750 Static balancing valve

Description

Comap 750 series static balancing valves are bronze threaded variable orifice double regulating valves.
The oblique seat balancing valves are used when precise commissioning of heating, air conditioning and plumbing circuit is required.
The quality of Comap balancing valves makes it possible to balance column with great accuracy.

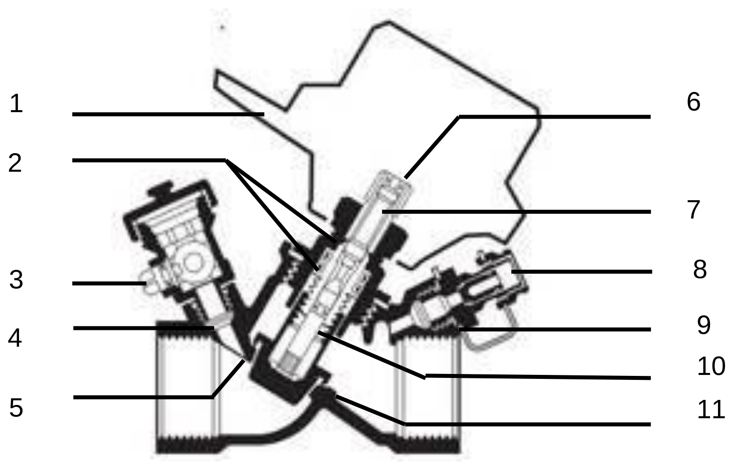
Versions

Dimension	3/8, 1/2, 3/4, 1, 1 1/4, 1 1/2, 2"
Kv	Standard, Reduced
Handwheel	Digital, or not
Drain	With or without

Benefits

- After closing setting can be recover after isolation
- 100% seat water tightness guarantee (o-ring)
- Screw cap stops dirt entering
- Quick measuring connections
- Flow measurement also with reverse flow
- Steam double sealing toward environment.

Conception



1. Handwheel: blue for reduced Kv and orange for standard Kv
2. O-rings for double external sealing of the control
3. Drain cock with integrated ball valve
4. Body
5. Oblique seat
6. Double sealing of memorized setting provided by 2 O-rings, one of which is interchangeable with the handle screw
7. Cap and rod in high strength copra-alloy
8. Instantaneous pressure tapping (with protective threaded cap)
9. Cap / cowl sealing
10. Disc sealing of valve and seat

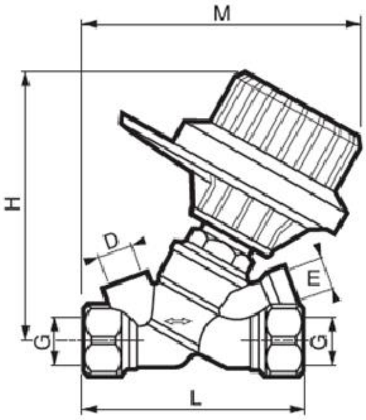
Materials

Body: DZR bronze
Handwheel: Heat shielding 6-6 polyamide charged with 30% fiber glass
O-rings for double external sealing of the control rod: EPDM
Rotating globe: Brass
Disc sealing of valve and seat: EPDM seal + Valve: DZR Brass

Specifications

Heating water system
Nominal pressure: 16bar
Minimum water temperature: -25°C
Maximum water temperature: 110°C

Dimensions



DN	G	D	E	H	L	M
10	3/8''	1/4''	1/4''	104	88.5	106
15/15R	1/2''/1/2''R	1/4''	1/4''	104	88.5	106
20/20R	3/4 ''/3/4''	1/4''	1/4''	104	95.5	112
25/25R	1''/1''R	1/4''	1/4''	108	96	116
32	1''1/4''	3/8''	1/4''	117	117	127
40	1''1/2''	3/8''	1/4''	122	125	133
50	2''	3/8''	1/4''	126	149	146

Product line

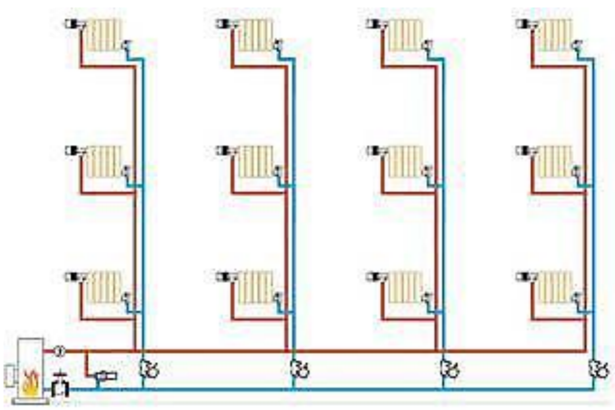
Figure	Photo	Fonctions				DN	G	Weight (in kg)	Code
		Pressure test point	Drain	Cap	Digital Handwheel				
750		1	1	-	X	DN10 DN15 DN20 DN25 DN32 DN40 DN50	3/8'' 1/2'' 3/4'' 1'' 1''1/4 1'1/2 2''	0.685 0.637 0.712 0.903 1.362 1.532 2.210	750403 750404 750406 750408 750410 750412 750416
751		2	-	-	X	DN10 DN15 DN20 DN25 DN32 DN40 DN50	3/8'' 1/2'' 3/4'' 1'' 1''1/4 1'1/2 2''	0.622 0.585 0.656 0.860 1.287 1.447 2.205	751403 751404 751406 751408 751410 751412 751416

753		-	-	2	X	DN15 DN20 DN25 DN32 DN40 DN50	1/2'' 3/4'' 1'' 1''1/4 1'1/2 2''	0.559 0.620 0.807 1.250 1.382 2.140	753104 753106 753108 753110 753112 753116
750R		1	1	-	X	DN15 DN20 DN25	1/2'' 3/4'' 1''	0.643 0.700 0.885	7504041 7504061 7504081
751R		1	-	-	X	DN15 DN20 DN25	1/2'' 3/4'' 1''	0.581 0.630 0.827	7514041 7514061 7514081
1753		-	-	2	-	DN15 DN20 DN25	1/2'' 3/4'' 1''	0.565 0.495 0.762	175304 175306 175308

Application data

- Differential pressure from the pump: 0.5 bar [5 kPa]
- Flow in each column: Q = 3500l/h [3.5 m3/h]
- Installed balancing valves: 751 or 1753 DN50 – É2''
- Installed pressure drop in column:

C1: 0.15 bar [15 kPa]
C2: 0.25 bar [25 kPa]
C3: 0.33 bar [33 kPa]
C4: 0.38 bar [38 kPa]



Step 1: Calculate the resistance (pressure drop) that balancing valves will need to provide in order to balance column.

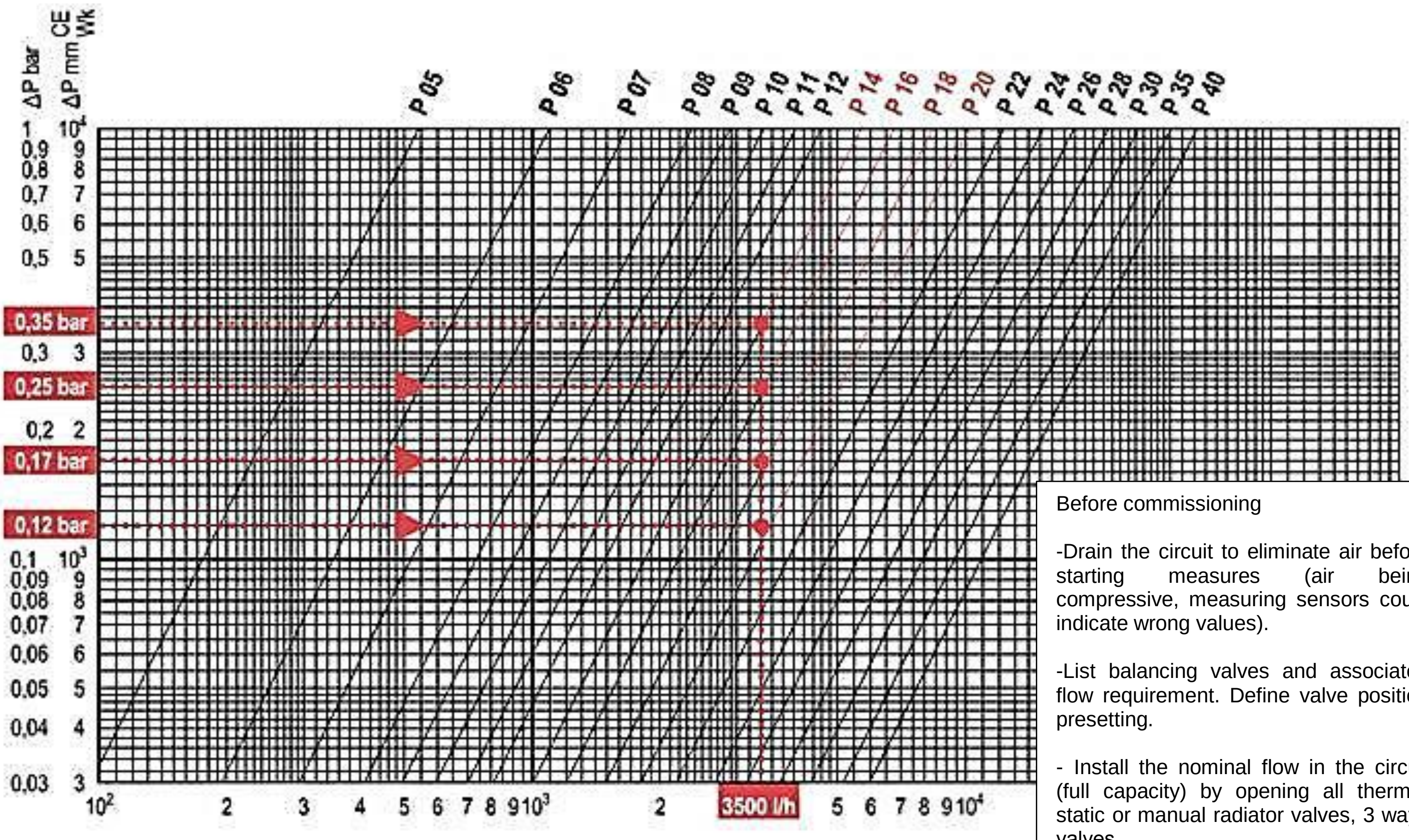
C1: 0.5 bar - 0.15 bar = 0.35 bar [35 kPa]
C2: 0.5 bar - 0.25 bar = 0.25 bar [25 kPa]
C3: 0.5 bar - 0.33 bar = 0,17 bar [17 kPa]
C4: 0.5 bar - 0.38 bar = 0.12 bar [12 kPa]

Step 2: Define presetting for each 750 balancing valve DN50 – Å2'' according to the chart (flow direction A-B)

- For 1753 valve type:
C1: 1.4 turns
C2: 1.6 turns
C2: 1.6 turns
C4: 2.0 turns

- For 751 valve type:
C1: Position 14
C2: Position 16
C3: Position 18
C4: Position 20

Example:
Position 20



Before commissioning

-Drain the circuit to eliminate air before starting measures (air being compressive, measuring sensors could indicate wrong values).

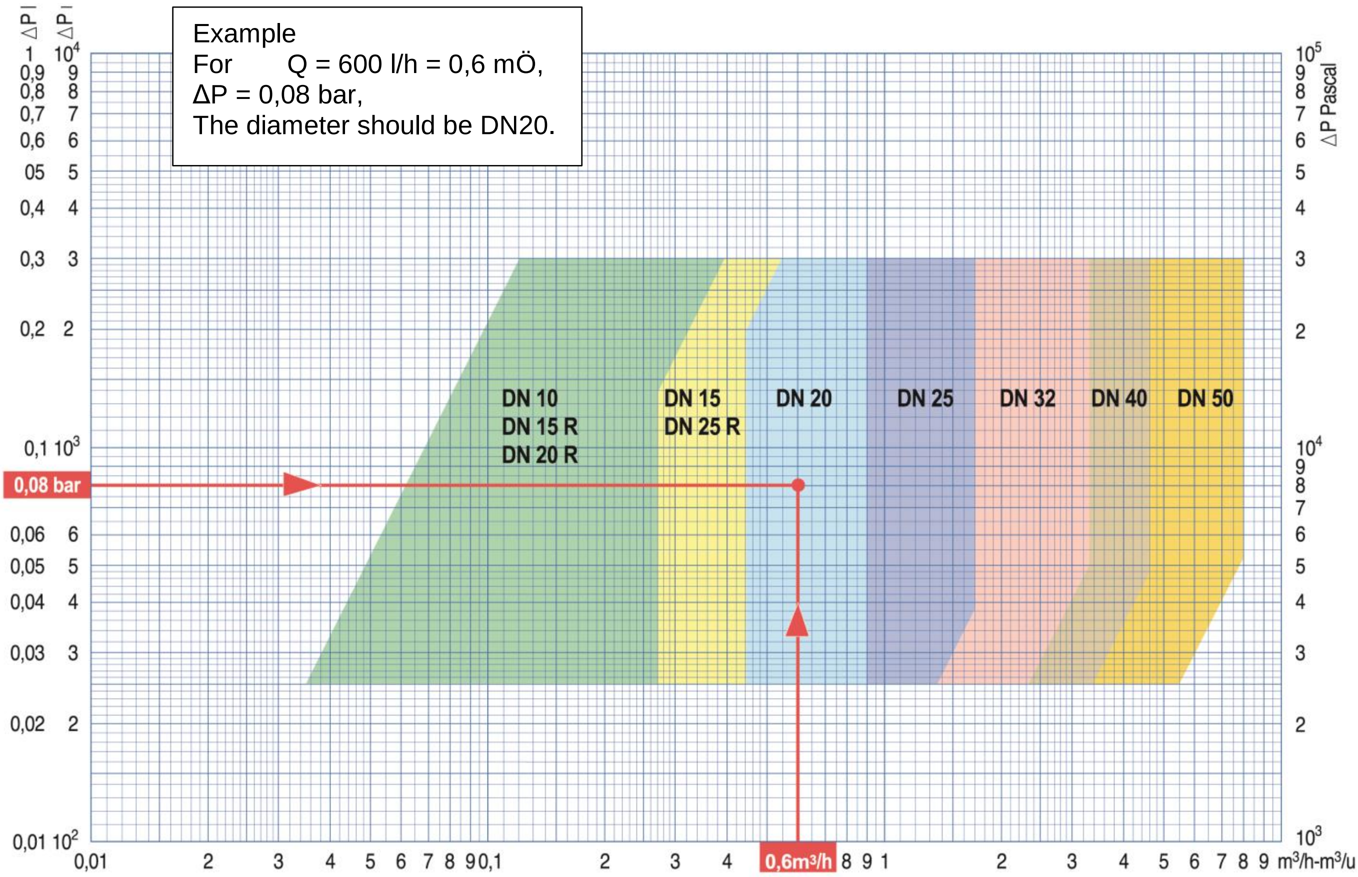
-List balancing valves and associated flow requirement. Define valve position presetting.

- Install the nominal flow in the circuit (full capacity) by opening all thermo-static or manual radiator valves, 3 ways valves…

Valve preselection

750 Series Static Balancing Valve selection for optimum commissioning and balancing.
To carry out an optimum balancing, it is necessary to respect a certain number of selection criteria. The fundamental starting point consists in choosing the valve which will provide sufficient resistance within the circuit in which it is fitted.

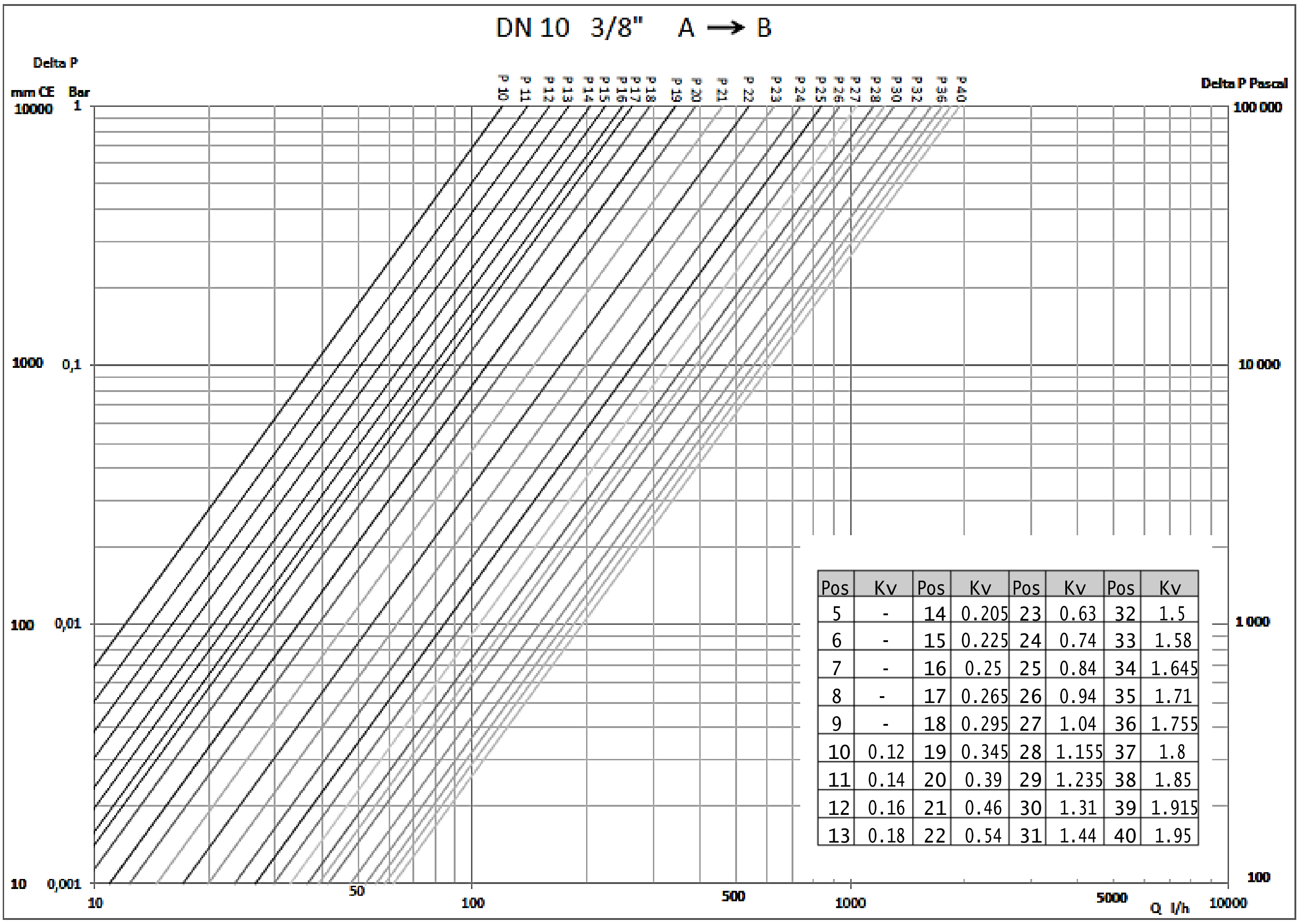
Practically, in the major cases, the valve size should be 1 to 2 diameters smaller than the pipe on which it is mounted.
Please note:
1) A minimum pressure loss is required to get an accurate measuring (please refer to measurer user guide).
2) The balancing valve must be at least in opening position 28/40 (30% of max. flow) in order to avoid creating turbulences in valve. Thus, the thread balancing valve must in position 15.
3) Depending on the flow and pressure losses, the complete opening of the balancing valve can generate acoustic phenomena due at a too high speed of the fluid in the balancing valve.
4) Special case: mounting in flow direction B → (see flow curves).



Flow charts and Kv table

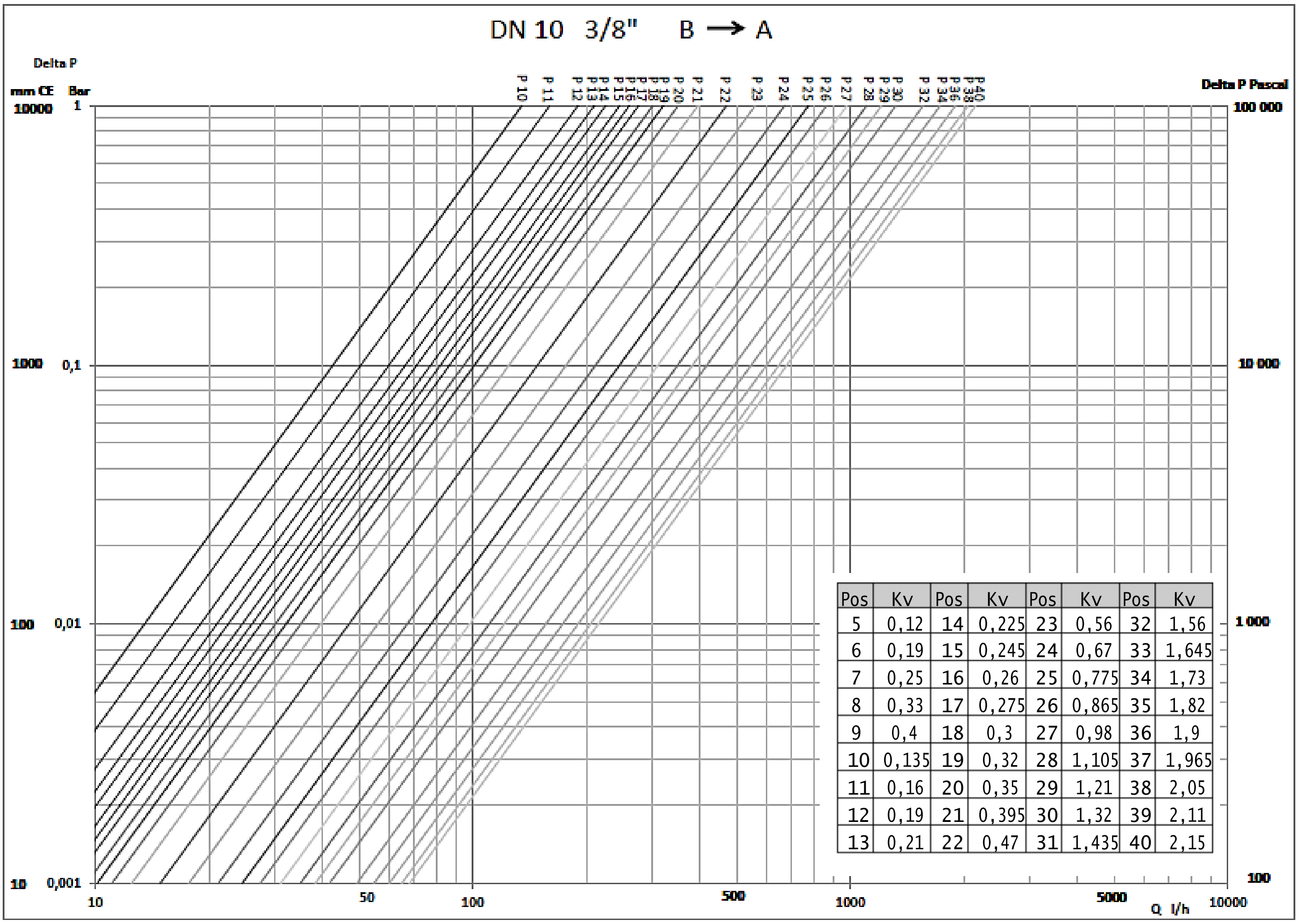
A balancing valve is defined by its flow capacity, the Kv value - Kv0, in mÖ/h which creates a differential pressure of 1bar [14.5 psi] and for fluids with a density of σ0 = 1000 kg/mÖ, (i.e. with pure water at a temperature of 20ÄC [68°F]). For fluids with another density, please refer to the correction factor (page 19).

DN10 3/8”
A → B



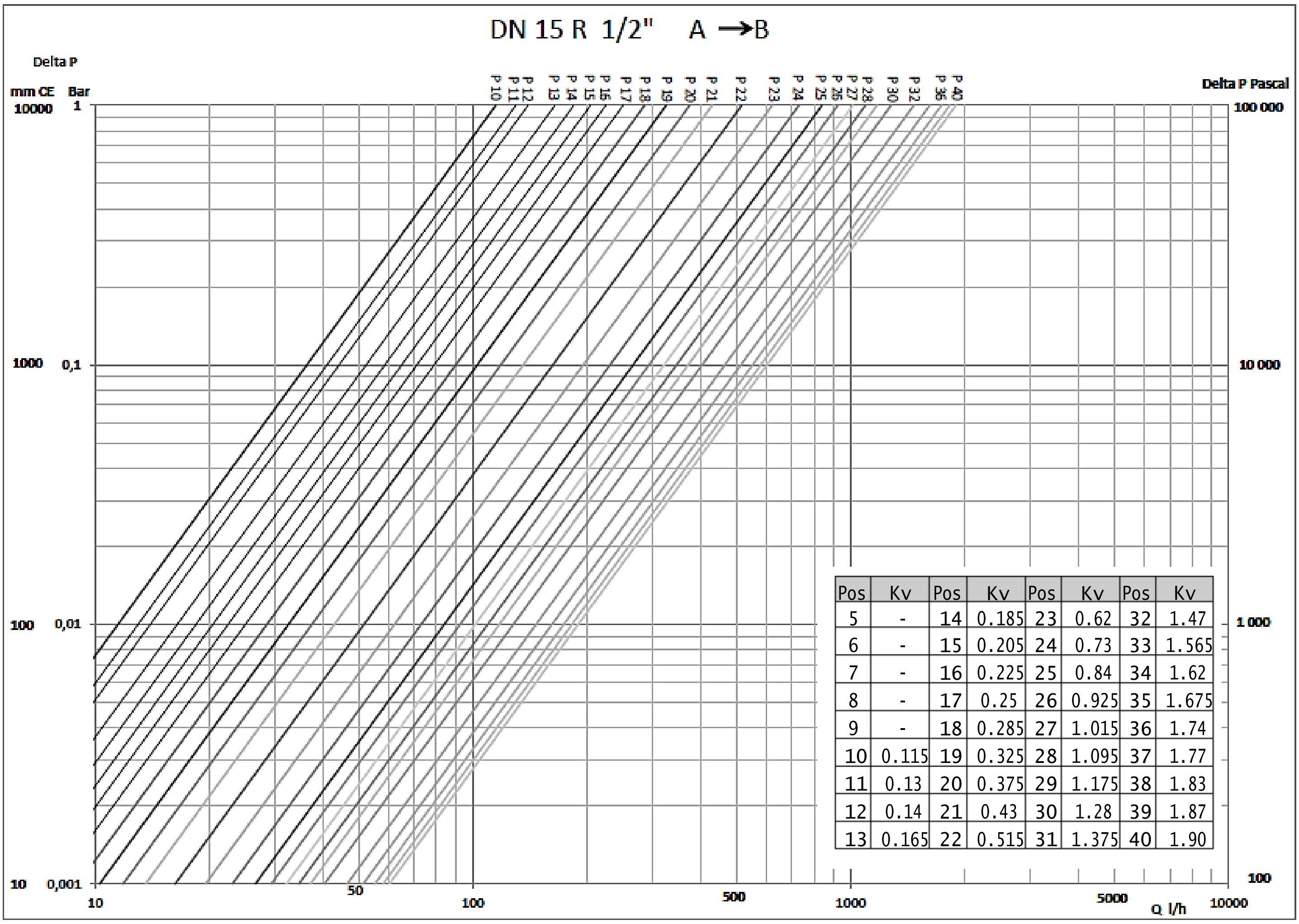
Pos	Kv	Pos	Kv	Pos	Kv	Pos	Kv
5	-	14	0.205	23	0.63	32	1.5
6	-	15	0.225	24	0.74	33	1.58
7	-	16	0.25	25	0.84	34	1.645
8	-	17	0.265	26	0.94	35	1.71
9	-	18	0.295	27	1.04	36	1.755
10	0.12	19	0.345	28	1.155	37	1.8
11	0.14	20	0.39	29	1.235	38	1.85
12	0.16	21	0.46	30	1.31	39	1.915
13	0.18	22	0.54	31	1.44	40	1.95

DN10 3/8”
B → A



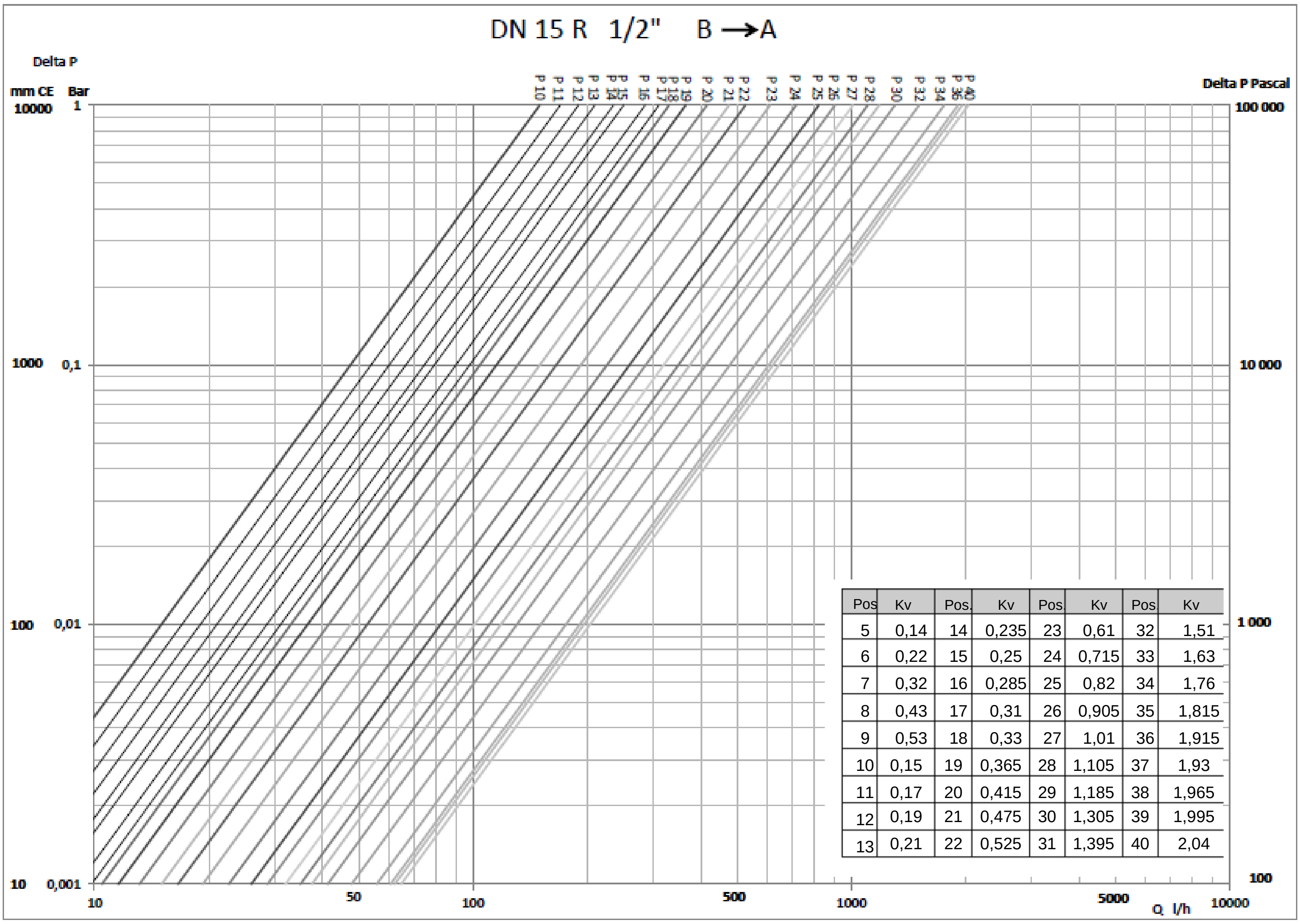
Pos	Kv	Pos	Kv	Pos	Kv	Pos	Kv
5	0,12	14	0,225	23	0,56	32	1,56
6	0,19	15	0,245	24	0,67	33	1,645
7	0,25	16	0,26	25	0,775	34	1,73
8	0,33	17	0,275	26	0,865	35	1,82
9	0,4	18	0,3	27	0,98	36	1,9
10	0,135	19	0,32	28	1,105	37	1,965
11	0,16	20	0,35	29	1,21	38	2,05
12	0,19	21	0,395	30	1,32	39	2,11
13	0,21	22	0,47	31	1,435	40	2,15

DN15 R 1/2”
A → B



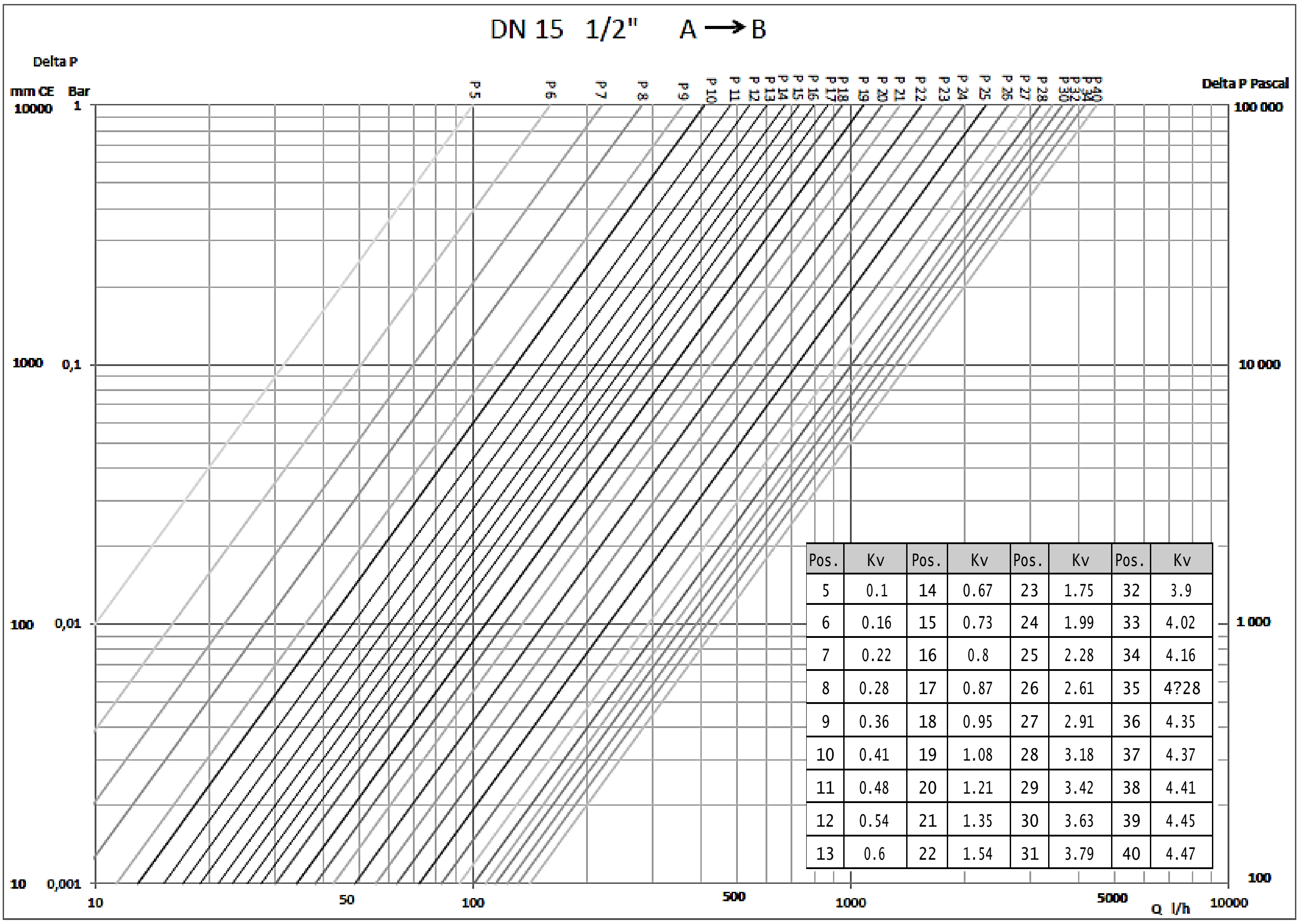
Pos	Kv	Pos	Kv	Pos	Kv	Pos	Kv
5	-	14	0.185	23	0.62	32	1.47
6	-	15	0.205	24	0.73	33	1.565
7	-	16	0.225	25	0.84	34	1.62
8	-	17	0.25	26	0.925	35	1.675
9	-	18	0.285	27	1.015	36	1.74
10	0.115	19	0.325	28	1.095	37	1.77
11	0.13	20	0.375	29	1.175	38	1.83
12	0.14	21	0.43	30	1.28	39	1.87
13	0.165	22	0.515	31	1.375	40	1.90

DN15 R 1/2”
B → A



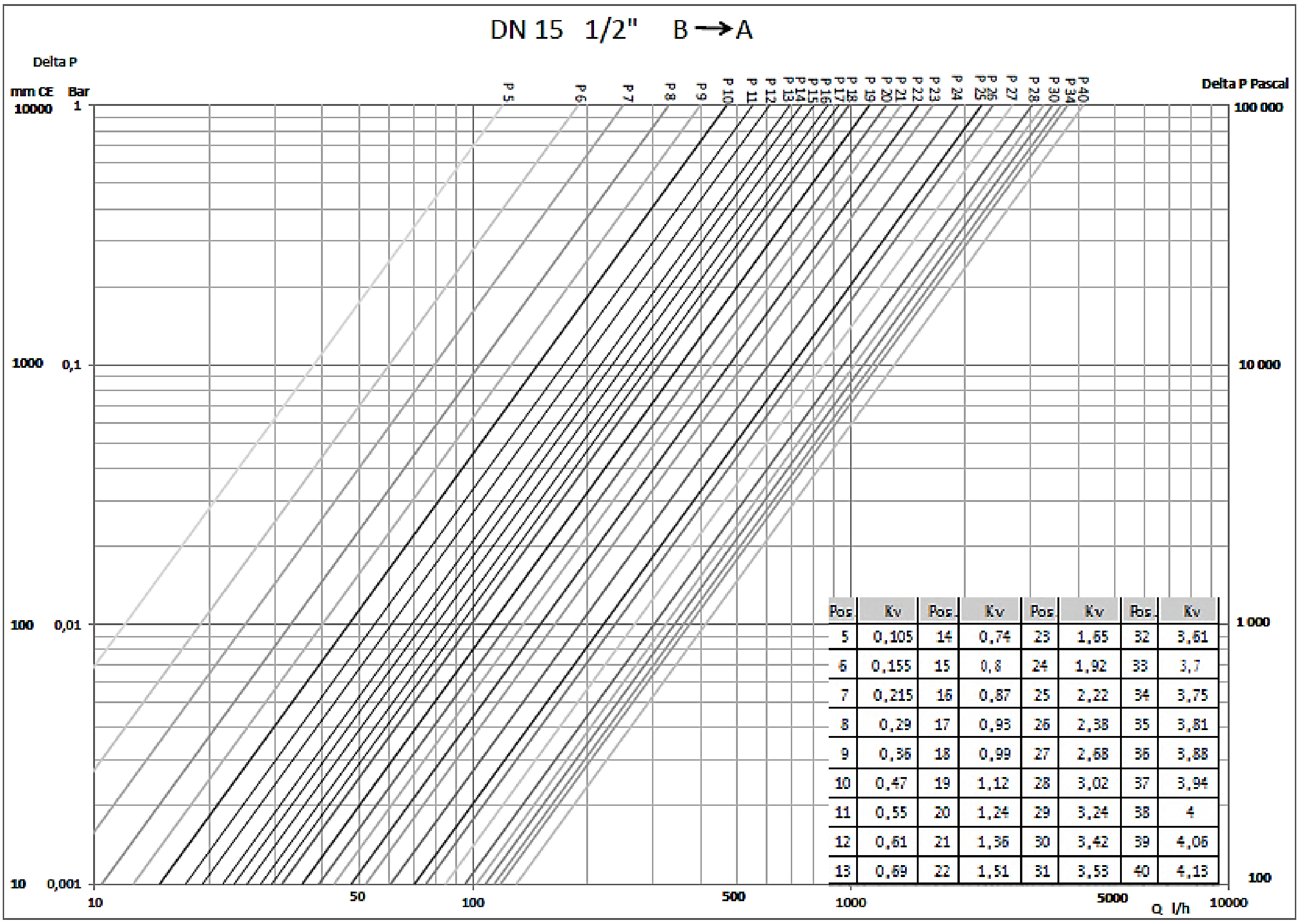
Pos	Kv	Pos.	Kv	Pos.	Kv	Pos.	Kv
5	0,14	14	0,235	23	0,61	32	1,51
6	0,22	15	0,25	24	0,715	33	1,63
7	0,32	16	0,285	25	0,82	34	1,76
8	0,43	17	0,31	26	0,905	35	1,815
9	0,53	18	0,33	27	1,01	36	1,915
10	0,15	19	0,365	28	1,105	37	1,93
11	0,17	20	0,415	29	1,185	38	1,965
12	0,19	21	0,475	30	1,305	39	1,995
13	0,21	22	0,525	31	1,395	40	2,04

DN15 1/2”
A → B



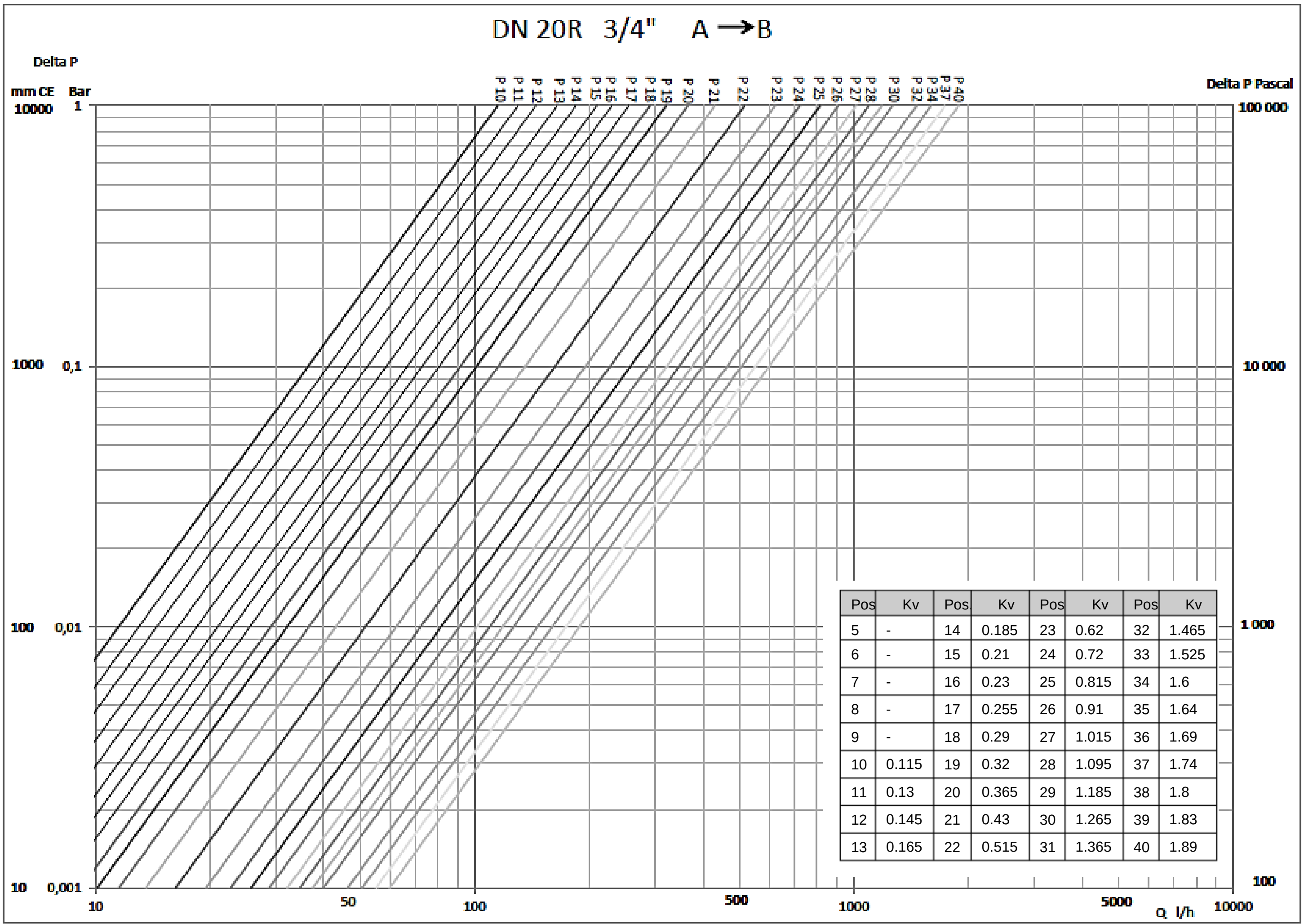
Pos.	Kv	Pos.	Kv	Pos.	Kv	Pos.	Kv
5	0.1	14	0.67	23	1.75	32	3.9
6	0.16	15	0.73	24	1.99	33	4.02
7	0.22	16	0.8	25	2.28	34	4.16
8	0.28	17	0.87	26	2.61	35	4?28
9	0.36	18	0.95	27	2.91	36	4.35
10	0.41	19	1.08	28	3.18	37	4.37
11	0.48	20	1.21	29	3.42	38	4.41
12	0.54	21	1.35	30	3.63	39	4.45
13	0.6	22	1.54	31	3.79	40	4.47

DN15 1/2”
B → A



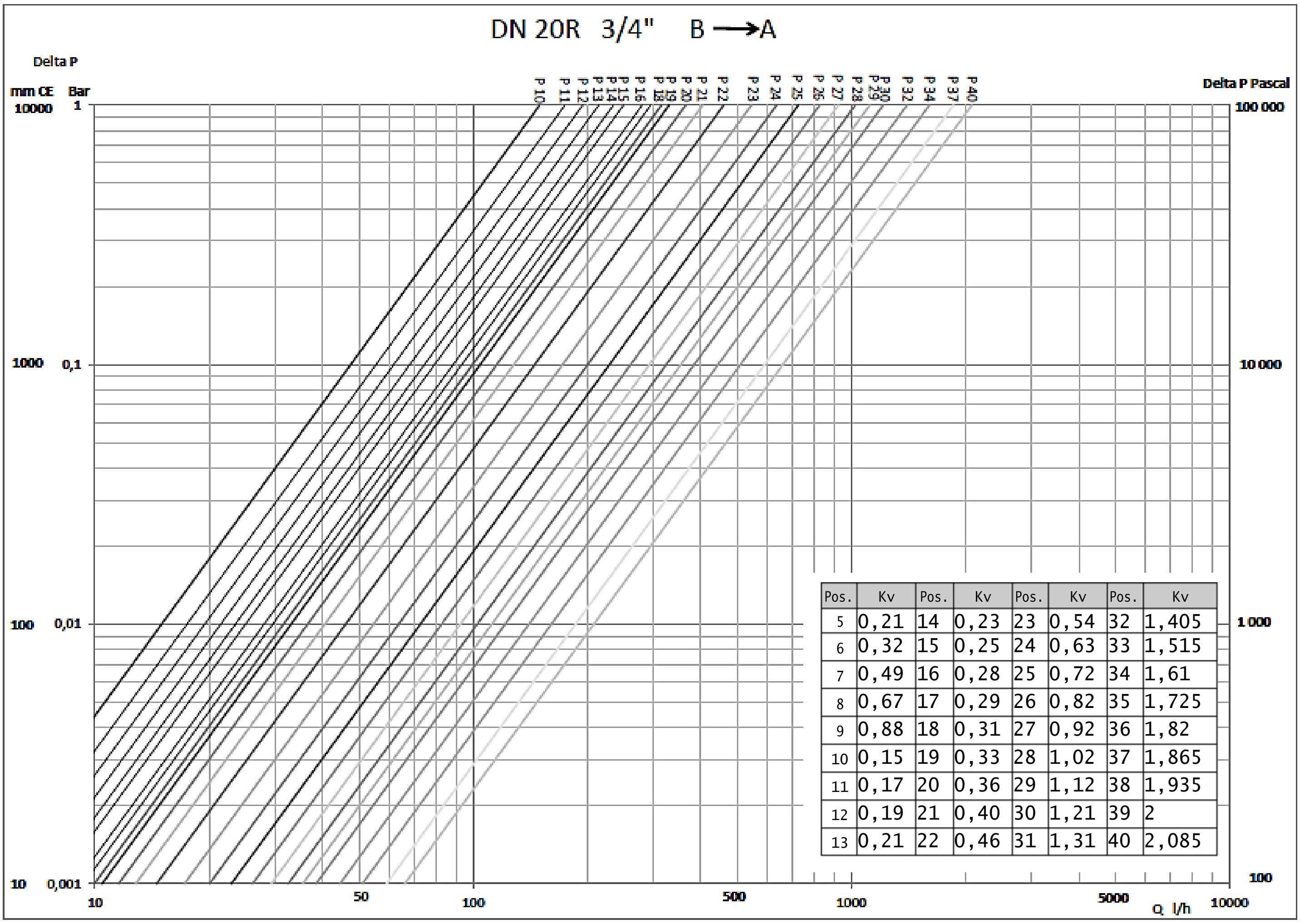
Pos	Kv	Pos	Kv	Pos	Kv	Pos	Kv
5	0,105	14	0,74	23	1,65	32	3,61
6	0,155	15	0,8	24	1,92	33	3,7
7	0,215	16	0,87	25	2,22	34	3,75
8	0,29	17	0,93	26	2,38	35	3,81
9	0,36	18	0,99	27	2,68	36	3,88
10	0,47	19	1,12	28	3,02	37	3,94
11	0,55	20	1,24	29	3,24	38	4
12	0,61	21	1,36	30	3,42	39	4,06
13	0,69	22	1,51	31	3,53	40	4,13

DN20R 3/4”
A → B



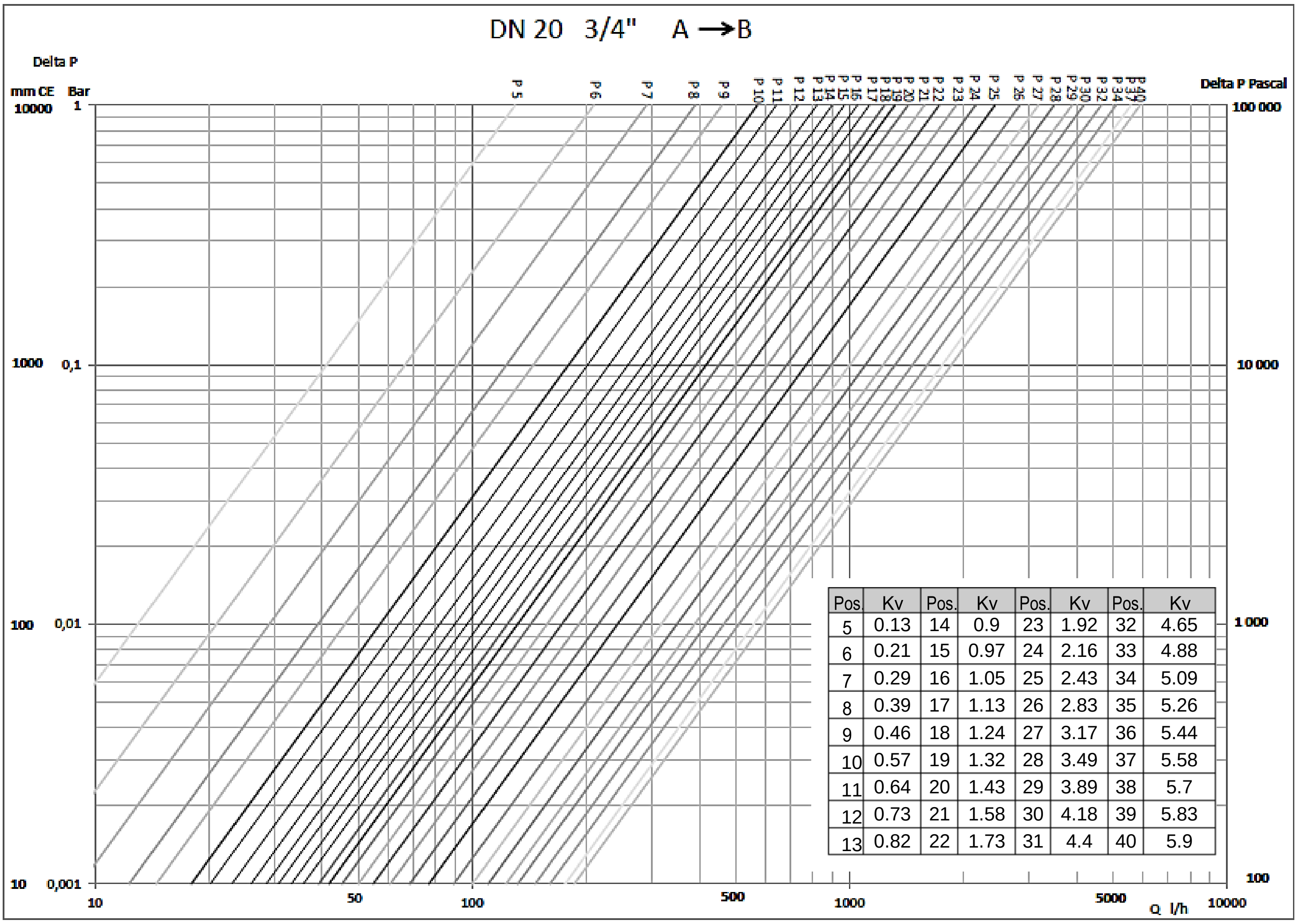
Pos	Kv	Pos	Kv	Pos	Kv	Pos	Kv
5	-	14	0.185	23	0.62	32	1.465
6	-	15	0.21	24	0.72	33	1.525
7	-	16	0.23	25	0.815	34	1.6
8	-	17	0.255	26	0.91	35	1.64
9	-	18	0.29	27	1.015	36	1.69
10	0.115	19	0.32	28	1.095	37	1.74
11	0.13	20	0.365	29	1.185	38	1.8
12	0.145	21	0.43	30	1.265	39	1.83
13	0.165	22	0.515	31	1.365	40	1.89

DN20R 3/4”
B → A



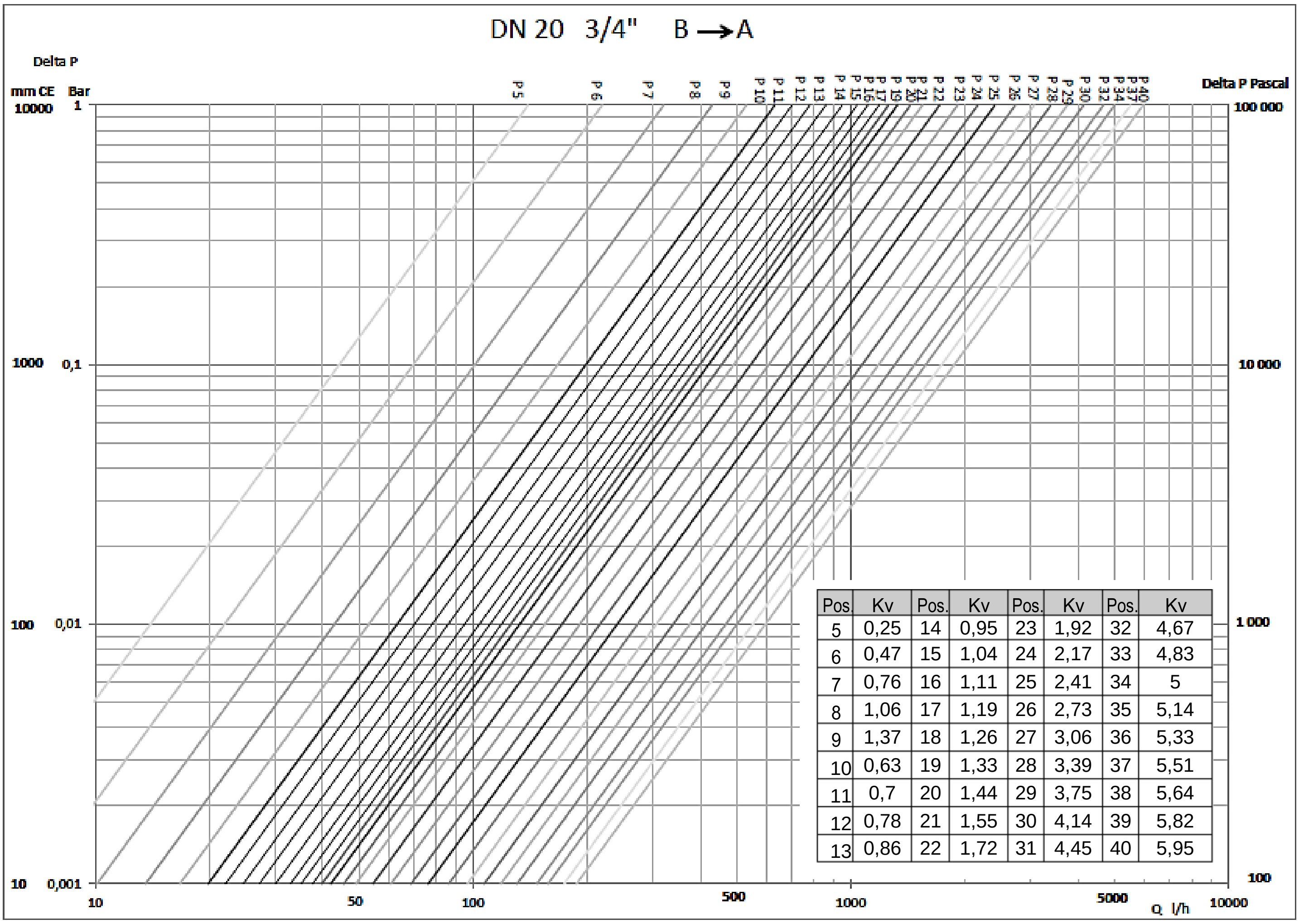
Pos.	Kv	Pos.	Kv	Pos.	Kv	Pos.	Kv
5	0,21	14	0,23	23	0,54	32	1,405
6	0,32	15	0,25	24	0,63	33	1,515
7	0,49	16	0,28	25	0,72	34	1,61
8	0,67	17	0,29	26	0,82	35	1,725
9	0,88	18	0,31	27	0,92	36	1,82
10	0,15	19	0,33	28	1,02	37	1,865
11	0,17	20	0,36	29	1,12	38	1,935
12	0,19	21	0,40	30	1,21	39	2
13	0,21	22	0,46	31	1,31	40	2,085

DN20 3/4”
A → B



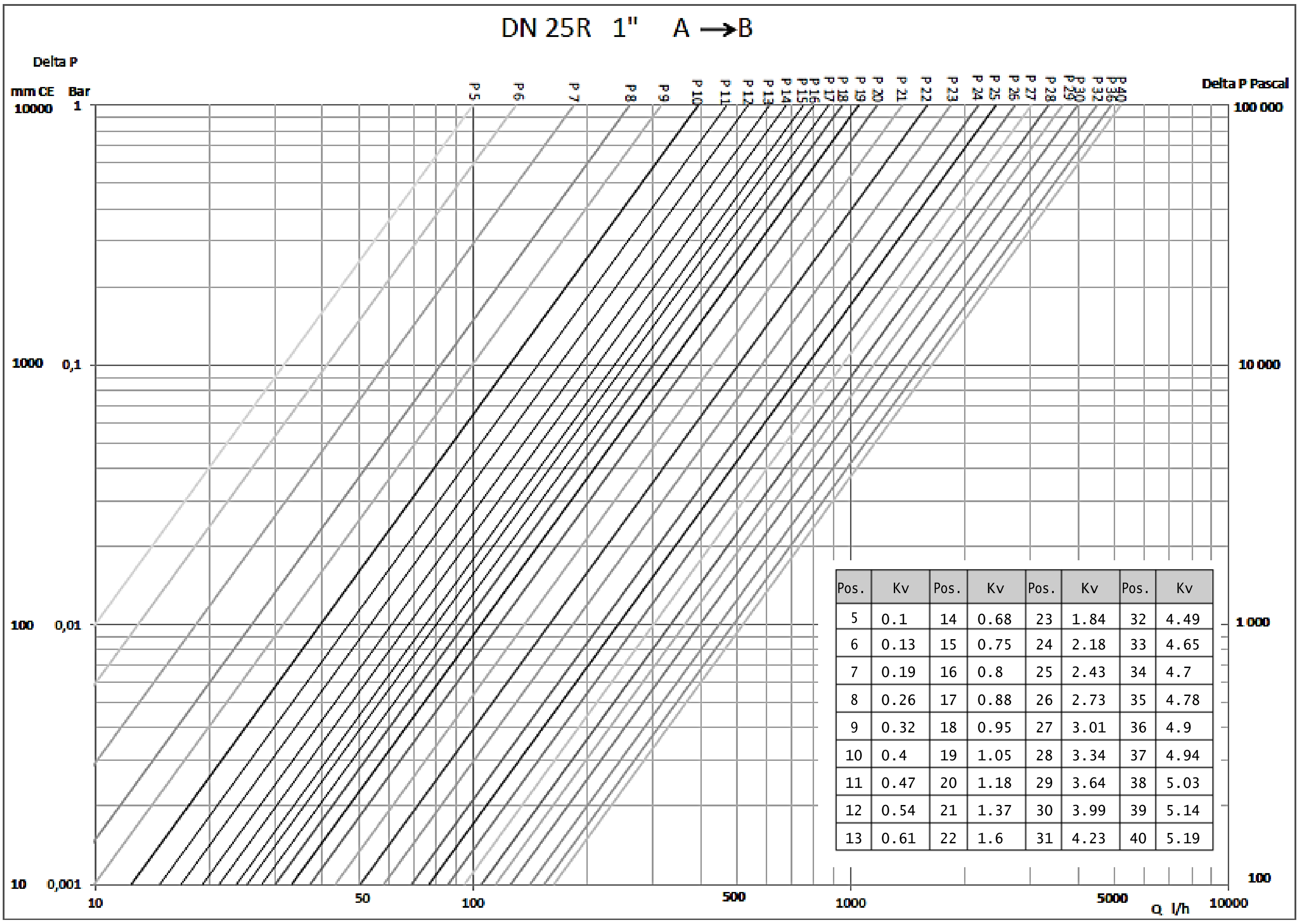
Pos	Kv	Pos.	Kv	Pos.	Kv	Pos.	Kv
5	0.13	14	0.9	23	1.92	32	4.65
6	0.21	15	0.97	24	2.16	33	4.88
7	0.29	16	1.05	25	2.43	34	5.09
8	0.39	17	1.13	26	2.83	35	5.26
9	0.46	18	1.24	27	3.17	36	5.44
10	0.57	19	1.32	28	3.49	37	5.58
11	0.64	20	1.43	29	3.89	38	5.7
12	0.73	21	1.58	30	4.18	39	5.83
13	0.82	22	1.73	31	4.4	40	5.9

DN20 3/4"
B → A



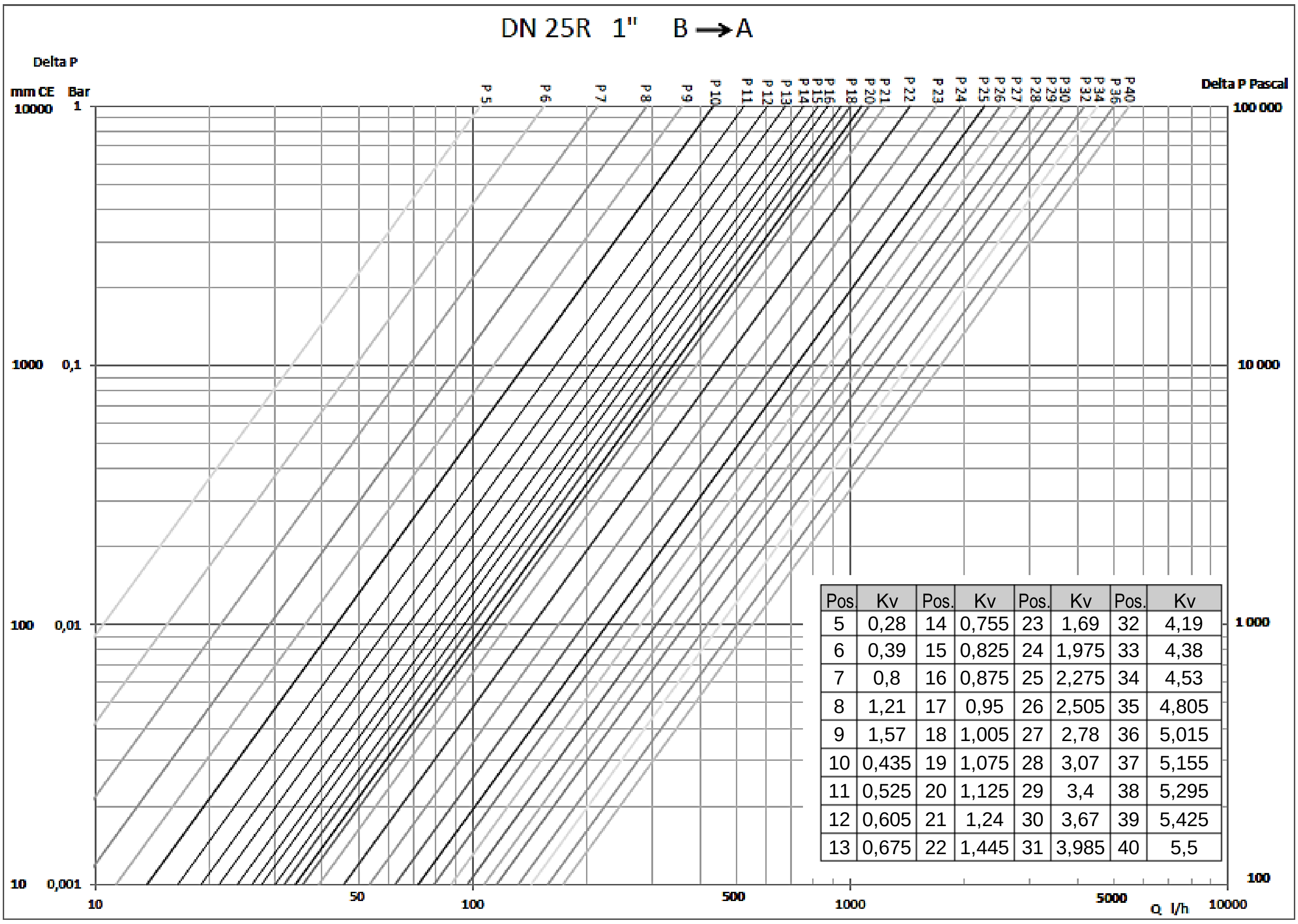
Pos	Kv	Pos.	Kv	Pos.	Kv	Pos.	Kv
5	0,25	14	0,95	23	1,92	32	4,67
6	0,47	15	1,04	24	2,17	33	4,83
7	0,76	16	1,11	25	2,41	34	5
8	1,06	17	1,19	26	2,73	35	5,14
9	1,37	18	1,26	27	3,06	36	5,33
10	0,63	19	1,33	28	3,39	37	5,51
11	0,7	20	1,44	29	3,75	38	5,64
12	0,78	21	1,55	30	4,14	39	5,82
13	0,86	22	1,72	31	4,45	40	5,95

DN25R 1"
A → B



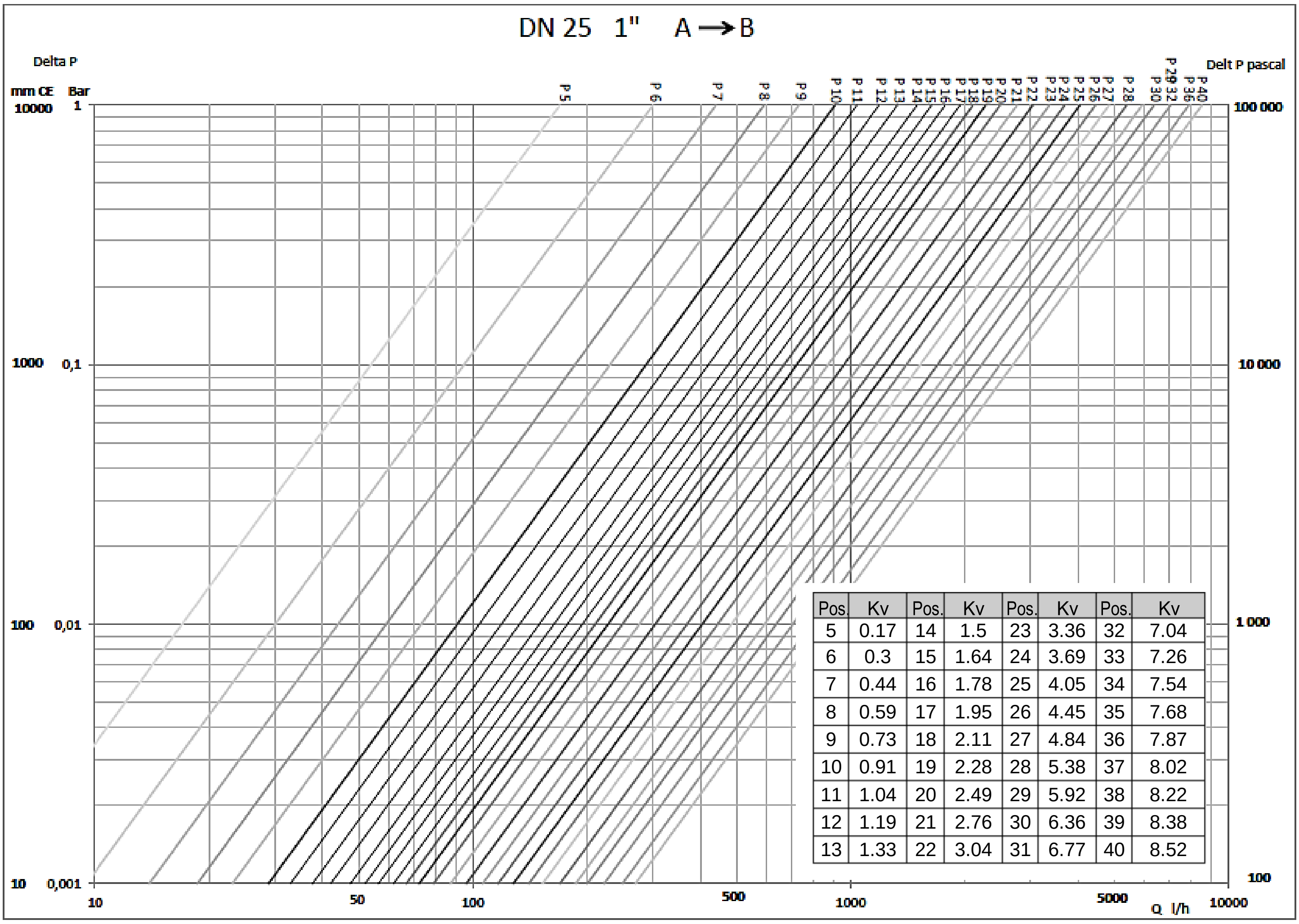
Pos.	Kv	Pos.	Kv	Pos.	Kv	Pos.	Kv
5	0.1	14	0.68	23	1.84	32	4.49
6	0.13	15	0.75	24	2.18	33	4.65
7	0.19	16	0.8	25	2.43	34	4.7
8	0.26	17	0.88	26	2.73	35	4.78
9	0.32	18	0.95	27	3.01	36	4.9
10	0.4	19	1.05	28	3.34	37	4.94
11	0.47	20	1.18	29	3.64	38	5.03
12	0.54	21	1.37	30	3.99	39	5.14
13	0.61	22	1.6	31	4.23	40	5.19

DN25R 1”
B → A



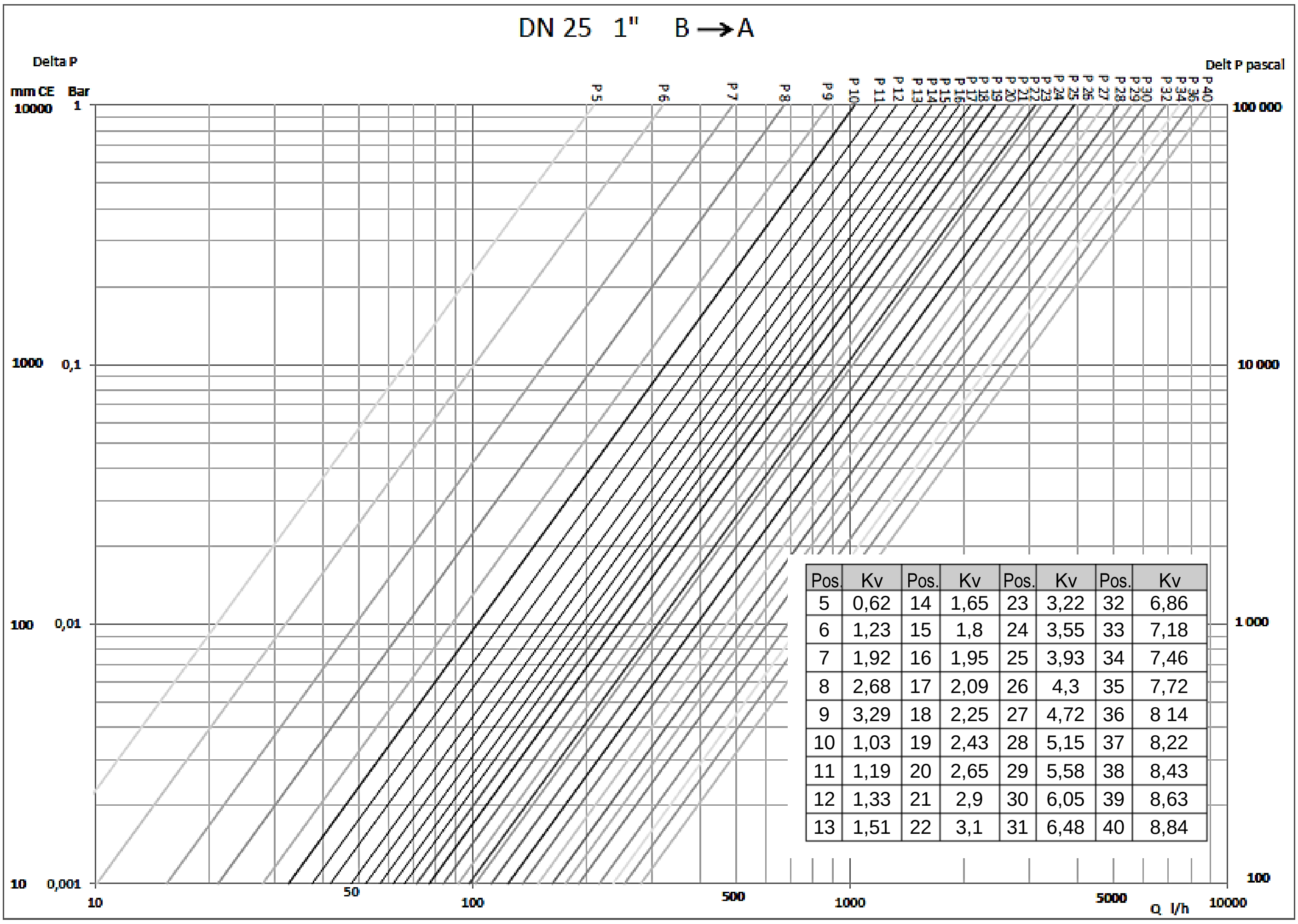
Pos	Kv	Pos.	Kv	Pos.	Kv	Pos.	Kv
5	0,28	14	0,755	23	1,69	32	4,19
6	0,39	15	0,825	24	1,975	33	4,38
7	0,8	16	0,875	25	2,275	34	4,53
8	1,21	17	0,95	26	2,505	35	4,805
9	1,57	18	1,005	27	2,78	36	5,015
10	0,435	19	1,075	28	3,07	37	5,155
11	0,525	20	1,125	29	3,4	38	5,295
12	0,605	21	1,24	30	3,67	39	5,425
13	0,675	22	1,445	31	3,985	40	5,5

DN25 1"
A → B



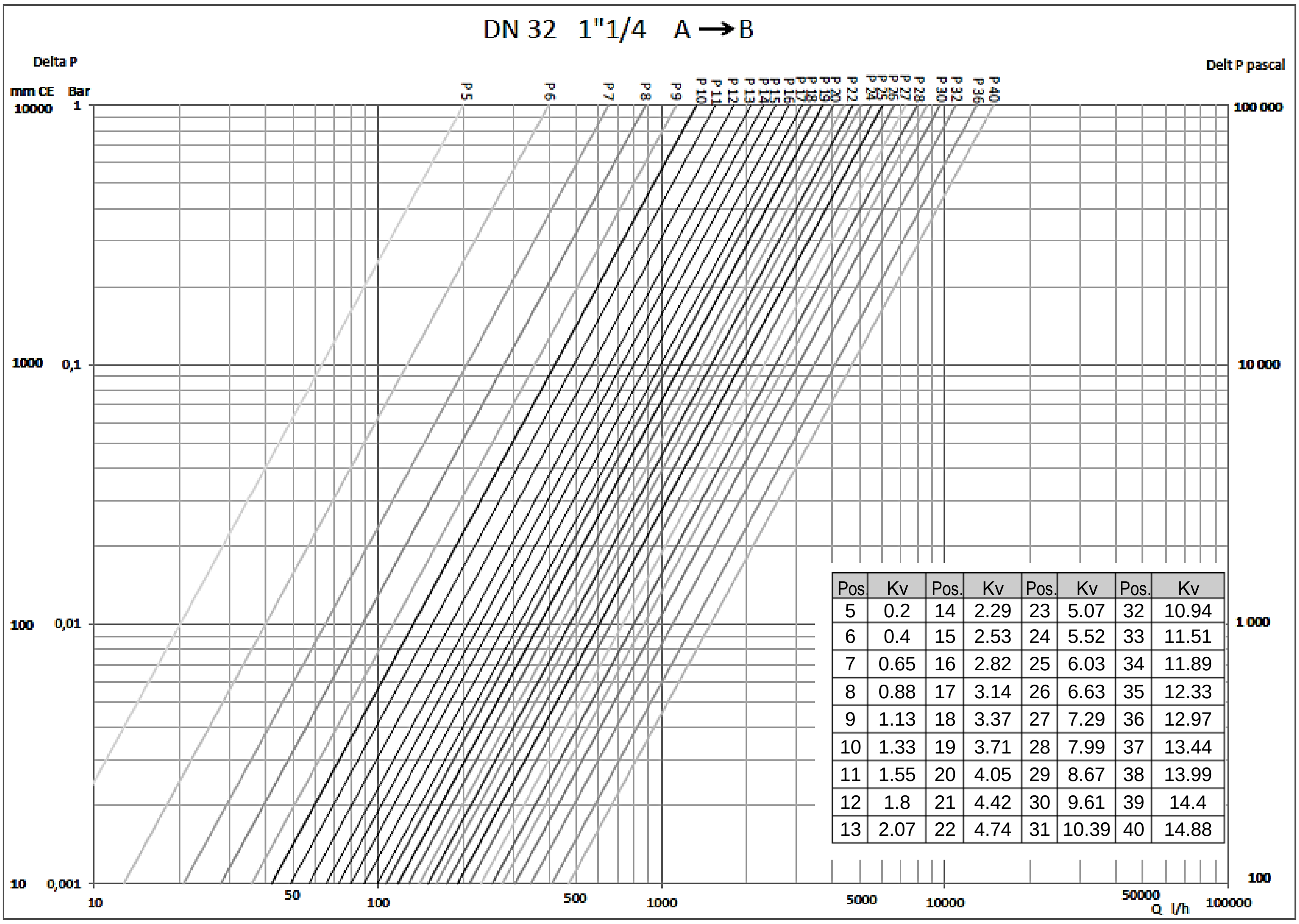
Pos.	Kv	Pos.	Kv	Pos.	Kv	Pos.	Kv
5	0.17	14	1.5	23	3.36	32	7.04
6	0.3	15	1.64	24	3.69	33	7.26
7	0.44	16	1.78	25	4.05	34	7.54
8	0.59	17	1.95	26	4.45	35	7.68
9	0.73	18	2.11	27	4.84	36	7.87
10	0.91	19	2.28	28	5.38	37	8.02
11	1.04	20	2.49	29	5.92	38	8.22
12	1.19	21	2.76	30	6.36	39	8.38
13	1.33	22	3.04	31	6.77	40	8.52

DN25 1”
B → A



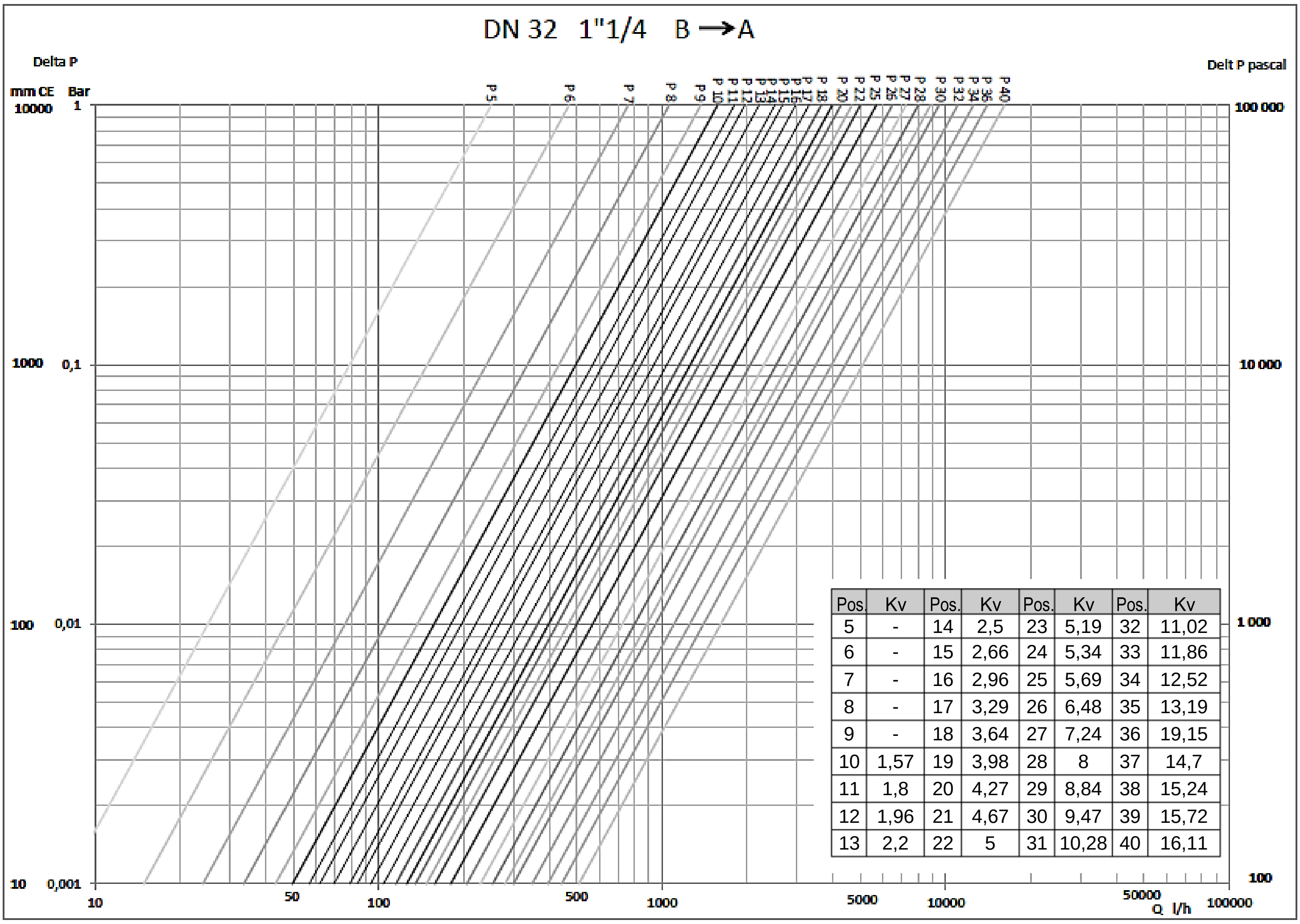
Pos	Kv	Pos.	Kv	Pos.	Kv	Pos.	Kv
5	0,62	14	1,65	23	3,22	32	6,86
6	1,23	15	1,8	24	3,55	33	7,18
7	1,92	16	1,95	25	3,93	34	7,46
8	2,68	17	2,09	26	4,3	35	7,72
9	3,29	18	2,25	27	4,72	36	8 14
10	1,03	19	2,43	28	5,15	37	8,22
11	1,19	20	2,65	29	5,58	38	8,43
12	1,33	21	2,9	30	6,05	39	8,63
13	1,51	22	3,1	31	6,48	40	8,84

DN32 1" 1/4
A → B



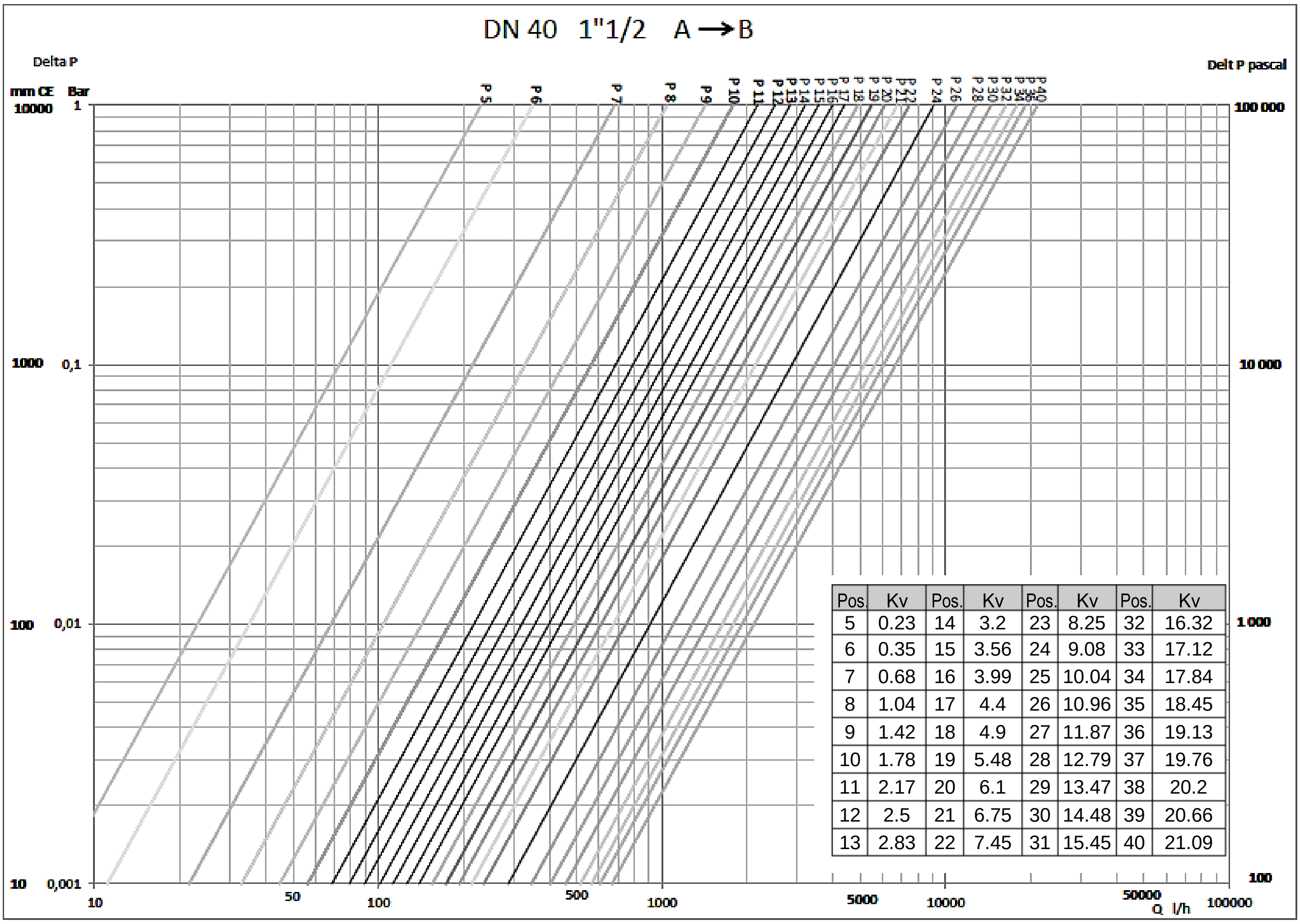
Pos.	Kv	Pos.	Kv	Pos.	Kv	Pos.	Kv
5	0.2	14	2.29	23	5.07	32	10.94
6	0.4	15	2.53	24	5.52	33	11.51
7	0.65	16	2.82	25	6.03	34	11.89
8	0.88	17	3.14	26	6.63	35	12.33
9	1.13	18	3.37	27	7.29	36	12.97
10	1.33	19	3.71	28	7.99	37	13.44
11	1.55	20	4.05	29	8.67	38	13.99
12	1.8	21	4.42	30	9.61	39	14.4
13	2.07	22	4.74	31	10.39	40	14.88

DN32 1” 1/4
B → A



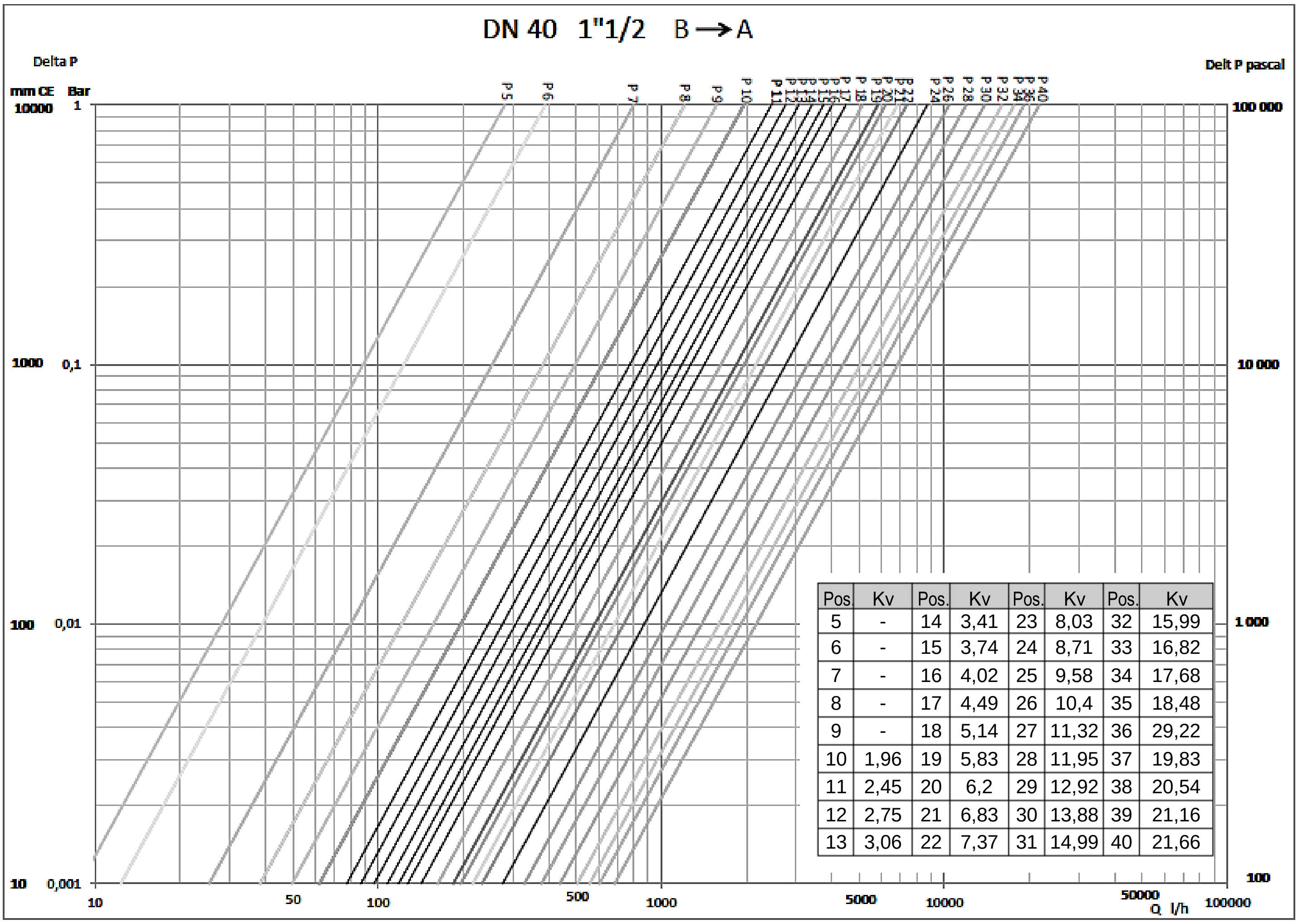
Pos.	Kv	Pos.	Kv	Pos.	Kv	Pos.	Kv
5	-	14	2,5	23	5,19	32	11,02
6	-	15	2,66	24	5,34	33	11,86
7	-	16	2,96	25	5,69	34	12,52
8	-	17	3,29	26	6,48	35	13,19
9	-	18	3,64	27	7,24	36	19,15
10	1,57	19	3,98	28	8	37	14,7
11	1,8	20	4,27	29	8,84	38	15,24
12	1,96	21	4,67	30	9,47	39	15,72
13	2,2	22	5	31	10,28	40	16,11

DN40 1" 1/2
A → B



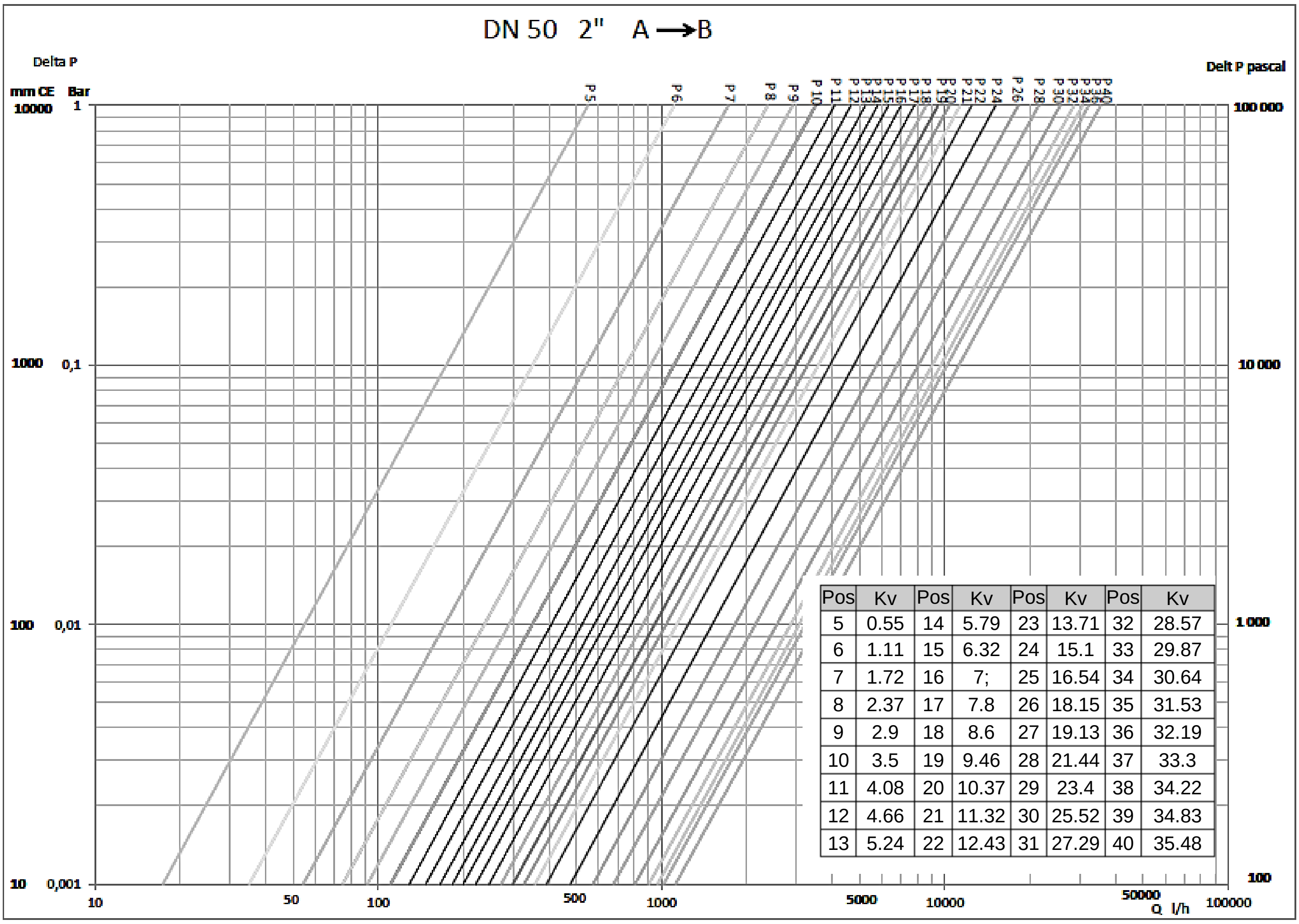
Pos.	Kv	Pos.	Kv	Pos.	Kv	Pos.	Kv
5	0.23	14	3.2	23	8.25	32	16.32
6	0.35	15	3.56	24	9.08	33	17.12
7	0.68	16	3.99	25	10.04	34	17.84
8	1.04	17	4.4	26	10.96	35	18.45
9	1.42	18	4.9	27	11.87	36	19.13
10	1.78	19	5.48	28	12.79	37	19.76
11	2.17	20	6.1	29	13.47	38	20.2
12	2.5	21	6.75	30	14.48	39	20.66
13	2.83	22	7.45	31	15.45	40	21.09

DN40 1” 1/2
B → A



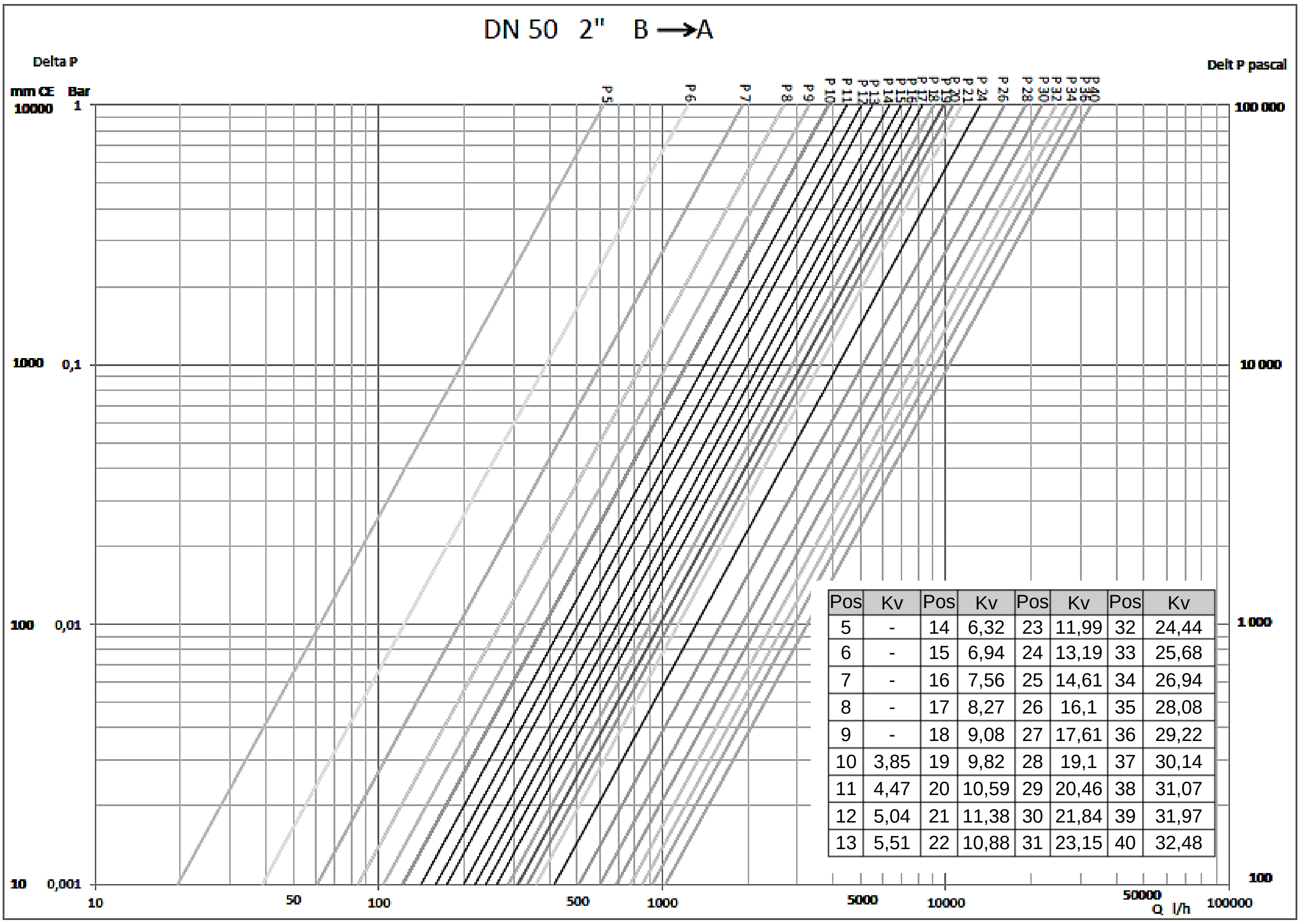
Pos	Kv	Pos.	Kv	Pos.	Kv	Pos.	Kv
5	-	14	3,41	23	8,03	32	15,99
6	-	15	3,74	24	8,71	33	16,82
7	-	16	4,02	25	9,58	34	17,68
8	-	17	4,49	26	10,4	35	18,48
9	-	18	5,14	27	11,32	36	29,22
10	1,96	19	5,83	28	11,95	37	19,83
11	2,45	20	6,2	29	12,92	38	20,54
12	2,75	21	6,83	30	13,88	39	21,16
13	3,06	22	7,37	31	14,99	40	21,66

DN50 2”
A → B



Pos	Kv	Pos	Kv	Pos	Kv	Pos	Kv
5	0.55	14	5.79	23	13.71	32	28.57
6	1.11	15	6.32	24	15.1	33	29.87
7	1.72	16	7;	25	16.54	34	30.64
8	2.37	17	7.8	26	18.15	35	31.53
9	2.9	18	8.6	27	19.13	36	32.19
10	3.5	19	9.46	28	21.44	37	33.3
11	4.08	20	10.37	29	23.4	38	34.22
12	4.66	21	11.32	30	25.52	39	34.83
13	5.24	22	12.43	31	27.29	40	35.48

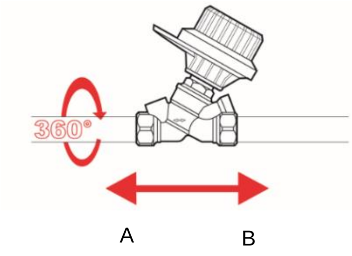
DN50 2”
B → A



Pos	Kv	Pos	Kv	Pos	Kv	Pos	Kv
5	-	14	6,32	23	11,99	32	24,44
6	-	15	6,94	24	13,19	33	25,68
7	-	16	7,56	25	14,61	34	26,94
8	-	17	8,27	26	16,1	35	28,08
9	-	18	9,08	27	17,61	36	29,22
10	3,85	19	9,82	28	19,1	37	30,14
11	4,47	20	10,59	29	20,46	38	31,07
12	5,04	21	11,38	30	21,84	39	31,97
13	5,51	22	10,88	31	23,15	40	32,48

Installation

-Valve orientation

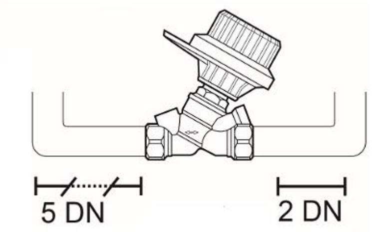


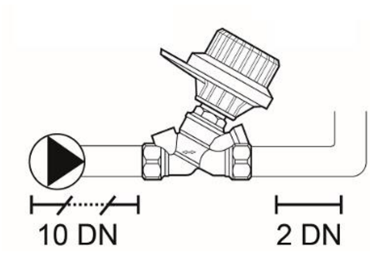
Can be mounted in both flow directions, though preferred flow direction is A => B (marked on the body).

Can be mounted 360° around pipe axis.

Can be installed in either the supply or the return pipe, but installation in the return pipe is recommended.

-Recommended pipe length





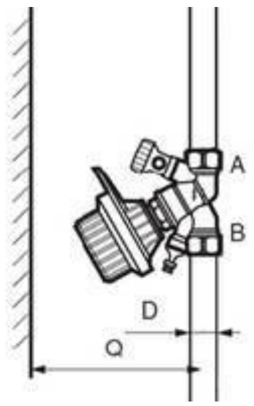
For safe guarding optimum measuring results, inlet and outlet distances of 15 x DN are recommended.

The minimum length of the inlet section:

- downstream of a pump should be 10 x DN,
- downstream of valves or fittings should be 5 x DN.

The minimum length of the outlet section should be at least 2 x DN.

-Reserved space for accessibility



DN10	Q = 165 mm
DN15	Q = 165 mm
DN20	Q = 165 mm
DN25	Q = 170 mm
DN32	Q = 180 mm
DN40	Q = 185 mm
DN50	Q = 190 mm

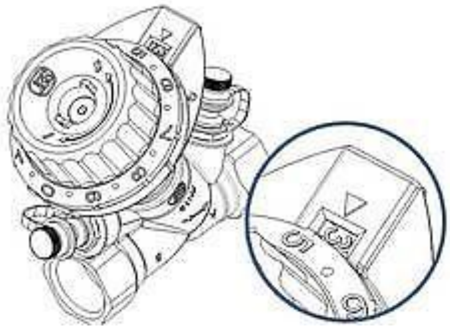
For an easy connection of the measurer on the balancing valve, a minimum distance (Q) should be respected

The 750 Series Static Balancing Valves can be installed on supply or on return lines and in all positions. It allows the fluid flow in both directions. However, it is recommended to choose the preferred flow circulation from A to B for optimum valve setting.

A flow direction arrow is marked on the valve body as well as A and B to indicate the preferred flow direction.

When the pressure test point is located under the balancing valve, there is a risk of dirt stagnation on the pressure test points. The sealing can become difficult. To eliminate these impurities, it is sufficient, time to time, to introduce the hexagonal key in the pressure test point.

Presetting position



The presetting value of the valve is adjusted by turning the handwheel: the valves closes when handwheel is turned clockwise.

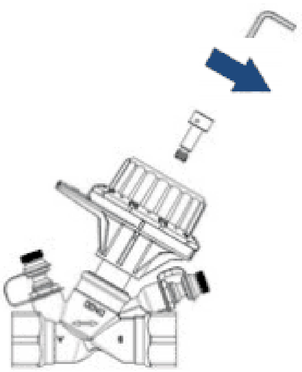
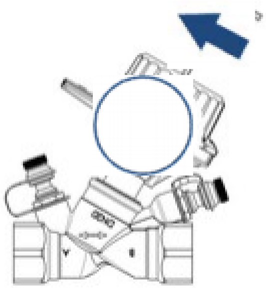
The presetting position is shown by the digital display: from 0 (valve fully closed) to 40 (valve fully open).

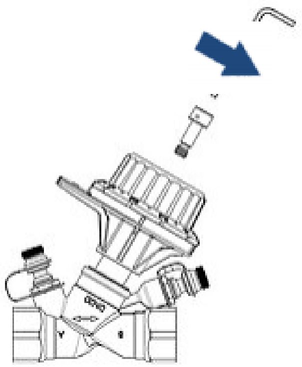
Each turn of the handwheel corresponds to one ten - display in the red window (example: 3).

The presetting subdivision corresponds to 1/10 rotation of the handwheel - display in the black window (example: 5).

Presetting memorization

The presenting value can be memorized in order to recover the presetting after having closed completely the valve for instance: when reopening the valve the presetting will be limited to the memorized value.

	Remove the protection screw by using the long end of a 3mm Allen key.
	Replace and tighten the setting memorization screw until its seats. The setting is memorized

	Screw back the protection screw. The setting is memorized and protected.

Presetting protection

	Screw the protection screw in which the sealing wire has been fitted.
	Pass the wire in the handwheel eyes and fit the lead seal.
	The handwheel can be locked in any position: introduce the ring of the plate in a hole located on the graduated collar of the handwheel. The handwheel position is sealed.

Correction factor

A balancing valve is defined by its flow capacity, the Kv value - Kv0, in mÖ/h which creates a differential pressure of 1bar [14.5 psi] and for fluids with a density of σ0 = 1000 kg/mÖ, (i.e. with pure water at a temperature of 20ÄC [68°F]).

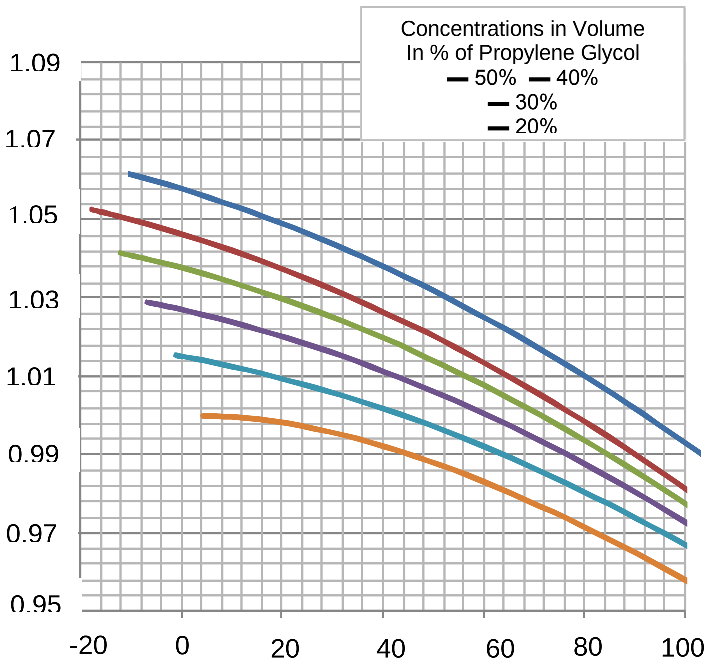
For fluids with another density the Kv-value, Kvfluid, needs to be recalculated using a correction factor, f. In practice, when using charts, the differential pressure must be multiplied by the correction factor, f:

$$Kvfluid = Kv0 \times \frac{1}{\sqrt{f}}$$

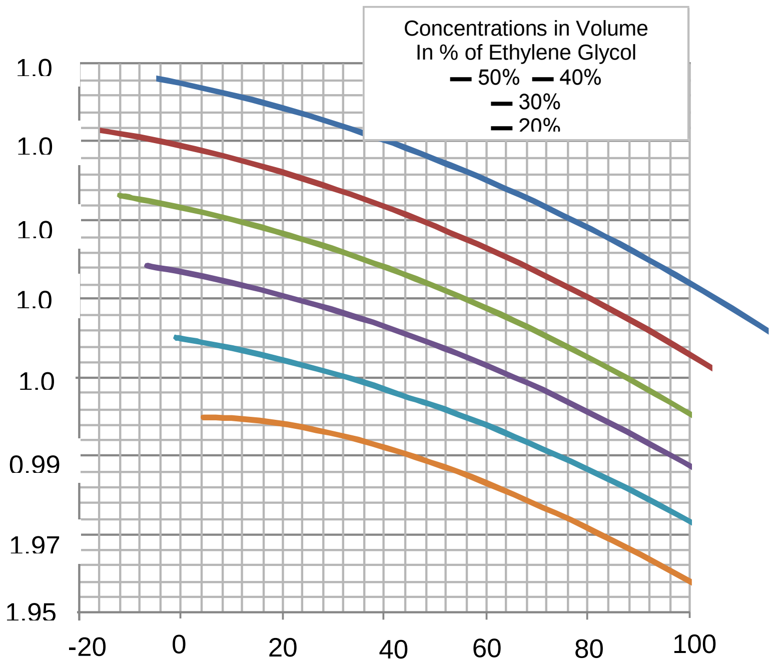
$$\Delta Pfluid = \Delta P_0 \times F$$

$$Qfluid = Q_0 \times \frac{1}{\sqrt{f}}$$

Correction factor F
for Aqueous Solutions of Propylene Glycol



Correction factor F
for Aqueous Solutions of Ethylene Glycol



		Correction factor F					
Fluid	%of glycol	5ÄC	20ÄC	35ÄC	50ÄC	65ÄC	80ÄC
Water	0%	1,000	0,998	0,994	0,988	0,981	0,972
Ethylene glycol	10%	1,019	1,015	1,009	1,003	0,995	0,987
	20%	1,036	1,031	1,025	1,018	1,010	1,001
	30%	1,052	1,046	1,040	1,033	1,025	1,015
	40%	1,067	1,061	1,054	1,047	1,038	1,028
	50%	1,081	1,075	1,068	1,059	1,050	1,040
Propylene glycol	0%	1,000	0,998	0,994	0,988	0,981	0,972
	10%	1,014	1,009	1,004	0,997	0,989	0,980
	20%	1,026	1,020	1,014	1,006	0,998	0,988
	30%	1,036	1,030	1,022	1,014	1,004	0,994
	40%	1,044	1,037	1,029	1,020	1,010	0,998
	50%	1,052	1,044	1,035	1,025	1,014	1,002

Accessories

Photo	Designation	Size	Code
	Cap + o-ring for: valve from 3/8'' to 1'' upstream port valve from 3/8'' to 2'' downstream port	1/4''	VPD00A15
	Cap + o-ring for valve from 1''1/4 to 2'' upstream port	3/8''	VPD00A16
	Drain for: valve from 3/8'' to 1'' upstream port	1/4''	VPD00A11
	Drain for: valve from 1''1/4 to 2'' upstream	3/8''	VPD00A12
	Test point for: valve from 3/8'' to 1'' upstream port valve from 3/8'' to 2'' downstream port	1/4''	276102
	Test point for valve from 1''1/4 to 2'' upstream port	3/8''	276103
	Extension for valve from 3/8'' to 1'' upstream port	1/4'' - L = 50mm	VBG95C00
	Extension for valve from 1''1/4 to 2'' upstream port	3/8'' - L = 50mm	VBG95C01
	Extension for valve from 3/8'' to 1'' upstream port	1/4''- L=20mm	VPDBWA43
	Test point for drain 1210	3/4''	276200