Balancing and Shut-off Valve

BOA-Control/
BOA-Control IMS

PN 16
DN 15 - 350
With Flow Rate
And Temperature Sensors
Flanged Ends

Flow Characteristics

Legal information/Copyright

Flow Characteristics BOA-Control/ BOA-Control IMS

Control Valves / Measurement Valves

Balancing and Shut-off Valves to DIN/EN

BOA-Control/BOA-Control IMS

Flow characteristics

The characteristic curves are based on water with a temperature of 5 to 30 °C and show the volume flow rate through the valve up to a flow velocity (pipeline) of 4 m/s.

Flow velocities > 4 m/s result in critical operating conditions even with fully open valves.

For this reason, BOATRONIC measuring computers and the sensors of BOA-Control/BOA-Control IMS globe valves are set to a measuring range of 0.1 to 4.0 m/s.

If this measuring range is exceeded, the measuring electronics will be switched off.

Description of units

Unit	Description
Q	Volume flow rate in m^3/h
v	Flow velocity in m/s

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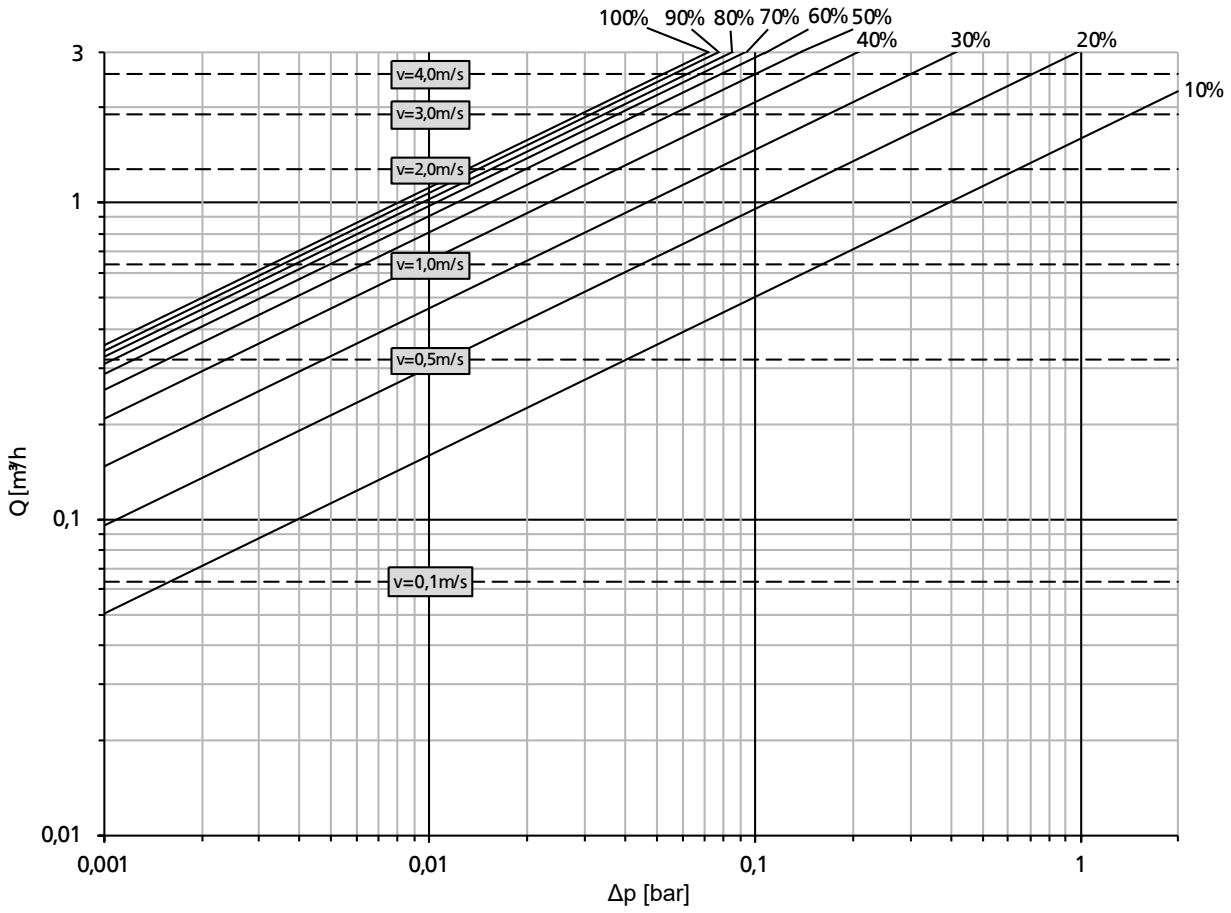
BOA-Control IMS, type BOA-CL, DN 15 - 200

DN 15, PN 16

Selection table

Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Travel [%]
11,2	0,6	100
10,8	0,7	90
10,3	0,8	80
9,8	0,8	70
9,1	1,0	60
8,1	1,2	50
6,58	1,9	40
4,65	3,7	30
3,01	8,9	20
1,6	31,6	10



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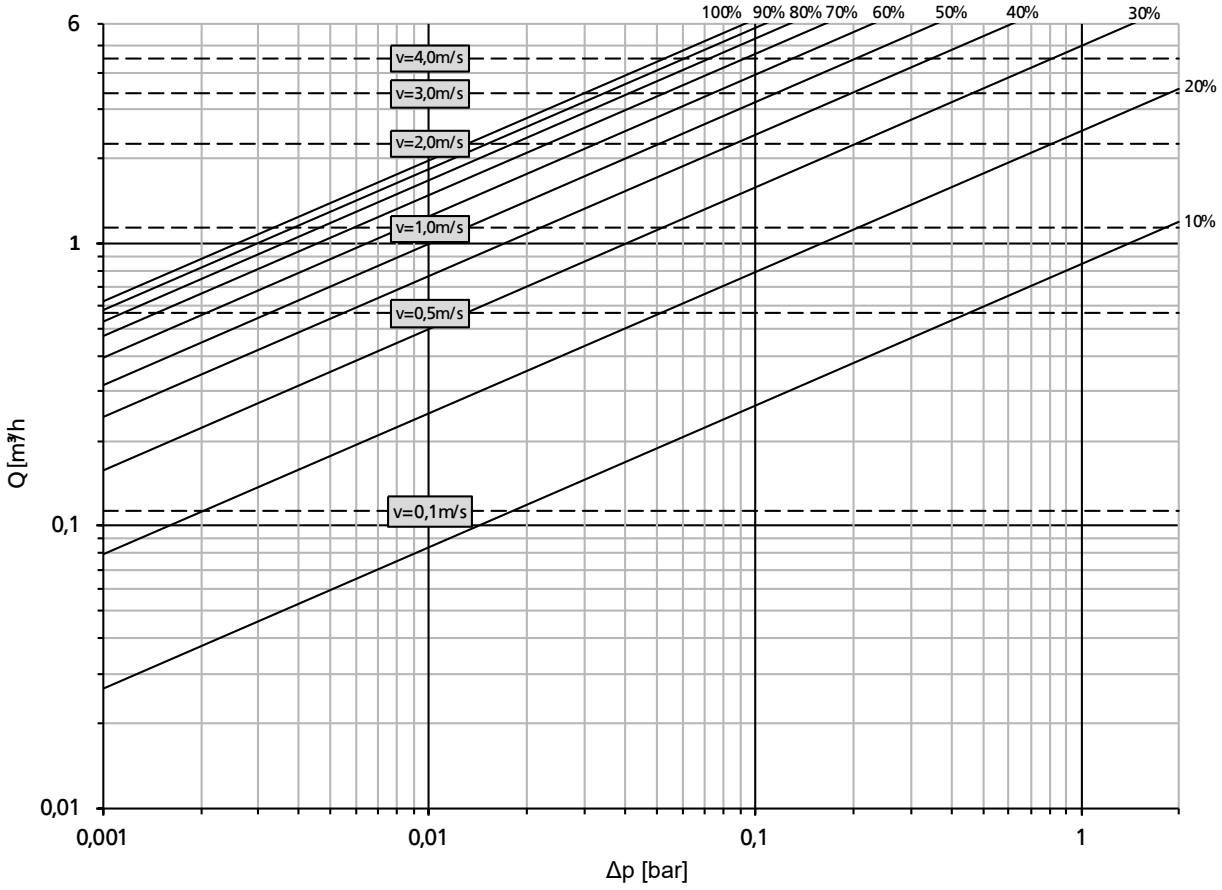
DN 20, PN 16

Selection table

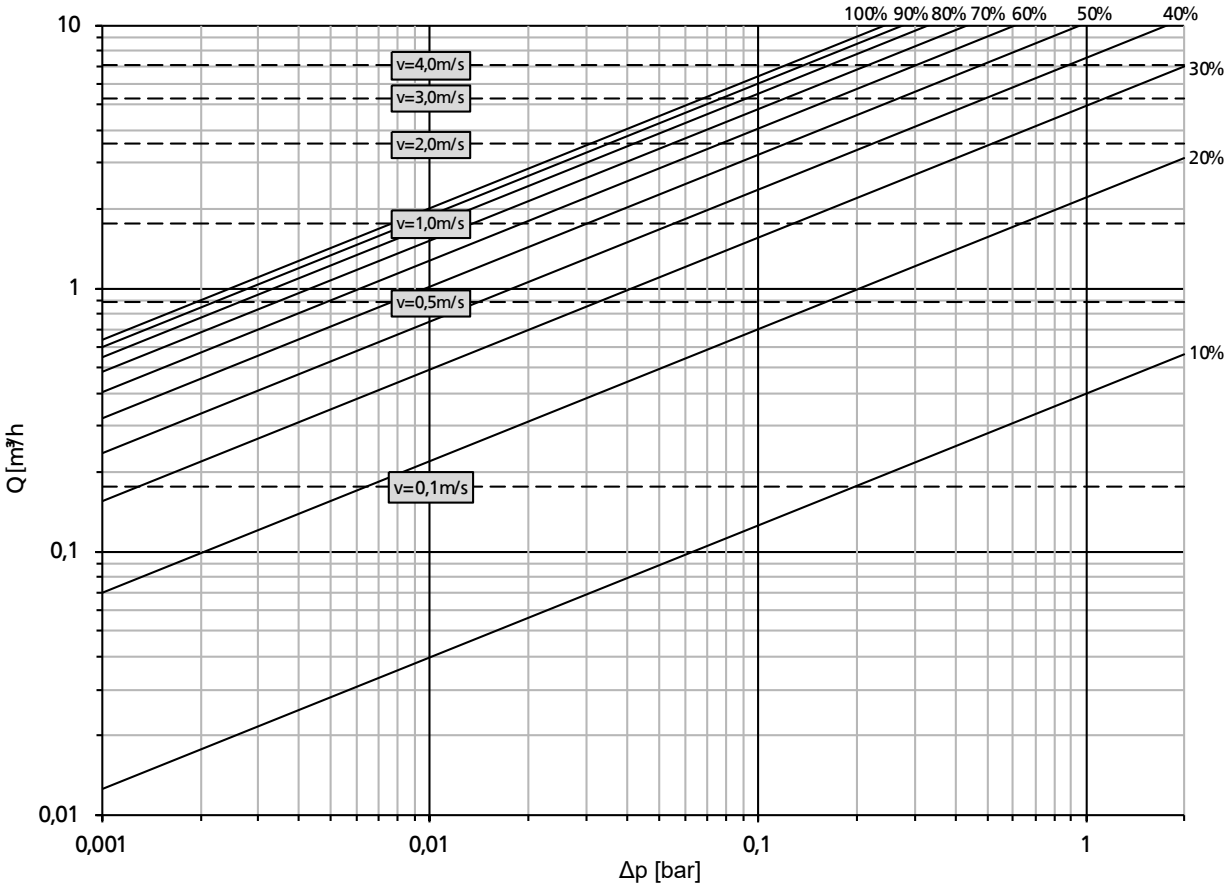
Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Travel [%]
19,6	0,7	100
18,3	0,8	90
16,8	0,9	80
14,8	1,2	70
12,5	1,6	60
10	2,6	50
7,7	4,3	40
5	10,2	30
2,5	40,9	20
0,84	362,1	10



DN 25, PN 16

Selection table

Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Travel [%]
20,3	1,5	100
19	1,7	90
17,4	2,1	80
15,2	2,7	70
12,8	3,8	60
10,2	6,0	50
7,5	11,1	40
4,9	26,0	30
2,2	128,9	20
0,4	3898,1	10



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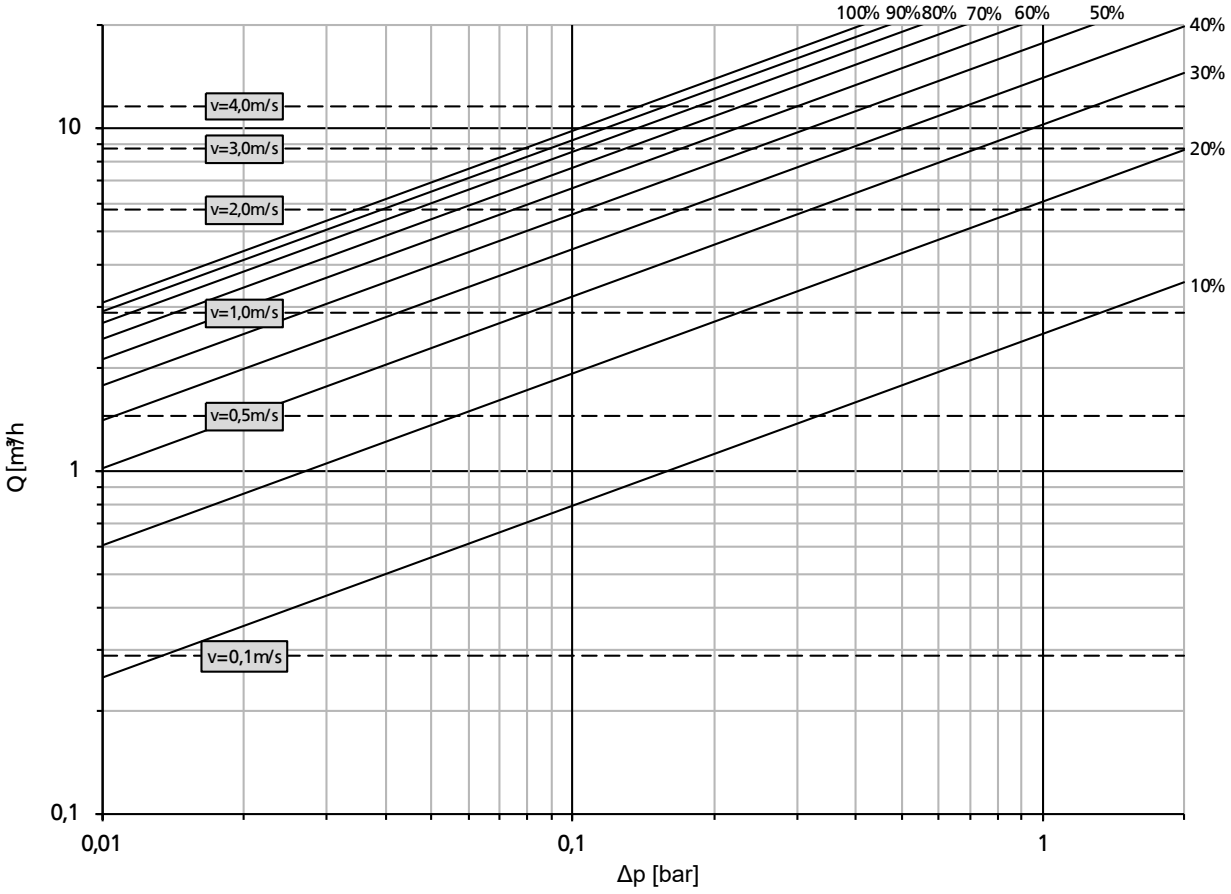
DN 32, PN 16

Selection table

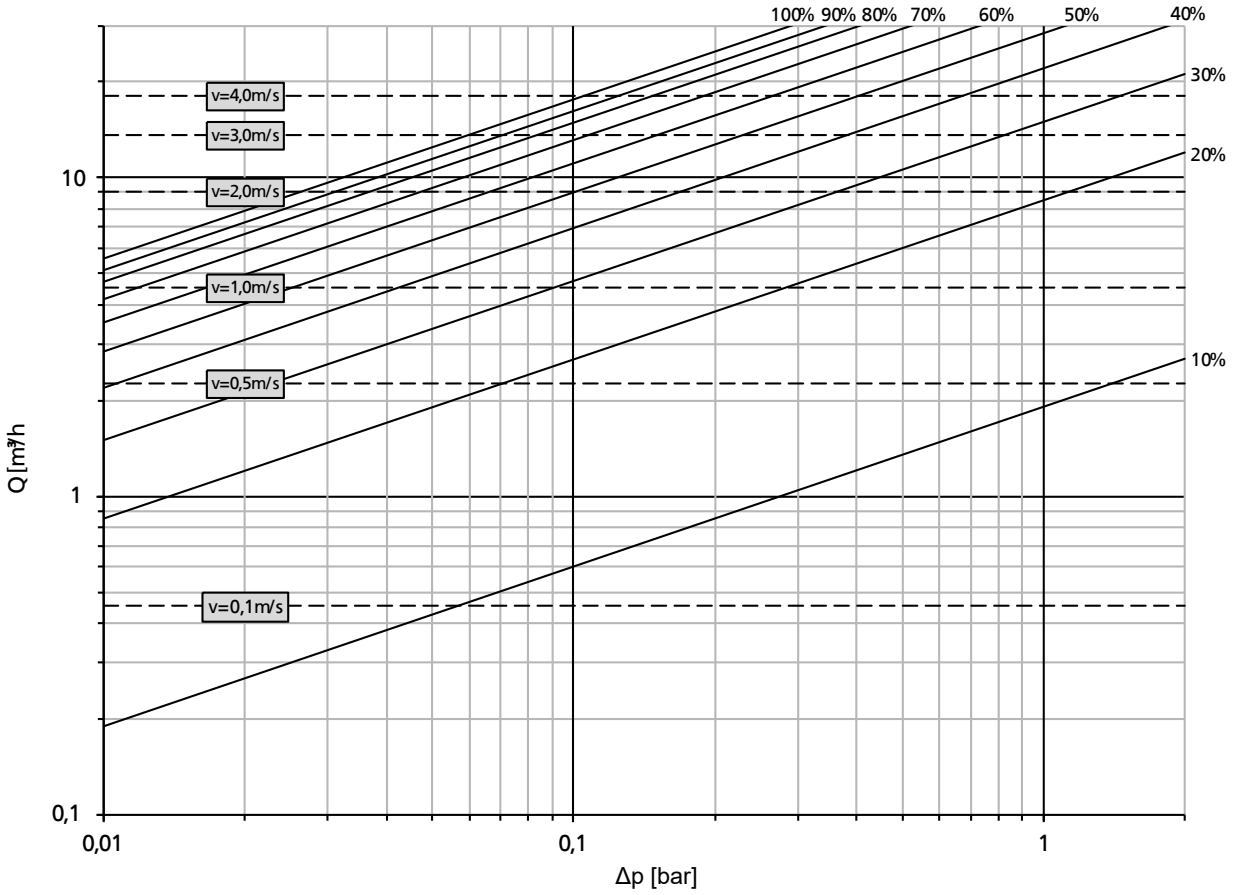
Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Travel [%]
31,1	1,7	100
29,2	2,0	90
27	2,3	80
24,2	2,9	70
21,2	3,7	60
17,7	5,3	50
14	8,5	40
10,2	16,1	30
6,1	45,0	20
2,5	267,9	10



DN 40, PN 16

Selection table

Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Travel [%]
55,7	1,3	100
51,5	1,5	90
47	1,9	80
41,5	2,4	70
35	3,3	60
28,5	5,0	50
22	8,4	40
15	18,2	30
8,5	56,6	20
1,9	1132,3	10



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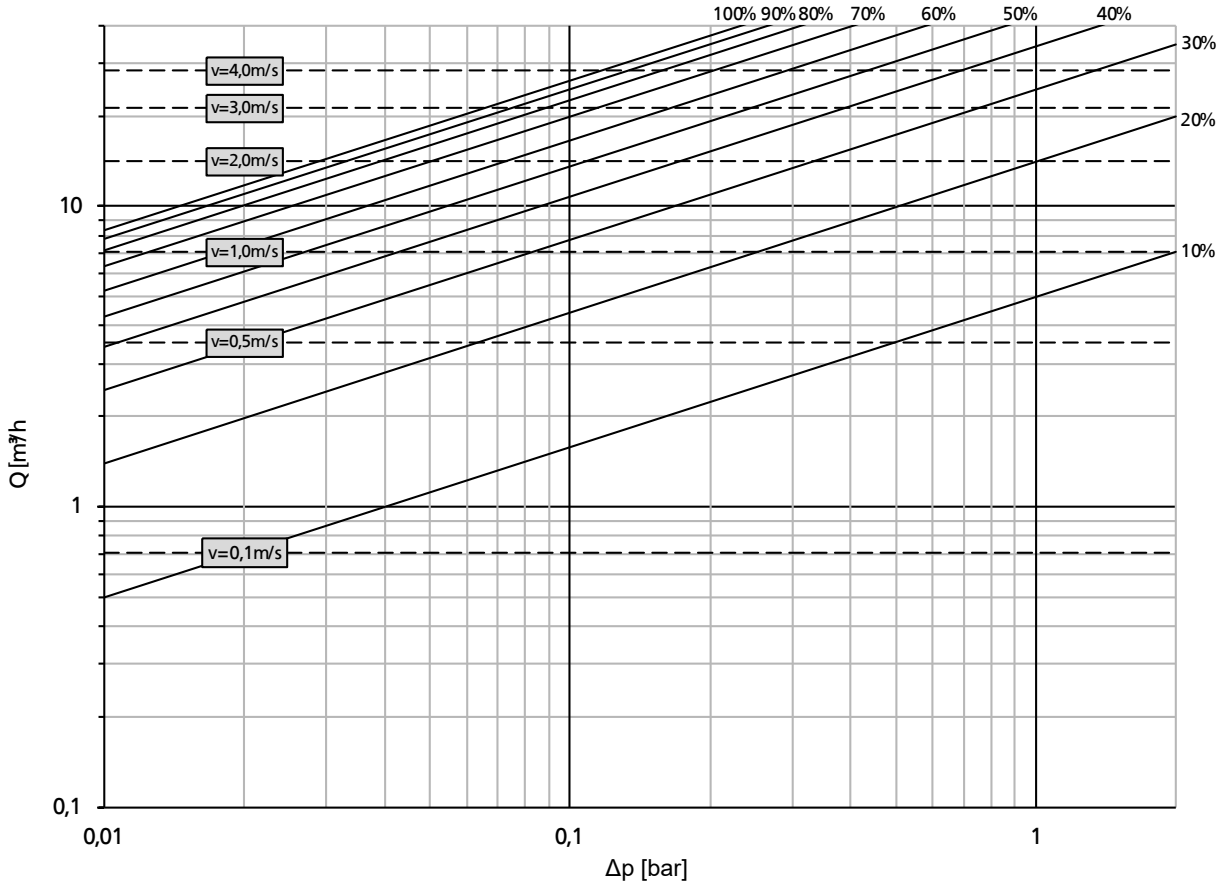
DN 50, PN 16

Selection table

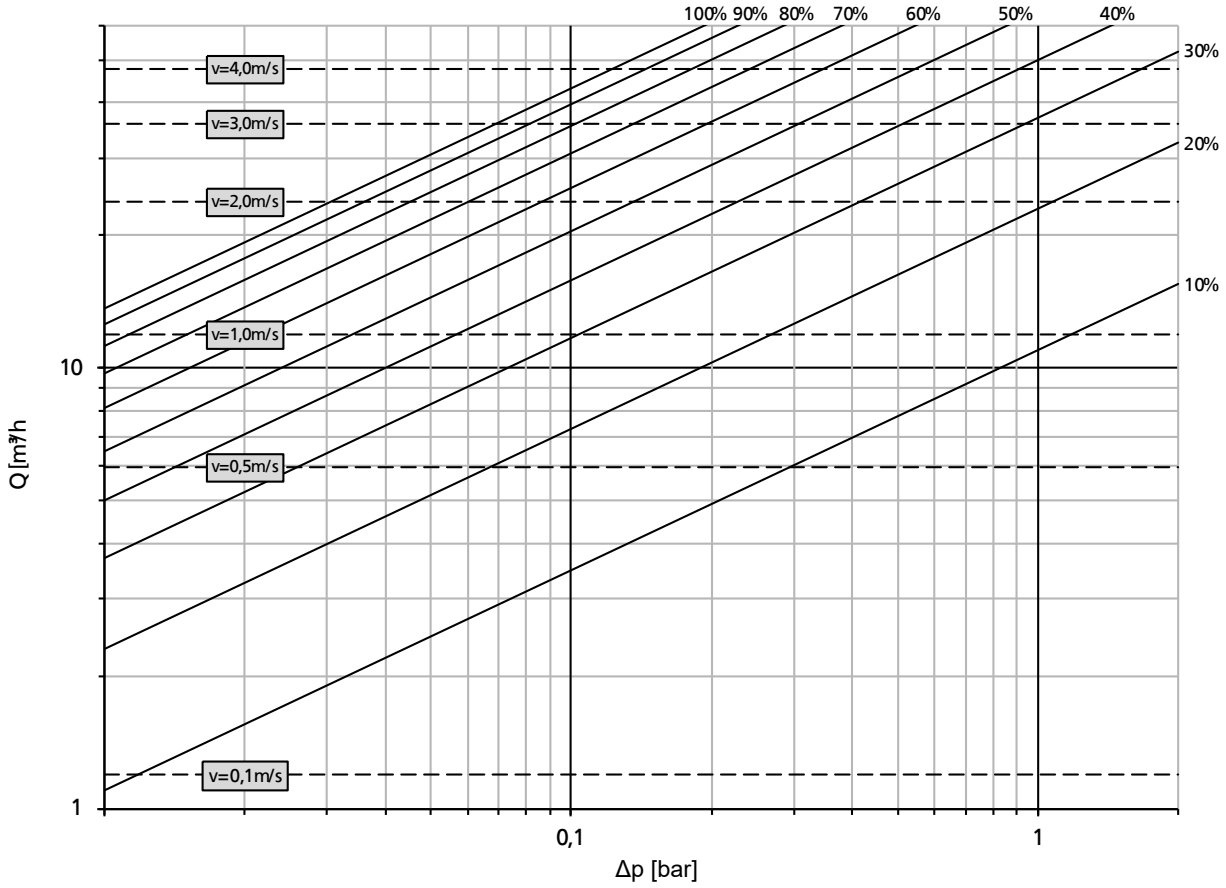
Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Travel [%]
83	1,4	100
77,5	1,7	90
71,5	2,0	80
63	2,5	70
52,5	3,6	60
43	5,4	50
34	8,6	40
24,5	16,6	30
14	50,9	20
5	399,2	10



DN 65, PN 16

Selection table

Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Travel [%]
137	1,5	100
125,5	1,8	90
112	2,3	80
97,5	3,0	70
81,5	4,3	60
65	6,7	50
50	11,4	40
37	20,8	30
23	53,9	20
11	235,6	10



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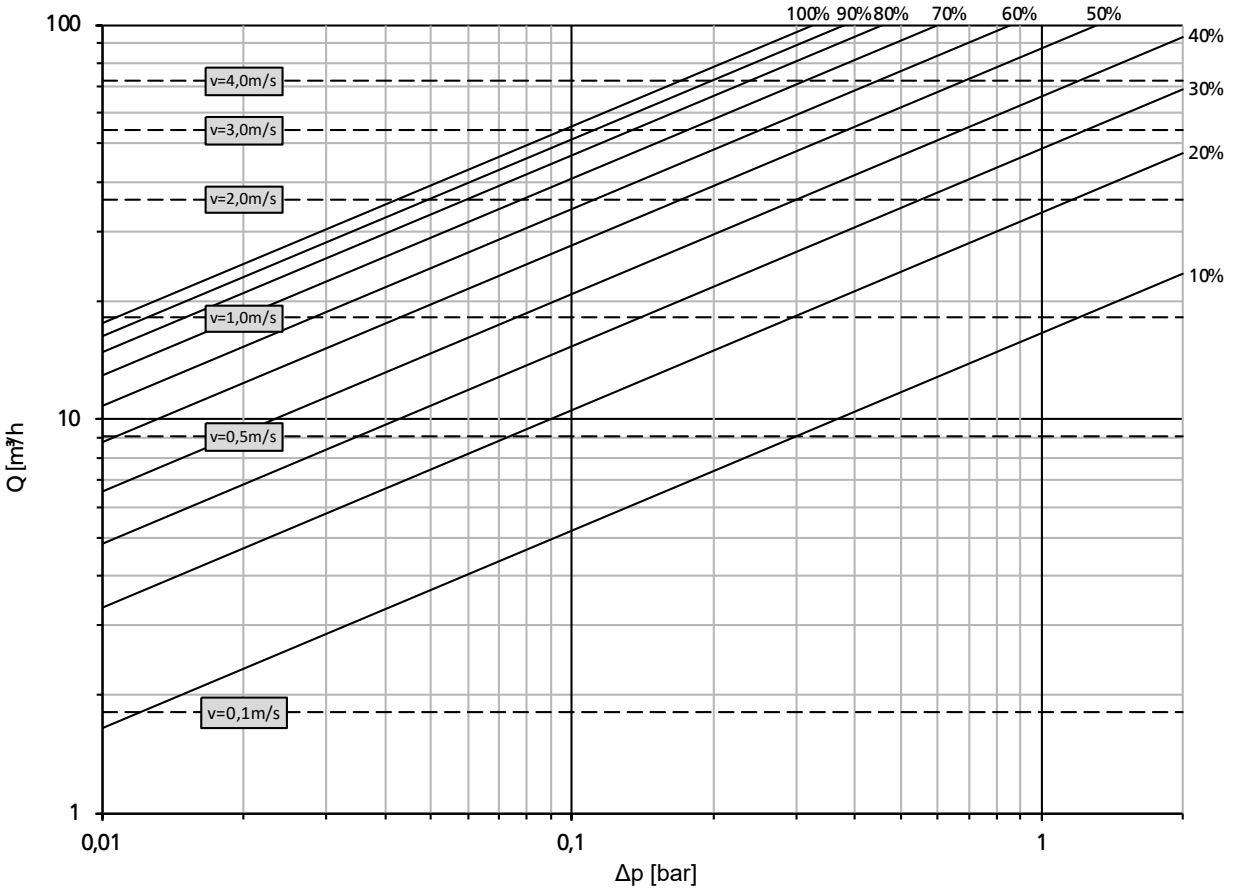
DN 80, PN 16

Selection table

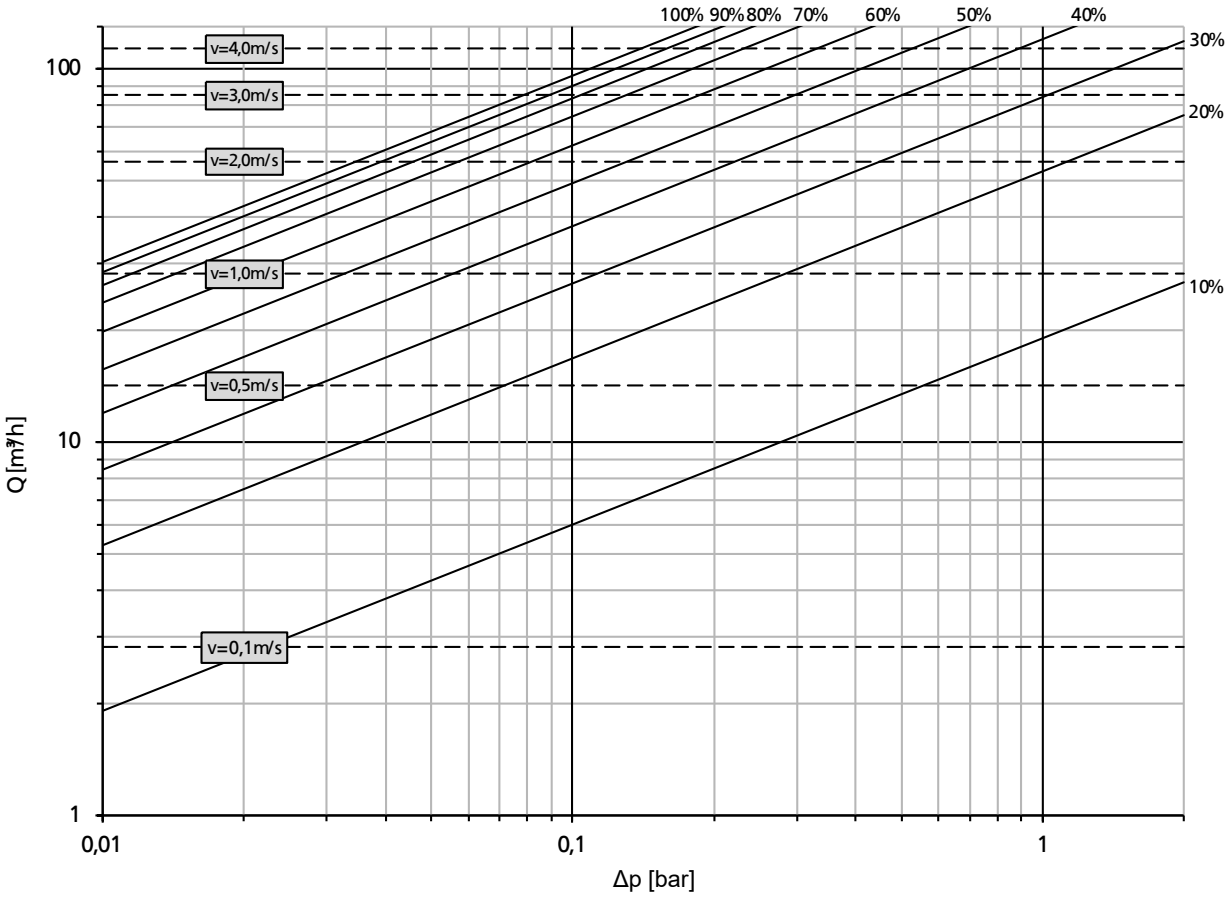
Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Travel [%]
176	2,1	100
163	2,5	90
148	3,0	80
129	3,9	70
108	5,6	60
87,3	8,6	50
65,7	15,2	40
48,4	27,9	30
33,4	58,6	20
16,5	240,2	10



DN 100, PN 16

Selection table

Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Travel [%]
304	1,7	100
284	2,0	90
264	2,3	80
236	2,9	70
197	4,1	60
156	6,6	50
120	11,1	40
84	22,6	30
53	56,8	20
19	442,3	10



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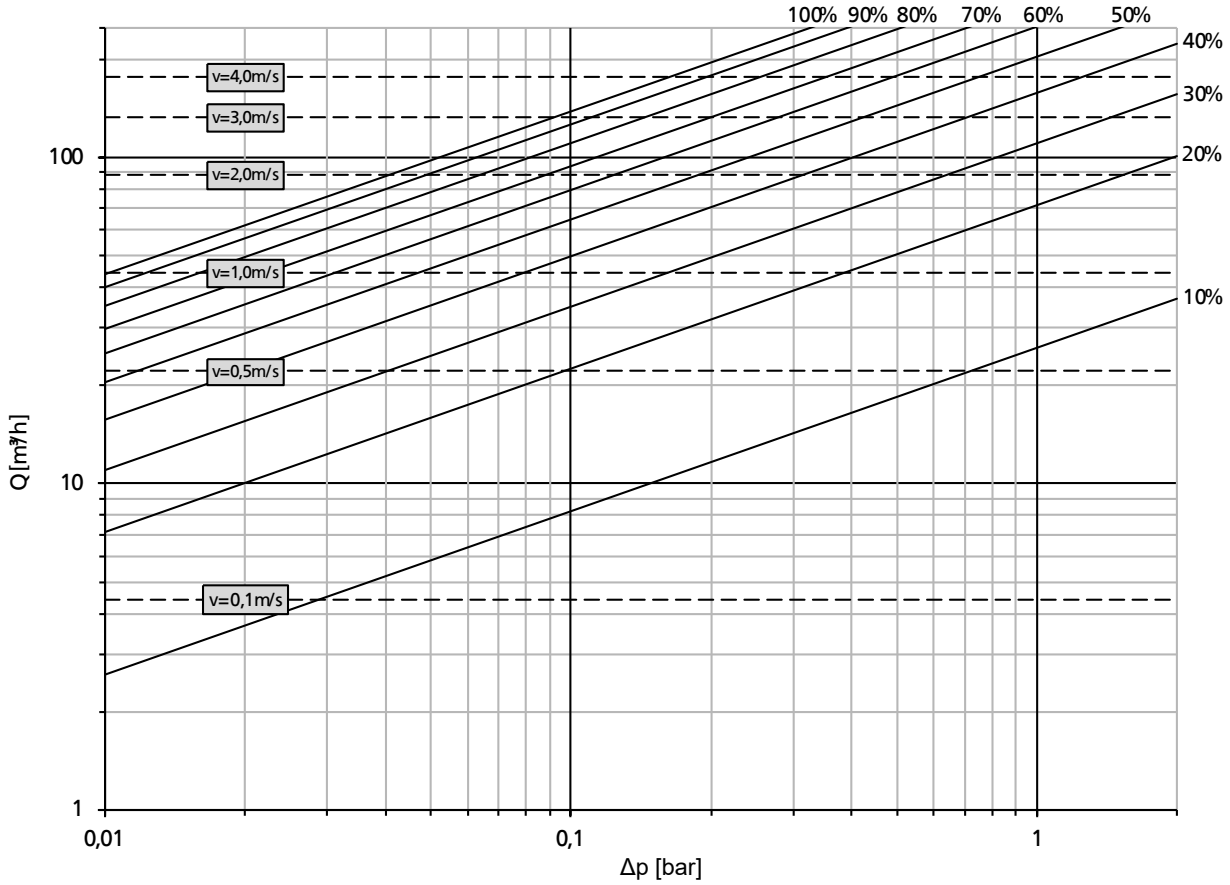
DN 125, PN 16

Selection table

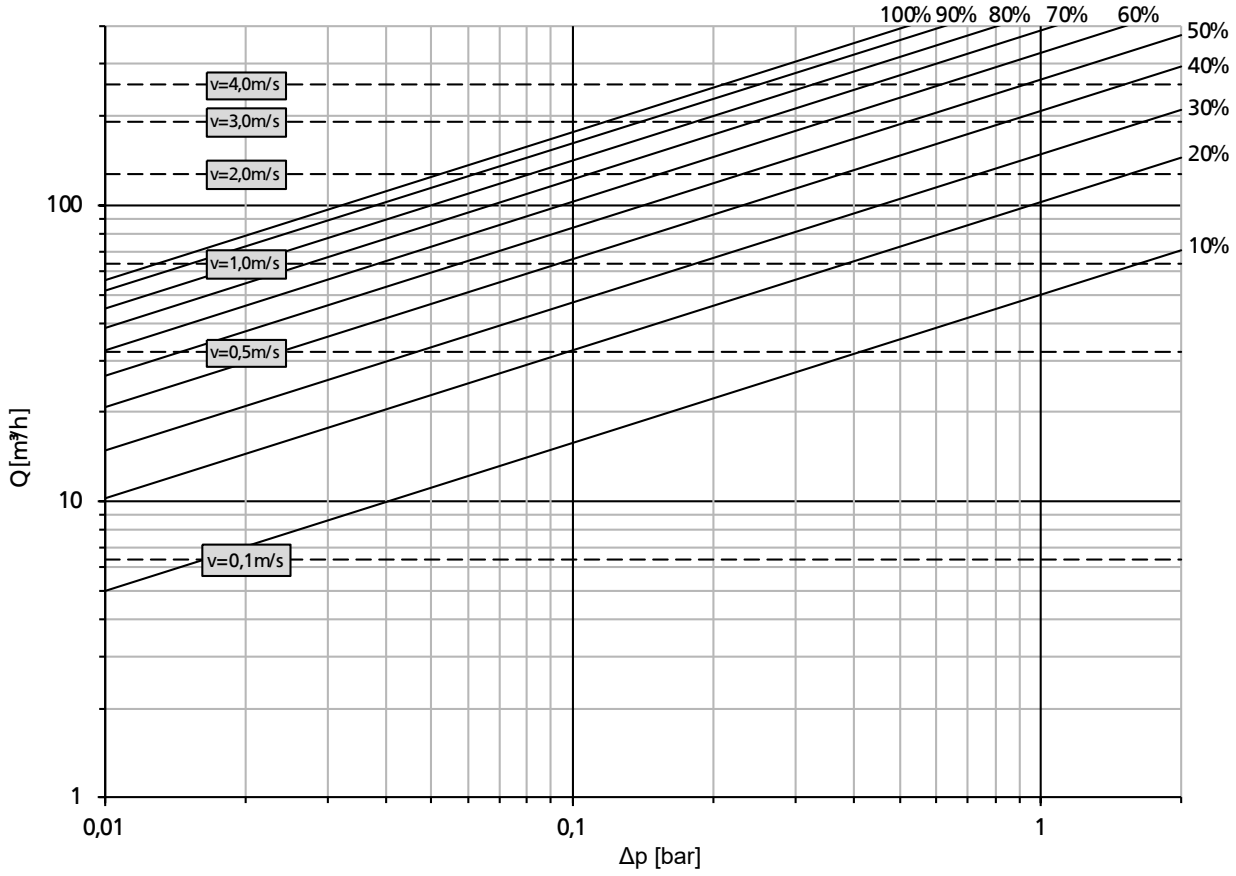
Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Travel [%]
438	2,0	100
401	2,4	90
349	3,2	80
297	4,4	70
251	6,2	60
204	9,4	50
157	15,8	40
110	32,2	30
71	77,3	20
26	576,6	10



DN 150, PN 16

Selection table

Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Travel [%]
558	2,6	100
512	3,1	90
448	4,0	80
387	5,4	70
325	7,7	60
265	11,5	50
208	18,7	40
149	36,4	30
102	77,7	20
50	323,3	10



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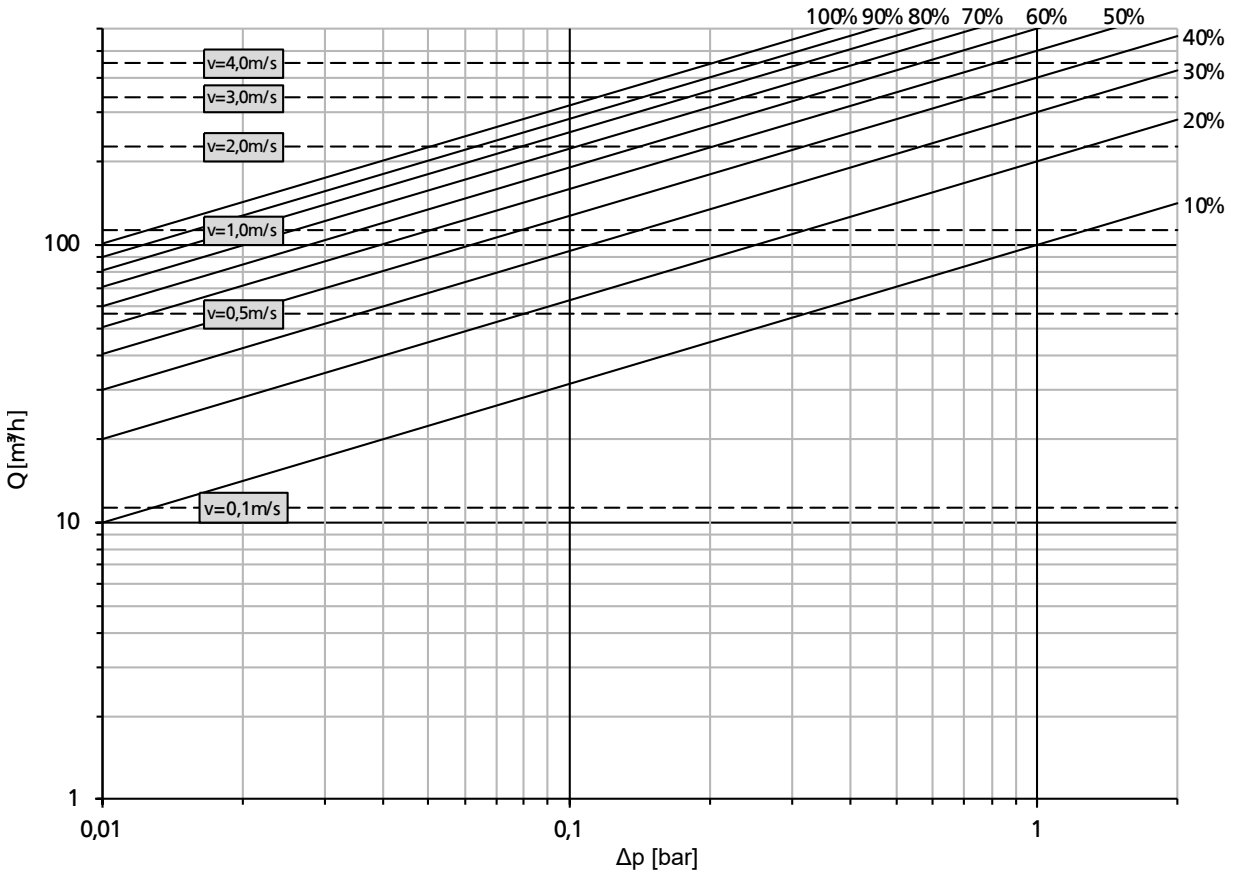
DN 200, PN 16

Selection table

Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Travel [%]
1008,0	2,5	100
907,1	3,1	90
806,1	3,9	80
705,2	5,1	70
604,2	7,0	60
503,3	10,1	50
402,3	15,8	40
301,4	28,1	30
200,4	63,6	20
99,5	258,3	10

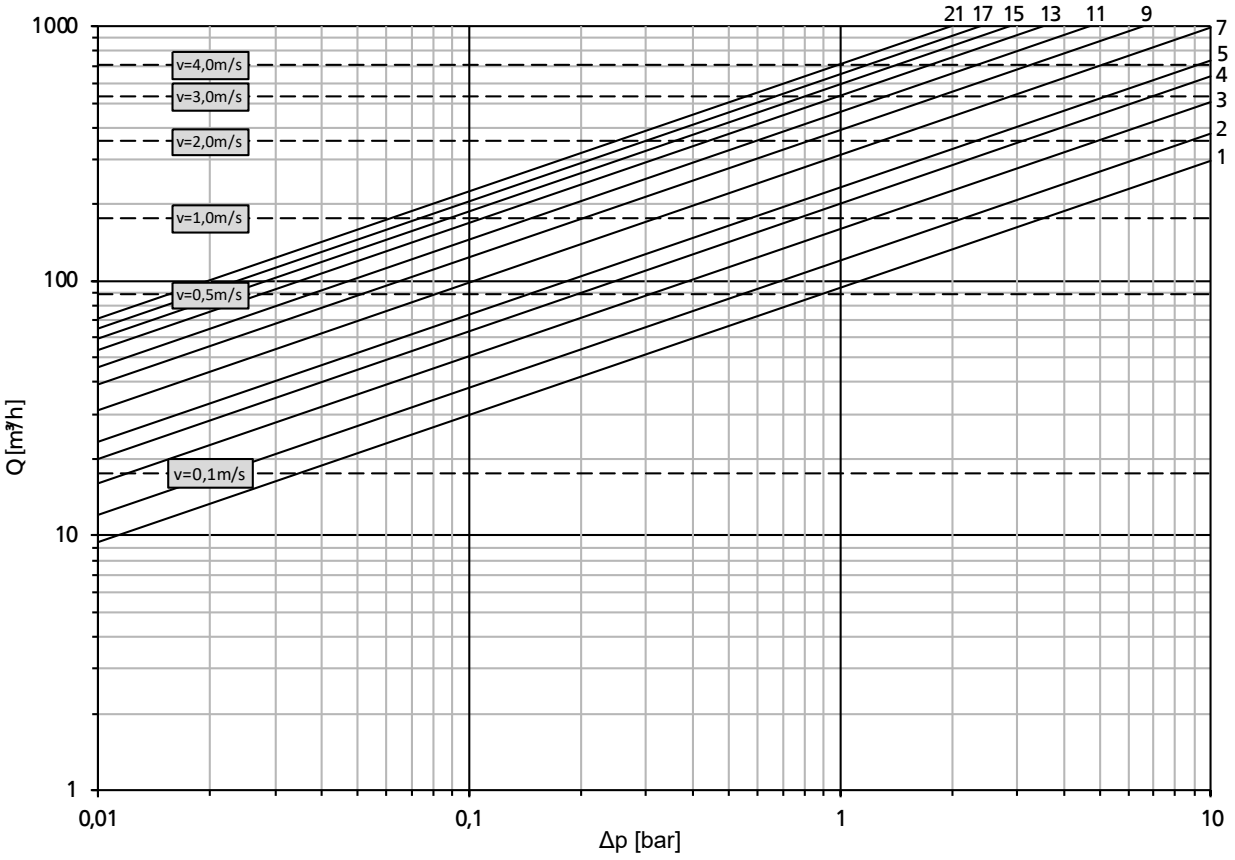


BOA-Control IMS, type BOA-H, DN 250 - 350

DN 250, PN 16

Selection table

Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Full handwheel turns from CLOSED position
714	12,2	21
692	13,0	19
652	14,7	17
595	17,6	15
534	21,9	13
461	29,3	11
392	40,6	9
312	64,1	7
233	114,9	5
200	155,9	4
160	243,6	3
120	433,1	2
94	705,9	1



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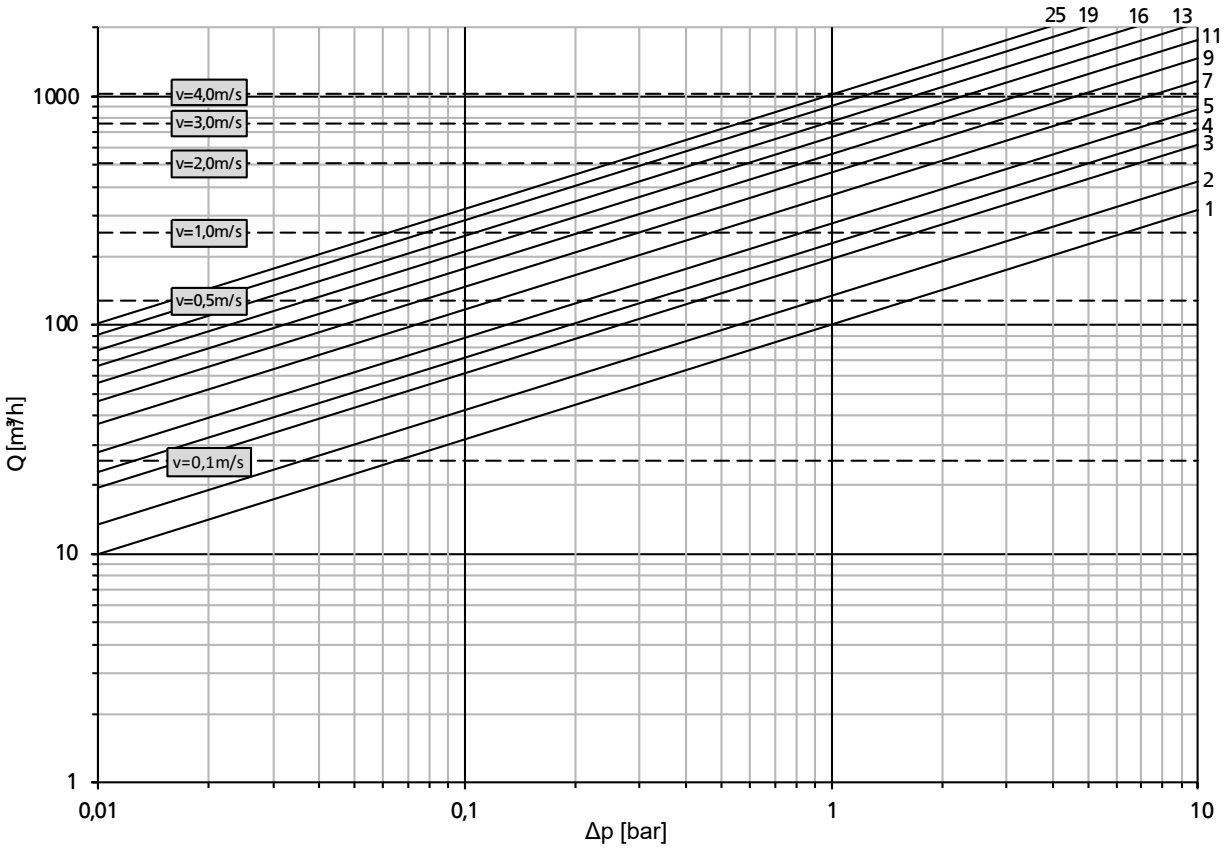
DN 300, PN 16

Selection table

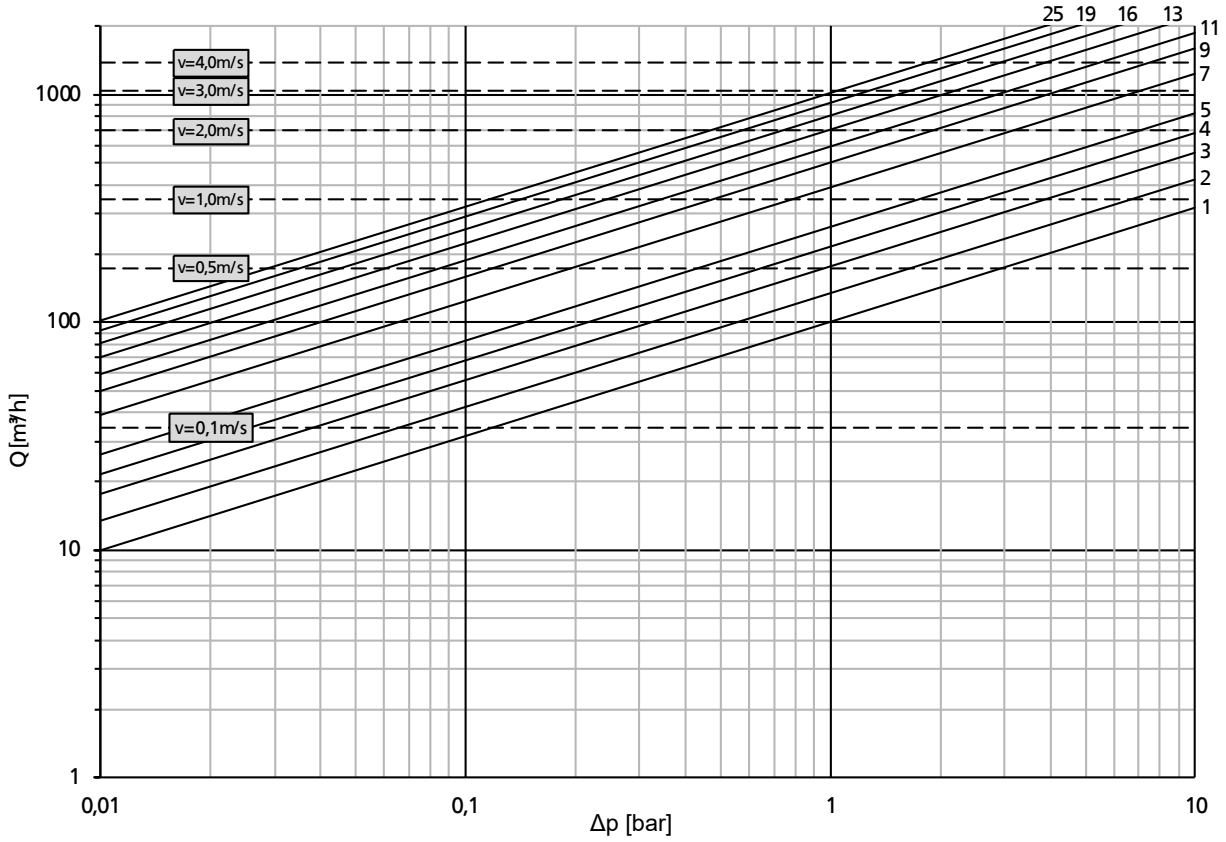
Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Full handwheel turns from CLOSED position
1012	12,6	25
993	13,1	22
902	15,9	19
776	21,5	16
660	29,7	13
560	41,2	11
465	59,8	9
370	94,5	7
278	167,3	5
227	251,0	4
195	340,1	3
134	720,3	2
100	1293,3	1



DN 350, PN 16

Selection table

Kv [m³/h]; (Δp = 1 bar)	Resistance coefficient [ζ]	Full handwheel turns from CLOSED position
1020	23,0	25
963	25,8	22
914	28,7	19
805	37,0	16
699	49,0	13
593,5	68,0	11
502	95,1	9
390	157,5	7
261	351,7	5
215	518,3	4
175	782,4	3
134	1334,4	2
100	2396,0	1



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