Stainless Steel Flanged Dynamic DPCV

Fig. 8325

Stainless steel Body • Scale handwheel Drive • Auto-adjust • Measurement valve • Flanged Type

Sizes 1 1/2" through 10"

SPECIFICATION

Design Standard: BS 7350
Connection Standard: EN 1092-2, ISO 7005, ANSI B16.5
Test Standard: BS 6755

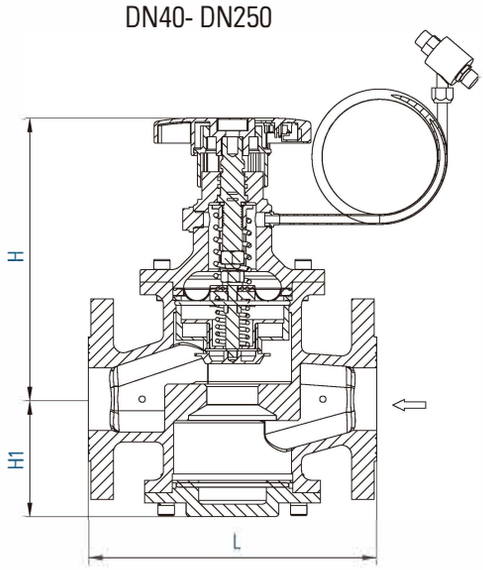
TECHNICAL DATA

Working Pressure: 16 bar / 25 bar
Sizes: DN40 to DN250
Test Pressure: Shell: 1.5 x Working Pressure
Differential Pressure Range:300-1000 mbar (DN40-DN50)
400-1600 mbar (DN65-DN250)
Working Differential Pressure: PV ≤ 3500 mbar
Working Temperature: -10°C to +120°C

MATERIAL LIST

Part	Material	Standard
Body	Stainless steel	CF8 / CF8M
Bonnet	Stainless steel	CF8 / CF8M
Seat	Stainless steel	SS 304
Spool	Stainless steel	SS 304
Membrane	Composites	Nylon reinforced EPDM
Spring	Stainless steel	SS 304
Measuring	Stainless steel	SS 304
HandWheel	ABS / Cast aluminum	-

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		193	213	266	272	282	304	335	385	420
H1		86	97	106	116	130	161	190	335	270
KVs (m^3/h)		15	34	52	75	110	160	280	320	400

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PARAMETER SELECTION

DN	ΔP(mbar)											
	50			100			200			300		
	Q_{min}	Q_{nom}	Q_{max}	Q_{min}	Q_{nom}	Q_{max}	Q_{min}	Q_{nom}	Q_{max}	Q_{min}	Q_{nom}	Q_{max}
15	0.02	0.25	0.48	0.03	0.32	0.66	0.04	0.47	0.91	0.05	0.60	1.13
20	0.03	0.41	0.89	0.04	0.61	1.19	0.05	0.84	1.64	0.07	1.02	1.96
25	0.08	0.71	1.04	0.10	0.88	1.67	0.13	1.23	2.48	0.15	1.78	3.41
32	0.10	1.06	2.19	0.13	1.42	2.72	0.16	2.05	3.88	0.20	2.77	5.13
40	0.11	1.66	3.34	0.23	2.22	4.17	0.35	3.04	5.72	0.55	3.83	6.31
50	0.20	2.21	3.94	0.31	2.71	5.07	0.53	3.83	7.00	0.66	4.56	8.58

DN	ΔP(mbar)														
	300			400			500			600			700		
	Q_{min}	Q_{nom}	Q_{max}	Q_{min}	Q_{nom}	Q_{max}	Q_{min}	Q_{nom}	Q_{max}	Q_{min}	Q_{nom}	Q_{max}	Q_{min}	Q_{nom}	Q_{max}
15	0.06	0.64	1.19	0.06	0.70	1.31	0.07	0.80	1.48	0.08	0.85	1.60	0.09	0.90	1.71
20	0.08	1.07	2.07	0.09	1.19	2.28	0.11	1.37	2.56	0.13	1.46	2.81	0.15	1.60	3.06
25	0.16	1.88	3.60	0.19	2.13	3.98	0.21	2.38	4.53	0.23	2.59	4.91	0.25	2.75	5.73
32	0.21	2.93	5.42	0.27	3.47	6.61	0.35	3.99	7.43	0.41	4.24	8.03	0.47	4.65	8.92
40	0.58	4.04	6.66	0.68	4.47	8.33	0.79	5.01	9.44	0.83	5.51	10.15	0.93	5.88	10.93
50	0.69	4.82	9.05	0.80	5.53	10.04	0.95	6.12	11.36	1.04	6.52	12.32	1.10	7.04	13.37

ΔPL(mbar)	Q(m3/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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Stainless Steel Dynamic DPCV (continued)

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PARAMETER SELECTION

(Continued from the above table)

ΔPL(mbar)	Q(m3/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 the ΔPL data from the table above.
2. Select the valve, the valve size is equal to the pipe size.
3. Confirm that the water flow rate is less than the Q(max) value of the parameter table.

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Stainless Steel Dynamic DPCV (continued)

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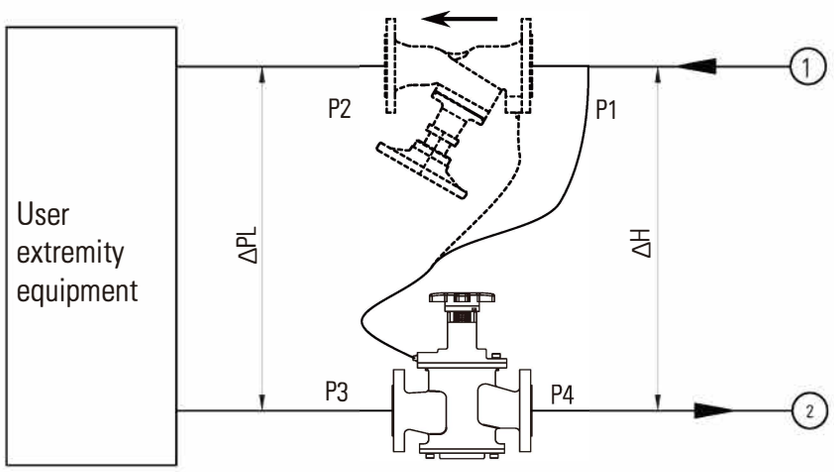
INSTALLATION INSTRUCTIONS



①: Water supply pipes

②: Return pipe

Note:

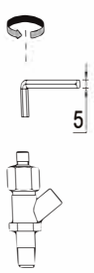
Dynamic differential pressure balancing valves are typically installed in a return pipe and the valve is installed in the correct flow direction.

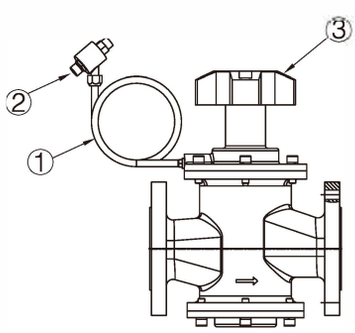
Step 1: Connect the pressure guide pipe (1), as shown in the installation diagram, one end of the pressure guide pipe is connected to the dynamic differential pressure balance valve, and the other end is connected to the static valve (or pipeline) through the tee measuring valve (2) or the connector, at this time the system should be in a low pressure state.

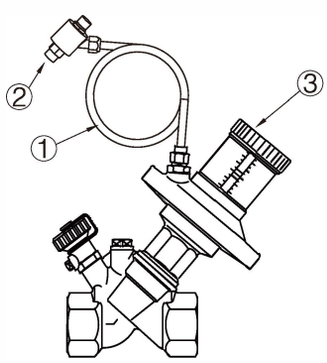
Step 2: Open the tee measuring head (2) and let the water flow into the upper cavity of the dynamic differential pressure balance valve.

Step 3: Rotate the handwheel (3) Set the desired differential pressure value according to the handwheel reading.

SETUP METHOD







1、Open the three-way measuring valve.

2、Turn on the air release and close it after emptying the air.