

Series 9505 (1/2" – 2")

Static Balancing Valve

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Static Balancing Valve

◆ Application:

Used for static balancing and troubleshooting in cooling and heating systems.

◆ Features:

- Accurate flow control
- Handwheel numerical indicator for easy accurate balancing
- Lockable set position
- Self-sealing measuring points to protect against leakage
- Full shut off for service & maintenance

◆ Operating Principles:

- The SBV 9505 balance flows to the various circuits to ensure that the Fan Coils, AHU and MAU receive the correct flow rate as per system design
- The setting position is easily determined by the Kv valve chart and Flow Diagram
- Measuring the "Shut off ΔP " facilitates system trouble-shooting

◆ Technical Specification:

Dimensions: DN15-DN50

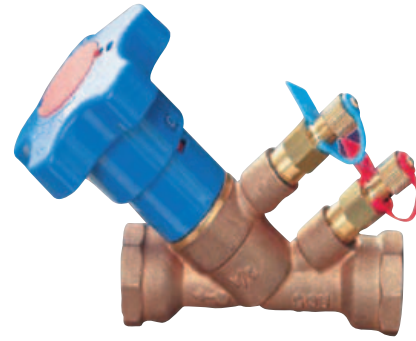
Working Temperature: 10~130°C (below 0°C only for water with added antifreeze, over 100°C only for water with added anti-boil fluids)

Working Pressure: PN25 (Max 25bar up to 100°C, max 20bar at 130°C)

Fluid Medium: Water/Ethylene glycol / propylene glycol

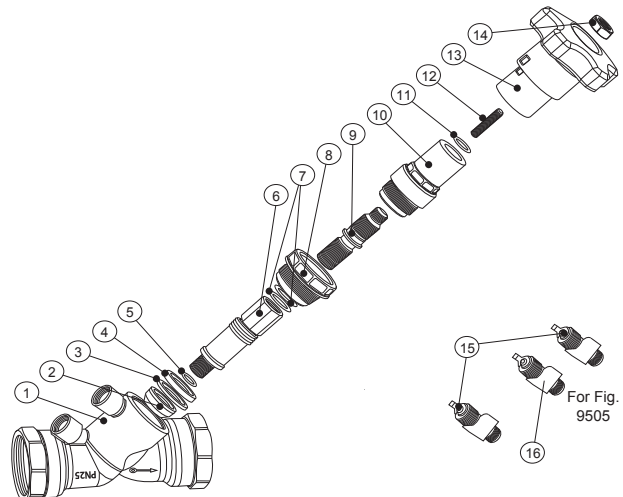
Thread Standard: According to ISO 228/1

Tolerance: Nominal Kv for completely open valve $\pm 5\%$ (see Kv-values part)



Materials of Construction:

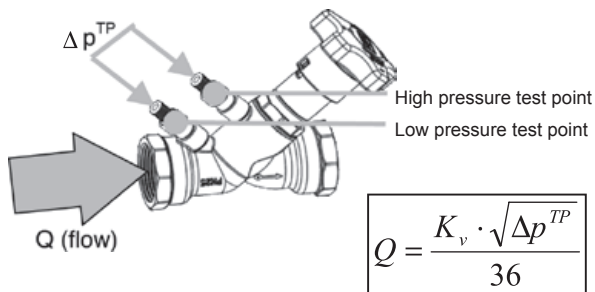
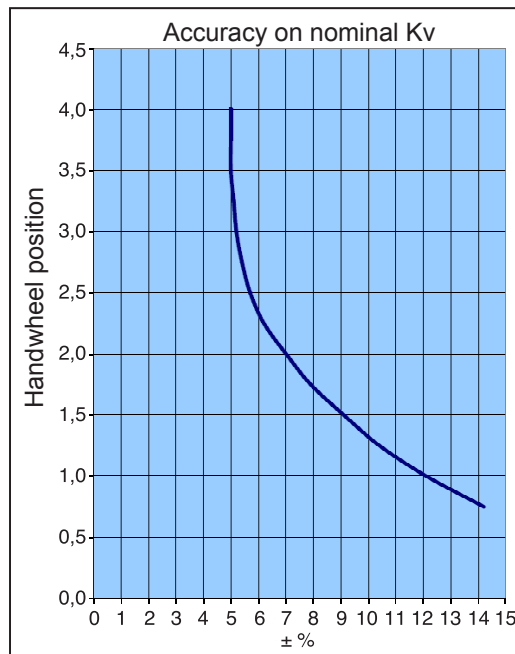
No.	Part	Material	Norm
1	Body	Bronze	EN1982 Cb491K
2	Balancing Cone	DZR brass	EN12164 CW602N
3	gasket disc	PTFE	-
4	Disc	DZR brass	EN12164 CW602N
5	Disc o'ring	EPDM Perox	-
6	Disc stem	DZR brass	EN12164 CW602N
7	Stem o'ring	EPDM Perox	-
8	Union	DZR brass	EN12165 CW602N
9	Stem o'ring	Brass	EN12164 CW617N
10	Bonnet	DZR brass	EN12164 CW602N
11	Stop spring ring	spring steel	-
12	Screw	steel	-
13	Handwheel	ABS (blue)	-
14	Nut	steel	EN10025 Fe42 Zinc pl.
15	Test point/plug	DZR brass	EN12164 CW602N
16	Tie	Polyprop. (blue/red)	-



◆ Technical Parameters:

Kv-values:

position	015	020	025	032	040	050
0,5	0,37	0,40	1,40	1,40	2,70	3,90
0,6	0,40	0,44	1,58	2,12	2,85	4,23
0,7	0,44	0,50	1,70	2,60	3,00	5,00
0,8	0,47	0,57	1,80	2,92	3,16	5,97
0,9	0,52	0,64	1,89	3,13	3,32	6,94
1,0	0,55	0,70	2,00	3,30	3,50	7,80
1,1	0,60	0,75	2,12	3,42	3,69	8,47
1,2	0,64	0,77	2,26	3,56	3,94	8,98
1,3	0,68	0,80	2,40	3,70	4,10	9,40
1,4	0,71	0,84	2,50	3,90	4,29	9,98
1,5	0,75	0,90	2,60	4,10	4,50	10,60
1,6	0,78	1,00	2,70	4,23	4,68	11,32
1,7	0,81	1,00	2,90	4,40	4,90	12,10
1,8	0,87	1,07	3,06	4,61	5,23	12,94
1,9	0,91	1,14	3,22	4,86	5,62	13,84
2,0	0,94	1,20	3,50	5,10	6,10	14,80
2,1	0,97	1,25	3,70	5,53	6,67	15,80
2,2	1,00	1,29	4,03	5,95	7,37	16,84
2,3	1,06	1,30	4,30	6,50	8,20	17,90
2,4	1,10	1,35	4,50	6,97	9,05	18,92
2,5	1,18	1,50	4,80	7,60	10,00	19,90
2,6	1,26	1,57	4,96	8,13	10,78	20,81
2,7	1,35	1,70	5,10	8,60	11,60	21,70
2,8	1,49	1,85	5,24	9,32	12,53	22,45
2,9	1,63	2,02	5,37	9,86	13,38	23,20
3,0	1,75	2,20	5,50	10,40	14,41	23,90
3,1	1,93	2,43	5,60	10,66	15,00	24,62
3,2	2,08	2,67	5,72	10,86	15,74	25,29
3,3	2,25	2,90	5,80	10,90	16,60	25,90
3,4	2,35	3,15	5,91	11,06	17,06	26,56
3,5	2,44	3,40	6,00	11,20	17,60	27,20
3,6	2,46	3,61	6,10	11,25	18,13	27,74
3,7	2,50	3,80	6,18	11,31	18,57	28,30
3,8	2,55	3,96	6,26	11,47	18,94	28,83
3,9	2,60	4,06	6,34	11,69	19,24	29,34
4,0	2,67	4,10	6,40	11,00	19,50	29,80



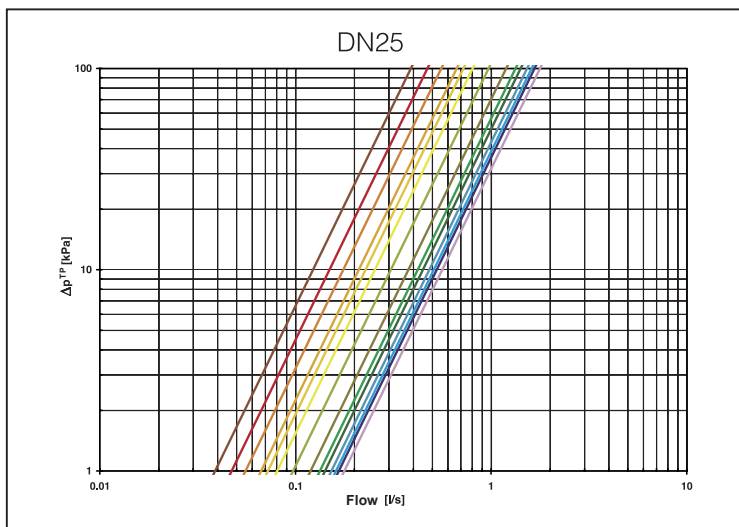
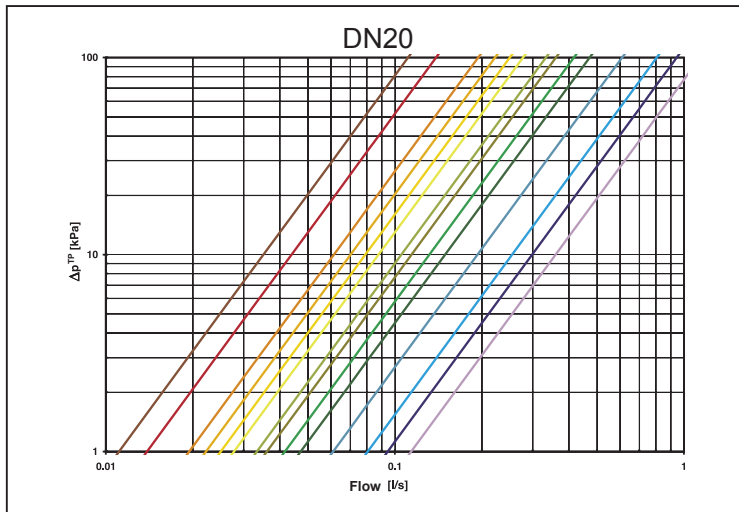
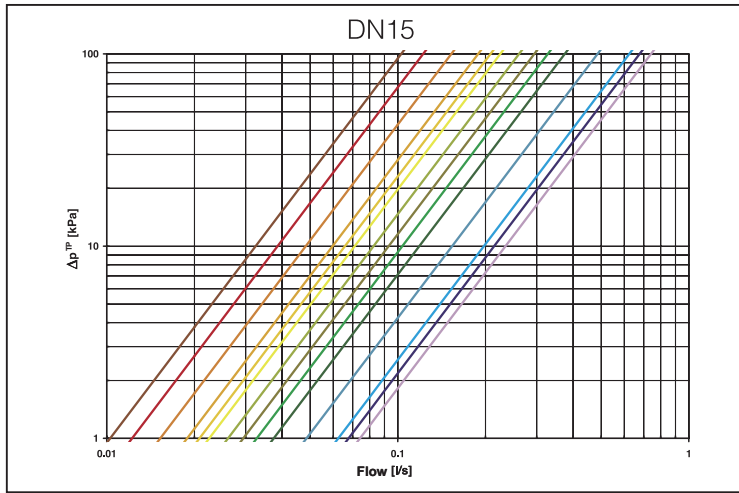
In the formula

flow unit Q—l/s

DP unit ΔP—kPa

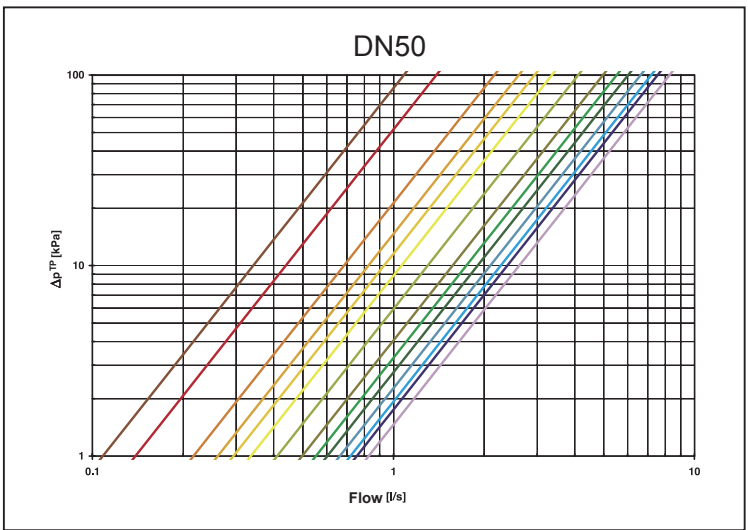
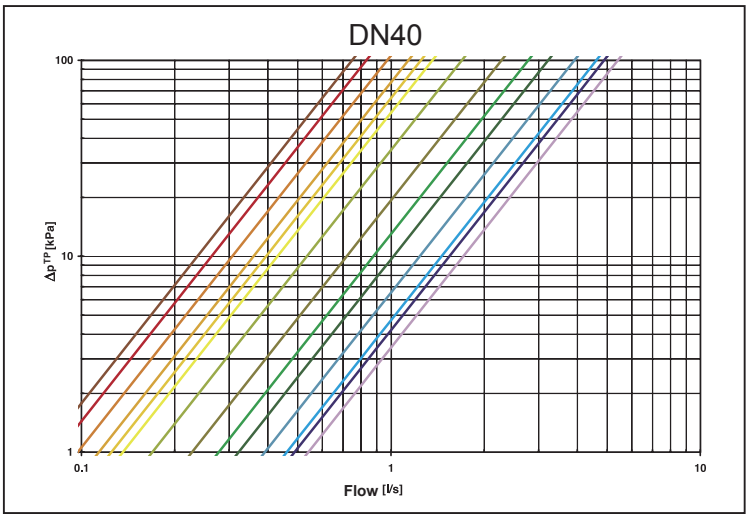
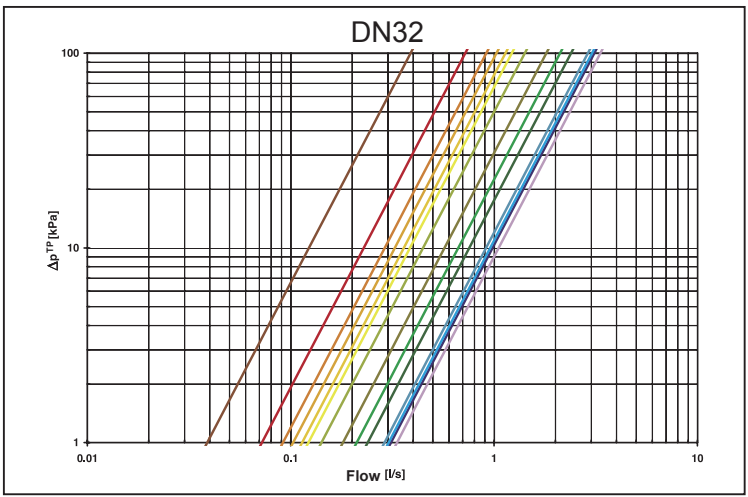
Kv depends on handwheel position as indicated on table. Minimum flow that can be measured for each diameter may be calculated by using in the formula minimum ΔP that can be measured by used manometer. Valves are anyway designed for best performances when used on range previously suggested and as indicated by BS7350.

Flow Diagram:



Handwheel position

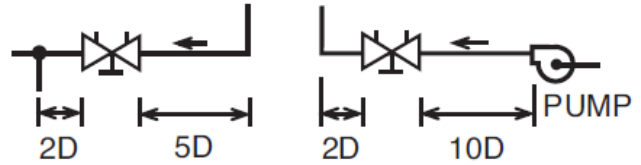
- 4,0
- 3,5
- 3,3
- 3,0
- 2,7
- 2,5
- 2,3
- 2,0
- 1,7
- 1,5
- 1,3
- 1,0
- 0,7
- 0,5



- Handwheel position
- 4,0
 - 3,5
 - 3,3
 - 3,0
 - 2,7
 - 2,5
 - 2,3
 - 2,0
 - 1,7
 - 1,5
 - 1,3
 - 1,0
 - 0,7
 - 0,5

◆ Installation:

Generally locate the valve 5 pipe diameters downstream from a fitting, with 2 diameters downstream from the balancing valve free from fitting. When a balancing valve is located downstream from a circulation pump, allow a distance of 10 diameters between the pump and balancing valve.



Installation Dimensions:

DN	G	H [mm]	L [mm]	B [mm]	ØV [mm]	Wgt [g]	Flow rate [l/s]
015	1/2"	90	90	17,5	70	505	0,062-0,148
020	3/4"	90	102	18	70	565	0,138-0,325
025	1"	90	110	19	70	705	0,258-0,603
032	1.1/4"	116	121	22	70	1005	0,540-1,250
040	1.1/2"	116	142	24	70	1355	0,810-1,88
050	2"	116	161	27	70	1925	1,520-3,51

