

**PRESSURE REDUCING VALVE  
 DIRECT ACTING  
 PRV25/2S – Carbon steel**

**DESCRIPTION**

The ADCA PRV25/2S series, direct acting pressure reducing valves, are designed for use on steam, compressed air, water and other gases and liquids.

They are suitable for reducing steam pressure at the point of use on laundry machines, dyeing, food industries, sterilizers, etc.

Connections are female screwed or flanged.

**MAIN FEATURES**

Compact design.

Bellows specially designed for high durability.

Non rising stem regulating knob.

Lockable knob system.

Built-in strainer.

**OPTIONS:** Regulating screw with top cap.

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

**AVAILABLE MODELS:**  
 PRV25/2S – metal to metal seating.  
 PRV25/2SG – soft valve.  
 PRW25/2S – balanced soft valve.

**RECOMMENDED APPLICATIONS:**  
 PRV25/2S – steam and compressed air.  
 PRV25/2SG – steam and compressed air where tight off is required.  
 PRW25/2S – water, compressed air.

**SIZES:** 1/2", 3/4", 1"; DN 15, DN 20 and DN 25.

**CONNECTIONS:** Female screwed ISO7/1Rp (BS 21).  
 Flanged EN 1092-1 PN40 or ANSI.

**INSTALLATION:** Horizontal installation.  
 An "Y" strainer should be installed upstream the valve.  
 See IMI – Installation and maintenance instructions.



CE MARKING – GROUP 2 (PED – European Directive)	
PN25	Category
DN 15 to 25	SEP

**LIMITING CONDITIONS**

Valve model	PRV25/2S	PRV25/2SG	PRW25/2S
Body design conditions	PN25	PN25	PN25
Max. upstream pressure	17 bar	17 bar	14 bar
Max. downstream pressure	8,6 bar	8,6 bar	8,6 bar
Min. downstream pressure	0,14 bar	0,14 bar	0,35 bar
Max. design temperature	210 °C	180 °C	75 °C
Max. cold hydraulic test	38 bar	38 bar	38 bar
Max. recommended reducing ratio	10:1	10:1	10:1

**CAPACITIES**  
(See capacity table)

Valve size	DN 15	DN 20	DN 25
Kvs	1,7	2,6	3,1

**PRESSURE RANGES (bar)**

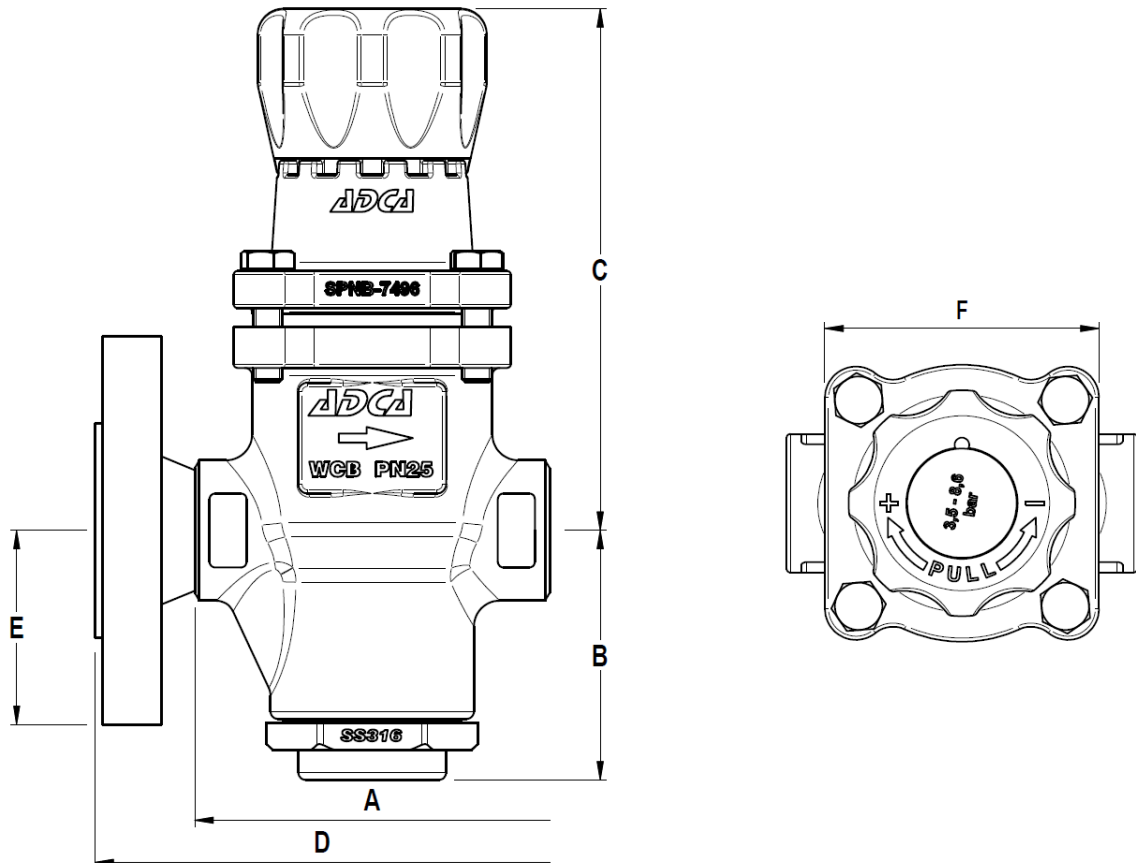
SPRING COLOUR	BLUE *	YELLOW **	GREEN	RED
Red. Pressure	0,35 – 1,7	0,14 – 1,7	1,4 – 4,0	3,5 – 8,6

\*Only applicable on the PRW; \*\* Only applicable on the PRV.

Where control spring ranges overlap, always use the lower range, in order to achieve a greater control and precision.

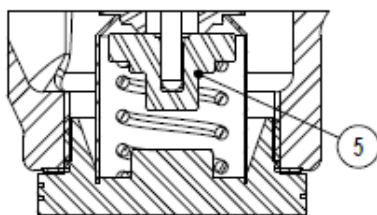
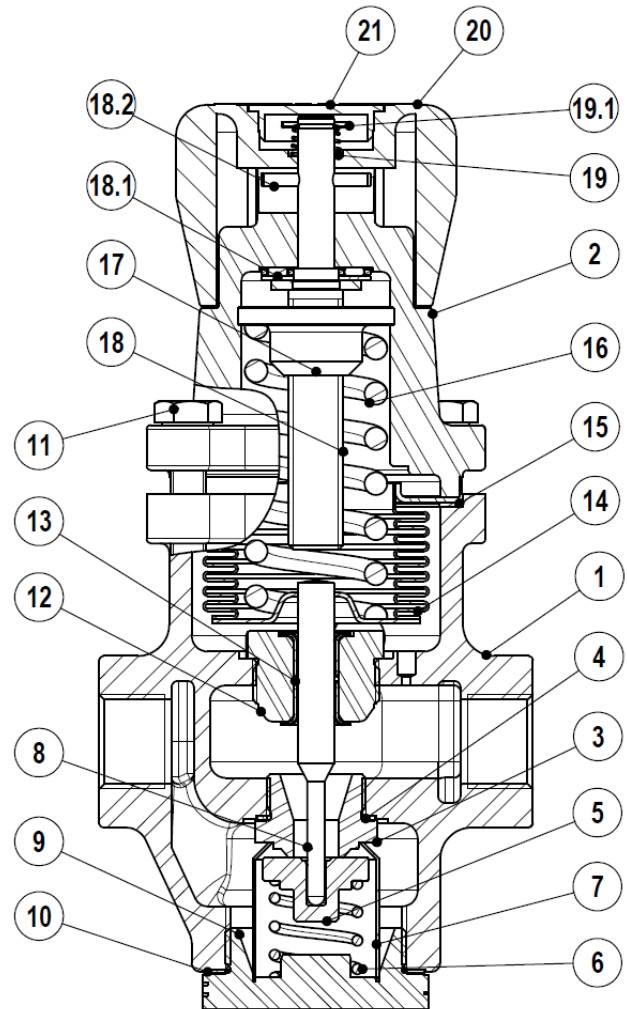
**DIMENSIONS (mm)**

Size	Screwed					PN25		
	A	B	C	F	WGT. (kg)	D	E	WGT. (kg)
1/2" – DN 15	96	68,5	141	74	3	150	47,5	4,4
3/4" – DN 20	96	68,5	141	74	3	150	52,5	5
1" – DN 25	96	68,5	141	74	2,9	160	57,5	5,5

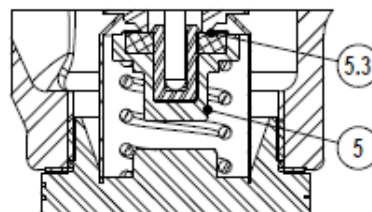


MATERIALS		
POS. Nº	DESIGNATION	MATERIAL
1	Valve body	A216WCB / 1.0619 or P250GH / 1.0460
2	Cover	A216WCB / 1.0619
3	* Seat	AISI 316 / 1.4401
4	* Gasket	Copper
5	* Valve	Hardened stainless steel
5.1	* O-ring	NBR
5.2	* Valve head	NBR
5.3	* Valve head	PTFE / Graphite
6	* Valve return spring	AISI 302 / 1.4300
7	* Strainer screen	AISI 304 / 1.4301
8	Pushrod	AISI 316 / 1.4401
9	Bottom cap	CF8M / 1.4408
10	* Cap gasket	Stainless steel / Graphite
11	Cover bolts	Steel 8.8
12	* Guide bush	AISI 316 / 1.4401
13	* Plain bearing	Bronze filled PTFE
14	* Bellows	AISI 316 Ti / 1.4571
15	* Bellows gasket	Stainless steel / Graphite
16	* Adjustment spring	Steel
17	Top spring plate	Brass
18	Adjustment screw	AISI 304 / 1.4301
18.1	Bearing	Steel
18.2	Pin	AISI 304 / 1.4301
19	Spring	AISI 302 / 1.4300
19.1	Starlock washer	AISI 302 / 1.4300
20	Handwheel	Plastic
21	Spring id. Plate	Plastic

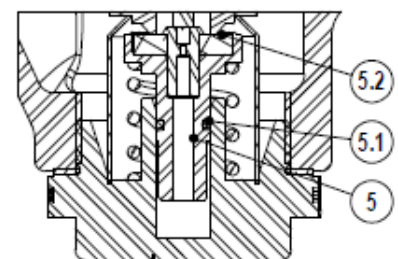
\* Available spare parts.



PRV25/2S



PRV25/2SG



PRW25/2S

STEAM CAPACITY TABLE (kg/h)				
INLET (bar)	OUTLET (bar)	SATURATED STEAM		
		DN 15	DN 20	DN 25
2	0,2	33	53	64
	1,2	57	87	104
	1,6	38	59	71
3	0,3	45	70	83
	1,2	76	116	138
	2,2	61	93	111
	2,6	46	70	83
4	0,4	56	87	104
	1	66	102	121
	2,5	95	145	173
	3,5	57	87	104
5	0,5	68	105	125
	2	91	139	166
	3	114	174	208
	4	85	130	155
6	0,6	79	122	145
	2	106	162	194
	3	133	203	243
	4	120	184	219
7	0,7	91	139	167
	2	121	185	222
	3,5	152	232	277
	5	132	201	240
8	0,8	102	157	187
	2	137	210	250
	3,5	171	262	312
	5	161	247	294
	6	142	217	259
9	0,9	114	174	208
	2,5	133	203	242
	4	152	233	277
	5	190	291	347
	7	152	232	277
10	1	125	192	228
	3	146	224	266
	4	167	256	305
	6	209	320	381
	8	161	247	294
11	1,1	136	210	249
	3	182	280	333
	6	228	350	416
	8	198	302	360
	8,6	182	279	331
12	1,2	148	227	270
	3	197	302	360
	6	247	378	451
	8	228	349	416
	8,6	217	332	396
13	1,3	159	244	291
	4	186	284	340
	6	212	325	388
	7	266	407	486
	8,6	246	378	451
15	1,5	182	259	321
	4	212	302	374
	6	243	345	427
	8	304	433	536
	8,6	298	426	512
17	1,7	205	279	333
	4	238	325	386
	6	273	372	441
	8	342	465	555
	8,6	339	449	541

COMPRESSED AIR CAPACITY TABLE (Nm <sup>3</sup> /h – 0 °C – 1,013 bar)				
INLET (bar)	OUTLET (bar)	COMPRESSED AIR		
		DN 15	DN 20	DN 25
2	0,2	45	72	86
	1,2	77	117	140
	1,6	51	80	96
3	0,3	61	95	112
	1,2	103	157	186
	2,2	82	126	150
	2,6	62	95	112
4	0,4	76	117	140
	1	89	138	163
	2,5	128	196	234
	3,5	77	117	140
5	0,5	92	142	169
	2	123	188	224
	3	154	235	281
	4	115	176	209
6	0,6	107	165	196
	2	143	219	262
	3	180	274	328
	4	162	248	296
7	0,7	123	188	225
	2	163	250	300
	3,5	205	313	374
	5	178	271	324
8	0,8	138	212	252
	2	185	284	338
	3,5	231	354	421
	5	217	333	397
	6	192	293	350
9	0,9	154	235	281
	2,5	180	274	327
	4	205	315	374
	5	257	393	468
	7	205	313	374
10	1	169	259	308
	3	197	302	359
	4	225	346	412
	6	282	432	514
	8	217	333	397
11	1,1	184	284	336
	3	246	378	450
	6	308	473	562
	8	267	408	486
	8,6	246	377	447
12	1,2	200	306	365
	3	266	408	486
	6	333	510	609
	8	308	471	562
	8,6	293	448	535
13	1,3	215	329	393
	4	251	383	459
	6	286	439	524
	7	359	549	656
	8,6	332	510	609
15	1,5	246	350	433
	4	286	408	505
	6	328	466	576
	8	410	585	724
	8,6	402	575	691
17	1,7	277	377	450
	4	321	439	521
	6	369	502	595
	8	462	628	749
	8,6	458	606	730

WATER CAPACITY TABLE (m <sup>3</sup> /h)			
D.P (bar)	WATER		
	DN 15	DN 20	DN 25
1,5	2,1	3,18	3,8
2	2,4	3,67	4,38
3	2,95	4,5	5,37
4	3,4	5,2	6,2
5	3,8	5,8	6,93
6	4,16	6,36	7,6
8	4,8	7,35	8,75
12	5,8	9	10,7