar
Minimum downstream pressure	0,8 bar
Maximum design temperature *	150 ºC

* Other on request.

CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	**Category**
3/4” to 2” – DN 20 to 50	SEP

FLOW RATE COEFFICIENTS (m³/h)											
	BPE				DIN				ISO		
SIZE	3/4”	1”	11/2”	2”	DN 20	DN 25	DN 40	DN 50	DN 20	DN 25	DN 40
Kvs	1,3	3,5	5,5	8,5	1,3	3,5	5,5	8,5	1,3	3,5	5,5

DIMENSIONS (mm) ASME BPE												
SIZE	A	B	C	D	d1	d2	d3	d4	E	F	H	WEIGHT (kg)
3/4”	85	56	116	130	1/4”	25	15,75	1/4”	89	25	15,75	5,5
1”	85	55	117	130	1/4”	25	15,75	1/4”	89	50,5	22,1	5,5
11/2”	85	65	124	130	1/4”	25	15,75	1/4”	89	50,5	34,8	5,8
2”	85	70	130	130	1/4”	25	15,75	1/4”	89	64	47,5	6,4

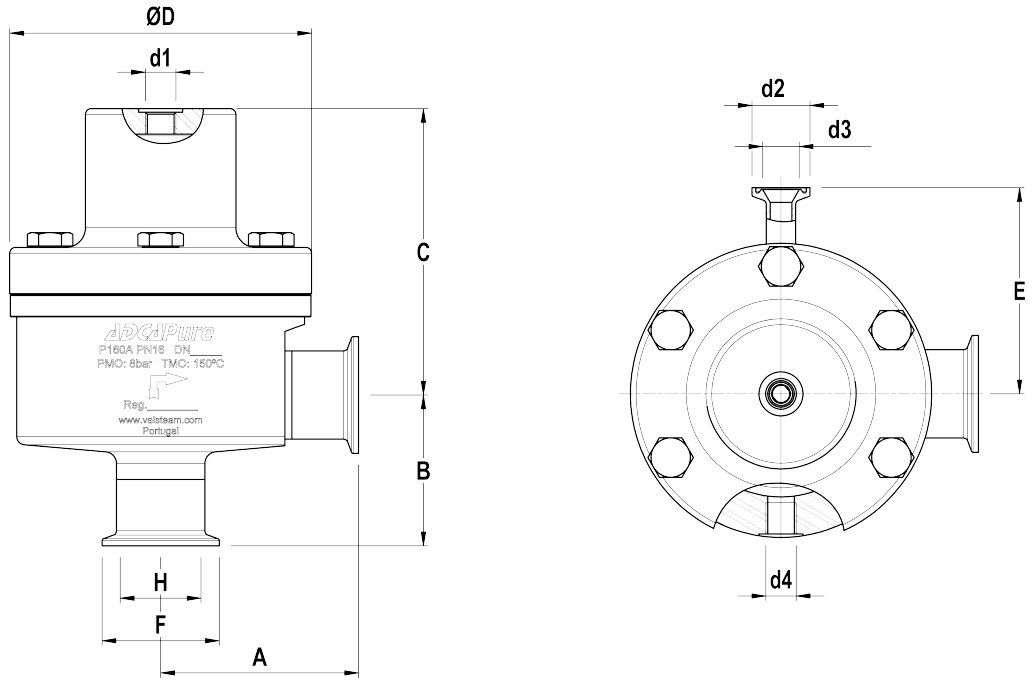
Remarks: As standard, connections d1 and d4 are female threaded NPT.

DIMENSIONS (mm) DIN												
SIZE	A	B	C	D	d1	d2	d3	d4	E	F	H	WEIGHT (kg)
DN 20	89	62	116	130	1/4”	25	15,75	1/4”	89	34	20	5,5
DN 25	92	64	117	130	1/4”	25	15,75	1/4”	89	50,5	26	5,2
DN 40	92	75	124	130	1/4”	25	15,75	1/4”	89	50,5	38	5,4
DN 50	92	75	130	130	1/4”	25	15,75	1/4”	89	64	50	6,2

Remarks: As standard, connections d1 and d4 are female threaded ISO 7 Rp.
Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

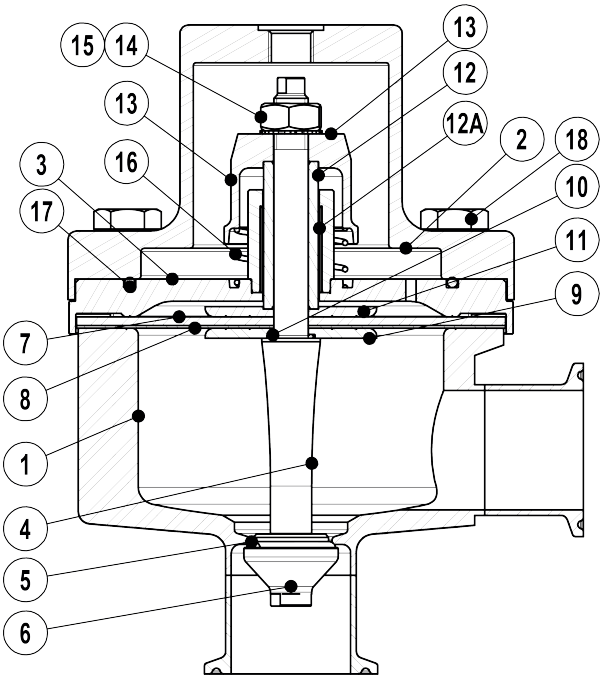
DIMENSIONS (mm) ISO												
SIZE	A	B	C	D	d1	d2	d3	d4	E	F	H	WEIGHT (kg)
DN 20	81	49	116	130	1/4”	25	15,75	1/4”	89	50,5	23,7	5,4
DN 25	81	51	117	130	1/4”	25	15,75	1/4”	89	50,5	29,7	5,4
DN 40	92	80	124	130	1/4”	25	15,75	1/4”	89	64	44,3	5,9

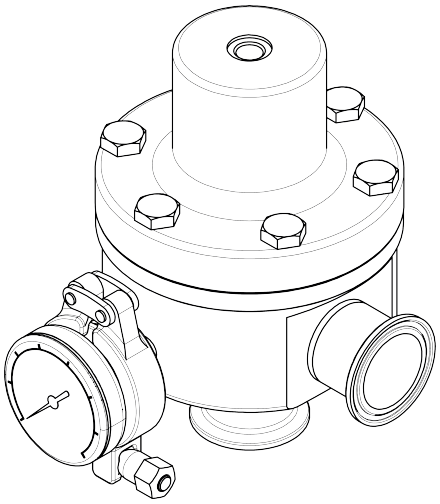
Remarks: As standard, connections d1 and d4 are female threaded ISO 7 Rp.
Clamp ferrules according to DIN 32676-B; Tube weld (ETO) according to DIN 11866-B (ISO 1127).



MATERIALS		
POS. Nº	**DESIGNATION**	**MATERIAL**
1	Body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
3	Centering plate	AISI 316L / 1.4404
4	* Valve stem	AISI 316L / 1.4404
5	* Soft plug	EPDM; PTFE **
6	* Valve plug	AISI 316L / 1.4404
7	* Upper diaphragm	EPDM
8	* Lower diaphragm	PTFE (Gylon)
9	Diaphragm plate	AISI 316L / 1.4404
10	* O-ring	EPDM
11	Diaphragm plate	AISI 316L / 1.4404
12	Stem guide	AISI 316 / 1.4401
12A	Plain bearing	Bronze
13	Spring plate	AISI 316 / 1.4401
14	Nut	Stainless steel A2-70
15	Washer	AISI 316 / 1.4401
16	Spring	AISI 302 / 1.4300
17	* O-ring	EPDM
18	Bolts	Stainless steel A2-70

* Available spare parts ; ** On request.
Remarks: FDA / USP Class VI seals certificate on request.
All valves have a serial number. In case of non-standard valves, this number must be supplied if spare parts are ordered.





Optional pressure gauge connection

ORDERING CODES P160A

Valve model	P16	A	1	T	M	1	X	X	X	X	D	20	E
P160A – AISI 316L / 1.4404 diaphragm sensing pressure reducing valve	**P16**												
Regulating range													
0,8 to 6 bar (dome loaded) **a)**		**A**											
Flow rate coefficient													
Kvs 1,3 (3/4" – DN 20)			**1**										
Kvs 3,5 (1" – DN 25)			**3**										
Kvs 5,5 (11/2" and 2" – DN 40 and DN 50)			**4**										
Kvs 8,5 (2" – DN 50, when limited to a max. 4 bar inlet pressure)			**6**										
Diaphragm													
PTFE (Gylon)				**T**									
EPDM (non-standard)				**E**									
Valve head													
Metal to metal (non-standard)					**M**								
EPDM					**E**								
PTFE					**T**								
FPM / Viton					**V**								
Dome connection													
Female threaded ISO 7 Rp 1/4"						**1**							
Female threaded 1/4" NPT						**2**							
Dome options													
Standard dome							**X**						
I/P converter 0,2 to 8 bar output							**C**						
Gauge port options													
Without gauge ports								**X**					
Tri-clamp gauge port on the left side (rel. to the flow direction) – downstream pressure								**7**					
Tri-clamp gauge port on the right side (rel. to the flow direction) – downstream pressure								**6**					
Tri-clamp gauge port on both sides – downstream pressure								**5**					
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"								**4**					
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"								**3**					
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"								**2**					
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT								**W**					
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT								**Y**					
Threaded gauge port on both sides – downstream pressure – 1/4" NPT								**Z**					
Surface finish b)													
Standard surface finish									**X**				
Mirror mechanical polished external surfaces (SF1)									**P**				
Electropolished internal wetted parts (SF5)									**E**				
Special features													
None										**X**			
Degreased for oxygen										**O**			
Pipe connections													
Clamp ferrule ASME BPE											**D**		
Clamp ferrule DIN (DIN 32676-A)											**F**		
Clamp ferrule ISO (DIN 32676-B)											**E**		
Tube weld (ETO) according to ASME BPE											**DI**		
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)											**FI**		
Tube weld (ETO) according to DIN 11866-B (ISO 1127)											**EI**		
Size													
3/4" or DN 20												**20**	
1" or DN 25												**25**	
11/2" or DN 40												**40**	
2" or DN 50												**50**	
Special valves / Extras													
Full description or additional codes have to be added in case of a non-standard combination													**E**

a) The loading control pressure is approximately the same as the required downstream pressure (± 0,2 bar).
b) Consult IS PV20.00 (Technical information) for further details and other surface finish options.