

Flange Differential Pressure Control Valve

Fig. 8320

Specification

Design in accordance with

Flanges comply with EN1092- 2 PN16 / PN25, ASME B16.1 CLASS 125 & CLASS150, BS10 TABLE D & TABLE E

Pressure test according to standards GB/T13927, EN12266-1

Technical data

Working Pressure: 16bar / 25bar

Dimensions: DN40~DN250

ΔP Range: 300~1000 mbar (DN40~DN50)
400~1600 mbar (DN65~DN250)

Max. ΔP : PV $\leq$ 3500 mbar

Working Temperature: - 10°C~120°C

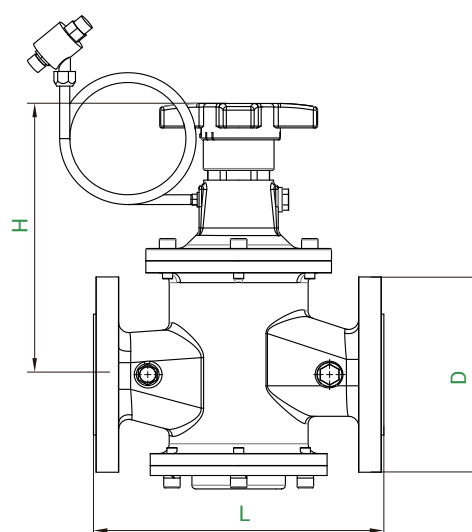
Materials

Part	Material	Specification
Body	Ductile Iron	EN-JS 1040
Bonnet	Ductile Iron	EN-JS 1040
Seat	Stainless Steel	BS970 304
Trim	Stainless Steel	BS970 304
Diaphragm	Composites	Nylon reinforced EPDM
Spring	Stainless Steel	BS970 304
Testing valve	Brass	EN 12165 CW602N
Wheel	ABS / Aluminum	-

Schema



DN40- DN250



Dimensions

Size	mm	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250
	Inch	1-1/2	2	2-1/2	3	4	5	6	8	10
L		200	230	290	310	350	400	480	600	730
H		195	213	258	277	295	319	354	375	410
D		145	160	180	195	215	245	280	335	405
Flow KVs (m³/h)		15	34	52	75	110	160	280	320	400

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Specification

Design in accordance with

Flanges comply with EN1092- 2 PN16/ PN25, ASME B16.1 CLASS 125 & CLASS150, BS10 TABLE D & TABLE E

Pressure test according to standards GB/T13927

Technical data

Working Pressure: 16bar / 25bar

Dimensions: DN300~DN500

ΔP Range: 400~1600 mbar (DN300~DN500)

Max. ΔP : PV $\leq$ 3500 mbar

Working Temperature: -10°C~120°C

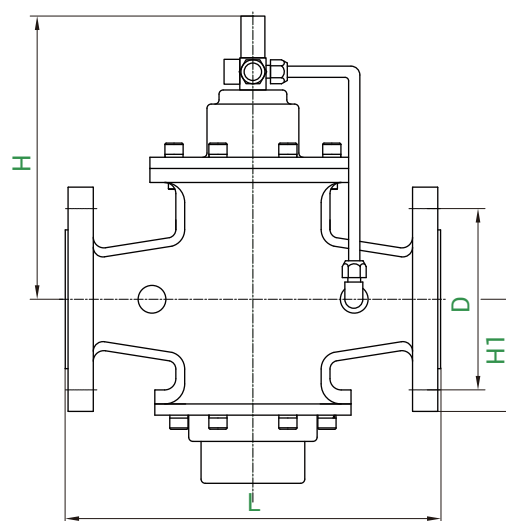
Materials

Part	Material	Specification
Body	Ductile Iron	EN-JS 1040
Bonnet	Ductile Iron	EN-JS 1040
Seat	Stainless Steel	BS970 304
Trim	Stainless Steel	BS970 304
Diaphragm	Composites	Nylon reinforced EPDM
Spring	Stainless Steel	BS970 304
Testing valve	Brass	HPb59-1
Adjustment kit	Brass	EN 12165 CW617N

Schema



DN300- DN500



Dimensions

Size	mm	DN300	DN350	DN400	DN450	DN500
	Inch	12	14	16	18	20
L		705	760	785	785	910
H		920	940	1060	1060	1540
D		410	470	525	585	650
Flow KVs (m³/h)		1300	1750	2250	2540	3065

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Parameter selection

$\Delta PL(\text{mbar})$	Q(m ³ /h)	DN15	DN20	DN25	DN32	DN40	DN50
50	Q(min)	0.05	0.09	0.15	0.26	0.32	0.47
	Q(nom)	0.38	0.64	0.96	1.74	2.71	3.52
	Q(max)	0.52	0.85	1.33	2.63	3.71	5.12
100	Q(min)	0.08	0.15	0.28	0.33	0.46	0.57
	Q(nom)	0.42	0.82	1.24	2.06	2.93	5.07
	Q(max)	0.78	1.04	1.68	2.65	4.08	8.79
200	Q(min)	0.12	0.21	0.36	0.45	0.55	0.63
	Q(nom)	0.67	1.02	1.82	2.51	3.87	7.44
	Q(max)	1.07	1.54	2.66	3.84	5.52	9.88
300	Q(min)	0.21	0.34	0.47	0.59	0.68	0.88
	Q(nom)	0.87	1.28	2.12	3.15	4.58	9.10
	Q(max)	1.54	2.45	3.21	4.57	7.12	12.8
250	Q(min)	0.09	0.15	0.25	0.34	0.40	0.66
	Q(nom)	0.65	1.03	1.83	2.81	4.55	7.62
	Q(max)	1.24	1.50	2.61	3.85	6.62	11.22
300	Q(min)	0.12	0.18	0.32	0.41	0.45	0.75
	Q(nom)	1.02	1.51	2.62	3.56	5.08	9.12
	Q(max)	2.05	2.68	3.68	5.22	7.20	13.4
400	Q(min)	0.18	0.24	0.38	0.58	0.51	0.88
	Q(nom)	1.45	2.45	3.46	4.52	5.62	10.8
	Q(max)	2.28	3.55	5.58	6.38	8.15	15.50
500	Q(min)	0.29	0.44	0.52	0.70	0.58	0.96
	Q(nom)	1.87	3.15	4.52	5.44	6.28	12.20
	Q(max)	2.45	5.01	6.42	7.66	10.50	17.10
600	Q(min)	0.32	0.52	0.61	0.77	0.68	1.15
	Q(nom)	2.48	4.07	5.33	6.24	7.22	13.20
	Q(max)	2.99	5.78	7.05	8.88	12.50	19.20
700	Q(min)	0.41	0.59	0.72	0.85	0.78	1.29
	Q(nom)	2.85	5.12	7.22	8.21	7.45	14.50
	Q(max)	3.09	6.54	9.15	11.5	13.2	21.80

$\Delta PL(\text{mbar})$	Q(m ³ /h)	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250
200	Q(min)	0.42	0.51	0.65	0.85	2.04	2.95	3.8	9.51	10.8
	Q(nom)	7.14	9.84	11.2	14.5	35	52	66.5	83.2	94.6
	Q(max)	9.84	12.4	16.8	21.8	50	74.2	95.2	118.8	135.2
300	Q(min)	0.51	0.71	0.87	1.45	2.6	3.55	4.8	10.7	12.6
	Q(nom)	8.24	11.2	14.5	24.8	44.7	61.8	84.5	93.5	108.6
	Q(max)	12.2	18.4	21.8	33.8	64	89	120.6	133.8	154.8
400	Q(min)	0.52	0.81	1.05	1.58	2.75	4.21	5.24	12.4	14.5
	Q(nom)	10.5	14.5	18.6	28.4	48.5	72.8	93.5	107.8	125.4
	Q(max)	12.4	19.8	26.8	38.6	69.5	103.5	135.2	154.2	178.6
500	Q(min)	0.68	1.01	1.45	1.95	3.15	4.52	6.5	13.5	15.9
	Q(nom)	12.5	16.8	21.8	38.4	54.5	51.2	112	118.2	142.3
	Q(max)	19.8	21.5	30.5	51.2	77.8	116.5	160.5	168.5	201
600	Q(min)	0.98	1.22	1.65	2.41	3.4	5.21	6.75	14.8	16.8
	Q(nom)	16.2	19.8	24.8	40.5	59.8	89.5	117.2	130.5	154.2
	Q(max)	21.5	28.4	32.8	55.8	85.2	127.5	167.5	185.4	220.4
700	Q(min)	1.12	1.45	1.84	2.78	3.5	5.45	7.18	15.8	18.6
	Q(nom)	18.5	21.4	26.8	41.9	64.2	96.5	126.8	138.2	160.2
	Q(max)	24.5	30.4	34.5	60.5	92.2	138.5	181.2	198.2	231
800	Q(min)	1.25	1.78	2.15	3.05	4.15	6.24	7.5	18	18.5
	Q(nom)	20.3	28.5	32.4	54.2	70.1	105.2	132.2	150.2	167.1
	Q(max)	32.1	41.2	52.4	75.8	100	148.9	185.4	210.5	235.5

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Parameter selection

(Continued from above)

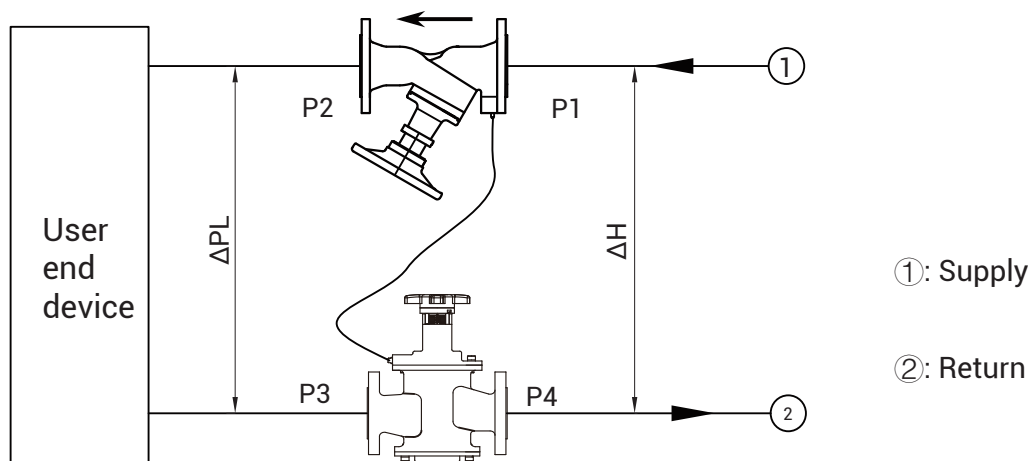
ΔPL (mbar)	Q(m ³ /h)	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250
400	Q(min)	0.62	0.88	1.05	1.41	2.71	4.35	5.05	12.1	13.5
	Q(nom)	9.85	12.8	17.2	24.2	50.4	75.5	87.5	105.8	118.2
	Q(max)	12.4	18.5	24.3	34.5	72.1	107.4	124.5	150.2	168.2
500	Q(min)	0.65	0.98	1.22	1.65	3.15	4.78	6.21	14.2	15
	Q(nom)	10.4	14.6	20.1	27.4	55.4	82	108.9	125	130.2
	Q(max)	14.8	21.2	28.3	38.5	78.2	117.5	157.4	177.8	184.9
600	Q(min)	0.85	1.01	1.45	1.85	3.55	5.22	6.41	14.8	16.4
	Q(nom)	12.5	17.5	21.6	32.5	61	92.2	112.5	132.2	142.8
	Q(max)	18.4	25.4	30.5	46.1	86.5	131.5	160.5	189.2	204.5
700	Q(min)	0.92	1.22	1.35	2.01	3.81	5.68	7.11	16.8	18.2
	Q(nom)	14.2	19.4	23.1	33.6	66.8	96.5	120.4	148.5	160.8
	Q(max)	20.5	27.6	33.5	50.8	95.5	140.5	174.2	211.6	231.2
800	Q(min)	1.04	1.31	1.52	2.17	4.12	5.98	7.45	18.4	18.9
	Q(nom)	17.2	21.4	25.2	36.5	70.5	104.8	128.6	164.2	168.2
	Q(max)	22.5	29.4	35.6	52.1	100.5	150.8	185.4	233.6	240.1
900	Q(min)	1.24	1.54	1.62	2.24	4.22	6.5	8.21	19.5	21.2
	Q(nom)	18.5	22.4	26.4	38.5	73.5	112	142.5	172.2	185.5
	Q(max)	24.8	31.2	37.8	55.1	104.5	160.2	204.1	245.6	265.3
1000	Q(min)	1.42	1.58	1.7	2.38	4.42	7.08	8.45	19.8	22.4
	Q(nom)	19.5	24.5	27.8	40.2	75.8	120.5	147.2	177.5	195.6
	Q(max)	26.7	34.2	39.5	57.9	110.5	174.2	211.2	255.4	278.5
1100	Q(min)	1.38	1.55	1.66	2.41	4.56	7.11	8.45	21.2	22.8
	Q(nom)	20.4	24.8	28.4	42.5	80.9	124.2	152.1	185.4	206.5
	Q(max)	28.5	35.8	41.2	60.6	115.8	175.4	218.5	265.3	298.4
1200	Q(min)	1.42	1.61	1.75	2.65	4.88	7.22	9.12	22.8	24.3
	Q(nom)	22.4	26.2	31	41.5	85.2	127.4	158	204.1	213.2
	Q(max)	30.4	36.8	42.6	64.2	120.5	180.6	224.5	288.5	305.4
1300	Q(min)	1.51	1.68	1.81	2.71	5.12	7.44	9.45	24.1	24.8
	Q(nom)	24.2	26.9	31.2	45.2	87.6	130.5	160.4	210.5	222.1
	Q(max)	32.1	37.5	44.5	65.2	125.4	182.4	233.5	300.5	318.5
1400	Q(min)	1.62	1.74	1.88	2.7	5.22	7.56	9.55	24.2	26.5
	Q(nom)	25.8	27.4	31.6	45.8	91.4	132.8	168.2	215.6	233.2
	Q(max)	34.1	38.4	44.6	65.8	130.5	189.8	241.5	304.2	330.4
1500	Q(min)	1.68	1.84	2.05	2.88	5.41	8.05	9.54	24.2	27.5
	Q(nom)	26.5	28.4	32.6	47.5	94.2	140.5	170.4	222.5	244.1
	Q(max)	35.4	40.5	46.5	68	135.2	200.4	246.3	320.4	349.8
1600	Q(min)	1.82	1.92	2.21	2.95	5.58	8.28	9.88	26.8	28.5
	Q(nom)	27.6	29.4	33.4	50.2	98.8	144.5	172.4	238.5	255.4
	Q(max)	37.5	42.2	48.5	71.4	140.5	205.1	248.5	340.8	358.6

1. Select ΔPL data from the table above.
2. Select the valve with the valve Size equal to the pipe Size.
3. Confirm that the water flow rate is less than the Q(max) value in the parameter table.

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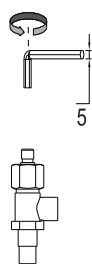
Installation instructions



Attentions:

DPCV usually installed in return pipe, please installing the valve in the right flow direction.

Setting instruction



- 1、Open the 3-way measuring valve.
- 2、Open the air release cock and turn it off after emptying the air.

