

Application:

Oventrop double regulating and commissioning valves “Hydrocontrol VGC” are installed in the pipework of hot water central heating and cooling systems and serve to achieve a hydronic balance between the various circuits of the system.

The double regulating and commissioning valves may be installed in either the supply or the return pipe.

When installing the valve, it must be ensured that the direction of flow conforms to the direction of the arrow on the valve body and that the valve is installed with a minimum of $L = 3 \times \varnothing$ of straight pipe at the valve inlet and of $L = 2 \times \varnothing$ of straight pipe at the valve outlet.

Advantages:

- the location of the functional components in one plane allows a simple assembly and easy operation
- only one valve for 5 functions:
 - presetting
 - measuring
 - isolating
 - filling (with accessory)
 - draining (with accessory)
- low pressure loss (oblique pattern)
- infinitely adjustable presetting which can be read off in any position due to the moveable display, exact measurement of pressure loss and flow via the pressure test points
- fill and drain ball valve with internal stop and pressure test point with O-ring seal between valve body and test point (no additional seals required)
- patented measuring channel led around the stem assembly to the test points ensures the best possible accuracy between the differential pressure measured at the pressure test points and the actual differential pressure of the valve

Function:

The balance of the risers is achieved by a presetting with memory lock.

The calculated flow rate or pressure loss for each individual riser can be preset centrally and be regulated precisely.

The required presetting values can be obtained from the flow charts. All intermediate values are infinitely adjustable.

The selected presetting can be read off two scales (basic scale and fine adjustment scale, see illustration presetting).

The presetting is reproducible by opening the valve until stop.

The flow charts are valid for both, installation in the supply or the return pipe, provided the direction of flow conforms to the arrow on the valve body.

The Oventrop double regulating and commissioning valves have two threaded ports which are equipped with pressure test points for measuring the differential pressure.

Installation, transport and storage:

Attention:

- Protect against external forces (e.g. impacts, vibrations etc.)
- External components like handwheels, pressure test points or actuators must not be misused for the absorption of external forces, e.g. as connection point for lever tools etc.
- Suitable transport and lifting devices are to be used.
- Storage temperature -20 °C up to $+60\text{ °C}$

Connection:

Groove connections for couplings

Suitable for the coupling of the systems:

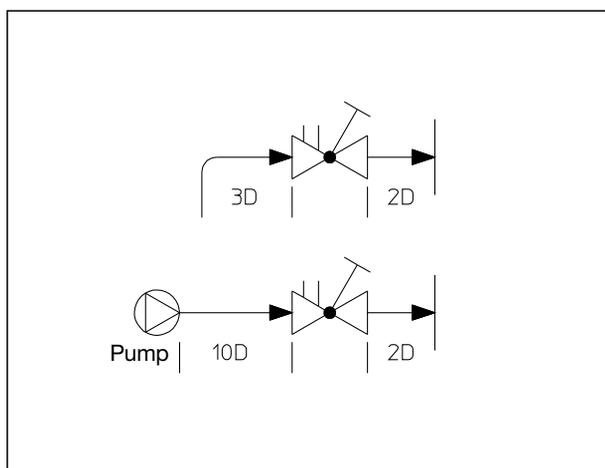
- Victaulic
- Grinnell



“Hydrocontrol VGC” DN 65 – DN 150



“Hydrocontrol VGC” DN 200 – DN 300



Installation advice

Double regulating and commissioning valve
“Hydrocontrol VGC” DN 65 – DN 150
Measuring technique “classic”

Tender specification:

Oventrop double regulating and commissioning valve with secured, infinitely adjustable presetting controllable at any time by use of the flow limiting device.

Valve body made of cast iron (GG 25 EN-GJL-250 according to DIN EN 1561), bonnet, disc and stem made of bronze/brass resistant to dezincification. Disc with PTFE seal. Maintenance-free stem seal due to double EPDM O-ring. Groove connections for couplings.

All functional components in one plane. Pressure test point and fill and drain ball valve interchangeable.

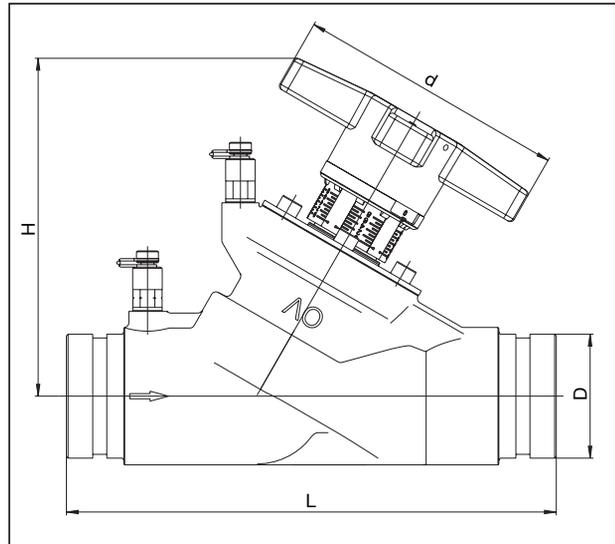
Technical data:

Max. operating temperature t_S : +150 °C
 Min. operating temperature t_S : -10 °C
 Max. operating pressure p_S : 25 bar

Lengths according to DIN EN 558-1 (basic series 1)

Models:

Size:	Item no.
DN 65	1063051
DN 65	1064051
DN 80	1063052
DN 100	1063053
DN 125	1064054
DN 125	1063054
DN 150	1064055
DN 150	1063055



DN	L	D	H	d	Item no.:
65	290	73.0	200	160	1063051
65	290	76.1	200	160	1064051
80	310	88.9	215	160	1063052
100	350	114.3	244	160	1063053
125	400	139.7	289	160	1064054
125	400	141.3	289	160	1063054
150	480	165.1	293	160	1064055
150	480	168.3	293	160	1063055

Dimensions

Presetting DN 65 – DN 150:

- The presetting value of the valve is set by turning the handwheel.
 - The display of the basic setting is shown by the peripheral scale together with the sliding indicator. Each turn of the handwheel is represented by a line on the longitudinal scale.
 - The display of the fine setting is shown by the peripheral display of the fine setting on the handwheel together with the marking. The subdivisions of the peripheral scale correspond to 1/10th of a turn of the handwheel.
- The set presetting value can be limited by turning the inner adjustment stem clockwise until it seats. This can be done by using the long end of a 4 mm Allen key.

Visibility/readability of the setting scales:

Depending on the installation position of the double regulating and commissioning valve, an improvement of the visibility/readability of the setting scales is obtained by twisting the scales. With the valve fully closed and the two setting scales on “0”, remove cover plug, undo screw and with a light tug pull the handwheel from the valve stem.

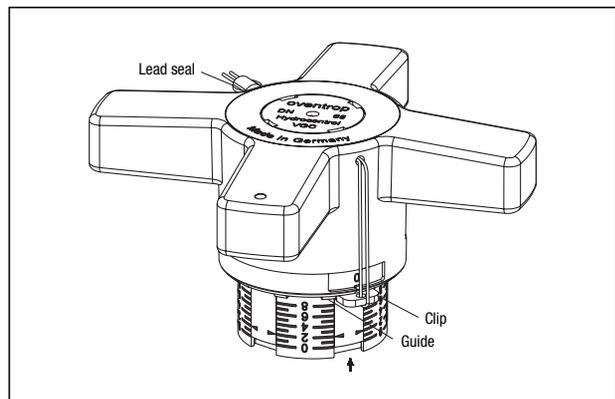
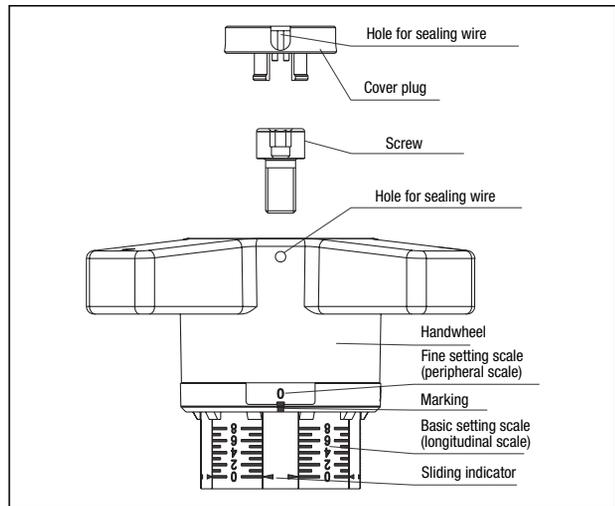
Next, without altering the presetting (still indicating “0”), adjust the position of the handwheel so that the indicator window is clearly visible. Finally refit the handwheel to the valve stem, tighten the screw and replace the cover plug.

Protecting the presetting:

The sealing wire may be fitted through the hole in the handwheel and a lead seal may be fitted.

Locking the handwheel:

The handwheel can be locked in any position (1/10th of a turn). Fit the enclosed clip in the cut-out of the handwheel below the holes between the guides, making sure it locates into the sliding indicator (see sketch). The clip can now be sealed as illustrated. It is essential that the sealing wire is fitted tightly.



Double regulating and commissioning valve
“Hydrocontrol VGC” DN 200 – DN 300
Measuring technique “classic”

Tender specification:

Oventrop double regulating and commissioning valve with secured, infinitely adjustable presetting controllable at any time by use of the flow limiting device.

Valve body made of cast iron (GG 25 EN-GJL-250 according to DIN EN 1561), bonnet made nodular cast iron (GGG 40 EN-GJS-400-15 according to DIN EN 1563), bronze disc, stem made of brass resistant to dezincification. Disc with PTFE seal. Maintenance-free stem seal due to double EPDM O-ring. Groove connections for couplings.

All functional components in one plane. Pressure test point and fill and drain ball valve interchangeable.

Technical data:

Max. operating temperature t_s : +150 °C

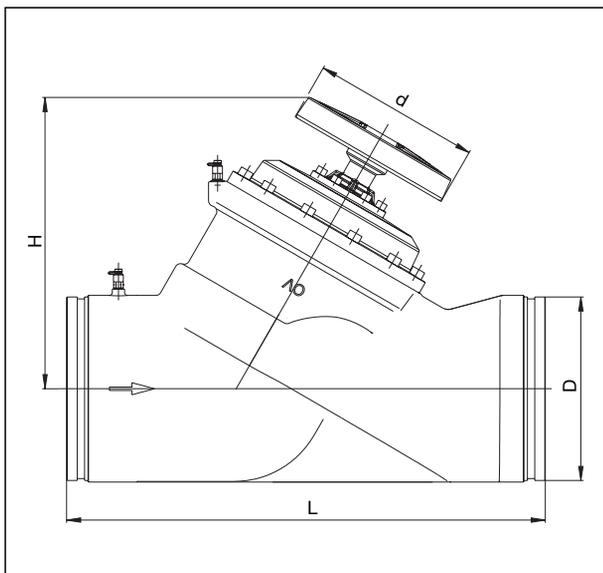
Min. operating temperature t_s : -10 °C

Max. operating pressure p_s : 25 bar

Lengths according to DIN EN 558-1 (basic series 1)

Models:

Size:	Item no.:
DN 200	1063056
DN 250	1063057
DN 300	1063058



DN	L	D	H	d	Item no.:
200	600	219.1	467	300	1063056
250	730	273	480	300	1063057
300	850	323.9	515	300	1063058

Dimensions

Presetting DN 200 – DN 300:

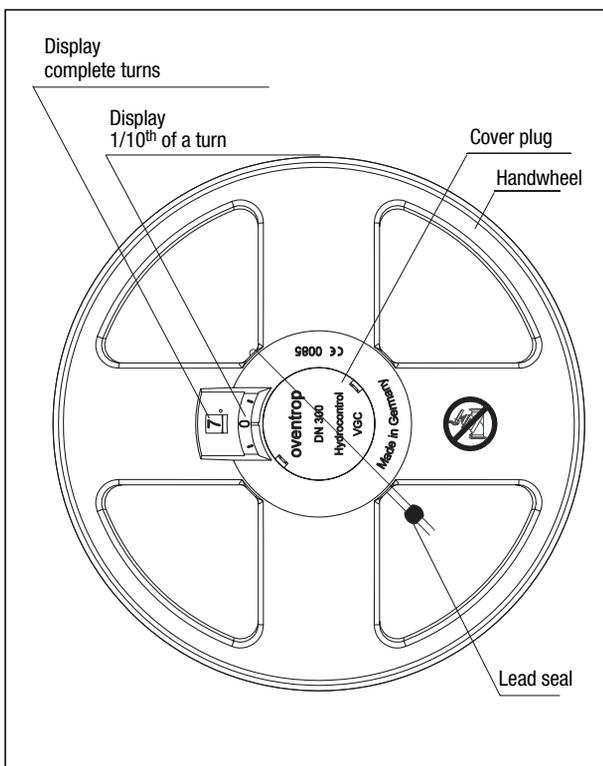
1. The presetting value is set by turning the handwheel.
 - a. The complete 12 turns of the handwheel are shown by the outer display.
 - b. 1/10th of a turn of the handwheel is shown by the inner display.
2. Remove cover plug by introducing a screwdriver in the slot and gently prising it off.
3. The set presetting value can be limited by turning the inner adjustment stem clockwise until it seats. This can be done by using a 10 mm screwdriver.
4. Refit cover plug.

Protecting the presetting:

The sealing wire may be fitted through the hole in the handwheel and a lead seal may be fitted.

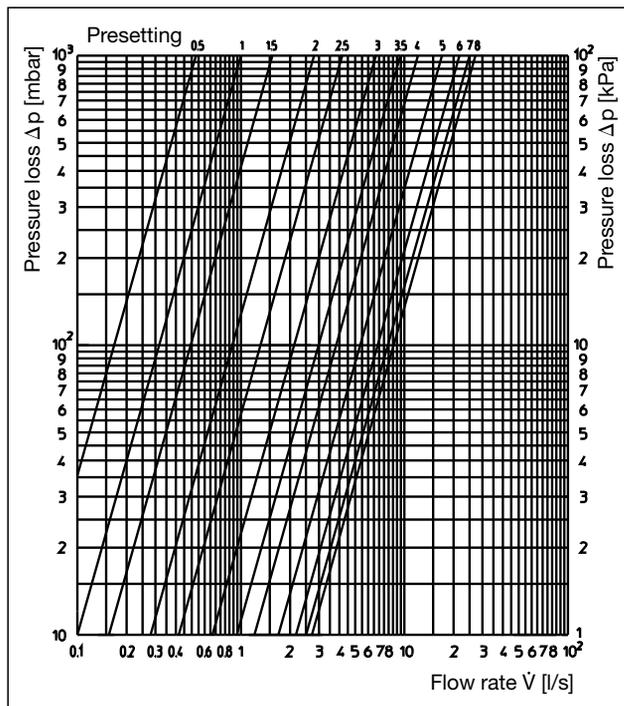
Locking the handwheel:

The handwheel can be locked in any position (1/10th of a turn) by removing the existing cover plug and replacing it with a special one. The sealing wire is then fitted through the hole in the handwheel and a lead seal is fitted.



“Hydrocontrol VGC”
Cast iron double regulating and commissioning valves PN 16/PN 25

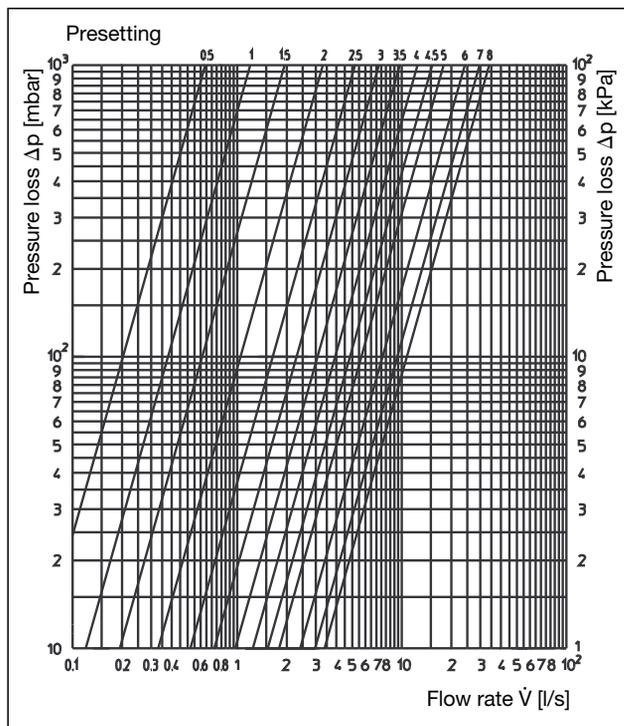
DN 65



Pre-setting	k_V -values	Zeta values	Pre-setting	k_V -values	Zeta values
0.5	1.90	8454	5.0	61.00	8,2
1.0	3.60	2355	5.1	63.21	7,6
1.1	4.12	1798	5.2	64.93	7,2
1.2	4.49	1514	5.3	66.63	6,9
1.3	4.86	1292	5.4	68.32	6,5
1.4	5.23	1116	5.5	70.00	6,2
1.5	5.60	973	5.6	71.69	5,9
1.6	6.43	738	5.7	73.33	5,7
1.7	7.29	574	5.8	74.93	5,4
1.8	8.17	457	5.9	76.48	5,2
1.9	9.07	371	6.0	78.00	5,0
2.0	10.00	305	6.1	79.48	4,8
2.1	10.95	255	6.2	80.91	4,7
2.2	11.91	215	6.3	82.31	4,5
2.3	12.92	183	6.4	83.67	4,4
2.4	13.94	157	6.5	85.00	4,2
2.5	15.00	136	6.6	86.12	4,1
2.6	16.66	110	6.7	87.20	4,0
2.7	18.38	90	6.8	88.23	3,9
2.8	20.14	75	6.9	89.23	3,8
2.9	21.95	63	7.0	90.00	3,8
3.0	24.00	53	7.1	91.13	3,7
3.1	25.73	46	7.2	92.02	3,6
3.2	27.70	40	7.3	92.89	3,5
3.3	29.74	35	7.4	93.71	3,5
3.4	31.84	30	7.5	94.50	3,4
3.5	34.00	26	7.6	95.27	3,4
3.6	35.93	24	7.7	96.00	3,3
3.7	37.84	21	7.8	96.70	3,2
3.8	39.74	19	7.9	97.36	3,1
3.9	41.63	18	8.0	98.00	3,0
4.0	43.50	16			
4.1	45.36	15			
4.2	47.20	14			
4.3	49.03	13			
4.4	50.85	12			
4.5	52.00	11			
4.6	54.45	10			
4.7	56.23	10			
4.8	58.00	9,1			
4.9	59.74	8,6			

Zeta values related to the inner pipe diameter according to DIN EN 10 220 (66.1 mm).

DN 80

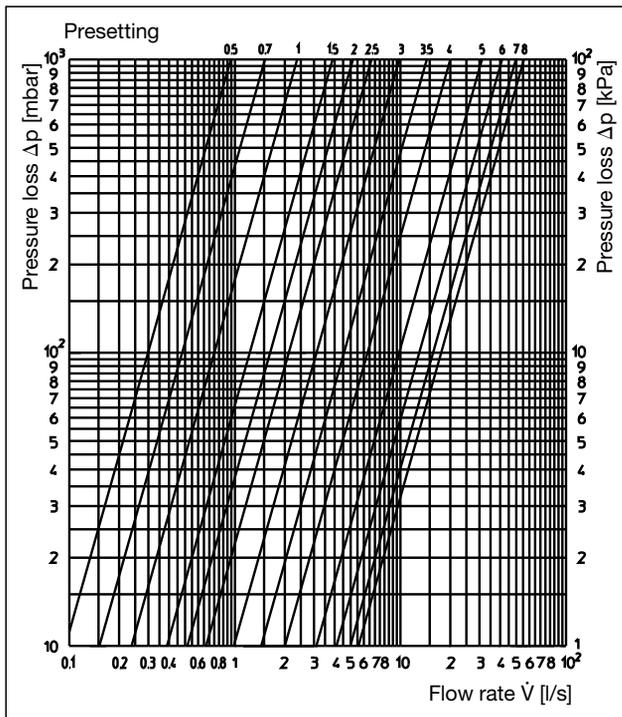


Pre-setting	k_V -values	Zeta values	Pre-setting	k_V -values	Zeta values
0.5	2.30	11016	5.0	64.60	14
1.0	4.40	3010	5.1	66.98	13
1.1	4.74	2594	5.2	69.32	12
1.2	5.17	2180	5.3	71.63	11
1.3	5.67	1813	5.4	73.90	11
1.4	6.28	1478	5.5	75.45	10
1.5	7.00	1189	5.6	78.37	9,5
1.6	7.89	936	5.7	80.56	9,0
1.7	8.82	749	5.8	82.72	8,5
1.8	9.78	609	5.9	84.85	8,1
1.9	10.79	500	6.0	87.00	7,7
2.0	11.85	415	6.1	89.04	7,4
2.1	12.95	347	6.2	91.00	7,0
2.2	14.11	293	6.3	93.13	6,7
2.3	15.33	248	6.4	95.14	6,4
2.4	16.61	211	6.5	97.55	6,1
2.5	18.65	168	6.6	99.10	5,9
2.6	19.39	155	6.7	101.04	5,7
2.7	20.90	133	6.8	102.96	5,5
2.8	22.51	115	6.9	104.87	5,3
2.9	24.24	99	7.0	106.75	5,1
3.0	26.10	86	7.1	108.39	5,0
3.1	27.85	75	7.2	110.00	4,8
3.2	29.61	66	7.3	111.60	4,7
3.3	31.39	59	7.4	113.00	4,6
3.4	33.19	53	7.5	114.50	4,4
3.5	35.00	48	7.6	116.13	4,3
3.6	36.83	43	7.7	117.78	4,2
3.7	38.68	39	7.8	119.27	4,1
3.8	40.55	35	7.9	120.74	4,0
3.9	42.43	32	8.0	122.20	3,9
4.0	44.75	29			
4.1	46.27	27			
4.2	48.21	25			
4.3	50.19	23			
4.4	52.18	21			
4.5	55.20	19			
4.6	56.22	18			
4.7	58.28	17			
4.8	60.36	16			
4.9	62.47	15			

Zeta values related to the inner pipe diameter according to DIN EN 10 220 (77.7 mm).

“Hydrocontrol VGC”
Cast iron double regulating and commissioning valves PN 16/PN 25

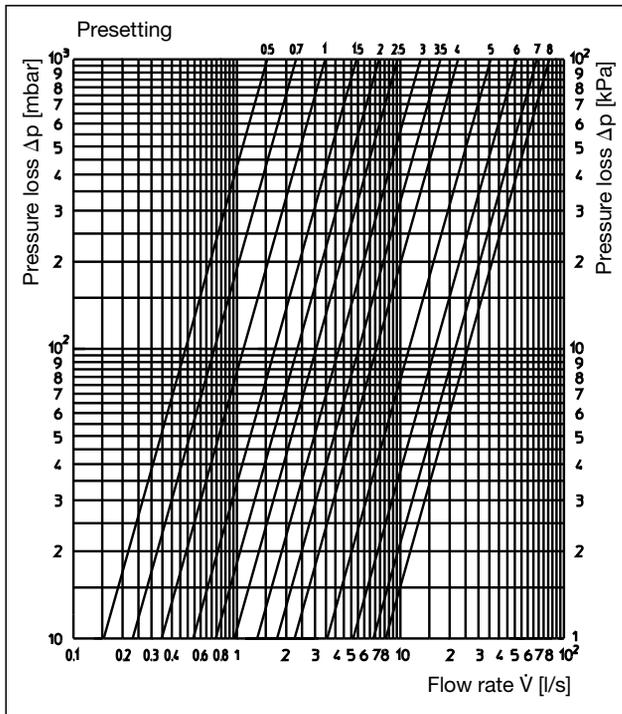
DN 100



Pre-setting	k_V -values	Zeta values	Pre-setting	k_V -values	Zeta values
0.5	3.40	14279			
0.7	5.46	5537			
1.0	8.55	2258	5.0	112.00	13
1.1	9.58	1799	5.1	117.46	12
1.2	10.61	1466	5.2	121.17	11
1.3	11.64	1218	5.3	124.79	10.6
1.4	12.67	1028	5.4	127.52	10.2
1.5	14.00	842	5.5	132.00	9.5
1.6	14.73	761	5.6	135.16	9.0
1.7	15.76	665	5.7	138.47	8.6
1.8	16.79	586	5.8	141.71	8.2
1.9	17.82	520	5.9	144.89	7.9
2.0	18.50	482	6.0	148.00	7.5
2.1	19.88	418	6.1	151.94	7.1
2.2	20.91	378	6.2	155.63	6.8
2.3	21.94	343	6.3	159.10	6.5
2.4	22.97	313	6.4	162.38	6.3
2.5	24.00	287	6.5	164.03	6.1
2.6	26.00	244	6.6	168.44	5.8
2.7	28.13	209	6.7	171.26	5.6
2.8	30.40	179	6.8	173.95	5.5
2.9	32.81	153	6.9	176.53	5.3
3.0	35.40	132	7.0	179.01	5.2
3.1	38.18	113	7.1	181.37	5.0
3.2	41.17	97	7.2	183.65	4.9
3.3	44.44	84	7.3	185.85	4.8
3.4	48.02	72	7.4	187.96	4.7
3.5	52.00	61	7.5	190.04	4.6
3.6	55.93	53	7.6	192.37	4.5
3.7	59.89	46	7.7	194.66	4.4
3.8	63.89	40	7.8	196.85	4.3
3.9	67.92	36	7.9	198.96	4.2
4.0	72.00	32	8.0	201.00	4.1
4.1	76.11	29			
4.2	80.27	26			
4.3	84.47	23			
4.4	88.71	21			
4.5	93.00	19			
4.6	97.37	17			
4.7	101.62	16			
4.8	105.74	15			
4.9	109.75	14			

Zeta values related to the inner pipe diameter according to DIN EN 10 220 (100.8 mm).

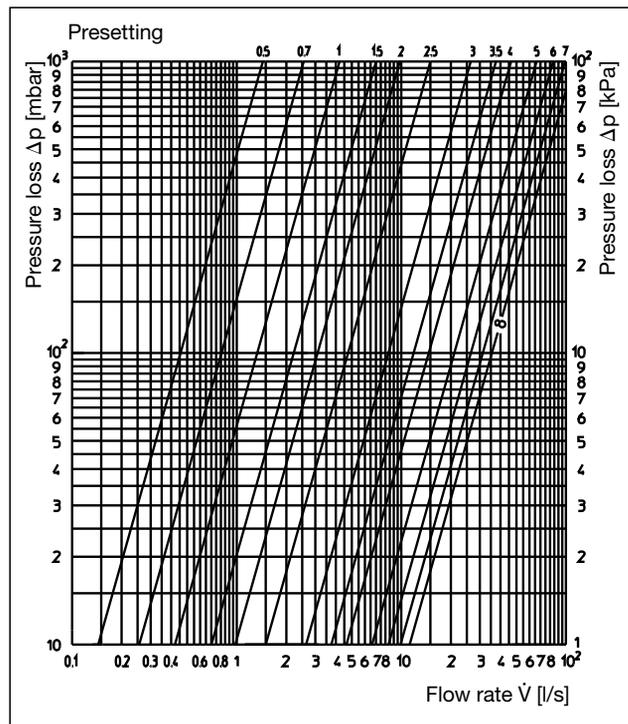
DN 125



Pre-setting	k_V -values	Zeta values	Pre-setting	k_V -values	Zeta values
0.5	5.50	12904			
0.7	8.28	5694			
1.0	12.45	2518	5.0	128.25	24
1.1	13.84	2038	5.1	133.77	22
1.2	15.23	1683	5.2	139.54	20
1.3	16.62	1413	5.3	145.60	18
1.4	18.01	1203	5.4	151.96	17
1.5	19.40	1037	5.5	158.70	15
1.6	20.94	890	5.6	164.10	14
1.7	22.47	773	5.7	169.60	13.5
1.8	24.01	677	5.8	175.21	12.7
1.9	25.54	598	5.9	180.94	11.9
2.0	26.60	552	6.0	185.30	11.4
2.1	28.61	477	6.1	192.75	10.5
2.2	30.15	429	6.2	198.85	9.9
2.3	31.68	389	6.3	205.10	9.3
2.4	33.22	354	6.4	211.50	8.7
2.5	34.75	323	6.5	218.05	8.2
2.6	37.18	282	6.6	223.37	7.8
2.7	39.69	248	6.7	228.64	7.5
2.8	42.29	218	6.8	233.89	7.1
2.9	44.97	193	6.9	239.03	6.8
3.0	47.75	171	7.0	244.15	6.5
3.1	50.63	152	7.1	249.23	6.3
3.2	53.62	136	7.2	254.26	6.0
3.3	56.73	121	7.3	259.25	5.8
3.4	60.00	108	7.4	264.19	5.6
3.5	63.35	97	7.5	268.15	5.4
3.6	66.62	88	7.6	273.95	5.2
3.7	70.00	80	7.7	278.77	5.0
3.8	73.53	72	7.8	283.55	4.9
3.9	77.21	65	7.9	287.96	4.7
4.0	81.05	59	8.0	293.00	4.5
4.1	85.07	54			
4.2	89.30	49			
4.3	93.77	44			
4.4	98.50	40			
4.5	103.55	36			
4.6	108.16	33			
4.7	112.92	31			
4.8	117.84	28			
4.9	122.95	26			

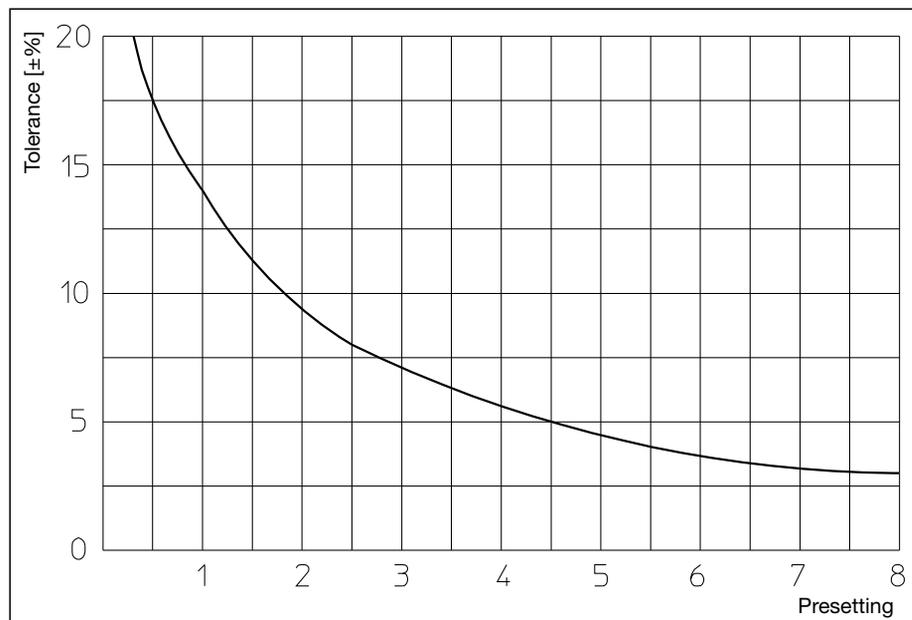
Zeta values related to the inner pipe diameter according to DIN EN 10 220 (125 mm).

DN 150



Pre-setting	k_V -values	Zeta values	Pre-setting	k_V -values	Zeta values
0.5	5.20	29934			
0.7	9.21	9542			
1.0	15.22	3494	5.0	238.91	14.0
1.1	17.22	2730	5.1	244.72	13.5
1.2	19.23	2189	5.2	251.20	12.8
1.3	21.23	1796	5.3	257.60	12.2
1.4	23.24	1499	5.4	263.90	11.6
1.5	25.26	1269	5.5	272.40	10.9
1.6	27.24	1091	5.6	276.24	10.6
1.7	29.50	930	5.7	282.30	10.2
1.8	31.25	829	5.8	286.27	9.7
1.9	33.26	732	5.9	294.17	9.4
2.0	35.26	651	6.0	300.40	9.0
2.1	37.13	587	6.1	305.76	8.8
2.2	39.41	521	6.2	311.45	8.4
2.3	42.30	452	6.3	317.08	8.1
2.4	46.25	378	6.4	322.07	7.8
2.5	53.92	278	6.5	326.70	7.6
2.6	61.00	218	6.6	333.58	7.3
2.7	68.55	172	6.7	338.34	7.1
2.8	76.64	138	6.8	344.29	6.8
2.9	85.40	111	6.9	349.56	6.6
3.0	95.02	90	7.0	355.60	6.4
3.1	105.51	73	7.1	360.00	6.2
3.2	114.45	62	7.2	365.06	6.1
3.3	122.36	54	7.3	370.13	5.9
3.4	129.52	48	7.4	375.15	5.8
3.5	135.45	44	7.5	382.00	5.6
3.6	142.21	40	7.6	385.04	5.5
3.7	147.41	37	7.7	389.33	5.3
3.8	153.33	34	7.8	394.20	5.2
3.9	160.00	32	7.9	399.54	5.1
4.0	167.12	29	8.0	404.30	5.0
4.1	174.48	27			
4.2	181.76	25			
4.3	189.05	23			
4.4	196.34	21			
4.5	203.65	20			
4.6	210.78	18			
4.7	217.79	17			
4.8	224.14	16			
4.9	231.46	15			

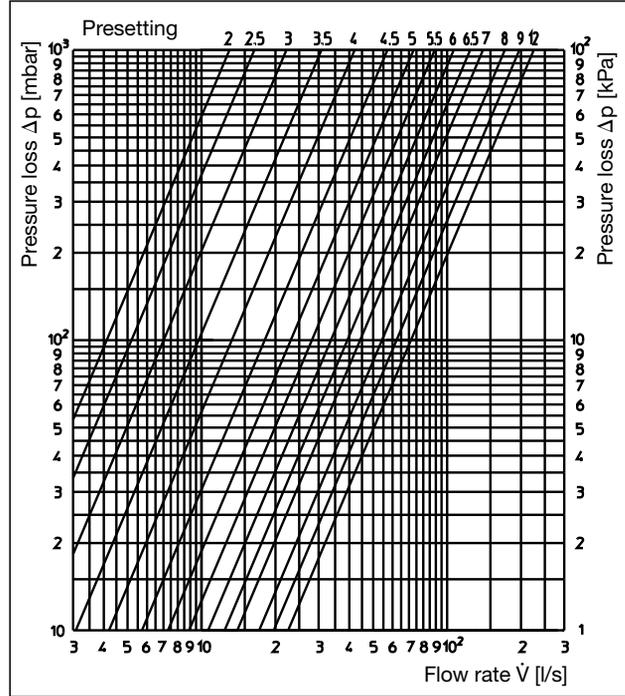
Zeta values related to the inner pipe diameter according to DIN EN 10 220 (150 mm).



Flow tolerances depending on the presetting for DN 65 – DN 150

“Hydrocontrol VGC”
Cast iron double regulating and commissioning valves PN 16/PN 25

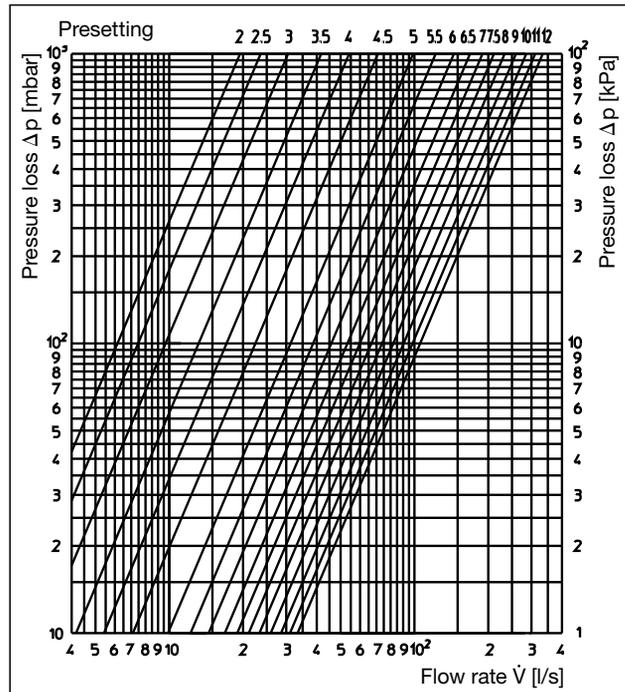
DN 200



Pre-setting	k_v -values	Zeta values	Pre-setting	k_v -values	Zeta values
2.0	48.9	1191	7.0	509.5	11
2.1	51.6	1070	7.1	519.4	11
2.2	54.2	969	7.2	529.3	10
2.3	56.8	883	7.3	539.2	10
2.4	59.4	807	7.4	549.1	9
2.5	62.0	741	7.5	559.0	9
2.6	64.6	684	7.6	571.0	9
2.7	70.8	568	7.7	582.5	8
2.8	75.2	504	7.8	594.2	8
2.9	79.6	449	7.9	606.0	8
3.0	84.0	404	8.0	618.0	7
3.1	90.0	352	8.1	626.8	7
3.2	96.0	309	8.2	634.8	7
3.3	102.0	274	8.3	643.2	7
3.4	108.0	244	8.4	651.6	7
3.5	114.0	219	8.5	660.0	7
3.6	121.0	195	8.6	672.8	6
3.7	128.8	172	8.7	685.2	6
3.8	136.2	154	8.8	698.7	6
3.9	143.6	138	8.9	711.6	6
4.0	151.0	125	9.0	724.5	6
4.1	162.0	109	9.1	731.4	5
4.2	173.0	95	9.2	738.2	5
4.3	184.0	84	9.3	744.9	5
4.4	195.0	75	9.4	751.7	5
4.5	206.0	67	9.5	758.5	5
4.6	216.8	61	9.6	766.0	5
4.7	227.6	55	9.7	762.7	5
4.8	238.4	50	9.8	764.8	5
4.9	249.2	46	9.9	766.9	5
5.0	260.3	41	10.0	769.0	5
5.1	271.9	38	10.1	771.2	5
5.2	283.8	35	10.2	773.4	5
5.3	295.6	33	10.3	775.6	5
5.4	307.5	30	10.4	778.0	5
5.5	320.0	28	10.5	780.0	5
5.6	332.0	26	10.6	782.0	5
5.7	344.8	24	10.7	784.0	5
5.8	357.6	22	10.8	786.0	5
5.9	370.3	21	10.9	788.0	5
6.0	383.0	19	11.0	790.0	5
6.1	396.0	18	11.1	792.2	5
6.2	409.0	17	11.2	794.5	5
6.3	422.0	16	11.3	796.8	5
6.4	435.0	15	11.4	799.1	4
6.5	447.8	14	11.5	801.4	4
6.6	460.0	13	11.6	804.0	4
6.7	472.5	13	11.7	806.6	4
6.8	484.8	12	11.8	809.2	4
6.9	497.2	12	11.9	812.0	4
			12.0	814.5	4

Zeta values related to the inner pipe diameter according to DIN EN 10 220 (207.3 mm).

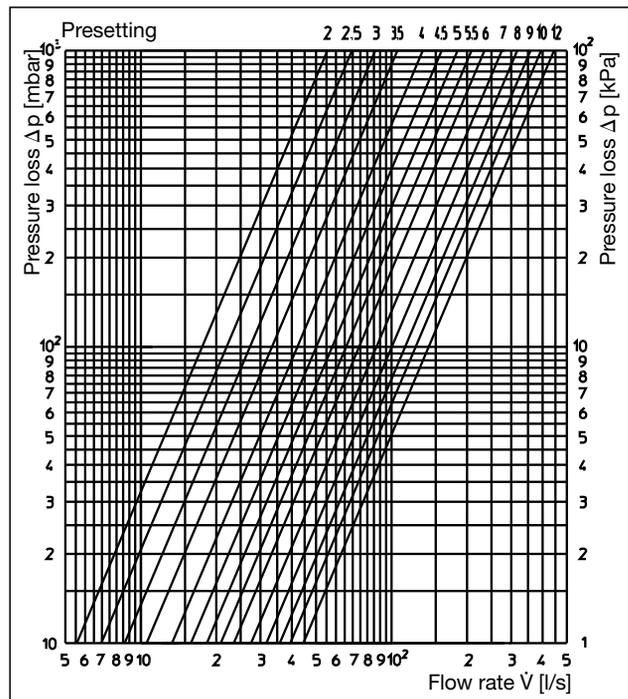
DN 250



Pre-setting	k_v -values	Zeta values	Pre-setting	k_v -values	Zeta values
2.0	70.0	1318	7.0	682.0	14
2.1	72.5	1229	7.1	698.0	13
2.2	75.5	1133	7.2	714.0	13
2.3	79.0	1035	7.3	729.0	12
2.4	82.0	961	7.4	745.0	12
2.5	85.0	894	7.5	760.0	11
2.6	89.5	806	7.6	778.0	11
2.7	94.0	731	7.7	795.0	10
2.8	99.0	659	7.8	811.0	10
2.9	104.5	592	7.9	826.0	10
3.0	110.0	534	8.0	840.0	9
3.1	117.0	472	8.1	850.0	9
3.2	123.5	424	8.2	860.0	9
3.3	130.5	379	8.3	870.0	8
3.4	139.0	334	8.4	880.0	8
3.5	150.0	287	8.5	890.0	8
3.6	155.0	269	8.6	899.0	8
3.7	164.0	240	8.7	907.0	8
3.8	174.0	213	8.8	916.0	8
3.9	184.0	191	8.9	925.0	8
4.0	195.0	170	9.0	933.0	7
4.1	208.0	149	9.1	942.0	7
4.2	221.0	132	9.2	952.0	7
4.3	236.0	116	9.3	961.0	7
4.4	252.0	102	9.4	970.0	7
4.5	270.0	89	9.5	980.0	7
4.6	287.0	78	9.6	989.0	7
4.7	304.0	70	9.7	998.0	6
4.8	321.0	63	9.8	1008.0	6
4.9	338.0	57	9.9	1018.0	6
5.0	356.0	51	10.0	1028.0	6
5.1	373.0	46	10.1	1038.0	6
5.2	390.0	42	10.2	1048.0	6
5.3	407.0	39	10.3	1059.0	6
5.4	423.0	36	10.4	1071.0	6
5.5	440.0	33	10.5	1080.0	6
5.6	457.0	31	10.6	1088.0	5
5.7	473.0	29	10.7	1096.0	5
5.8	490.0	27	10.8	1104.0	5
5.9	506.0	25	10.9	1112.0	5
6.0	522.0	24	11.0	1120.0	5
6.1	539.0	22	11.1	1128.0	5
6.2	555.0	21	11.2	1136.0	5
6.3	571.0	20	11.3	1144.0	5
6.4	587.0	19	11.4	1152.0	5
6.5	607.0	18	11.5	1160.0	5
6.6	619.0	17	11.6	1168.0	5
6.7	635.0	16	11.7	1176.0	5
6.8	651.0	15	11.8	1184.0	5
6.9	666.0	15	11.9	1192.0	4
			12.0	1200.0	4

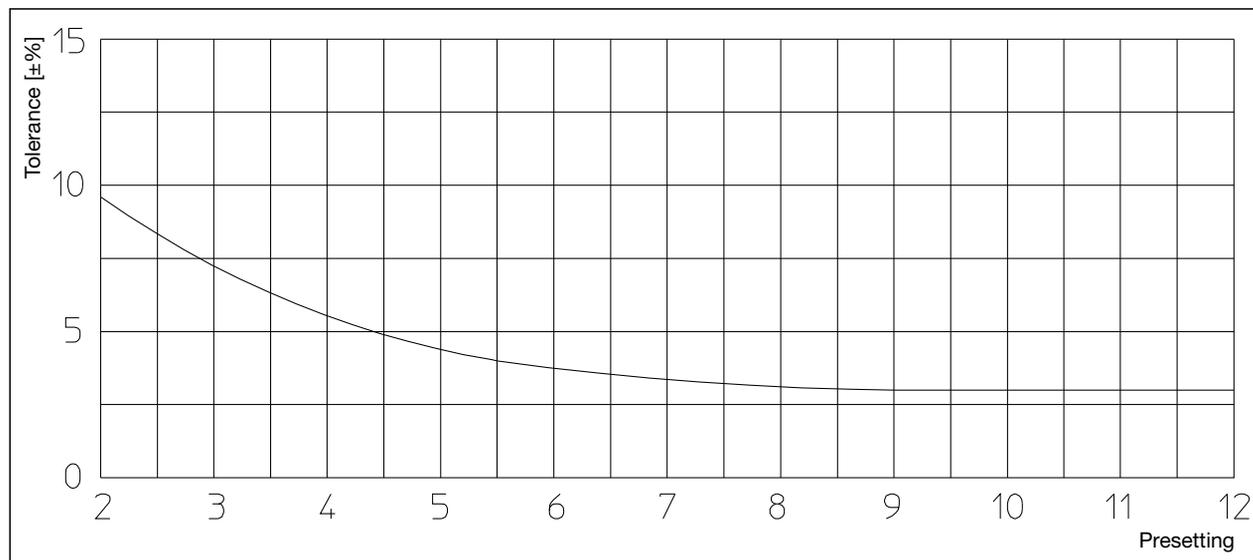
Zeta values related to the inner pipe diameter according to DIN EN 10 220 (254.4 mm).

DN 300



Pre-setting	kv-values	Zeta values	Pre-setting	kv-values	Zeta values
2.0	200.0	325	7.0	990.0	13
2.1	210.0	295	7.1	1005.0	13
2.2	220.0	269	7.2	1020.0	12
2.3	230.0	246	7.3	1036.0	12
2.4	240.0	226	7.4	1053.0	12
2.5	250.0	208	7.5	1070.0	11
2.6	261.0	191	7.6	1084.0	11
2.7	273.0	174	7.7	1098.0	11
2.8	285.0	160	7.8	1112.0	11
2.9	297.0	147	7.9	1126.0	10
3.0	310.0	135	8.0	1140.0	10
3.1	323.0	125	8.1	1154.0	10
3.2	336.0	115	8.2	1168.0	10
3.3	350.0	106	8.3	1182.0	9
3.4	365.0	98	8.4	1196.0	9
3.5	380.0	90	8.5	1210.0	9
3.6	401.0	81	8.6	1228.0	9
3.7	421.0	73	8.7	1245.0	8
3.8	441.0	67	8.8	1261.0	8
3.9	461.0	61	8.9	1276.0	8
4.0	480.0	56	9.0	1290.0	8
4.1	499.0	52	9.1	1303.0	8
4.2	517.0	49	9.2	1316.0	8
4.3	535.0	45	9.3	1328.0	7
4.4	553.0	43	9.4	1339.0	7
4.5	570.0	40	9.5	1350.0	7
4.6	588.0	38	9.6	1365.0	7
4.7	606.0	35	9.7	1379.0	7
4.8	624.0	33	9.8	1393.0	7
4.9	642.0	32	9.9	1407.0	7
5.0	660.0	30	10.0	1420.0	6
5.1	678.0	28	10.1	1433.0	6
5.2	696.0	27	10.2	1446.0	6
5.3	714.0	26	10.3	1457.0	6
5.4	732.0	24	10.4	1468.0	6
5.5	750.0	23	10.5	1480.0	6
5.6	771.0	22	10.6	1490.0	6
5.7	791.0	21	10.7	1500.0	6
5.8	810.0	20	10.8	1510.0	6
5.9	828.0	19	10.9	1520.0	6
6.0	845.0	18	11.0	1530.0	6
6.1	861.0	18	11.1	1539.0	5
6.2	877.0	17	11.2	1547.0	5
6.3	892.0	16	11.3	1555.0	5
6.4	906.0	16	11.4	1563.0	5
6.5	920.0	15	11.5	1570.0	5
6.6	933.0	15	11.6	1577.0	5
6.7	947.0	14	11.7	1583.0	5
6.8	961.0	14	11.8	1589.0	5
6.9	975.0	14	11.9	1595.0	5
			12.0	1600.0	5

Zeta values related to the inner pipe diameter according to DIN EN 10 220 (300 mm).



Flow tolerances depending on the presetting for DN 200 – DN 300

Insulation shells DN 65 – DN 150

Tender specification:

The insulation shells have a CFC-free inner core made of polyurethane foam with a 1.5 mm plastic coat. It consists of two double shells which are tightened by two metal straps.

Complies with the specifications of the German Energy Saving Directive (EnEV), appendix 5, table 1, line 5.

For heating and cooling systems.

Technical data:

Building material class B2 according to DIN 4102.

Operating temperature t_s : -10 °C to +130 °C

Cold insulation:

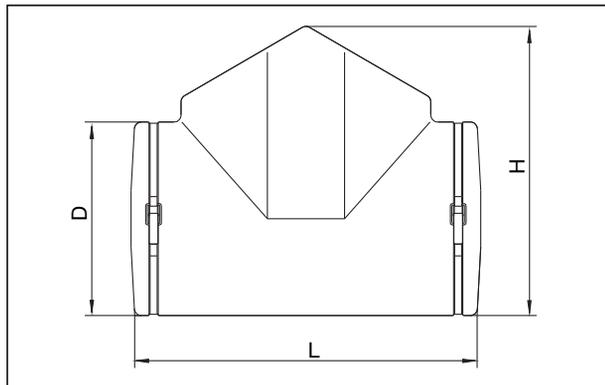
Min. fluid temperature: +6 °C,

The insulation shells have to be bonded hermetically (restricted diffusion tightness at low fluid temperature and at high ambient temperature and/or humidity).

Models:

Size:	Item no.:
DN 65	1062586
DN 80	1062587
DN 100	1062588
DN 125	1062589
DN 150	1062590

DN 65 – DN 150



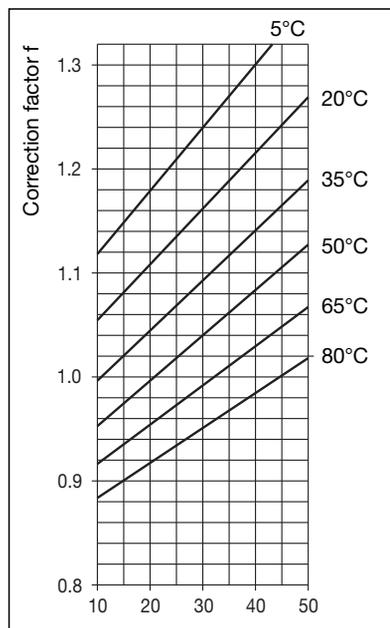
DN	L	D	H	Item no.:
65	480	270	405	1062586
80	515	300	430	1062587
100	595	350	500	1062588
125	660	385	573	1062589
150	740	415	598	1062590

Accessories sets DN 65 – DN 300:

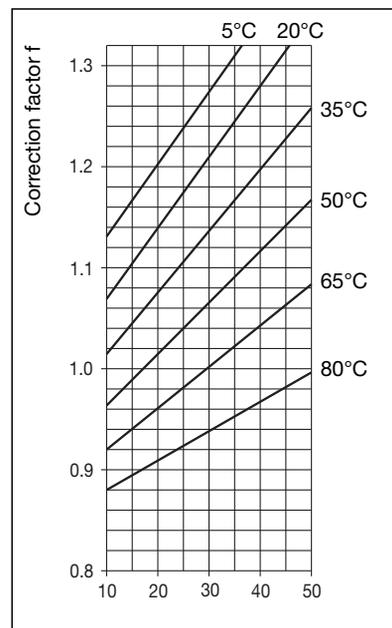
Set no. 1 = 1 fill and drain ball valve	1060191
Measuring adapter	1060298
Extension for accessories sets (80 mm)	1060295
Extension for accessories sets (40 mm)	1688295
Stem extension (DN 65 to DN 150, 35 mm)	1688297

Correction factors for mixtures of water and glycol:

When antifreeze liquids are added to the heating water, the pressure loss given in the chart must be multiplied by the correction factor f.



Weight proportion of ethylene glycol [%]



Weight proportion of propylene glycol [%]

Measurement and regulation DN 65 – DN 300
Oventrop measuring system “OV-DMC 2”
with memory and microprocessor

featuring numerous functions and a wide range of applications:

- flow rate indication (in l/s, m³/h and gal/min)
- differential pressure measurement (indication in mbar, Pa or kPa)
- temperature measurement (indication °C or °F)
- presetting Arriving at the presetting value based on the measured differential pressure, the given flow rate and the valve size.

The characteristic lines of all Oventrop double regulating and commissioning valves are memorised in the “OV-DMC 2”.

With the use of a respective kv value, it is possible to carry out all measurements on valves of other manufacturers.

For practical use of the “OV-DMC 2”, special operating instructions are available.

Oventrop measuring system “OV-DMPC”

consisting of a differential pressure transmitter “DMPC-sensor” with USB interface and software including extensive accessories. The measuring system is connected to commercial computers (not included in the delivery).



Flow meter “OV-DMC 2”, item no. 1069177
with “Hydrocontrol VGC” DN 65

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Subject to technical modification without notice.

Product range 3
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