



ADCA Pressure reducing valve Type 1906 series RP45S steel direct-acting flange EN1092-1



The ADCA series RP45S is a self-acting pressure reducing valve with high durability stainless steel bellows providing a pressure balancing and frictionless plug stem which makes it very accurate and gives it a fast response. This construction in combination with a large array of actuators and springs makes achieving a high reducing ratio from 25: 1 and rangeability from 10: 1 possible.

Characteristics

Series: RP45S
Type: 1906
Model: Direct-acting
Process connection: Flange
Standard connection: EN 1092-1
Maximum inlet pressure: 25 bar
Min. outlet pressure [bar]: 0.15 bar
PMA - maximum allowable pressure: 40 bar
TMO - maximum operating temperature: 250 °C
Max. pressure ratio: 25:1
Control ratio: 10:1
Suitable for gases: Yes
Housing material: Steel
Material quality: ASTM A216 WCB/1.0619
Material disc: 1.4021
Seat material: 1.4401
O-ring material: EPDM
Actuator material: ASTM A216 WCB/1.0619
Membrane material: CR reinforced with PA
Spring material: Spring steel
Mounting direction: Horizontal
Flow direction: through arrow marking on housing
Approvals: PED 2014/68/EU fluid group 2

Application

- Compressed air.
- Steam.
- Gases that do not affect the structure.

Technical Information

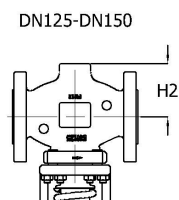
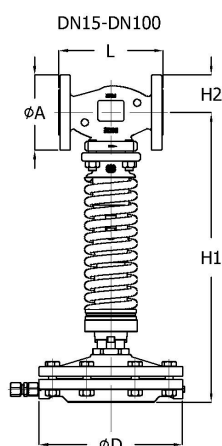
- Installation in a horizontal position with the actuator pointing vertically downwards. Installation with the actuator pointing upwards, i.e. position above the pipeline, is only possible if the medium temperature is below 90 °C.

Options

- NBR soft sealing for air and gas applications when tight shut-off is required.
- Low noise divider.
- Complete stainless steel versions.
- Copper tubing from actuator to seal pot and from housing to adaptor point on the pipe line.
- ANSI RF flanges.

Size table:

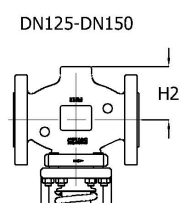
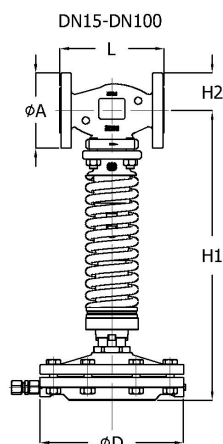
Dimension	Actuator	A mm	ØD mm	H1 mm	H2 mm	L mm	Weight kg
DN15	A4	95	340	447	47.5	130	25.8
DN15	A3	95	282	437	47.5	130	20.8
DN15	A1	95	172	433	47.5	130	13.8
DN15	A2	95	220	440	47.5	130	16.8
DN15	A21	95	220	440	47.5	130	16.8
DN15	A11	95	172	433	47.5	130	13.8
DN15	A12	95	172	433	47.5	130	13.8
DN20	A4	105	340	447	52.5	150	26.5
DN20	A12	105	172	433	52.5	150	14.5
DN20	A11	105	172	433	52.5	150	14.5
DN20	A1	105	172	433	52.5	150	14.5
DN20	A21	105	220	440	52.5	150	17.5
DN20	A2	105	220	440	52.5	150	17.5
DN20	A3	105	282	437	52.5	150	21.5
DN25	A2	115	220	445	57.5	160	18.5
DN25	A3	115	282	442	57.5	160	22.5
DN25	A21	115	220	445	57.5	160	18.5
DN25	A1	115	172	543	57.5	160	15.5
DN25	A11	115	172	543	57.5	160	15.5
DN25	A12	115	172	543	57.5	160	15.5
DN25	A4	115	340	452	57.5	160	27.5
DN32	A3	140	282	448	70	180	25.3
DN32	A4	140	340	458	70	180	30.3
DN32	A1	140	172	444	70	180	18.3
DN32	A12	140	172	444	70	180	18.3
DN32	A11	140	172	444	70	180	18.3
DN32	A2	140	220	451	70	180	21.3
DN32	A21	140	220	451	70	180	21.3
DN40	A12	150	172	451	75	200	19.8
DN40	A4	150	340	465	75	200	31.8
DN40	A21	150	220	458	75	200	22.8
DN40	A2	150	220	458	75	200	22.8
DN40	A3	150	282	455	75	200	26.8
DN40	A1	150	172	451	75	200	19.8
DN40	A11	150	172	451	75	200	19.8
DN50	A10	165	172	562	82.5	230	26
DN50	A11	165	172	562	82.5	230	26
DN50	A3	165	282	541	82.5	230	33



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Size table:

Dimension	Actuator	A	ØD	H1	H2	L	Weight
DN50	A2	165	220	544	82.5	230	29
DN50	A21	165	220	544	82.5	230	29
DN50	A1	165	172	562	82.5	230	26
DN50	A4	165	340	551	82.5	230	38
DN65	A4	185	340	576	92.5	290	48.5
DN65	A3	185	282	566	92.5	290	43.5
DN65	A21	185	220	569	92.5	290	39.5
DN65	A2	185	220	569	92.5	290	39.5
DN65	A11	185	172	562	92.5	290	36.5
DN65	A1	185	172	562	92.5	290	36.5
DN65	A10	185	172	562	92.5	290	36.5
DN80	A21	200	220	630	100	310	52.7
DN80	A1	200	172	623	100	310	49.7
DN80	A3	200	282	627	100	310	56.7
DN80	A2	200	220	630	100	310	52.7
DN80	A4	200	340	637	100	310	61.7
DN100	A21	220	220	671	110	350	60.6
DN100	A2	220	220	671	110	350	60.6
DN100	A1	350	172	664	110	220	57.6
DN100	A4	220	340	678	110	350	69.6
DN100	A3	220	282	668	110	350	64.6
DN125	B1	250	172	774	160	400	95.7
DN125	C11	250	145	787	160	400	93.6
DN125	B21	250	220	780	160	400	98.7
DN125	B2	250	220	780	160	400	98.7
DN125	B3	250	283	782	160	400	102.9
DN125	B 4	250	340	792	160	400	109.9
DN150	B1	285	172	790	180	480	117.4
DN150	B21	285	220	796	180	480	120.4
DN150	B3	285	283	798	180	480	124.6
DN150	B2	285	220	796	180	480	120.4
DN150	C11	285	145	803	180	480	115.3
DN150	B 4	285	340	808	180	480	131.6



Size process connection	Kvs value m³/h	Reduced pressure range bar	Type coding actuator	PED classification	Article
DN15	4.8	0.15 / 0.49	A4	PED-SEP	14098229
DN15	4.8	0.5 / 0.99	A4	PED-SEP	14098230
DN15	4.8	1 / 1.6	A3	PED-SEP	14098231
DN15	4.8	5.6 / 8.2	A1	PED-SEP	14098234
DN15	4.8	1.7 / 3.8	A2	PED-SEP	14098232

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Size process connection	Kvs value m³/h	Reduced pressure range bar	Type coding actuator	PED classification	Article
DN15	4.8	3.9 / 5.5	A21	PED-SEP	14098233
DN15	4.8	8.3 / 13	A11	PED-SEP	14098235
DN15	4.8	10 / 18	A12	PED-SEP	14098236
DN20	6.9	0.15 / 0.49	A4	PED-SEP	14098237
DN20	6.9	10 / 18	A12	PED-SEP	14098244
DN20	6.9	8.3 / 13	A11	PED-SEP	14098243
DN20	6.9	5.6 / 8.2	A1	PED-SEP	14098242
DN20	6.9	3.9 / 5.5	A21	PED-SEP	14098241
DN20	6.9	1.7 / 3.8	A2	PED-SEP	14098240
DN20	6.9	0.5 / 0.99	A4	PED-SEP	14098238
DN20	6.9	1 / 1.6	A3	PED-SEP	14098239
DN25	9.1	1.7 / 3.8	A2	PED-SEP	14098248
DN25	9.1	1 / 1.6	A3	PED-SEP	14098247
DN25	9.1	3.9 / 5.5	A21	PED-SEP	14098249
DN25	9.1	5.6 / 8.2	A1	PED-SEP	14098250
DN25	9.1	8.3 / 13	A11	PED-SEP	14098251
DN25	9.1	10 / 18	A12	PED-SEP	14098252
DN25	9.1	0.15 / 0.49	A4	PED-SEP	14098245
DN25	9.1	0.5 / 0.99	A4	PED-SEP	14098246
DN32	11.8	1 / 1.6	A3	PED-SEP	14098255
DN32	11.8	0.15 / 0.49	A4	PED-SEP	14098253
DN32	11.8	0.5 / 0.99	A4	PED-SEP	14098254
DN32	11.8	5.6 / 8.2	A1	PED-SEP	14098258
DN32	11.8	10 / 18	A12	PED-SEP	14098260
DN32	11.8	8.3 / 13	A11	PED-SEP	14098259
DN32	11.8	1.7 / 3.8	A2	PED-SEP	14098256
DN32	11.8	3.9 / 5.5	A21	PED-SEP	14098257
DN40	14.4	10 / 18	A12	PED cat. I	14098268
DN40	14.4	0.15 / 0.49	A4	PED cat. I	14098261
DN40	14.4	3.9 / 5.5	A21	PED cat. I	14098265
DN40	14.4	1.7 / 3.8	A2	PED cat. I	14098264
DN40	14.4	1 / 1.6	A3	PED cat. I	14098263
DN40	14.4	0.5 / 0.99	A4	PED cat. I	14098262
DN40	14.4	5.6 / 8.2	A1	PED cat. I	14098266
DN40	14.4	8.3 / 13	A11	PED cat. I	14098267
DN50	26.5	10 / 18	A10	PED cat. I	14098276
DN50	26.5	8.9 / 13	A11	PED cat. I	14098275
DN50	26.5	1.3 / 1.9	A3	PED cat. I	14098271
DN50	26.5	2 / 4.2	A2	PED cat. I	14098272
DN50	26.5	4.3 / 6.9	A21	PED cat. I	14098273
DN50	26.5	7 / 8.5	A1	PED cat. I	14098274
DN50	26.5	0.5 / 0.99	A4	PED cat. I	14098270
DN50	26.5	0.15 / 0.49	A4	PED cat. I	14098269
DN65	51.5	0.5 / 0.99	A4	PED cat. I	14098278
DN65	51.5	0.15 / 0.49	A4	PED cat. I	14098277
DN65	51.5	1.3 / 1.9	A3	PED cat. I	14098279
DN65	51.5	4.3 / 6.9	A21	PED cat. I	14098281
DN65	51.5	2 / 4.2	A2	PED cat. I	14098280
DN65	51.5	8.9 / 13	A11	PED cat. I	14098283
DN65	51.5	7 / 8.5	A1	PED cat. I	14098282
DN65	51.5	10 / 18	A10	PED cat. I	14098284
DN80	79.5	5.1 / 8.9	A21	PED cat. I	14098289
DN80	79.5	9 / 13	A1	PED cat. I	14098290

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Size process connection	Kvs value m³/h	Reduced pressure range bar	Type coding actuator	PED classification	Article
DN80	79.5	11 / 18	A1	PED cat. I	14098291
DN80	79.5	1 / 1.9	A3	PED cat. I	14098287
DN80	79.5	2 / 5	A2	PED cat. I	14098288
DN80	79.5	0.15 / 0.45	A4	PED cat. I	14098285
DN80	79.5	0.46 / 0.99	A4	PED cat. I	14098286
DN100	129.5	6.1 / 13	A21	PED cat. I	14098296
DN100	129.5	2 / 6	A2	PED cat. I	14098295
DN100	129.5	11 / 18	A1	PED cat. I	14098297
DN100	129.5	0.15 / 0.45	A4	PED cat. I	14098292
DN100	129.5	0.46 / 0.99	A4	PED cat. I	14098293
DN100	129.5	1 / 1.9	A3	PED cat. I	14098294
DN125	150	6 / 12	B1	PED cat. II	14098302
DN125	150	8 / 16.5	C11	PED cat. II	14098303
DN125	150	4 / 8.5	B21	PED cat. II	14098301
DN125	150	1.5 / 5	B2	PED cat. II	14098300
DN125	150	1.1 / 2.5	B3	PED cat. II	14098299
DN125	150	0.5 / 1.5	B 4	PED cat. II	14098298
DN150	204	6 / 12	B1	PED cat. II	14098308
DN150	204	4 / 8.5	B21	PED cat. II	14098307
DN150	204	1.1 / 2.5	B3	PED cat. II	14098305
DN150	204	1.5 / 5	B2	PED cat. II	14098306
DN150	204	8 / 16.5	C11	PED cat. II	14098309
DN150	204	0.5 / 1.5	B 4	PED cat. II	14098304

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