

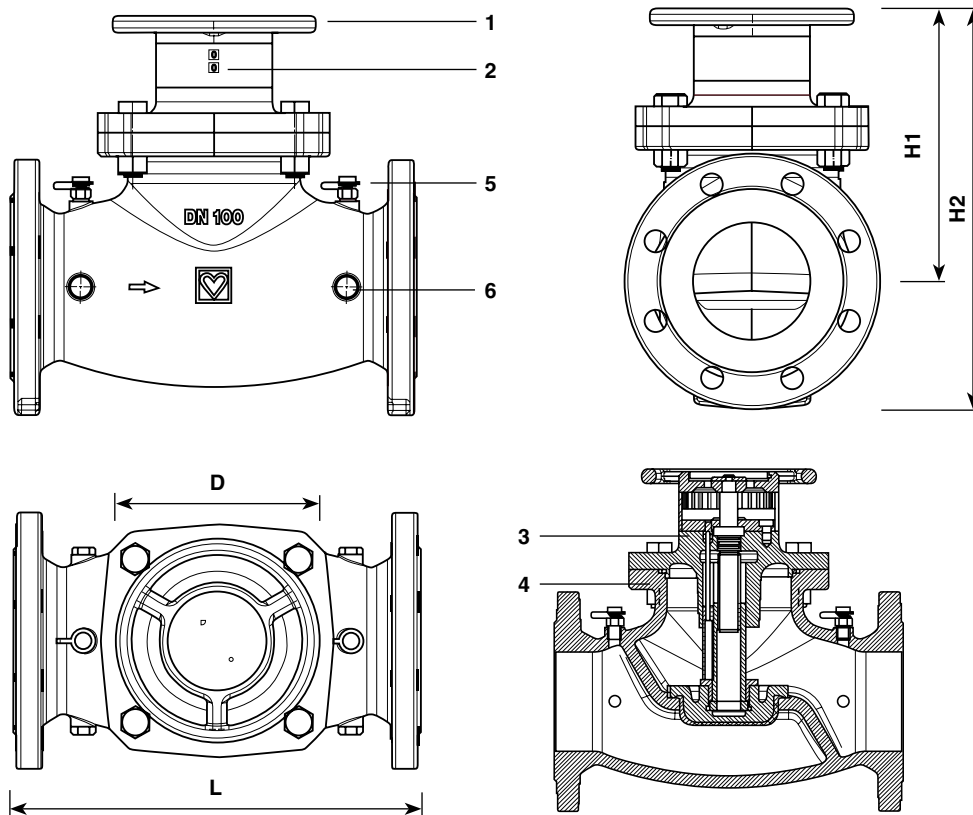
Circuit Regulating Valve STRÖMAX - 4218 GF

Circuit Regulating Valve for differential pressure measurement, with test points, flanged version

Data sheet for

4218 GF

Issue 1206



**4218 GF
STRÖMAX GF
with test points**

1. Hand wheel
2. Digital display of presetting
3. Upper part made of grey cast iron GJL 250
4. Body made of grey cast iron GJL 250
5. Test Points 1/4
6. Plugs 1/4

Flange dimension according to EN 1092-2

Order number 4218 GF		DN	L	H1	H2	D
Standard characteristic	with linear characteristic					
1 4218 70	1 4218 80	50	230	169	252	150
1 4218 71	1 4218 81	65	290	186	279	150
1 4218 72	1 4218 82	80	310	208	307	175
1 4218 73	1 4218 83	100	350	235	344	175
1 4218 74	1 4218 84	125	400	260	385	265
1 4218 75	1 4218 85	150	480	310	450	265
1 4218 76	1 4218 86	200	600	400	569	450
1 4218 77	1 4218 87	250	730	453	655	450
1 4218 78	1 4218 88	300	850	520	783	450

**Dimensions in mm
Order numbers**

4218 GF STRÖMAX-GF-circuit regulating valve with test points, DN 50 - 300
Screw-down model, grey cast iron body GJL 250 acc. EN 1561, flange acc. EN 1092, PN 16, blue enamel coating. Upper part grey cast iron GJL 250, with non-rising spindle, spindle seal by means of triple O-Ring. Presetting step is shown on the digital display.

Models

We reserve the right to make modifications in line with progress in engineering.

Don't lift or carry the valve with the hand wheel!

The valve is pre-finished ex factory delivered. To prevent the possible impurities on the seat during the storing and transportation the valve is closed. In order to avoid the fouling during the storing and transportation the flange covering must be mounted.

Storing: Temperature -10° bis + 50 °C, humidity max. 70%

Transportation

Two test points 1 0284 and presetting marker 1 6517 05 are included. Test points position optional. This alignment allows the best access in all kind of installations and optimal connection of measuring devices.

Test points

Pipe thread 1/4, for test points mounting

Bore size

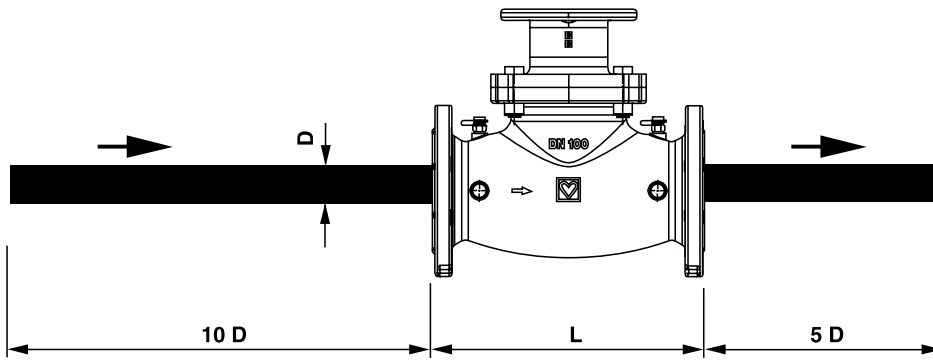
1 0276 09 Drain Valve with handle and swivel hose connection, brass version, hose connection 1 6206 01 has to be ordered separately. For draining systems use HERZ-boiler filling and draining cock 1 4119 xx.

Pipe Fittings

For hydraulic balancing in heating or cooling systems for isolating of manifolds, risers, heat exchangers, heating and cooling systems.

Field of application

Mounting position optional. The flow direction according to the arrow marked on the valve body. It is recommended installing 10 x straight pipe diameters upstream and 5 x straight pipe diameters downstream of the valve.

Mounting

Maximum operating temperature 130 °C, minimum operating temperature -10 °C
 Maximum operating pressure 16 bar
 Hot water quality according Austrian Standard ÖNORM H 5195 and/or VDI-guideline 2035

Operational data

Upper part	grey cast iron GJL 250 acc. EN 1561
Body	grey cast iron GJL 250 acc. EN 1562
Spindle	DN 50 - DN 100 brass, DN 125 - DN 300 stainless steel
Control spindle	Brass / stainless steel
Valve cone	grey cast iron GJL 250 acc. EN 1561/ EPDM coated
Counter	plastic material
O-Rings	EPDM

Materials**Flow direction**

Ensure that the flow direction is in accordance with the arrow shown on the valve body.

Mounting position

The non-rising valve spindle is mounted vertically to the valve axis and consequently offers optimum accessibility and easy valve handling in every position.

Seat seal

The spindle seal is equipped with an tripple O-Ring.

Tripple-O-Ring

The spindle seal is equipped with an elastic tripple O-Ring and is guaranteed to be impermeable and offer easy handling.

Seal between Upper Part and body (EPDM)

The permanently elastic soft seal provides constant temperature. It is corrosion-resistant and allows minor closing pressure.

Constructional characteristics

The Strömax GF Circuit regulating valve is equipped with two test points: so it is possible to measure the differential pressure by use of the proper measuring devices and to determine the flow rate accordingly.

By using ethylene glycol as antifreezer the minimum percentage is 25% and the maximum 35% allowed. Therewith the medium density is changed and so a correction factor has to be applied.

Differential pressure measurement

measured differential pressure value / coefficient= actual differential pressure value

measured water quantity value x 1/√coefficient = actual water quantity value

Correction factors

Medium temperature	correction factor	Medium temperature	correction factor
- 20 °C	1.98	30 °C	1.163
- 10 °C	1.737	40 °C	1.079
0 °C	1.567	50 °C	1
10 °C	1.412	60 °C	0.947
20 °C	1.281	70 °C	0.912

These correction factors are to be applied during the measurements with HERZ differential pressure measurement devices. Interim values can be interpolated.

Mass flow rate tolerance

The maximum deviation of mass flow rate to characteristic of circuit regulating valves according to VDI-guidelines.

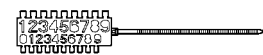
Pre-adjustment

The valve will be delivered in closed position. The pre- setting permits the maximally possible stroke. The handwheel mechanics are so adjusted that with closed valve the digital display indicates 0.0.

Presetting

1. Desired presetting stage in accordance with data (Digital display on handwheel)
2. 1/10 of turn are the red numbers, full turn are the blue.
3. The presetting spindle is beneath the cover. The spindle can be adjusted with a screddriver 8 mm. To preset turn anti clockwise up to stop. The valve is now able to close and open back to the preset position. Replace the cover on the handwheel.
4. The pre-setting marker (1 6517 05) is fastened as a tag above the valve or pipe. The setting of the respective valve is marked by cutting or breaking off the teeth at the figures for full and partial turns. This permits checking and/or restoration of the original pre-setting made on the occasion of system set-up after servicing without having to rely on documentation.

Presetting and fixing



The setting of flowrate is achieved with a measuring device referring to the flow charts. Please see the operating instructions from the measuring device.

Digital display factory setting

If the valve is closed valve 0.0 is displayed on the digital display. If you have to remove the complete handwheel (turning handle, numeric wheels, baseplate) it is important to do this as following instruction:

1. Set the complete upper part and fastening the three allen screws and the four hexagon screws.
2. Close the valve clockwise.
3. If you see 0.0 on the digital display it is correct.
4. After this you can assemble the handwheel.
5. Fixing the attachment bolt.
6. Now you can preset the valve.

Test points

The HERZ measuring computer has suitable couplings, 1 **0284** 00, which guarantee perfect connection to the test points.

The two measuring valves are equipped with a soft seal and permanently fixed in the circuit control valve.

Warning: Open the measuring valves only when a measuring instrument has been connected. Otherwise, hot water flowing out may cause injury! The HERZ-measuring computer is equipped with suitable couplings with O-ring seal and locking screw that permit perfect fastening on the measuring valves.

- 1 **6517** 05 Pre- setting marker
- 1 **8903** 00 Measuring device Flow Plus
- 1 **8900** 03 Measuring device for one hand using
- 1 **0276** 09 Drain valve 1/4 with swivel hose connection
- 1 **6206** 01 Hose connection
- 1 **0284** 00 Test point adaptors

Accessories

- 1 **0273** 00 Screw plug 1/4
- 1 **0284** 01 Test point blue
- 1 **0284** 02 Test point red

Spare parts

Order No. 4218 GF				
DN	Std char. curve	kvs	Lin. char. curve	kvs
50	1 4218 70	48.5	1 4218 80	50
65	1 4218 71	75	1 4218 81	67
80	1 4218 72	110	1 4218 82	100
100	1 4218 73	165	1 4218 83	180
125	1 4218 74	241	1 4218 84	269
150	1 4218 75	372	1 4218 85	378
200	1 4218 76	704	1 4218 86	700
250	1 4218 77	812	1 4218 87	1064
300	1 4218 78	1383	1 4218 88	1600

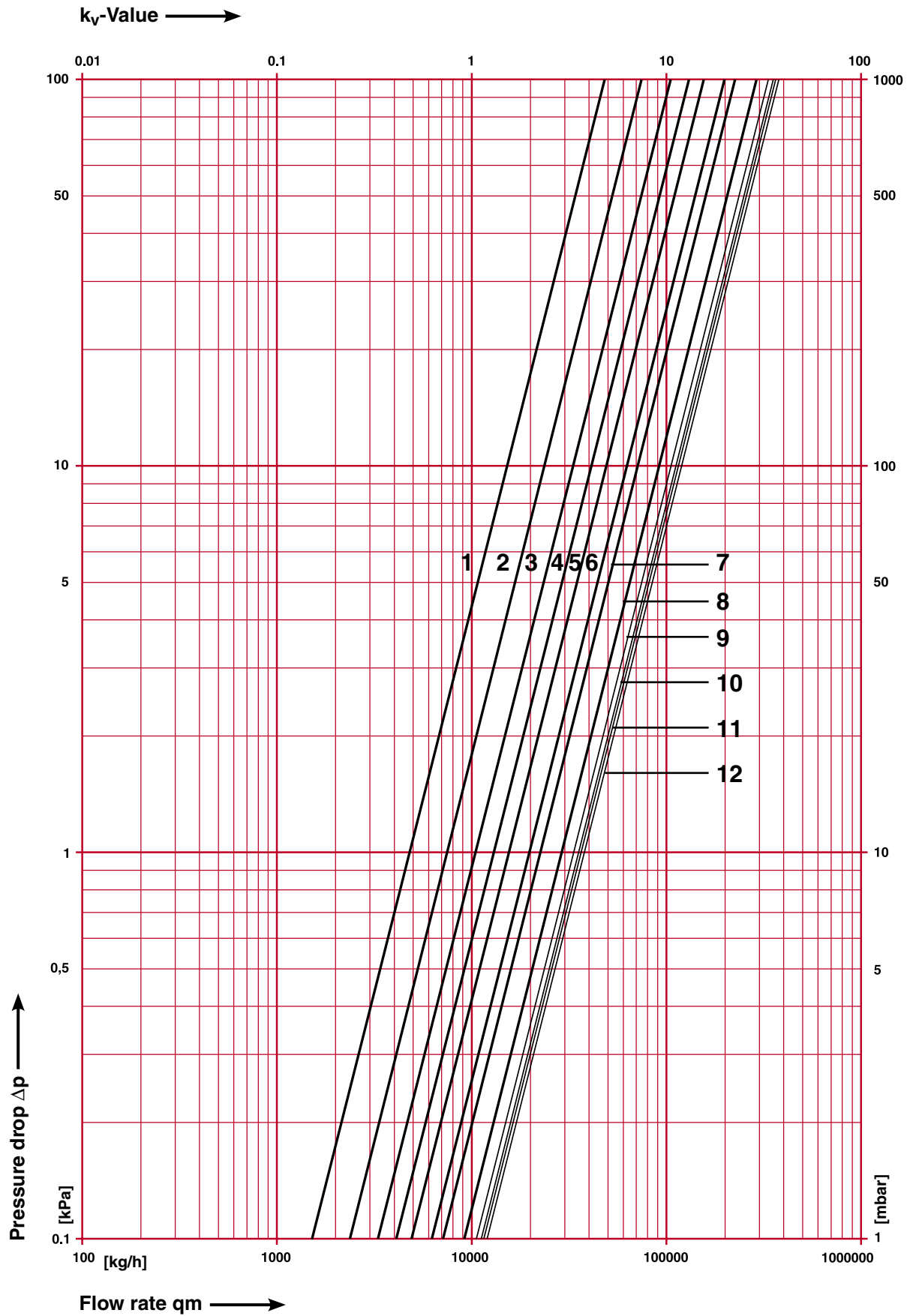
kvs-Value

Please note: Following diagrams and settings are only for dimensioning and design from HERZ-STRÖMAX- GF valves. To check and change the pre-settings after measuring the differential pressure by working you can receive special diagrams you have to order.

4218 GMF	DN 25 - 80	STRÖMAX-GMF Circuit regulating valve, flanged version
4217 GM	DN 15 - 80	STRÖMAX GM Circuit regulating valve, screw down model, female/male
4417 GM	DN 15 - 50	
4217 GR	DN 15 - 80	STRÖMAX GR Circuit regulating valve, screw down model
4117 M	DN 15 - 80	STRÖMAX-M Cicuit regulating model, inclined model
4117 R	DN 15 - 80	STRÖMAX-M Cicuit regulating model, inclined model
4017	DN 15 - 50	STRÖMAX-FODRV
4218 AGF	DN 25 - 80	STRÖMAX- AGF Shutoff valve, flanged version
4219	DN 50 - 300	HERZ- Butterfly valve in semi or fully lugged version
4117MW	DN 15 - 50	STRÖMAX-MW Cicuit regulating valve DW

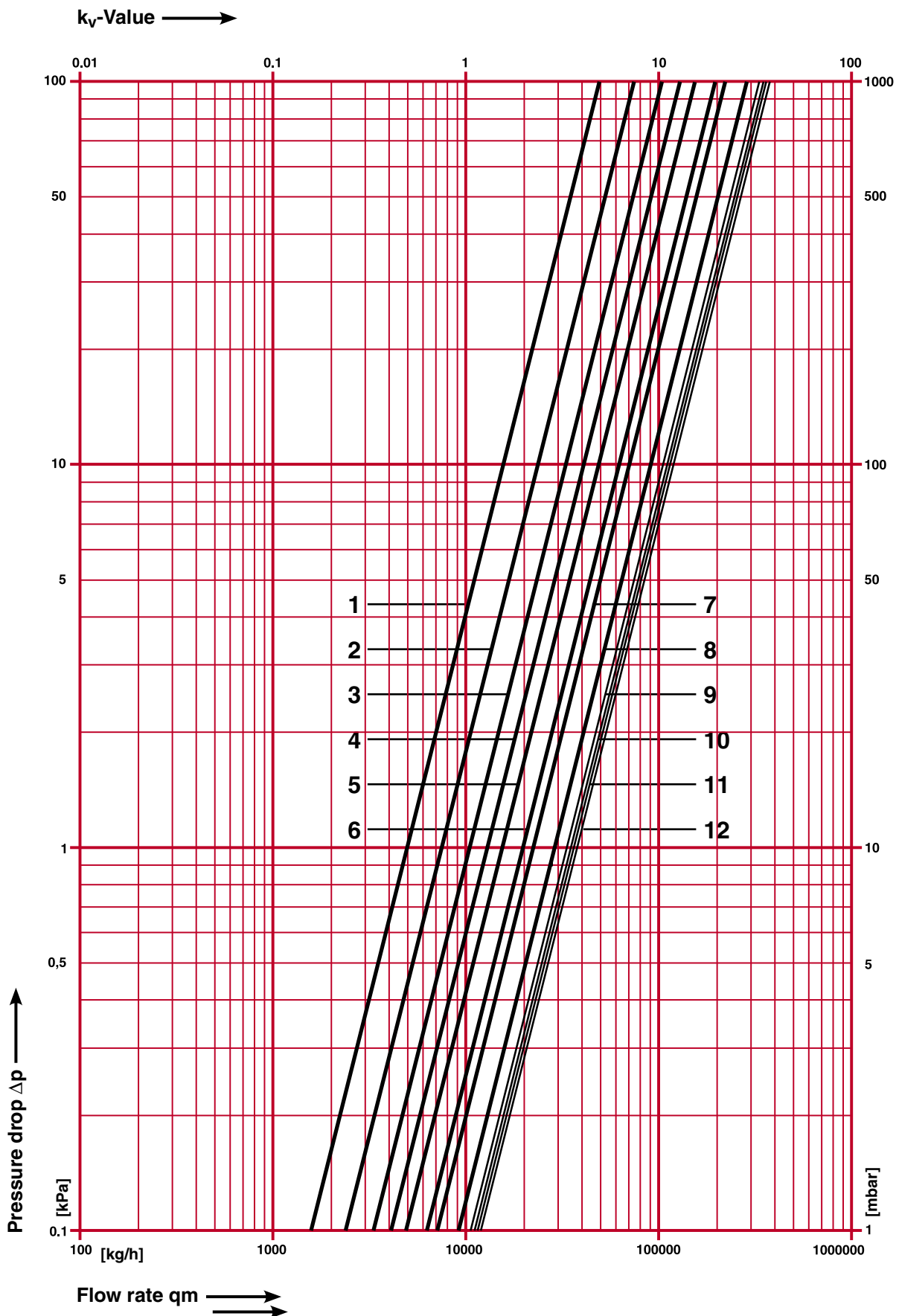
Other related products

STRÖMAX- GF Circuit regulating valve DN 50, PN 16, 1 4218 70



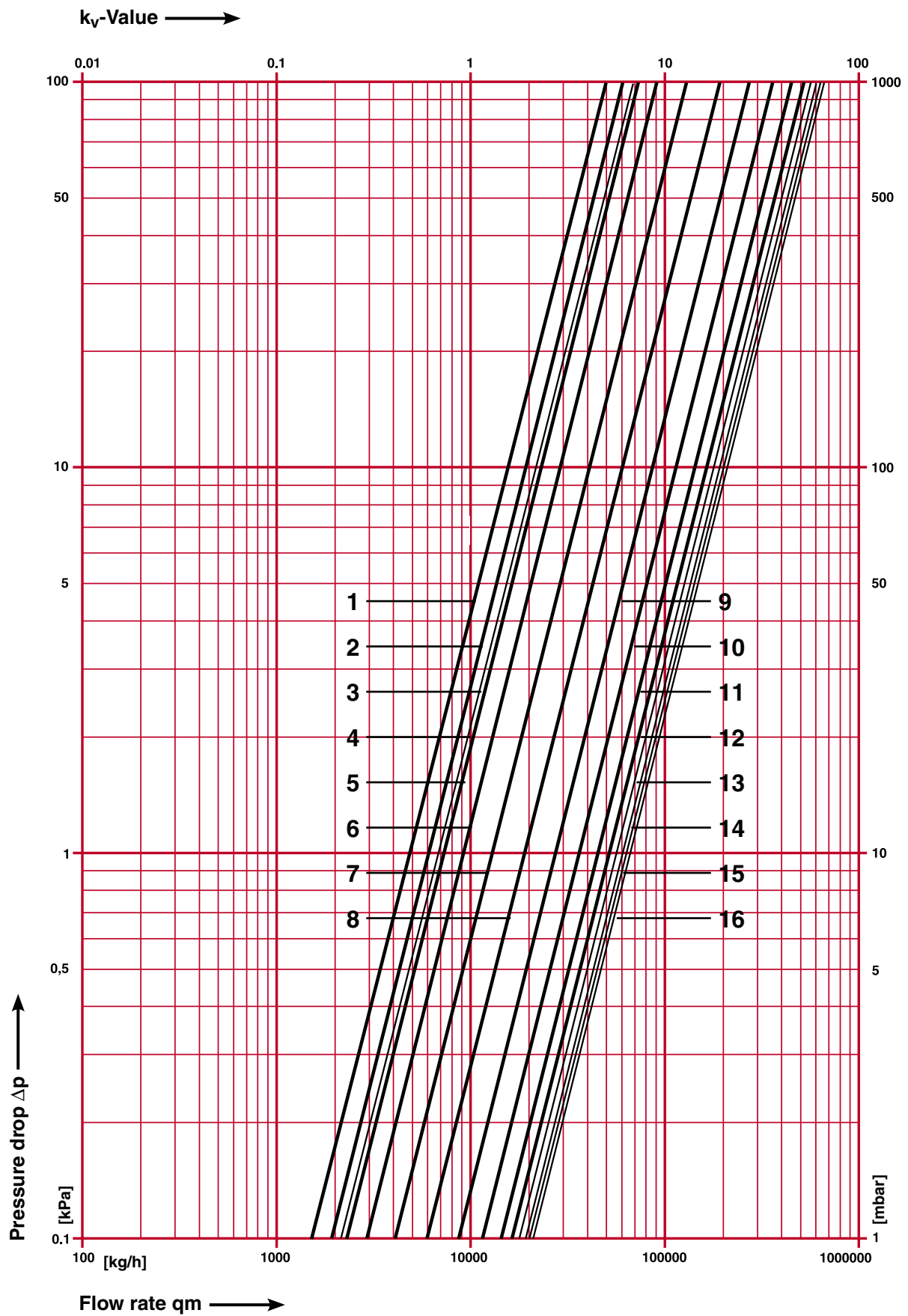
We reserve the right to make modifications in line with progress in engineering

STRÖMAX- GF Circuit regulating valve DN 50, PN 16, 1 4218 80



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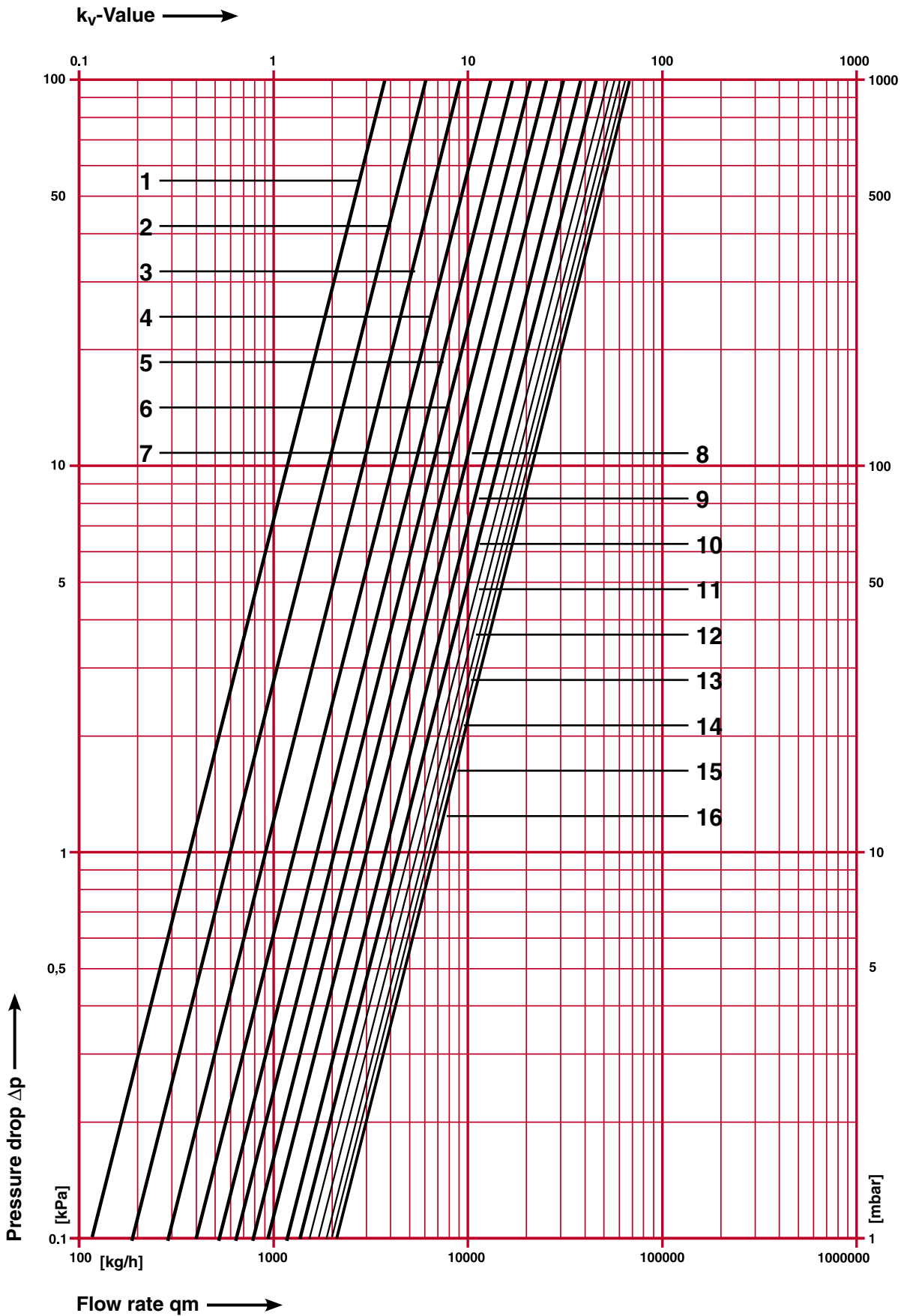
STRÖMAX- GF Circuit regulating valve DN 65, PN 16, 1 4218 71



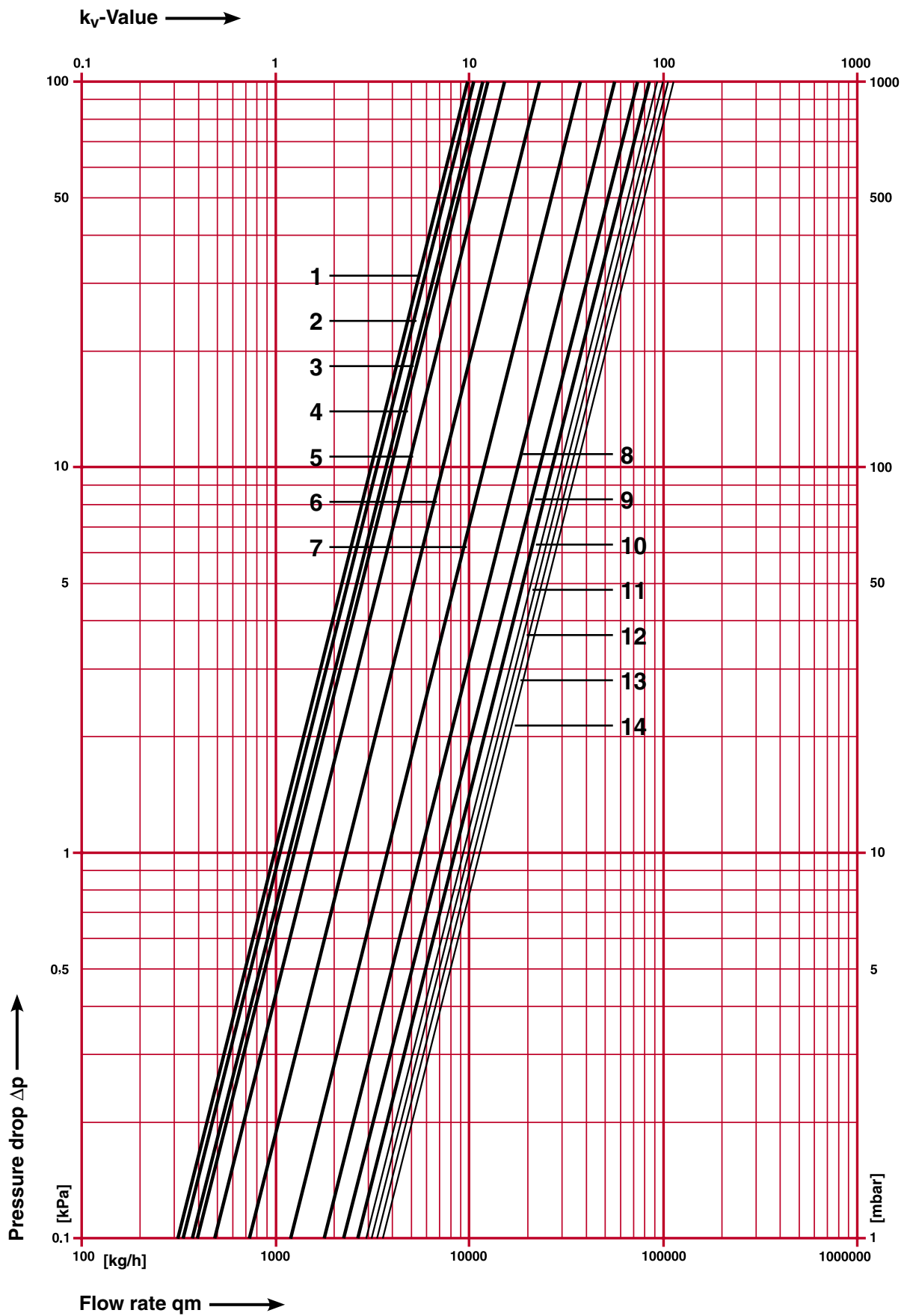
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STRÖMAX- GF Circuit regulating valve DN 65, PN 16,

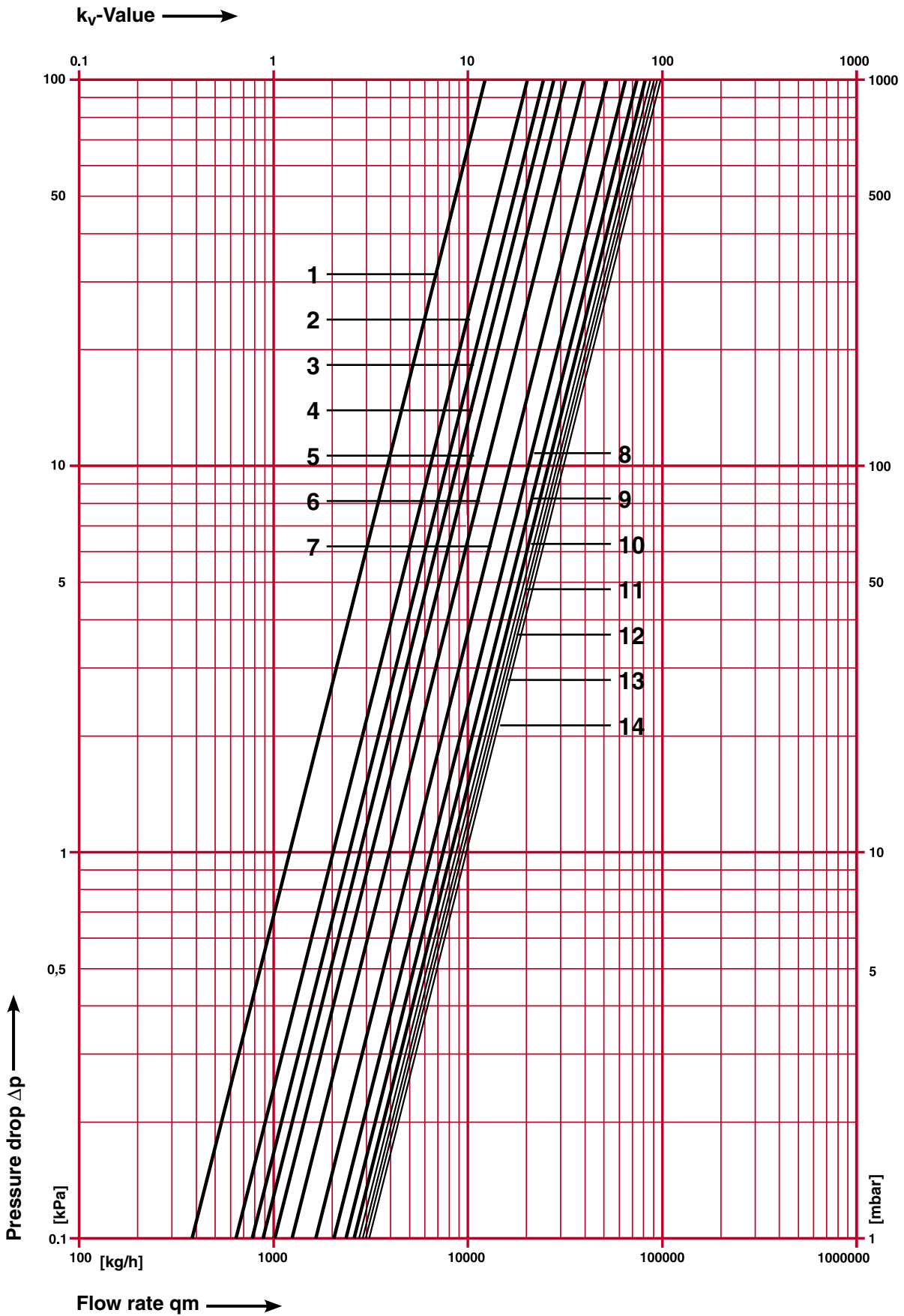
1 4218 81



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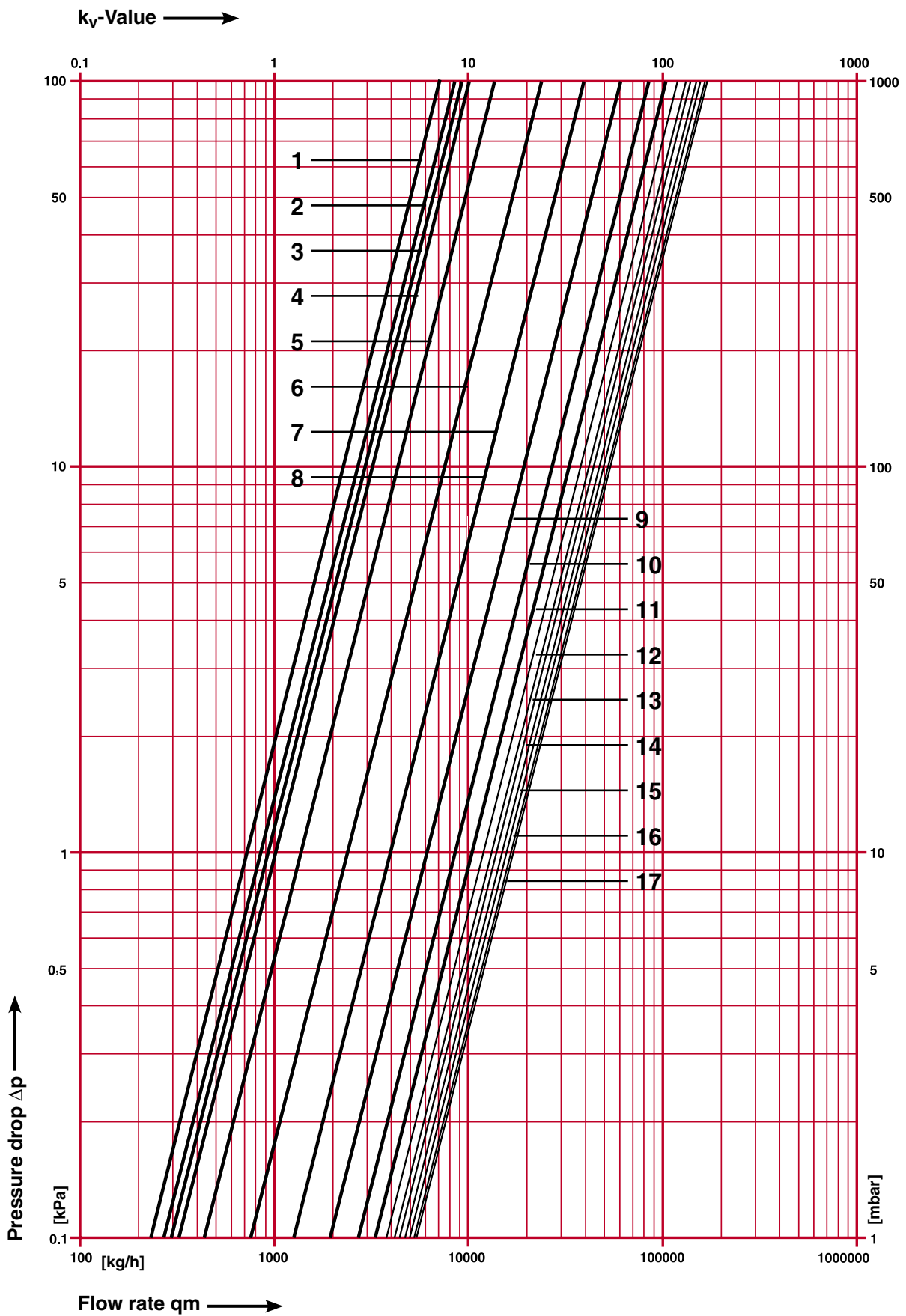


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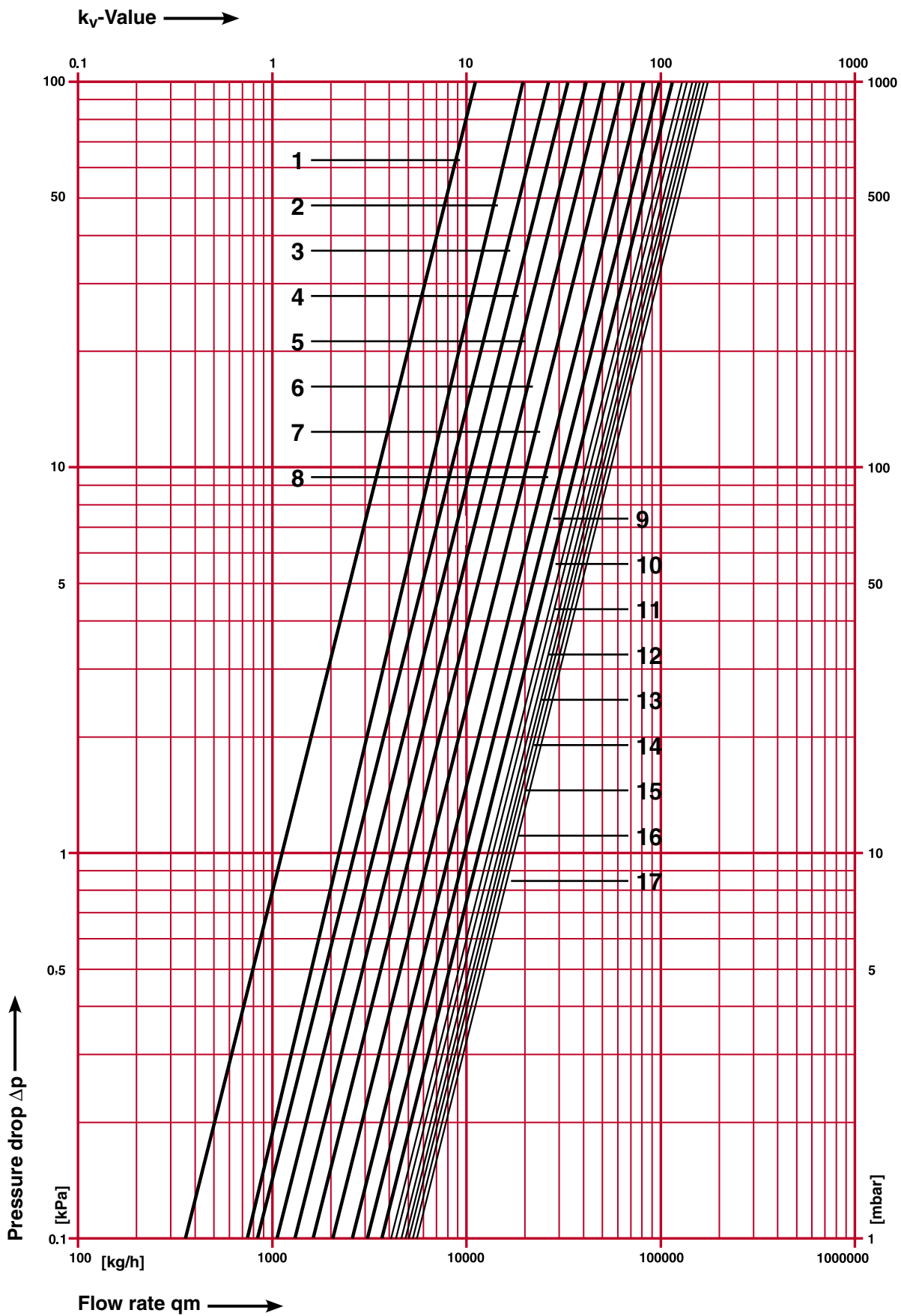


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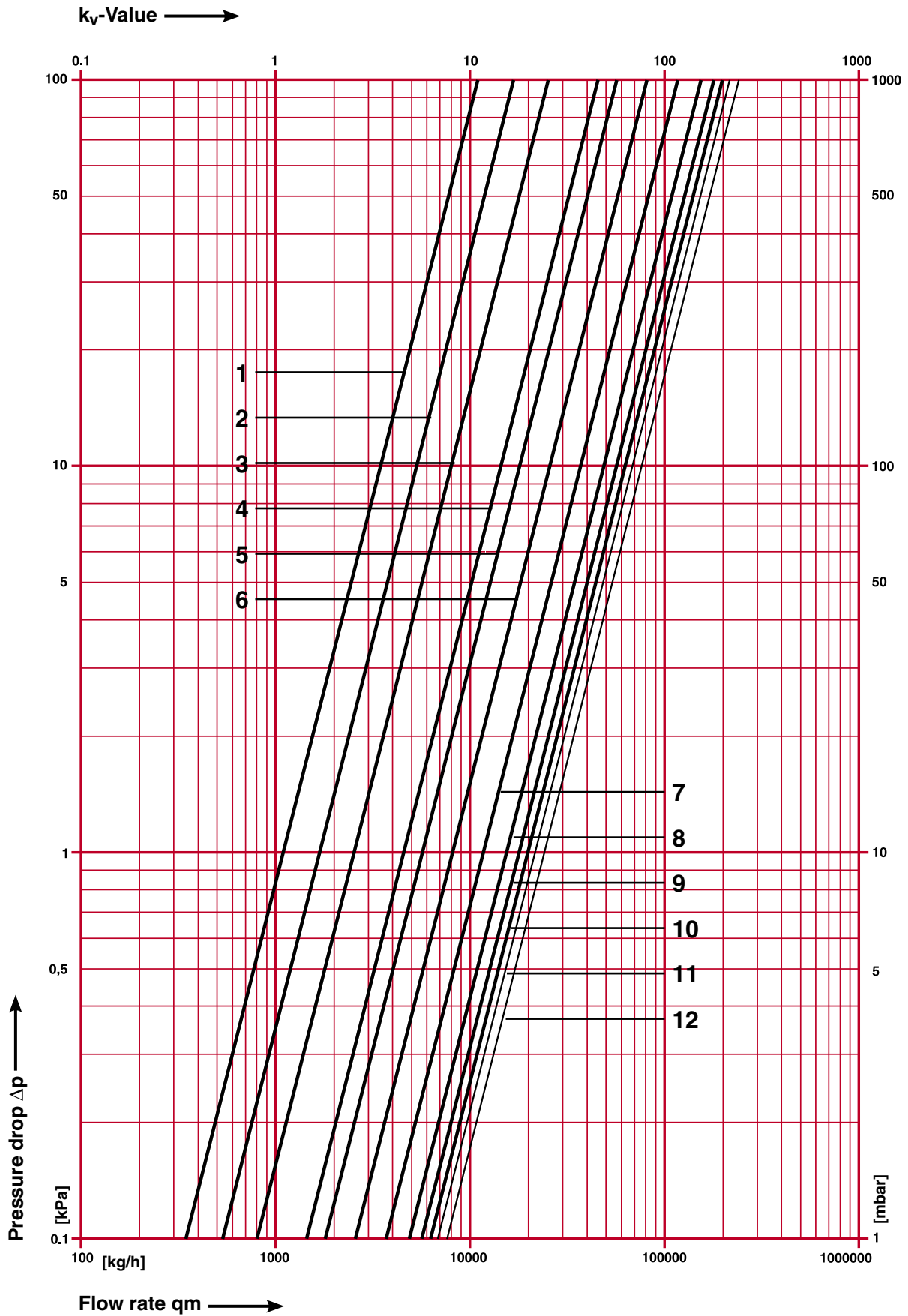
STRÖMAX- GF Circuit regulating valve DN 100, PN 16, 1 4218 73



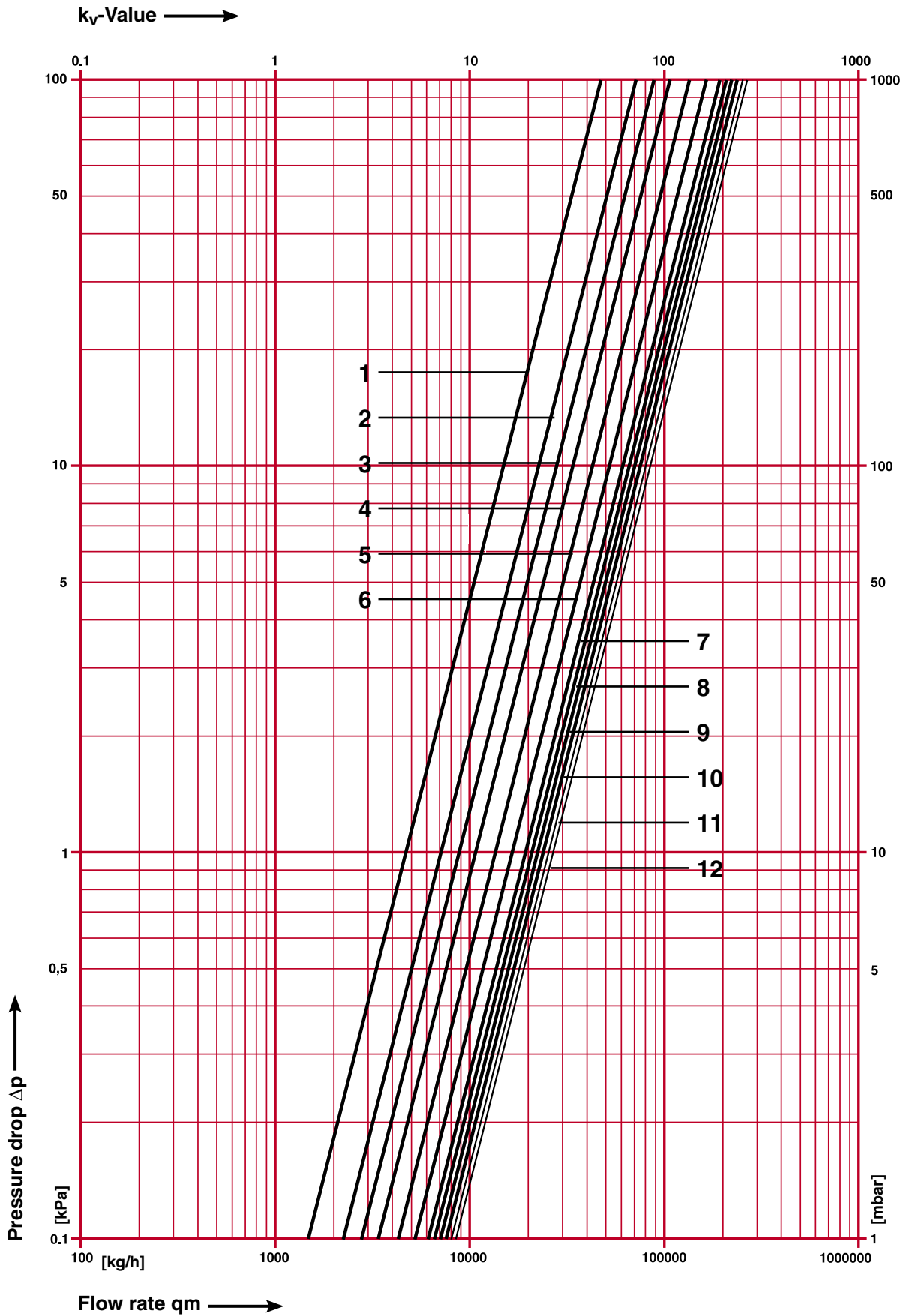
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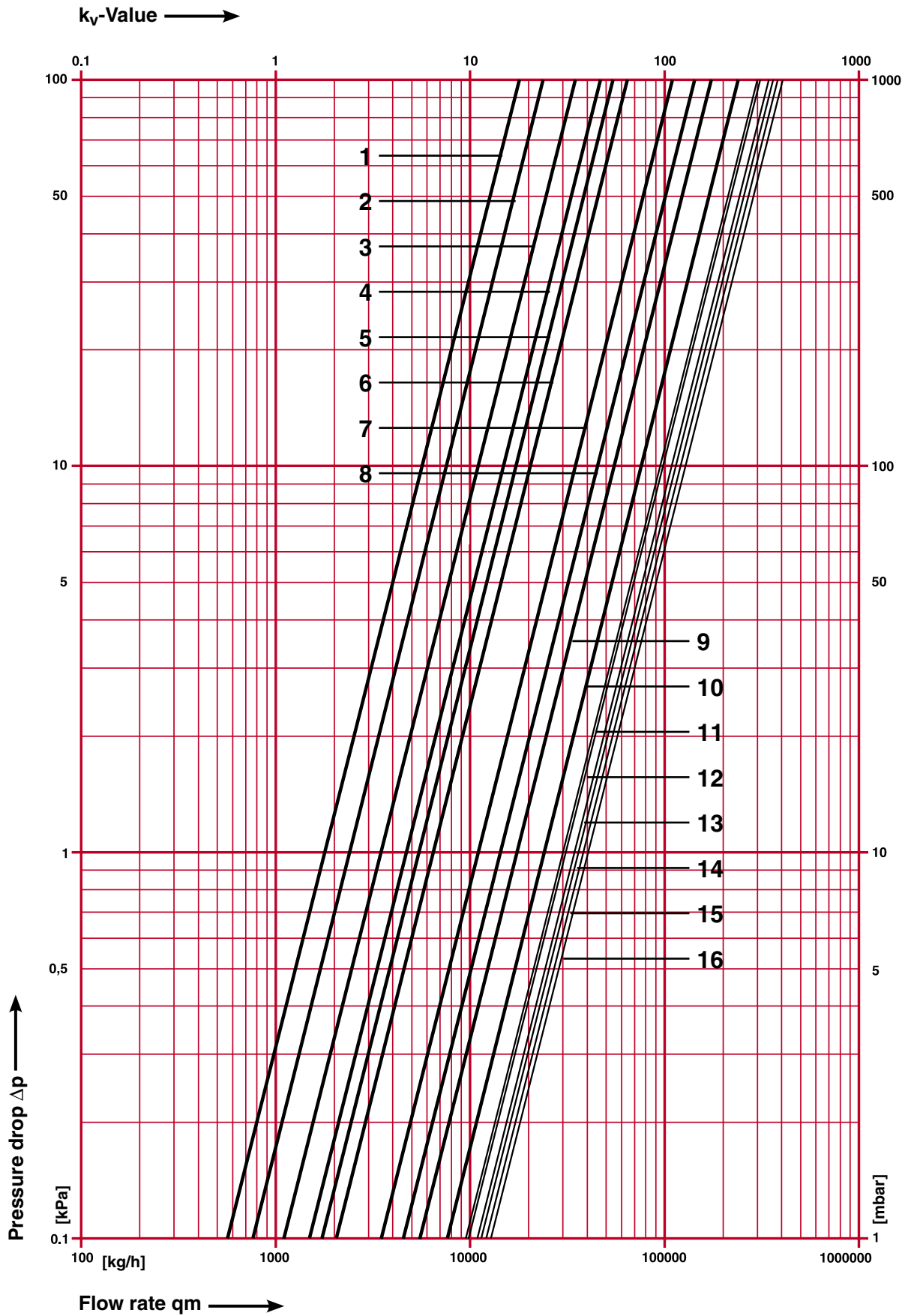
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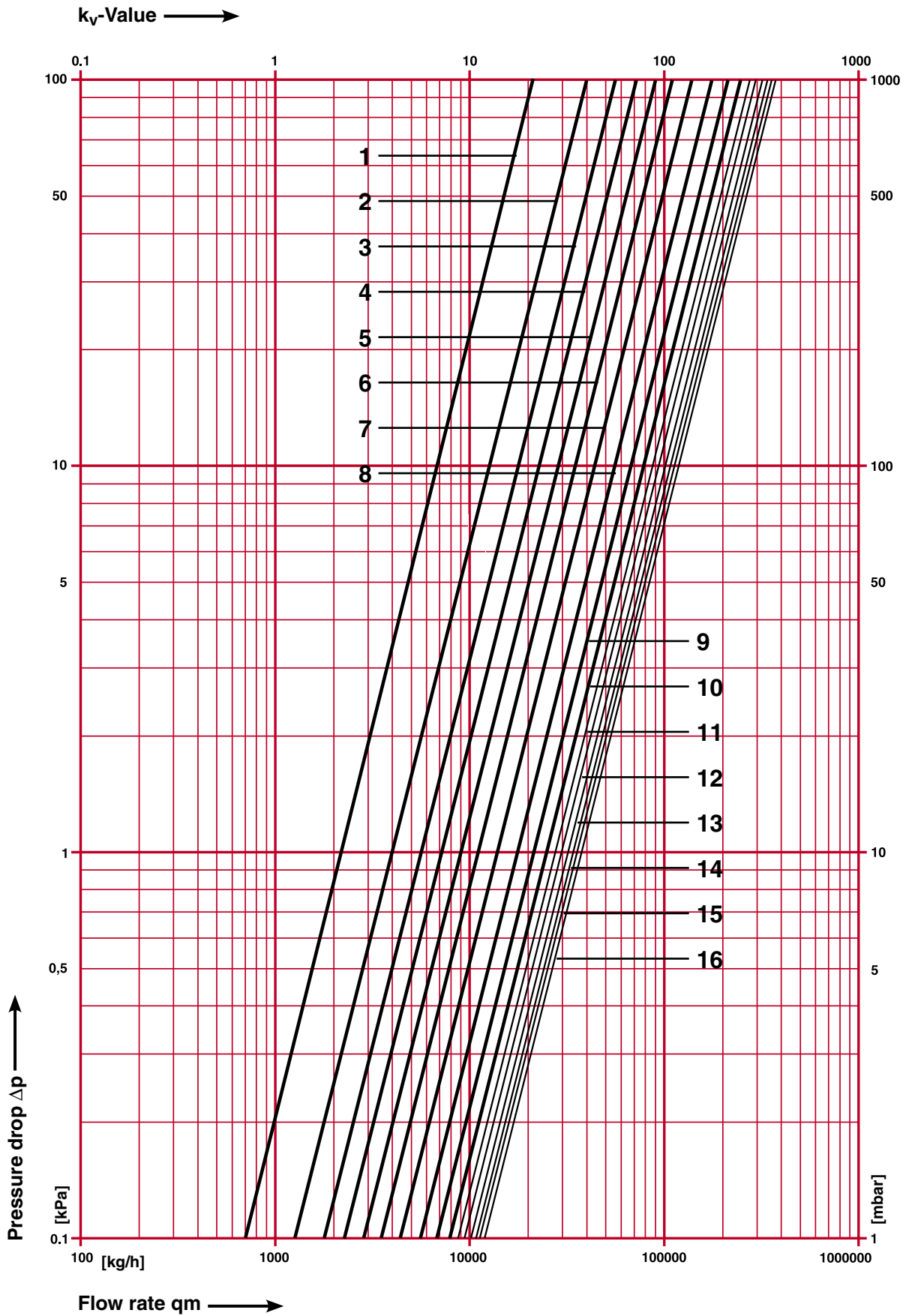
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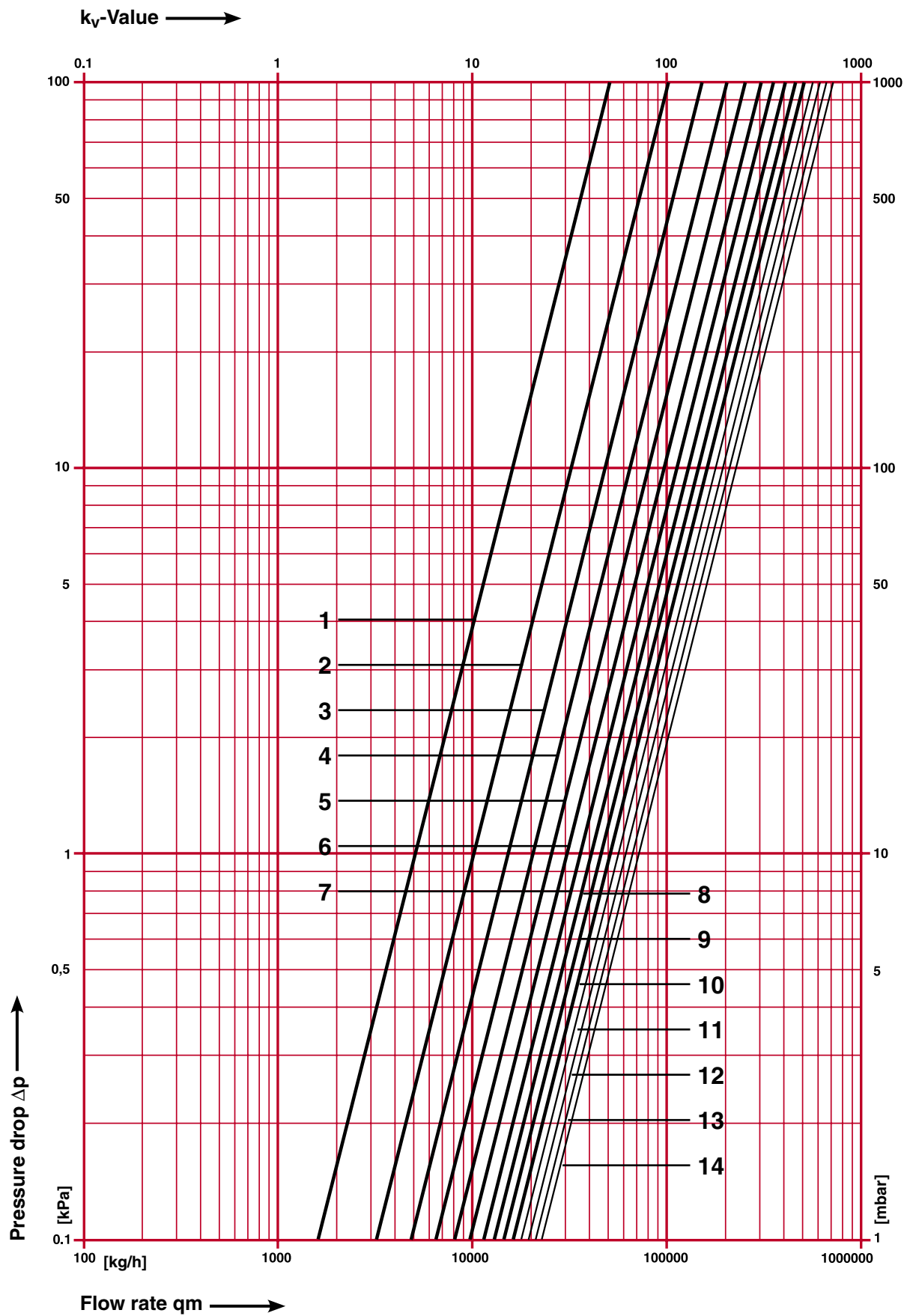
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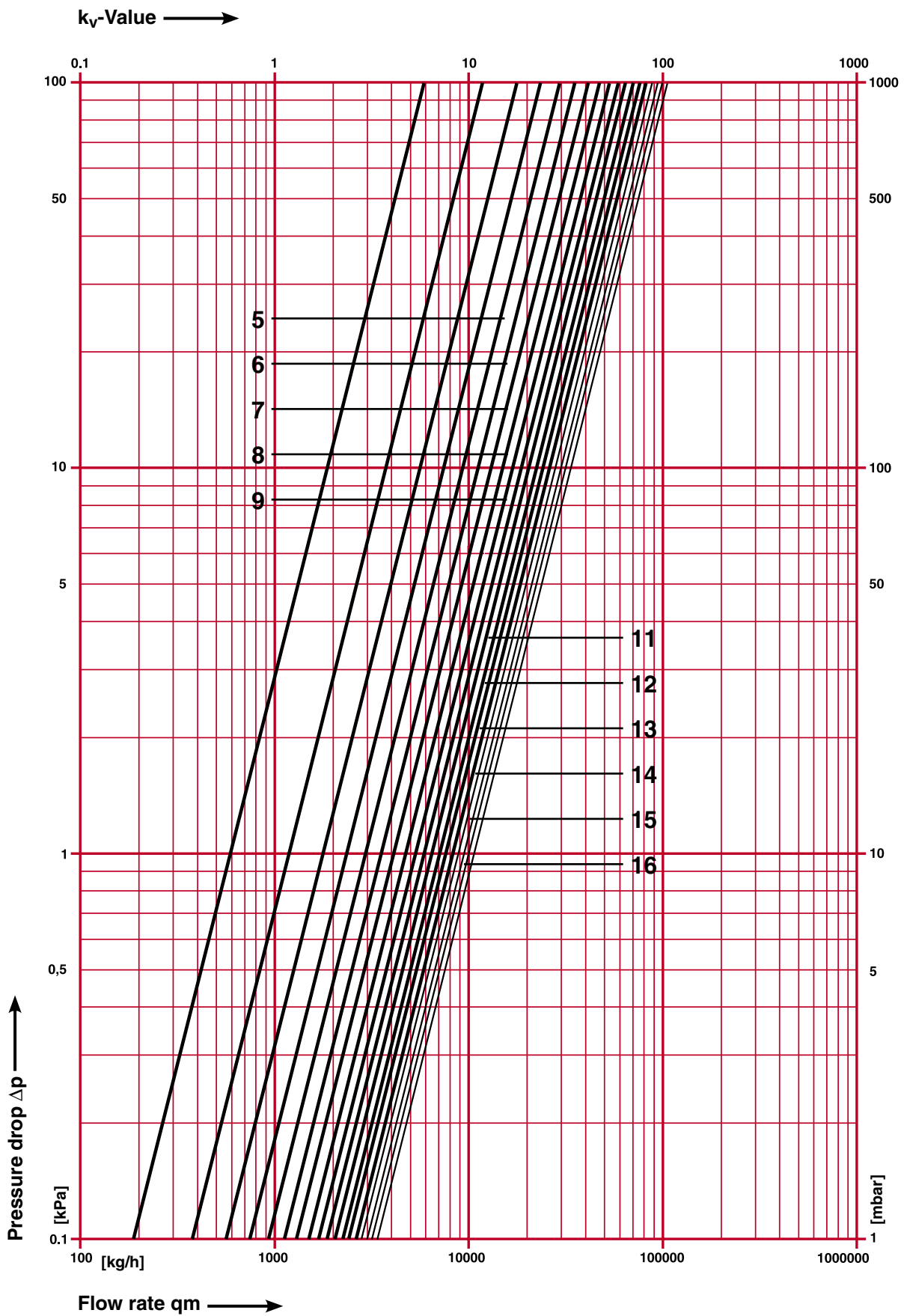


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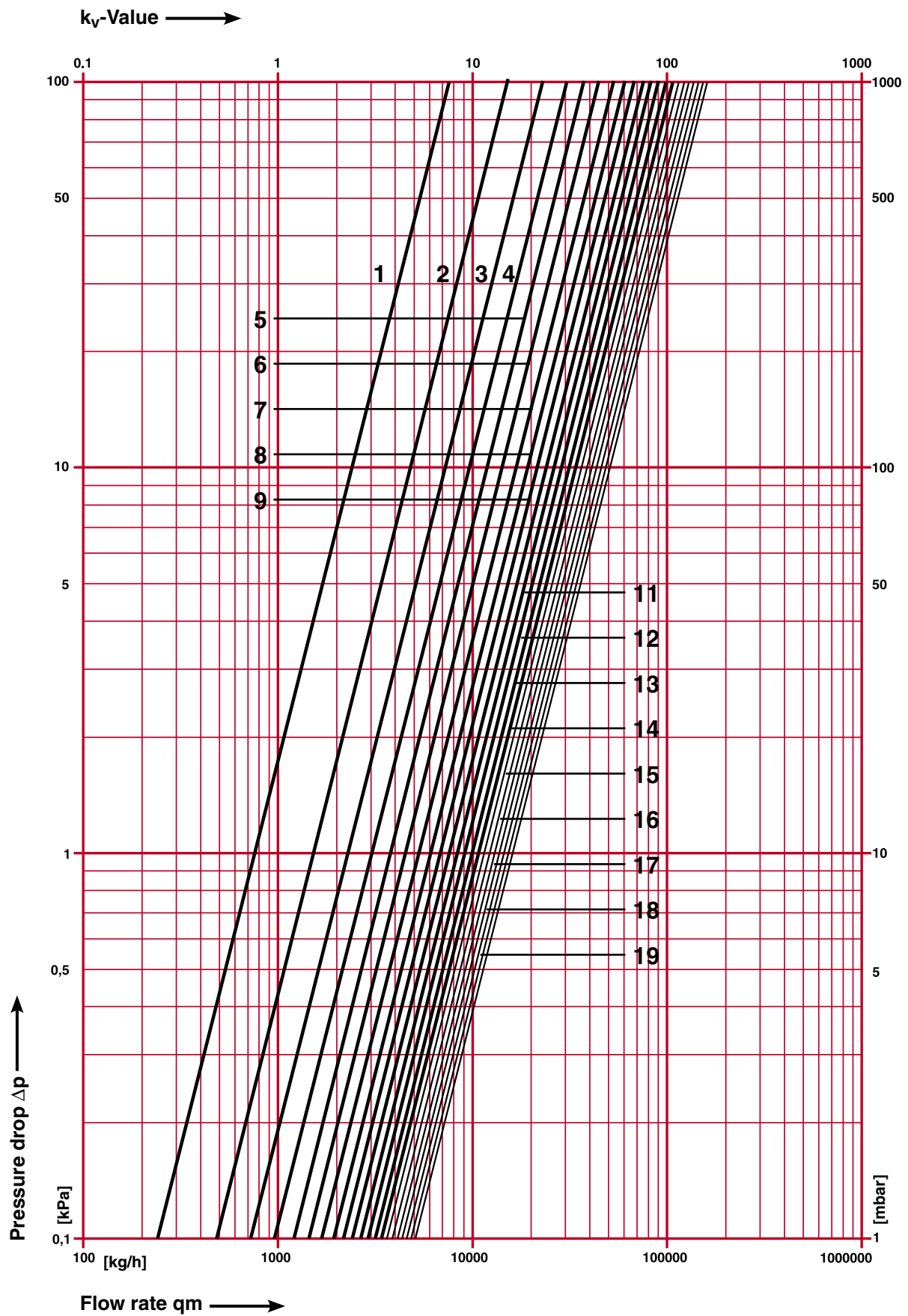


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STRÖMAX- GF Circuit regulating valve DN 250, PN 16, 1 4218 77, 1 4218 87



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