

## SANITARY PRESSURE REDUCING VALVE P160G

### DESCRIPTION

The ADCA P160G series direct acting, spring-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.

### STANDARD SURFACE FINISH

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

**OPTIONS:** Leakage line connection 1/8" (captured vent).  
Different soft valves for liquids and gases.  
Lock system, allows clean-in-place (CIP) and sterilization-in-place (SIP) operations with valve in line.  
Gauge connection on body.  
Lifting lugs to ease installation.

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

**AVAILABLE MODELS:** P160G.

**SIZES:** 2 1/2" and 3".

**REGULATING RANGES:** 1 – 1,7 bar; 1,5 – 4 bar.

**CONNECTIONS:** ASME BPE 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	
<b>Valve model</b>	<b>P160G</b>
Body design conditions	PN 16
Maximum upstream pressure	8 bar
Maximum downstream pressure	4 bar
Minimum downstream pressure *	1 bar
Maximum design temperature **	150 °C

\* For tight shut off, with adjustment spring relaxed, ensure a minimum 0,2 bar downstream pressure.

\*\* Others on request.

CE MARKING – GROUP 2 (PED – European Directive)	
<b>PN 16</b>	<b>Category</b>
2 1/2" to 3"	1 (CE Marked)

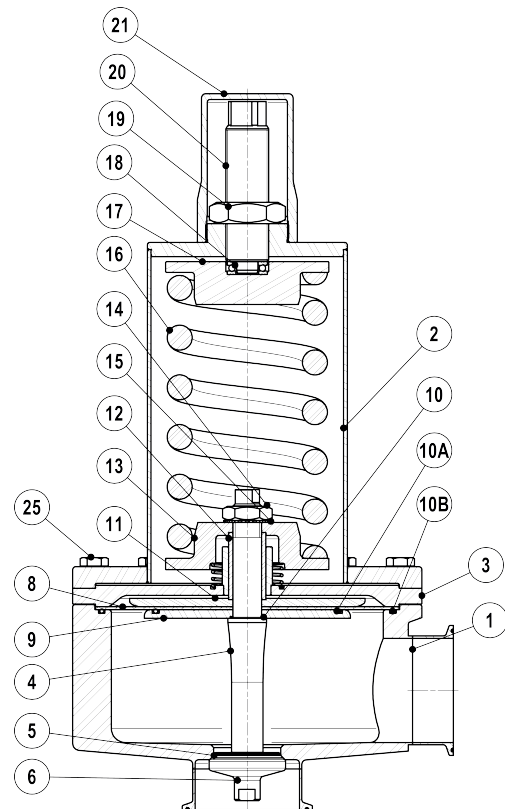
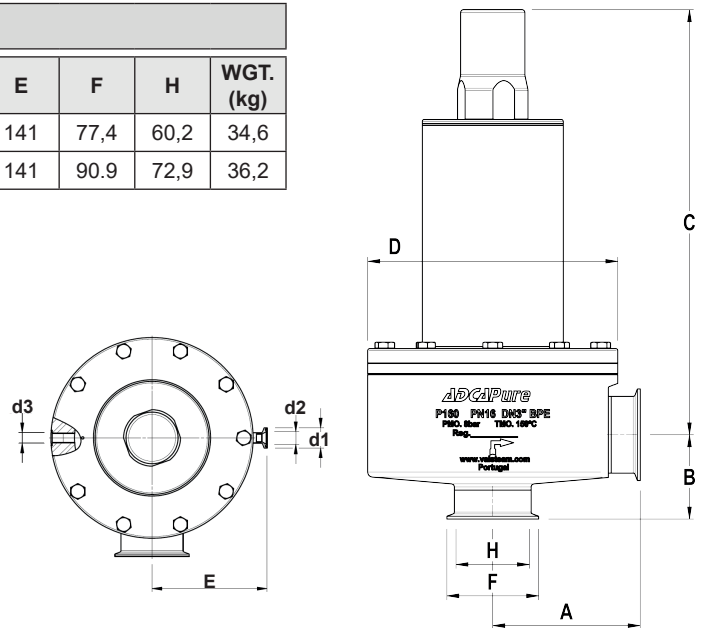
**DIMENSIONS (mm) ASME BPE**

SIZE	Kvs (m <sup>3</sup> /h)	A	B	C	D	d1	d2	d3	E	F	H	WGT. (kg)
2 1/2"	19,6	144	78	410	245	25	15,75	1/4"	141	77,4	60,2	34,6
3"	19,6	144	84	417	245	25	15,75	1/4"	141	90,9	72,9	36,2

**MATERIALS**

POS. N°	DESIGNATION	MATERIAL
1	Valve 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
8	* Diaphragm	PTFE (Gylon)
9	Diaphragm plate	AISI 316L / 1.4404
10	* O-ring	EPDM
11	* O-ring	EPDM
12	* O-ring	EPDM
11	Diaphragm plate	AISI 316L / 1.4404
12	Stem guide	AISI 316 / 1.4401
13	Spring plate	AISI 316 / 1.4401
14	Nut	Stainless steel A2-70
15	Washer	AISI 316 / 1.4401
16	* Adjustment spring	Zinc plated spring steel
17	Top spring plate	AISI 316 / 1.4401
18	Bearing	Corrosion resistant steel
19	Nut	Stainless steel A2-70
20	Adjustment screw	AISI 304 / 1.4301
21	Top cap	AISI 316L / 1.4404
25	Bolts	Stainless steel A2-70

\* Available spare parts ; \*\* Others according to fluid;  
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.



**OPTIONS**

LOCK SYSTEM	PRESSURE GAUGE CONNECTION	LEAKAGE LINE CONNECTION

ORDERING CODES P160G													
Valve model	P16G	8	9	T	M	T	X	X	X	DI	65	E	
P160G – AISI 316L / 1.4404 diaphragm sensing pressure reducing valve	<b>P16G</b>												
<b>Regulating range</b>													
1 to 1,7 bar		8											
1,5 to 4 bar		9											
<b>Flow rate coefficient</b>													
Kvs 19,6			9										
<b>Diaphragm</b>													
PTFE (Gylon)				T									
EPDM (non-standard)				E									
<b>Valve head</b>													
Metal to metal (non standard)					M								
EPDM					E								
PTFE					T								
FPM / Viton					V								
<b>Top cap and captured vent</b>													
Top cap (adjustment screw with cover)						T							
Top cap (adjustment screw with cover) w/ diaphragm cover leakage connection in case of diaphragm failure						U							
<b>Gauge port options</b>													
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					
<b>Surface finish (a)</b>													
Standard surface finish									X				
Mirror mechanical polished external surfaces (SF1)									P				
Electropolished internal wetted parts (SF5)									E				
<b>Special features</b>													
None										X			
Degreased for oxygen										O			
CIP / SIP lock system										C			
<b>Pipe connections</b>													
Clamp ferrule ASME BPE											D		
Tube weld (ETO) according to ASME BPE											DI		
<b>Size</b>													
2 1/2"												65	
3"												80	
<b>Special valves / Extras</b>													
Full description or additional codes have to be added in case of a non-standard combination													E

(a) Consult IS PV20.00 (Technical information) for further details and other surface finish options.