

9555H

Variable Orifice Ductile Iron Double Regulating Valve



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Variable orifice ductile iron double regulating valve
Flanged PN25 according to EN1092-2 (ex DIN2533)
Lengths according to EN558-1 series 1 (ex DIN3202 F1)
Designed according BS7350
Provided with test points

PN25

Free of CE marking for DN≤200 (cat. according to Art. 4.3 Dir. 2014/68/EU)

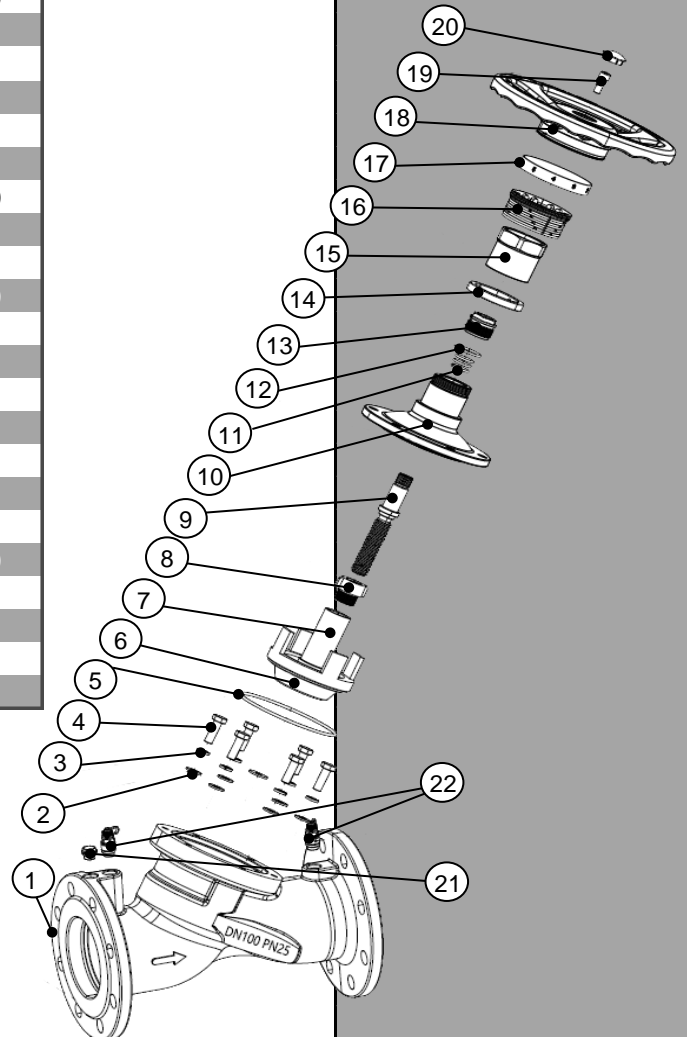
Working conditions

- Suitable for: water, 0°C to +110°C
over 100°C only for water with added anti-boiling fluids
(ethylene glycol or propylene glycol mixtures up to 50% may be used)
- Not suitable for: gases group 1 & 2, liquids group 1 (Dir. 2014/68/EU)



PARTLIST

N.	Part	Material	Norm
1	Body	Ductile iron	EN-GJL-450-10
2	Washer	Stainless steel	SS304
3	Spring lock wash.	Stainless steel	SS304
4	Screws	Stainless steel	SS304
5	Body/bon. O-ring	EPDM	-
6	Gasket disc	EPDM	-
7	Balancing cone	Ductile iron	EN-GJL-450-10
8	Stem nut	Brass	-
9	Stem	Stainless steel	AISI 420
10	Bonnet	Ductile iron	EN-GJL-450-10
11	Stem O-ring	EPDM	-
12	O-ring	EPDM	-
13	Nut	Brass	-
14	Limit of indicator	Aluminium	-
15	Oriented indicator	PPS	-
16	Indicator	ABS	-
17	Numbered ring	PP	-
18	Handwheel	Ductile iron	EN-GJL-450-10
19	Handwheel screw	Stainless steel	SS304
20	Handwheel cap	ABS	-
21	Plug	Brass	-
22	Test point	Brass	-



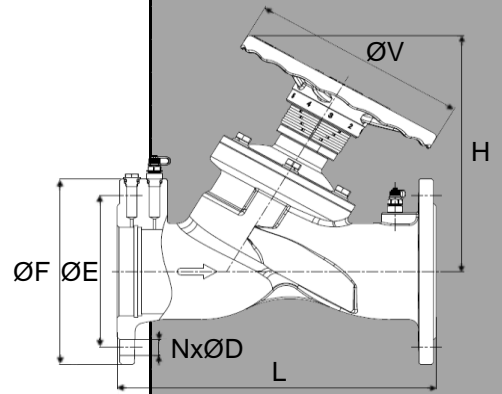
221025

DIMENSIONS

DN	ØF [mm]	ØE [mm]	NxØD [mm]	L [mm]	H [mm]	ØV [mm]	Weight [kg]	Flow range [l/s]
065	185	145	4x19	290	340	190	14,7	3,02-6,95 ¹
080	200	160	8x19	310	360	190	17,0	6,40-15,36 ¹
100	235	190	8x23	350	390	240	24,3	10,85-26,04 ¹
125	270	220	8x28	400	459	290	32,7	16,85-39,75 ¹
150	300	250	8x28	480	514	290	44,8	23,71-56,91 ¹
200	360	310	12x28	600	628	350	83,0	41,86-100,47 ¹
250	425	370	12x31	730	743	420	123,0	66,58-156,78 ¹
300	485	430	16x31	850	820	420	168,0	94,16-255,99 ¹

¹Suggested flow range applicability (BS7350)

If used with measuring manometers different from those proposed by VIR please verify that sensibility of the measuring device is compatible with indicated minimum flow (see flow measurement paragraph)

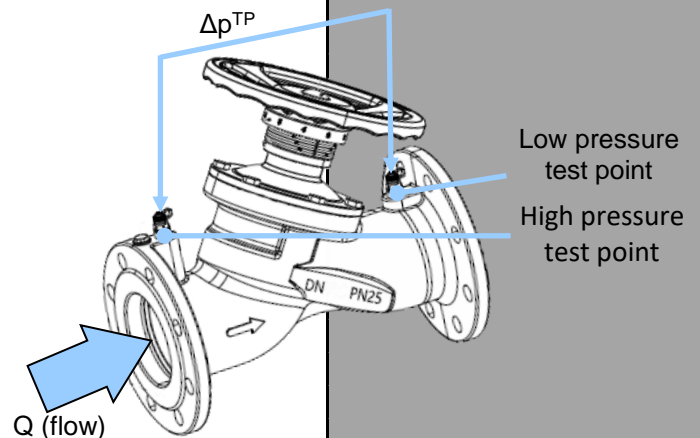


FLOW MEASUREMENT

Formula linking flow Q (in l/s) and Δp measured at test points (in kPa). K_v depends on handwheel position as indicated on table in the next page. 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.

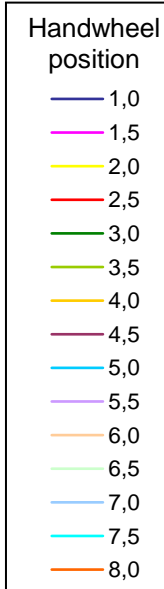
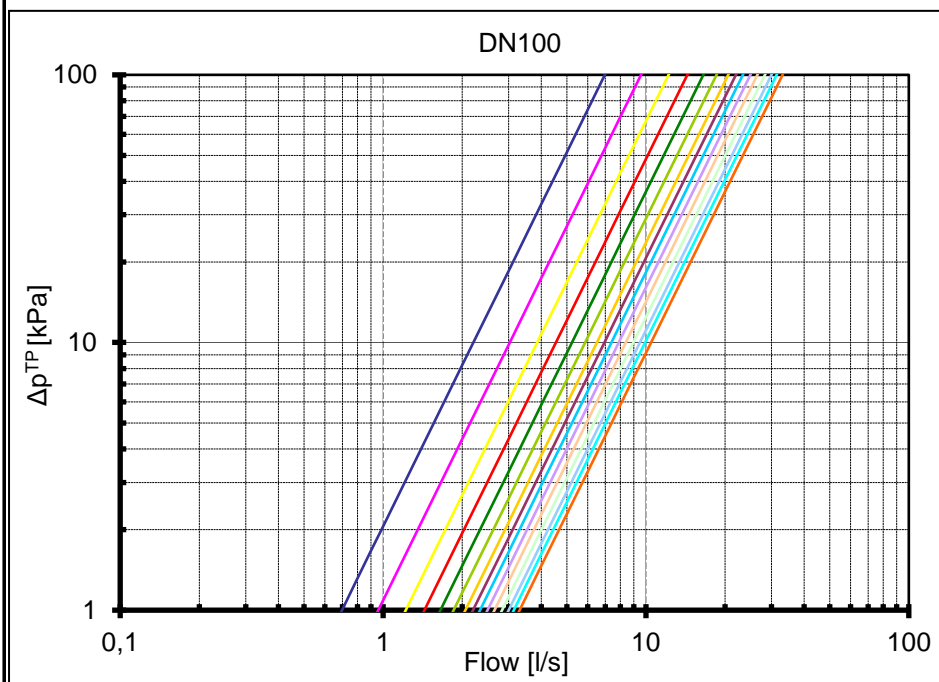
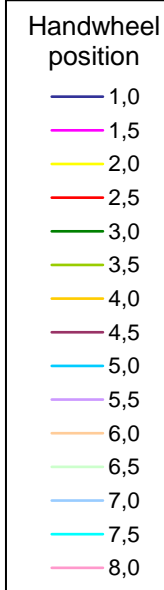
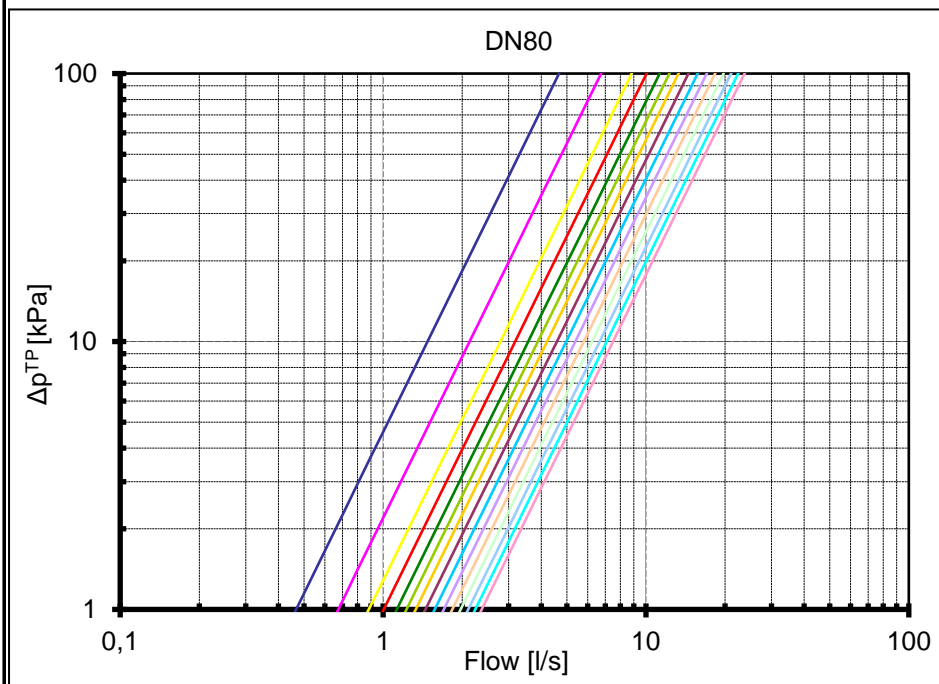
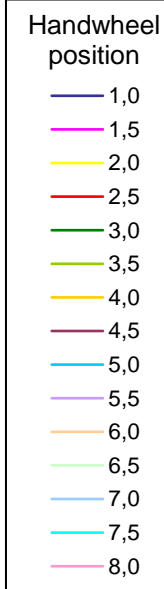
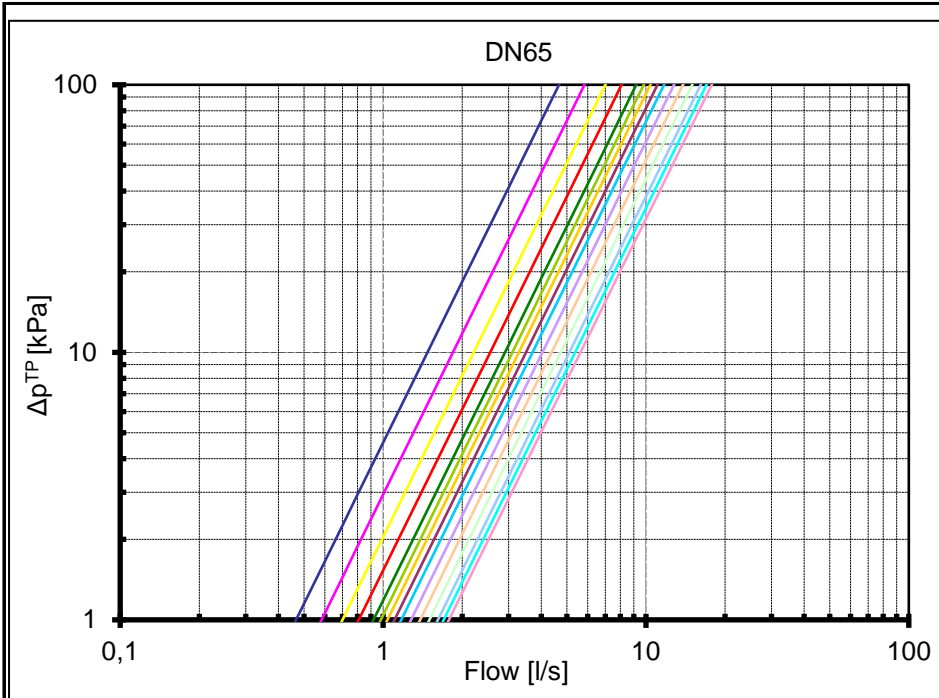
$$Q = \frac{K_v \cdot \sqrt{\Delta p^{TP}}}{36}$$



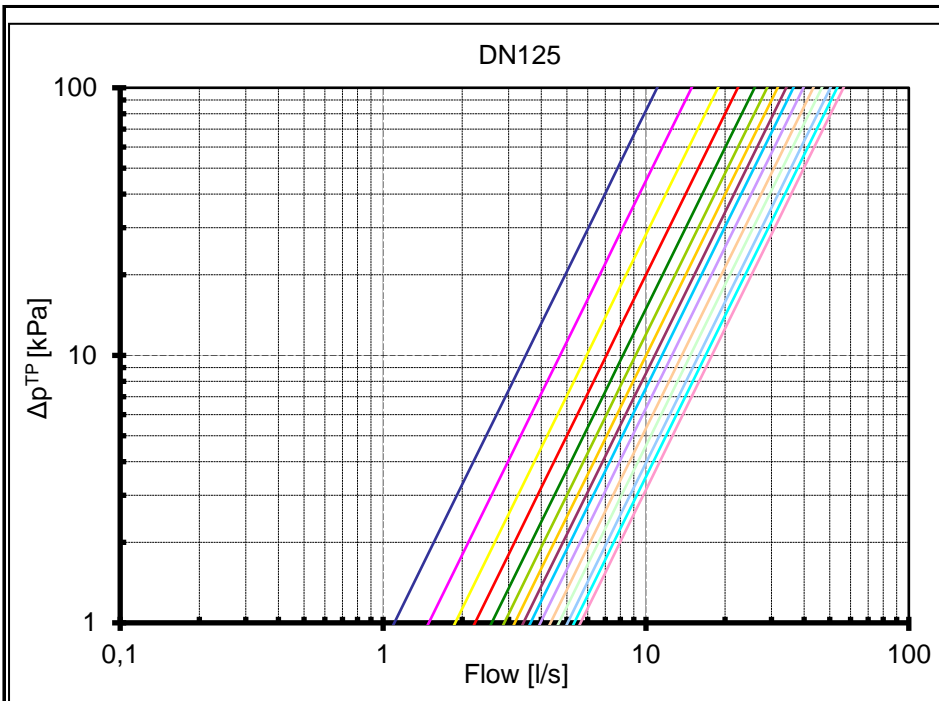
Handwheel position	K _v [m ³ /h @ 1bar]							
	065	080	100	125	150	200	250	300
1,0	16,8	16,8	25,1	39,7	77,2	134,0	104,0	130,0
1,5	21,0	24,3	34,5	53,7	96,8	158,0	130,0	173,0
2,0	25,2	31,8	43,9	67,7	116,0	181,0	155,0	217,0
2,5	29,1	36,2	51,7	80,5	132,0	200,0	194,0	256,0
3,0	33,1	40,6	59,5	93,2	147,0	219,0	232,0	296,0
3,5	35,3	44,2	66,8	104,0	163,0	230,0	262,0	332,0
4,0	37,4	47,9	74,0	114,0	178,0	241,0	291,0	369,0
4,5	39,8	52,2	79,1	123,0	191,0	251,0	321,0	400,0
5,0	42,2	56,6	84,1	131,0	205,0	260,0	350,0	430,0
5,5	46,0	61,3	89,8	143,0	217,0	276,0	381,0	463,0
6,0	49,8	66,0	95,5	156,0	229,0	291,0	412,0	496,0
6,5	54,0	71,0	102,0	168,0	239,0	308,0	438,0	534,0
7,0	58,2	75,9	108,0	181,0	249,0	325,0	463,0	572
7,5	61,2	80,7	113,0	192,0	256,0	345,0	478,0	606
8,0	64,1	85,4	119,0	203,0	263,0	365,0	493,0	640
8,5	-	-	-	-	-	385,0	512,0	673
9,0	-	-	-	-	-	405,0	531	706
9,5	-	-	-	-	-	427,0	557	728
10,0	-	-	-	-	-	450,0	583	749
10,5	-	-	-	-	-	468,0	603	757
11,0	-	-	-	-	-	486,0	624	765
12,0	-	-	-	-	-	504,0	679	810
13,0	-	-	-	-	-	-	734	889
14,0	-	-	-	-	-	-	792	974
15,0	-	-	-	-	-	-	843	1044
16,0	-	-	-	-	-	-	912	1099



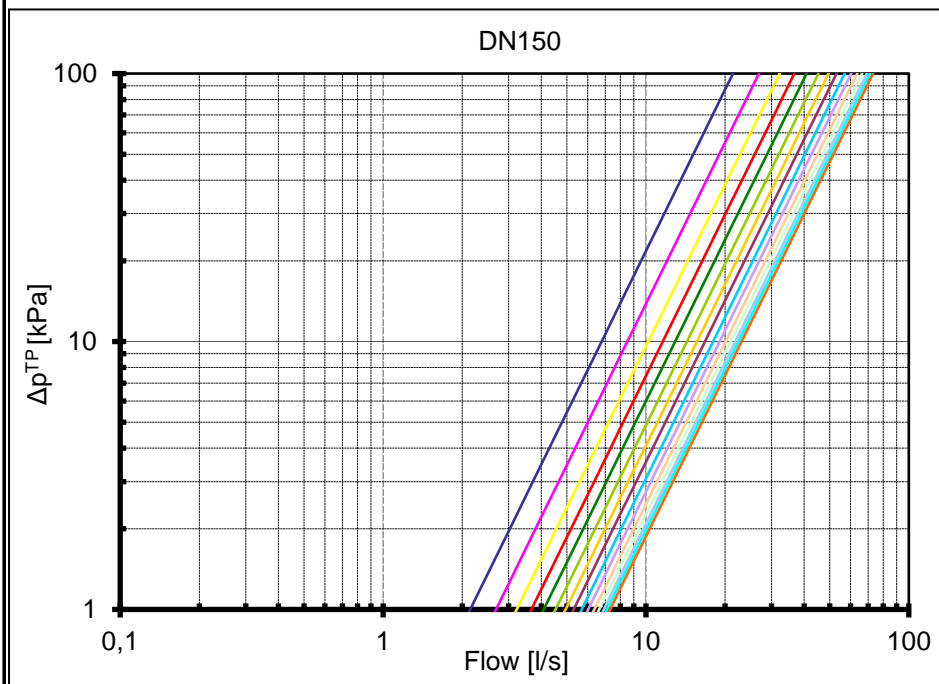
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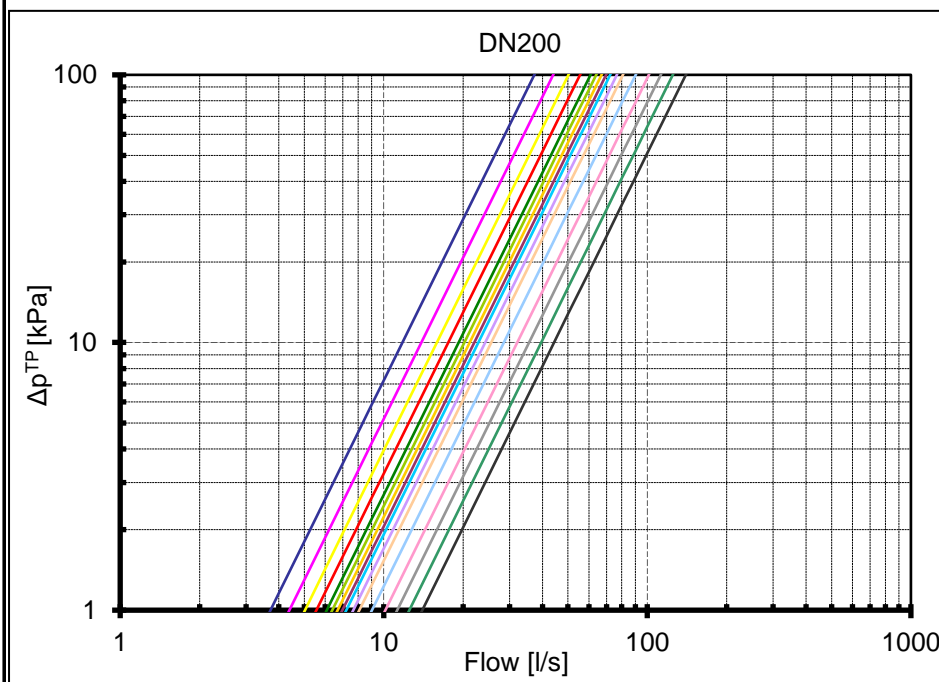
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- Handwheel position
- 1,0
 - 1,5
 - 2,0
 - 2,5
 - 3,0
 - 3,5
 - 4,0
 - 4,5
 - 5,0
 - 5,5
 - 6,0
 - 6,5
 - 7,0
 - 7,5
 - 8,0



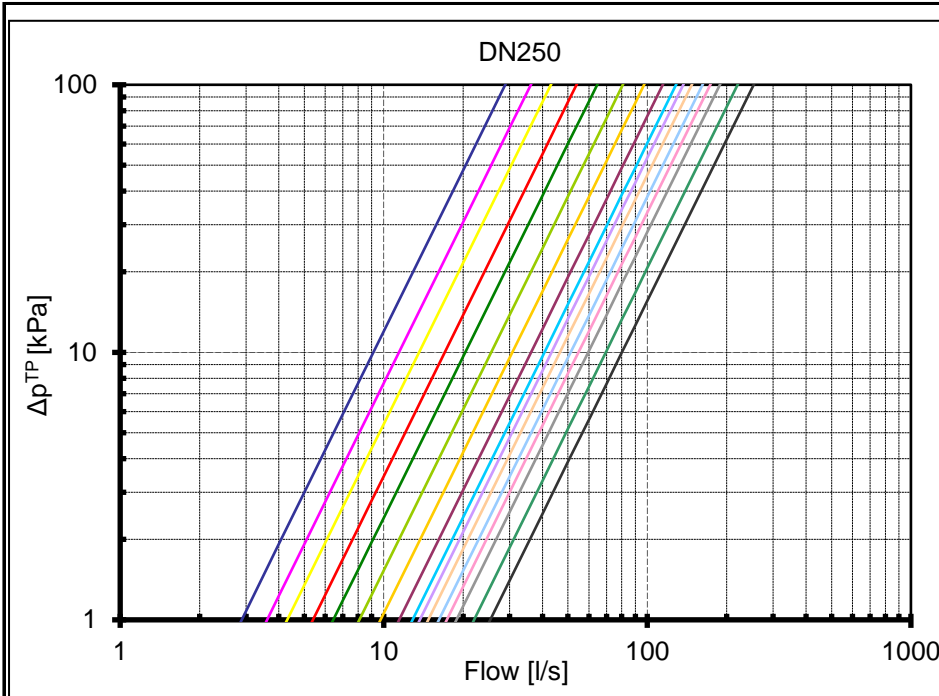
- Handwheel position
- 1,0
 - 1,5
 - 2,0
 - 2,5
 - 3,0
 - 3,5
 - 4,0
 - 4,5
 - 5,0
 - 5,5
 - 6,0
 - 6,5
 - 7,0
 - 7,5
 - 8,0



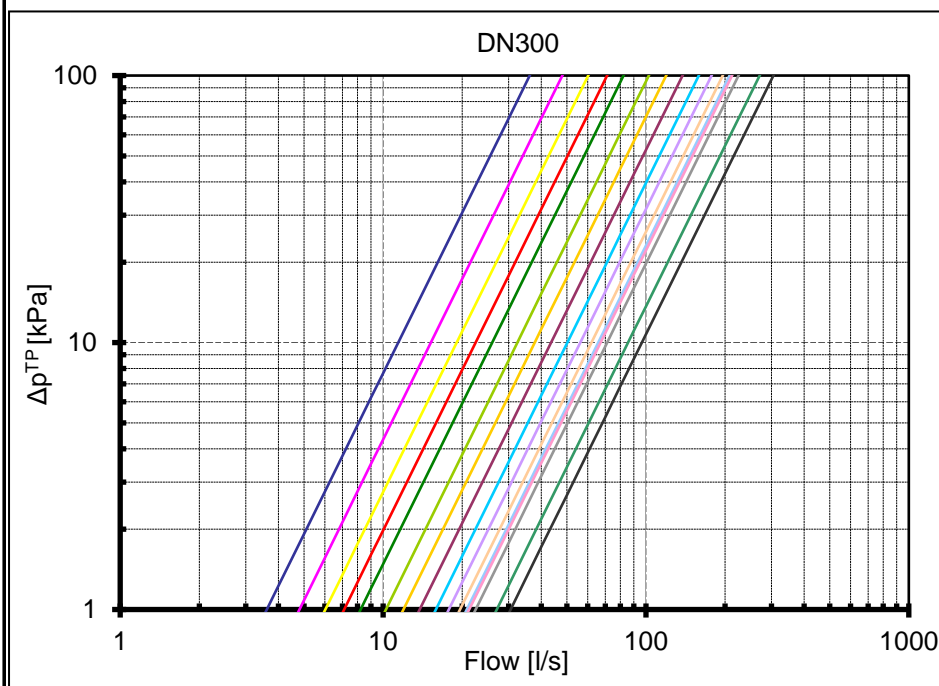
- Handwheel position
- 1,0
 - 1,5
 - 2,0
 - 2,5
 - 3,0
 - 3,5
 - 4,0
 - 4,5
 - 5,0
 - 5,5
 - 6,0
 - 7,0
 - 8,0
 - 9,0
 - 10,0
 - 12,0



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- Handwheel position
- 1,0
 - 1,5
 - 2,0
 - 2,5
 - 3,0
 - 4,0
 - 5,0
 - 6,0
 - 7,0
 - 8,0
 - 9,0
 - 10,0
 - 11,0
 - 12,0
 - 14,0
 - 16,0

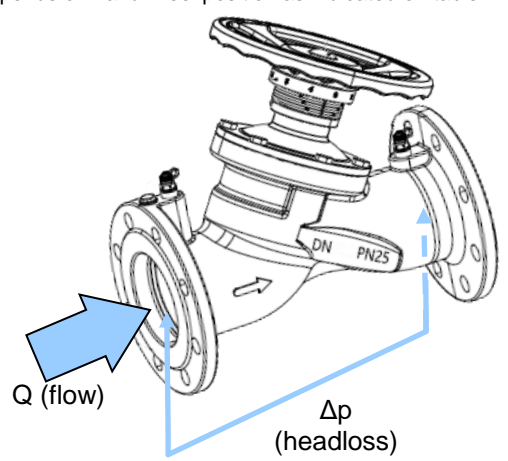


- Handwheel position
- 1,0
 - 1,5
 - 2,0
 - 2,5
 - 3,0
 - 4,0
 - 5,0
 - 6,0
 - 7,0
 - 8,0
 - 9,0
 - 10,0
 - 11,0
 - 12,0
 - 14,0
 - 16,0

HEADLOSS CALCULATION

$$\Delta p = \left(\frac{36 \cdot Q}{K_v} \right)^2$$

Formula linking flow Q (in l/s) and theoretical valve headloss Δp (in kPa).
 K_v depends on handwheel position as indicated on table in the next page.



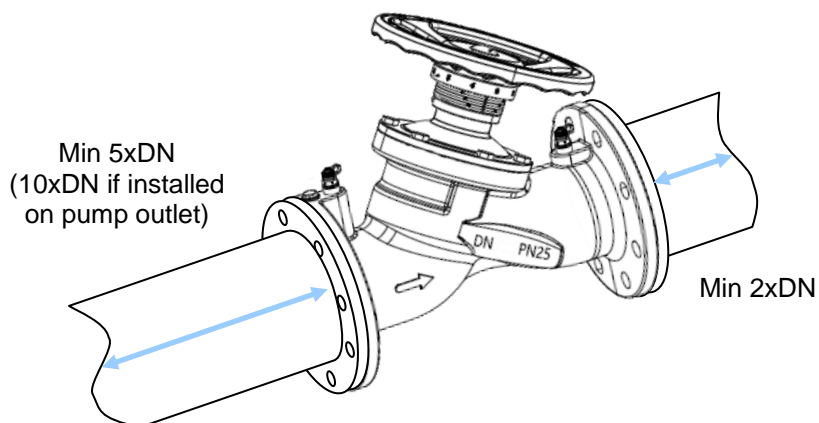
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Handwheel position	K _v [m ³ /h @ 1bar]							
	065	080	100	125	150	200	250	300
1,0	16,8	16,8	25,1	39,7	77,2	134,0	104,0	130,0
1,5	21,0	24,3	34,5	53,7	96,8	158,0	130,0	173,0
2,0	25,2	31,8	43,9	67,7	116,0	181,0	155,0	217,0
2,5	29,1	36,2	51,7	80,5	132,0	200,0	194,0	256,0
3,0	33,1	40,6	59,5	93,2	147,0	219,0	232,0	296,0
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4,5	39,8	52,2	79,1	123,0	191,0	251,0	321,0	400,0
5,0	42,2	56,6	84,1	131,0	205,0	260,0	350,0	430,0
5,5	46,0	61,3	89,8	143,0	217,0	276,0	381,0	463,0
6,0	49,8	66,0	95,5	156,0	229,0	291,0	412,0	496,0
6,5	54,0	71,0	102,0	168,0	239,0	308,0	438,0	534,0
7,0	58,2	75,9	108,0	181,0	249,0	325,0	463,0	572
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11,0	-	-	-	-	-	486,0	624	765
12,0	-	-	-	-	-	504,0	679	810
13,0	-	-	-	-	-	-	734	889
14,0	-	-	-	-	-	-	792	974
15,0	-	-	-	-	-	-	843	1044
16,0	-	-	-	-	-	-	912	1099

Copy of the table presented in flow measurement paragraph
 Δp (headloss) approximately equal to Δp^{TP}

INSTALLATION

To obtain the best performances valve must be installed on a pipe with its same nominal size preceded and followed by straight pipe lengths as per figure indications.



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