

Datasheet-Collection. Commissioning and Shutoff valve, flanged

Datasheet „Commissioning and Shutoff valve, flanged“, Issue 1023

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General information

Intended Use

This product is intended to be used as specified by the manufacturer, described in the „Functional Description“ section. Local product regulations must be taken into consideration. Changes are not permitted.

Disposal

Disposal must comply with local and current legislation.

Note

All schemes are symbolic and not exhaustive.

Material

Pursuant to Article 33 of the REACH Regulation (EC No. 1907/2006), we are obliged to point out that the material lead is listed on the SVHC list and that all brass components manufactured in our products exceed 0.1% (w / w) lead (CAS: 7439-92-1 / EINECS: 231-100-4). Since lead is a component part of an alloy, actual exposure is not possible and therefore no additional information on safe use is necessary.

Please note: all diagrams are indicative in nature and do not claim to be complete.

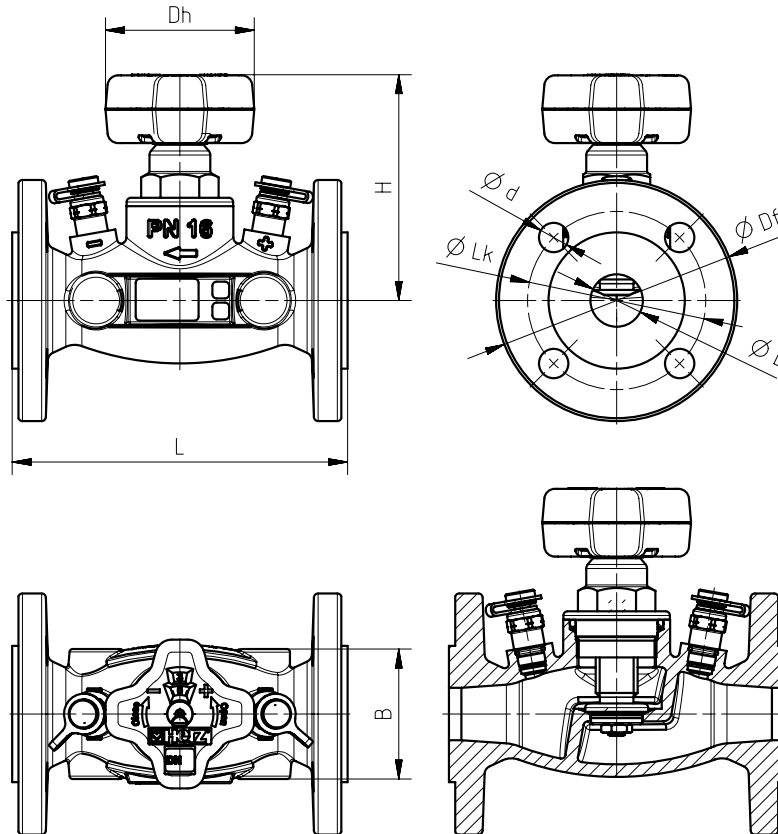
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Commissioning valve STRÖMAX-GMF

Commissioning valve for differential pressure measurement in flanged design straight body with test points

Data sheet 4218 GMF

☑ 4218 GMF STRÖMAX-GMF with test points and Drain options



☑ Dimensions in mm, order numbers

Order Nr. 4218 GMF	DN	L	H	B	Dh	Dfl	D	d	kg	kvs
1 4218 43	25	160	110	58	71	115	25	14	4,5	11,53
1 4218 44	32	180	110	64	71	140	30	19	6,3	16,6
1 4218 45	40	200	110	72	71	150	40	19	7,2	28,6
1 4218 46	50	230	135	90	110	165	50	19	11	37,84
1 4218 47	65	290	145	112	110	185	65	19	16,7	60,3
1 4218 48	80	310	145	116	110	200	80	19	18,2	67,8
1 4218 49	100	350	190	158	190	220	100	19	29,5	99,55
1 4218 50	125	400	230	188	190	250	125	19	48,3	186,58
1 4218 51	150	480	264	212	190	285	150	23	68	279,05

☑ Model 4218 GMF

4218 GMF STRÖMAX-GMF-Commissioning valve with measuring valve, straight body DN 25 - 150

Body of grey cast iron GJL 250 according to EN 1561, flange according to EN 1092, PN 16; length according to ÖNORM EN-558-1, basicseries 1; painted blue. Thermostatic upper part of brass to DN 100; from DN 125 thermostatic upper part of grey cast iron. Digital display of the pre-setting levels. Non-rising spindle with double O-ring seal.

☑ Test points STRÖMAX-GMF

Two test points (pipe thread 1/4) are mounted next to the handwheel in the same direction and sealed at the factory. This arrangement ensures the best accessibility and optimal connection of measuring devices in all installation positions.

☑ Draining valves

1 0284 2X
1 0276 09

HERZ test point with drain valve, Brass version, red cap (supply) or blue cap (return).
Draining valve with handle and swivelling hose connection, brass version, hose connection 1 6206 01 must be ordered separately

☑ Application

For hydraulic balancing in heating or cooling systems, regulating and shutting off distribution circuits, heat exchangers, heating and cooling terminals.

☑ Technical data

Max. operation temperature DN 32 - 130 °C; DN 40 - 110 °C
Max. operation pressure 16 bar

Water purity in accordance with the ÖNORM H 5195 and VDI 2035 standards. Ethylene and propylene glycol can be used in a ratio of 25-50 vol. [%] are mixed.

☑ Material

Valve body grey cast iron GJL 250 according to EN 1561
Valve upper part to DN 100 - brass, as of DN 125 - grey cast iron
O-ring EPDM

☑ Characteristics

Flow direction

When installing, observe the direction of flow according to the arrow on the housing.

Installation

Due to the non-rising valve spindle, which is arranged perpendicular to the valve axis, optimal accessibility and operability of the valve must be guaranteed for every installation position.

Spindle seal

The spindle seal is made by means of an elastic double O-ring and thus ensures tightness and ease of movement in the long term.

Double-O-ring

The maintenance-free double O-ring seal ensures permanent, secure sealing of the valve spindle and ease of movement when the valve is operated.

Seat gasket

The temperature-resistant and permanently elastic soft seal is corrosion-resistant and allows low closing forces.

☑ Differential pressure measurement

The STRÖMAX-GMF double regulating and commissioning valve is equipped with two test points: If a suitable measuring device is used, the differential pressure can be measured and the respective flow rate can be determined depending on the setting level. The respective flow rate can also be read directly on the HERZ measuring computer (see device manual).

☑ Settings

The circuit regulating valve STRÖMAX-GMF is delivered in the open position. The default setting allows the maximum possible stroke. The handwheel mechanism is set so that the digital display shows 0.0 when the valve is closed.

☑ Setting and fixing

Presetting procedure

1. Set to the desired step according to calculation (digital display on the hand wheel).
2. Remove the hand wheel locking screw, the handwheel must not be removed.
3. Screw in the now accessible presetting spindle with a screwdriver, blade 3 x 60, as far as it will go.
4. Screw in the handwheel fastening screw again.
5. Attach the presetting seal (1 **6517 04**).
6. Mark the set position on the presetting marker (1 **6517 05**) and attach it to the valve.

Positions 5 and 6 are not necessary for the function, but are recommended.

The setting of a certain flow value without specifying the setting level is possible with the STRÖMAX-GM valve using a measuring device. The setting can be carried out with a differential pressure measuring device 1 **8900 05** with the aid of the HERZ setting diagrams. When using a measuring computer, the operating instructions for the device must be observed.

☑ Digital display factory setting

The factory setting of the digital display is 0.0 when the valve is closed. If the complete handwheel (rotary handle, number wheels, base plate) is removed from the valve or a damaged part has to be replaced, proceed as follows to ensure the correct digital display:

1. Put on the complete handwheel and push it on until the hexagon on the housing and the tothing of the spindle engage.
2. Turn the valve clockwise to close.
3. If the digital display shows 0.0 in this position, the handwheel is correctly attached and can be fixed with a screw. If there is another display, remove the entire handwheel.
4. By turning the base plate and turning handle, bring the digital display to 0.0 and put the complete handwheel back on without turning the spindle.
5. Screw in the handwheel fastening screw again.

The valve can now be set to the desired position.

☑ Test points

The two mounted test points 0284 have a soft seal and are built into the line regulating valve so that they cannot be lost.

☑ Actuation

The HERZ measuring computer has matching couplings 1 **0284 00** with which a perfect attachment to the test points is guaranteed.

☑ Dimension

STRÖMAX-GMF, STRÖMAX-AGF and differential pressure regulator 4007 F valve bodies have the same dimensions, the upper parts are dimensionally identical to the STRÖMAX-GM / GR.

☑ Accessories

- 1 **6517 04** Pre-setting tampering seal
- 1 **6517 05** Pre-setting marker
- 1 **6640 00** HERZ-Universal key
- 1 **8900 05** HerzCOMP 650 measuring computer
- 1 **0284 21** HERZ test point with drain valve, blue cap
- 1 **0284 22** HERZ test point with drain valve, red cap
- 1 **0276 09** Draining valve with handle and swivelling hose connection
- 1 **6206 02** Hose connection
- 1 **0284 00** Pressure transducer set for quick test points

Spare parts

1	0284	01	Test point for HERZ-STRÖMAX commissioning valves, blue cap		
1	0284	02	Test point for HERZ-STRÖMAX commissioning valves, red cap		
1	6517	06	DN 15 - 40	STRÖMAX-GMF	Handwheel
1	6517	08	DN 50 - 80	STRÖMAX-GMF	Handwheel
1	6517	10	DN 100 - 150	STRÖMAX-GMF	Handwheel
1	6387	31	DN 25	STRÖMAX-GMF	Thermostatic upper part complete
1	6387	22	DN 32	STRÖMAX-GMF	Thermostatic upper part complete
1	6387	23	DN 40	STRÖMAX-GMF	Thermostatic upper part complete
1	6387	24	DN 50	STRÖMAX-GMF	Thermostatic upper part complete
1	6387	25	DN 65	STRÖMAX-GMF	Thermostatic upper part complete
1	6387	26	DN 80	STRÖMAX-GMF	Thermostatic upper part complete

 kvs-Values

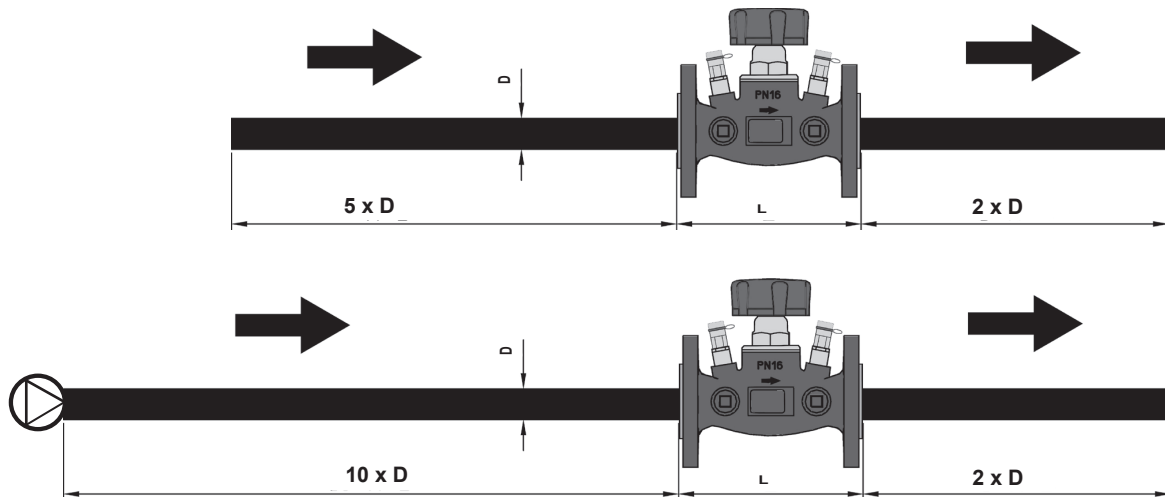
DN	25	32	40	50	65	80	100	125	150
kvs	11,56	16,60	28,60	37,84	60,30	67,80	99,55	186,58	279,05
Position	kv	kv	kv	kv	kv	kv	kv	kv	kv
0,5	0,35	1,15	1,40	2,70	8,36	11,50	0,00	1,58	8,75
1,0	0,75	1,90	2,50	7,80	11,56	15,90	12,35	4,36	17,50
1,5	1,15	2,65	3,60	12,90	14,76	20,30	18,04	10,72	26,08
2,0	1,90	3,40	4,70	18,60	17,80	24,69	23,74	17,08	34,66
2,5	4,10	4,15	5,95	22,60	20,15	27,74	29,84	20,27	38,27
3,0	6,30	4,90	7,20	27,80	22,50	30,60	35,96	23,45	41,88
3,5	7,70	7,35	9,85	29,30	26,55	36,10	42,56	24,93	44,53
4,0	9,10	9,80	12,55	31,60	31,60	41,70	49,20	26,41	47,17
4,5	9,80	12,40	16,05	33,60	38,10	50,70	51,10	28,09	50,34
5,0	10,50	15,00	19,70	35,50	43,90	60,30	53,00	29,77	53,50
5,5	10,55	15,80	21,60	37,15	47,40	62,00	57,50	32,57	57,43
6,0	10,65	16,60	23,50	37,84	51,00	63,78	61,96	35,37	61,36
6,5	10,70		25,15		53,85	65,88	66,86	38,62	66,14
7,0	11,50		26,80		56,70	67,80	71,81	41,87	70,92
7,5	11,53		27,30		58,50		77,11	46,01	76,30
8,0	11,56		27,80		60,30		82,42	50,14	81,68
8,5			28,20				87,77	54,94	87,87
9,0			28,60				93,20	59,74	94,06
9,5							99,55	65,47	100,52
10,0								71,19	106,98
10,5								78,53	114,74
11,0								85,87	122,50
11,5								95,99	132,72
12,0								106,10	142,93
12,5								117,92	155,86
13,0								129,73	168,79
13,5								141,12	181,98
14,0								152,51	195,17
14,5								162,60	207,69
15,0								172,69	220,21
15,5								179,64	233,05
16,0								186,58	245,88
16,5									255,72
17,0									265,56
17,5									272,31
18,0									279,05

Please note that, in the following standard diagrams and the table, specified flow and setting values for the dimensioning - design - of HERZ-STRÖMAX-4218 GMF double regulating and commissioning valves are given. To check the preset values and to change the setting after measuring the differential pressure at the valve during operation, separate tables are sent on request.

☑ Measurements

In order to maintain meaningful measurement results, it is important to observe the calming sections in the inlet and outlet.

According to CIBSE Code W double regulating valves must always be installed with a minimum of 5 pipe diameters of straight pipe, without intrusion, upstream of the valve. Downstream of the valve a minimum of 2 pipe diameters of straight pipe are required. If a pump is installed directly before the valve, we recommend 10 pipe diameters of straight pipe, without intrusion, upstream of the valve.



Correction factors must be used for systems with frost protection. The water-glycol mixture has a different viscosity than pure water and is also temperature-dependent. When taking measurements with the measuring computer, the displayed measured value is therefore falsified.

☑ Coating

<Primer based on alkyd resins (synthetic resin primer) and contains lead and chromate-free rust protection pigments. Top coat with epoxy resin. Solvent content is lower than permitted in the VOC Plant Ordinance 2002.

Degree of gloss: matt

Dry layer thickness (TSD): ~ 100 µm

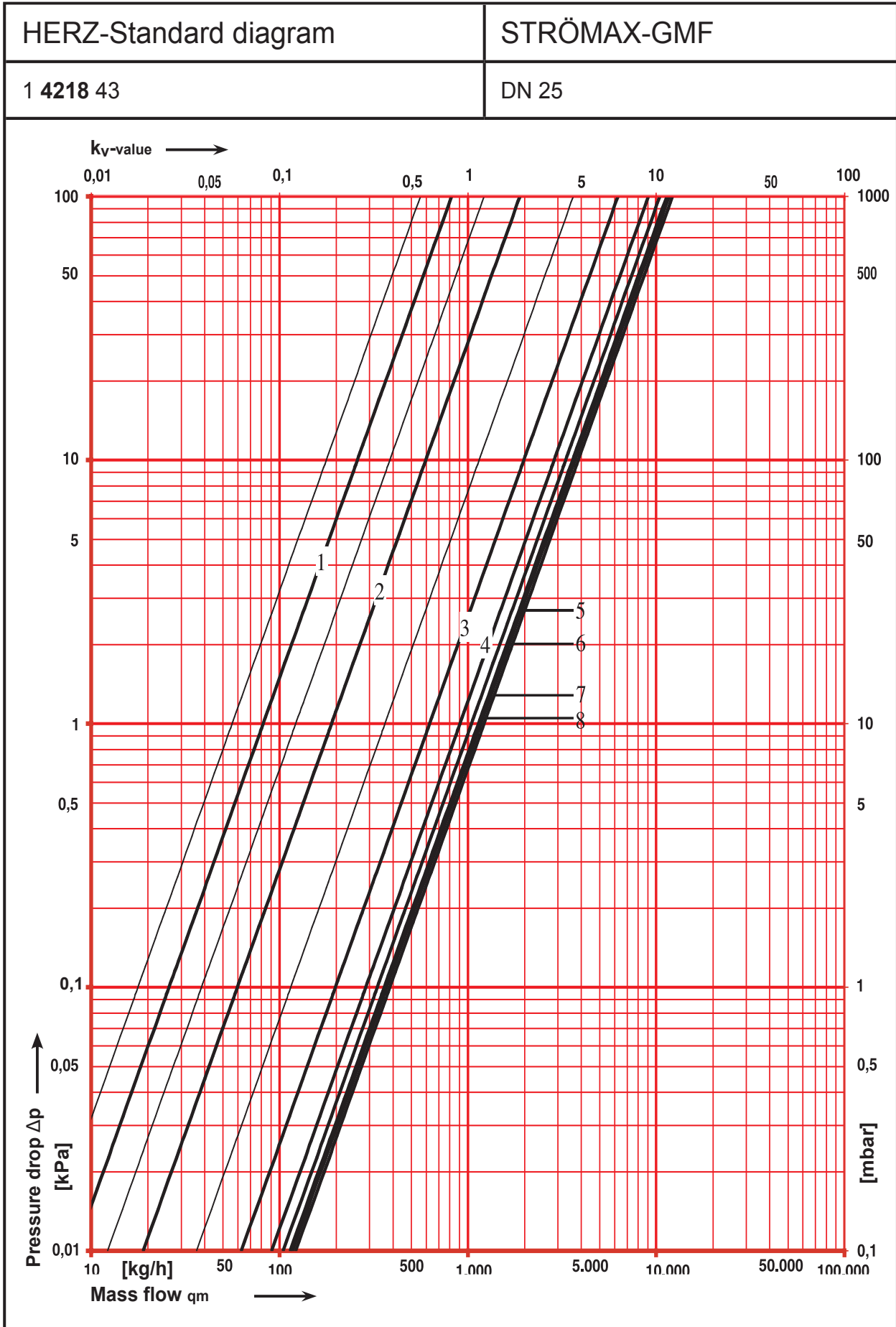
**Correction factors for glycol mixtures
for measurements with a measuring computer**

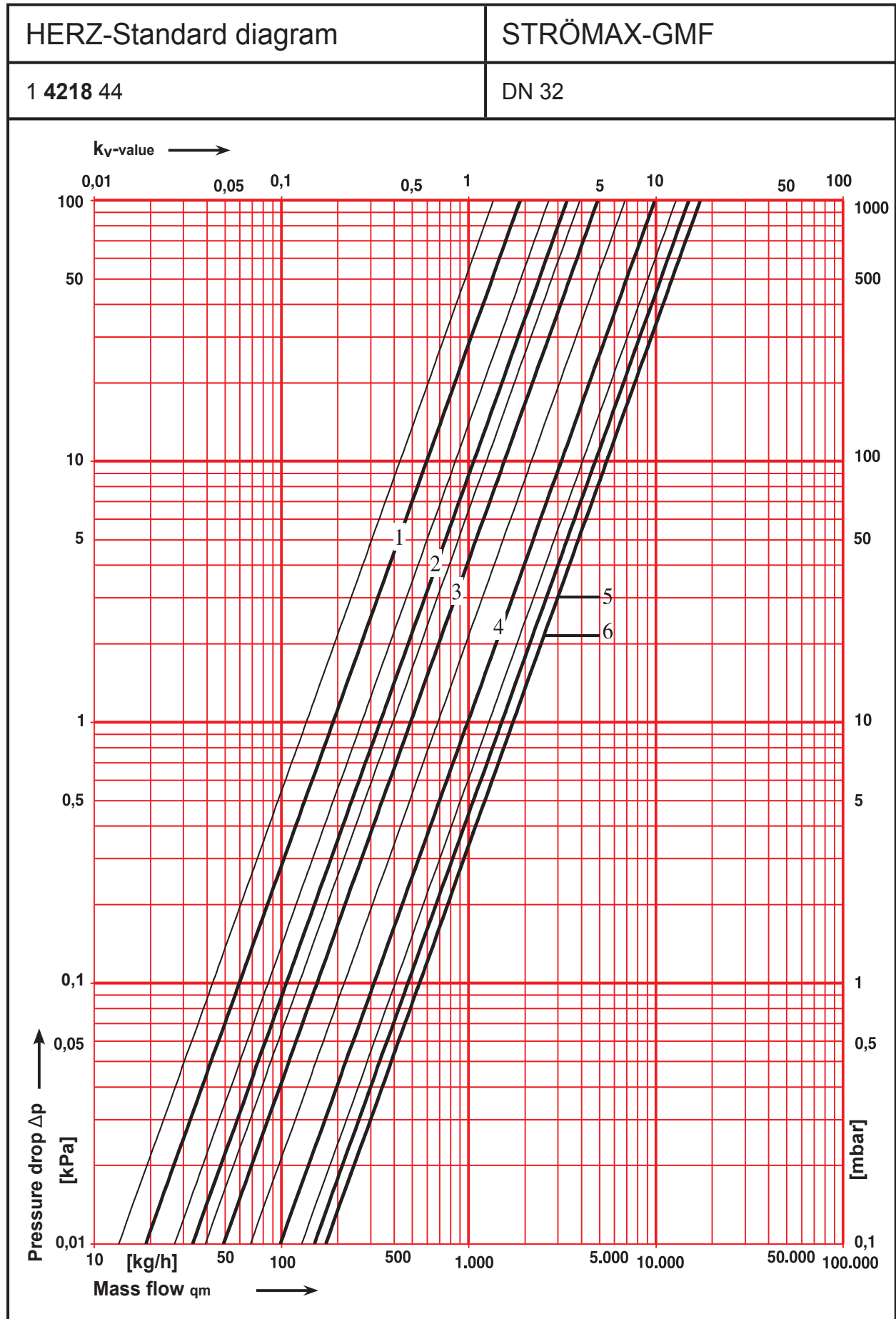
Temperature °C	Ethylene glycol 34% (Factor)	Ethylene glycol 40% (Factor)	Ethylene glycol 44% (Factor)
-20	1,98	2,133	2,235
-15	1,833	1,9908	2,096
-10	1,737	1,8738	1,965
-5	1,649	1,7702	1,851
0	1,567	1,6744	1,746
5	1,482	1,5876	1,658
10	1,412	1,505	1,567
15	1,342	1,4254	1,481
20	1,281	1,3554	1,405
25	1,226	1,2956	1,342
30	1,163	1,2284	1,272
35	1,123	1,1848	1,226
40	1,079	1,136	1,174
45	1,04	1,0928	1,128
50	1	1,0528	1,088
55	0,974	1,0214	1,053
60	0,947	0,9938	1,025
65	0,926	0,9714	1
70	0,912	0,9528	0,98
75	0,893	0,9332	0,96
80	0,884	0,9242	0,951

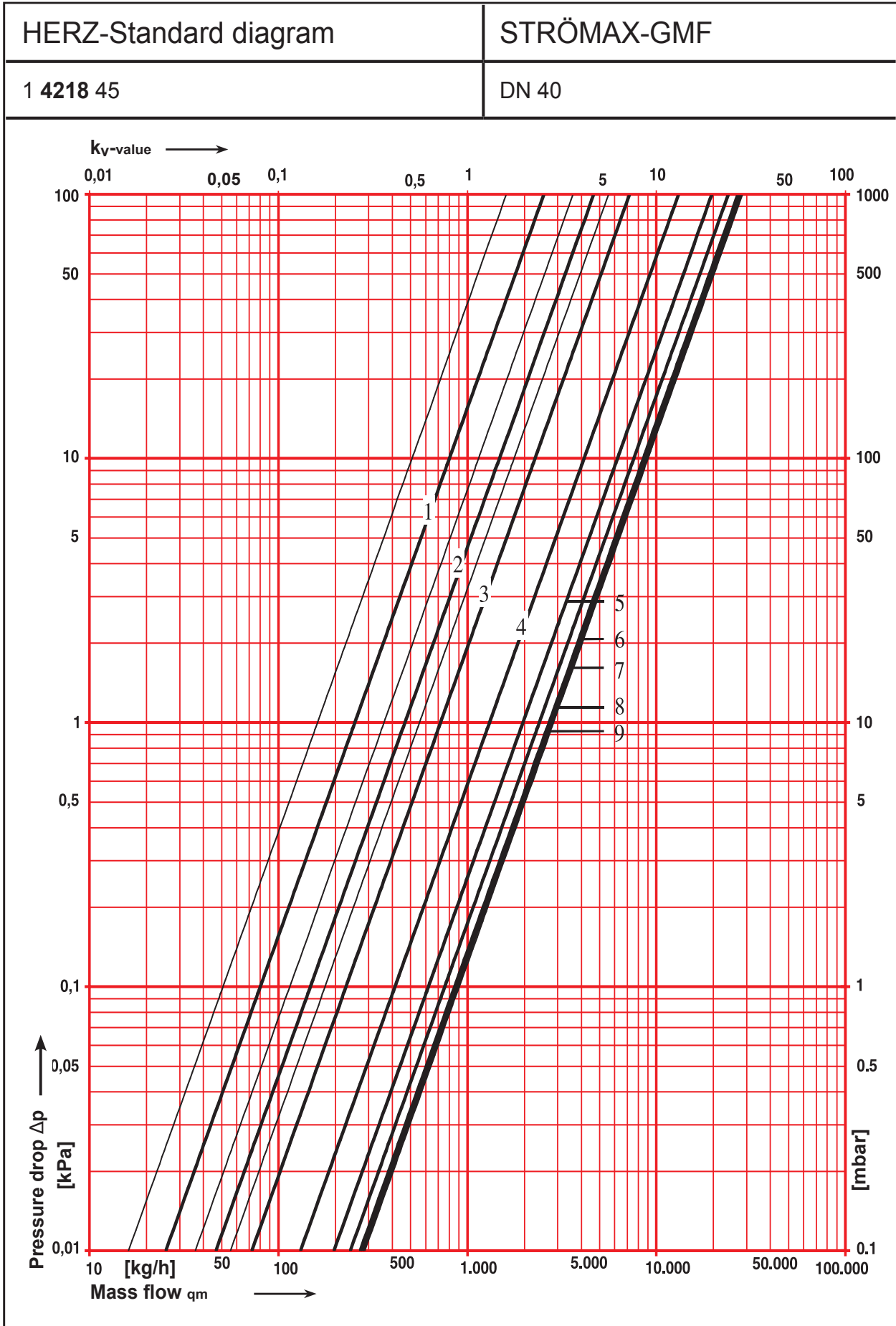
$$dP_R / f = dP_{Display}$$

$$Q_R * 1 / \sqrt{f} = Q_{Display}$$

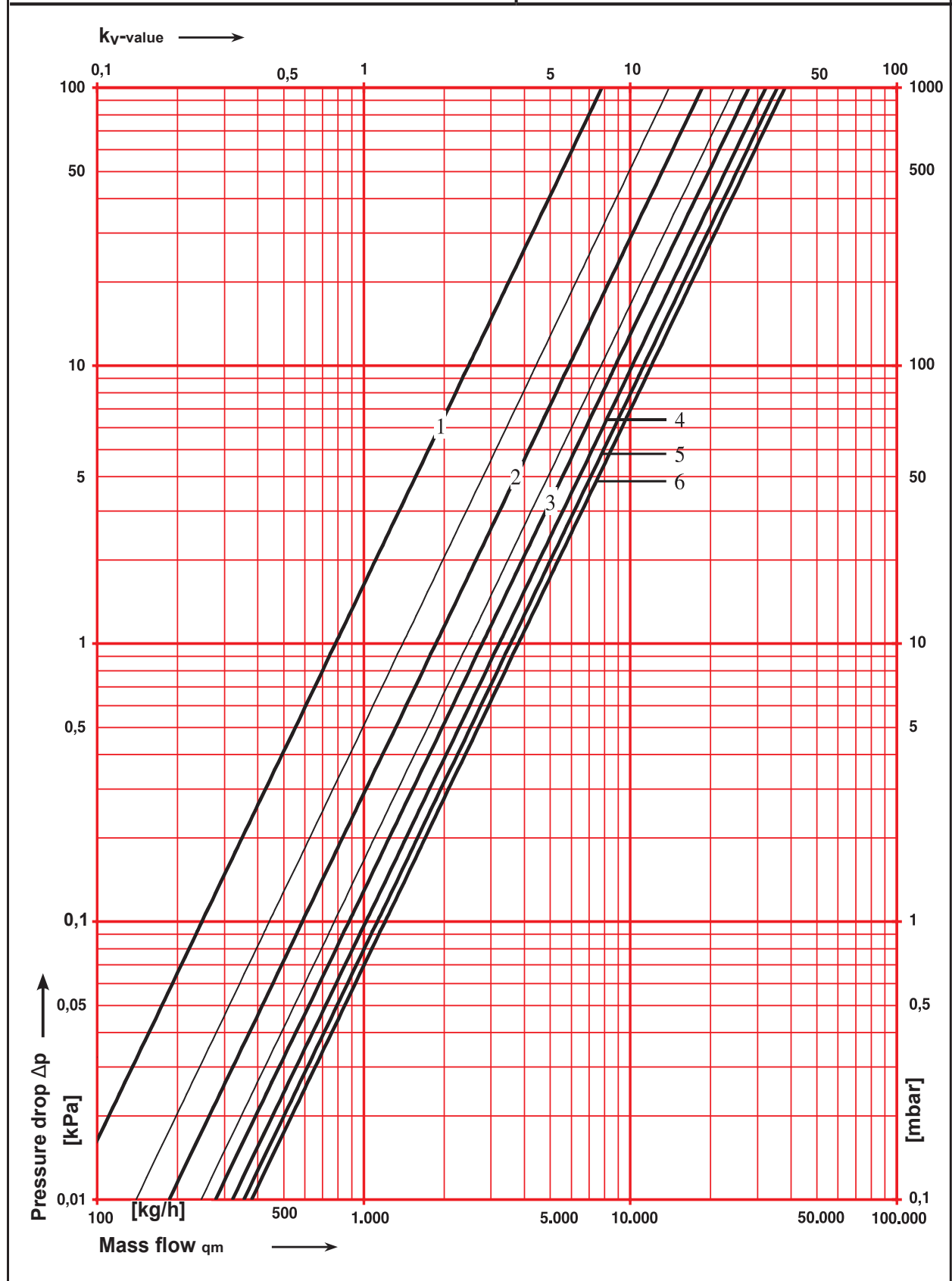
dP_R	Differential pressure realistic
$dP_{Display}$	Differential pressure on the Display
Q_R	Amount of water realistic
$Q_{Display}$	Amount of water on the display Display
f	Factor from the table above

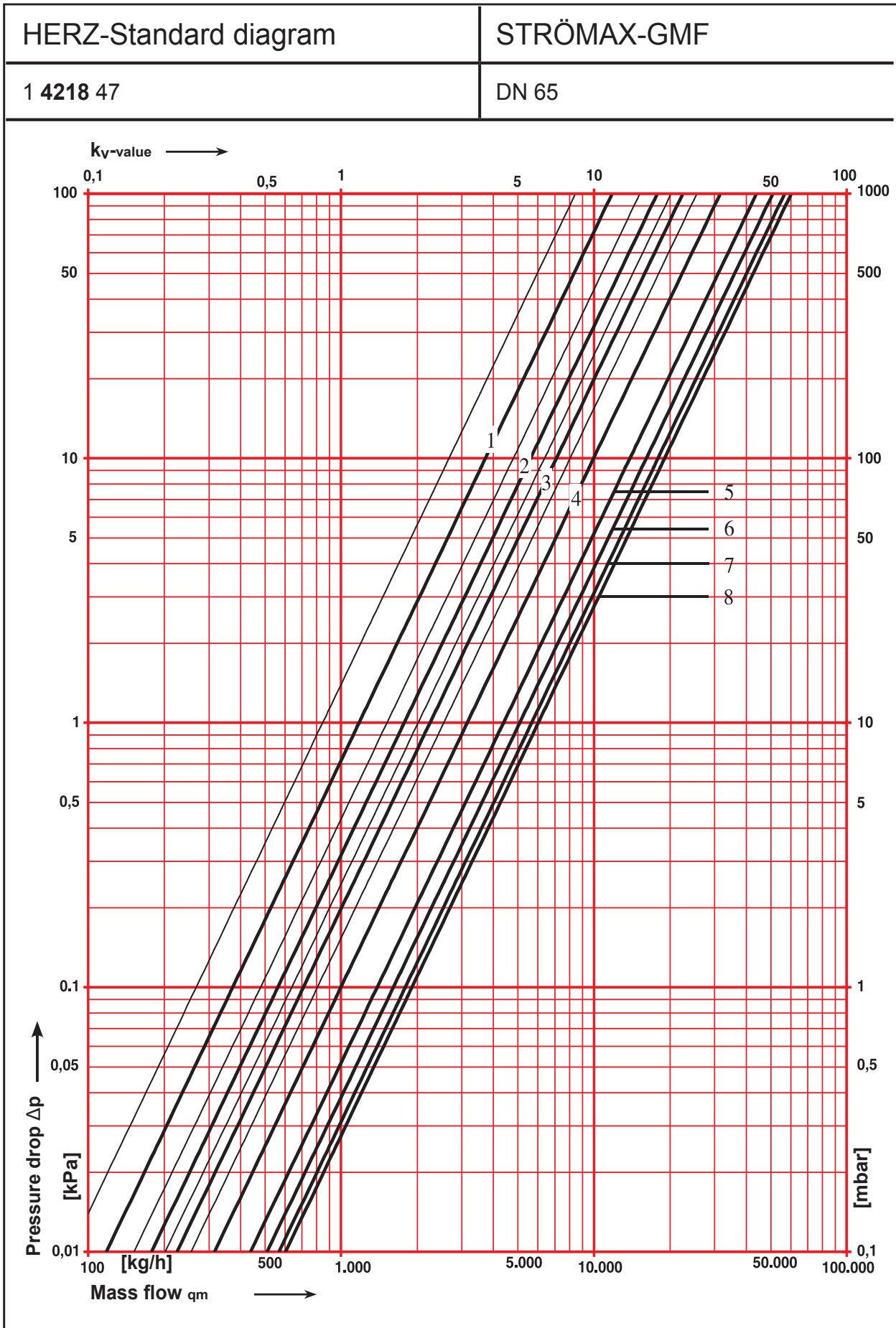


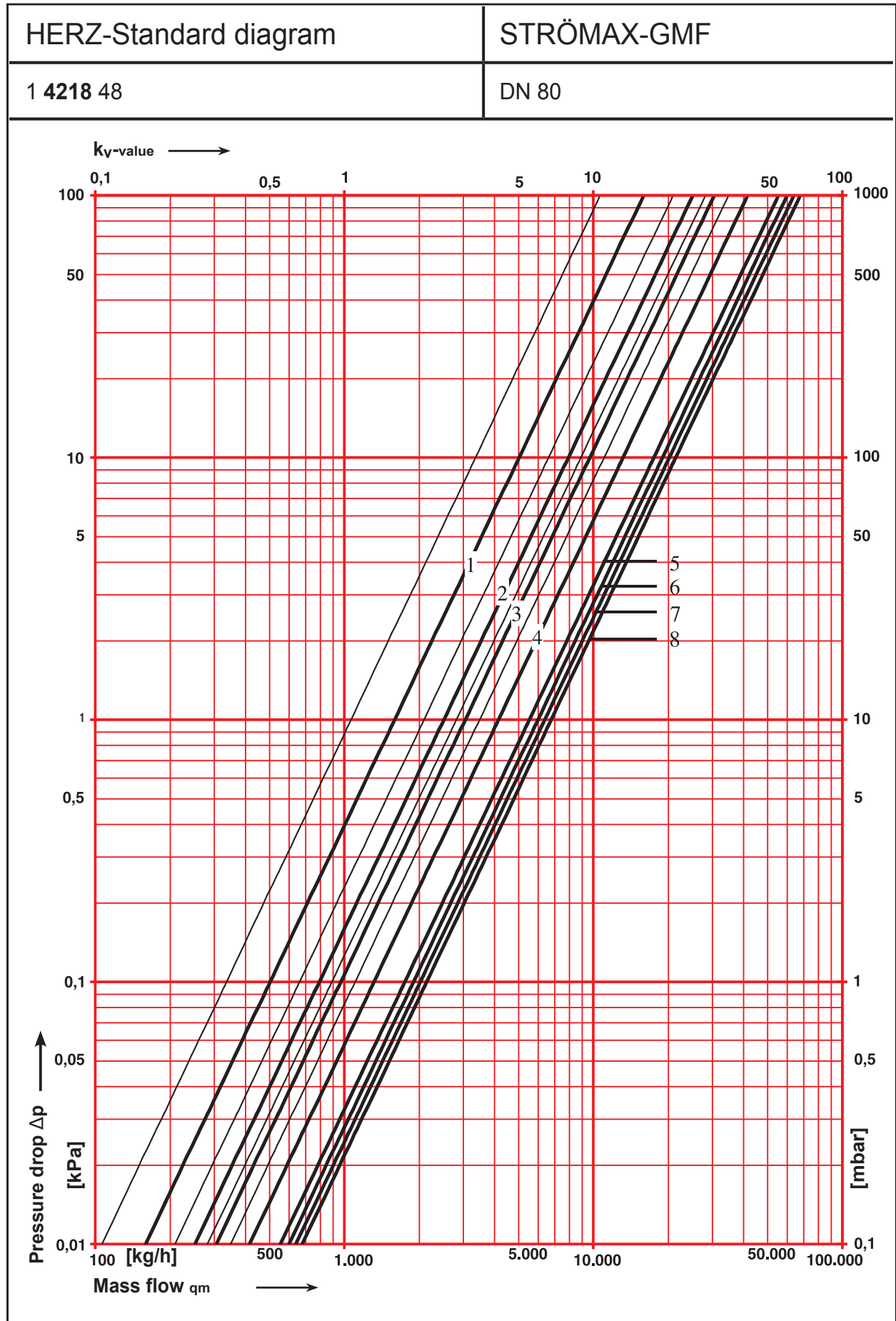


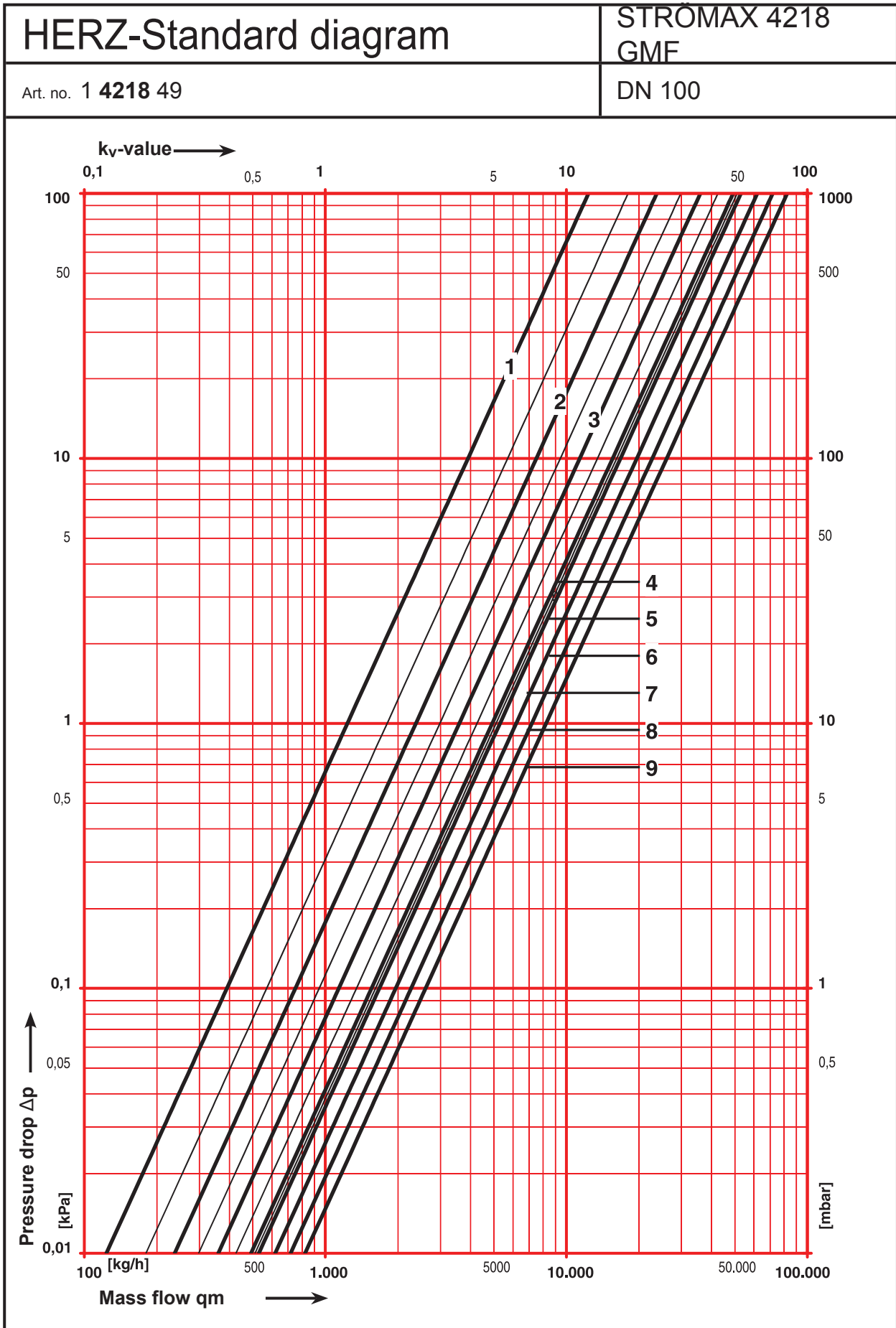


HERZ-Standard diagram	STRÖMAX-GMF
1 4218 46	DN 50

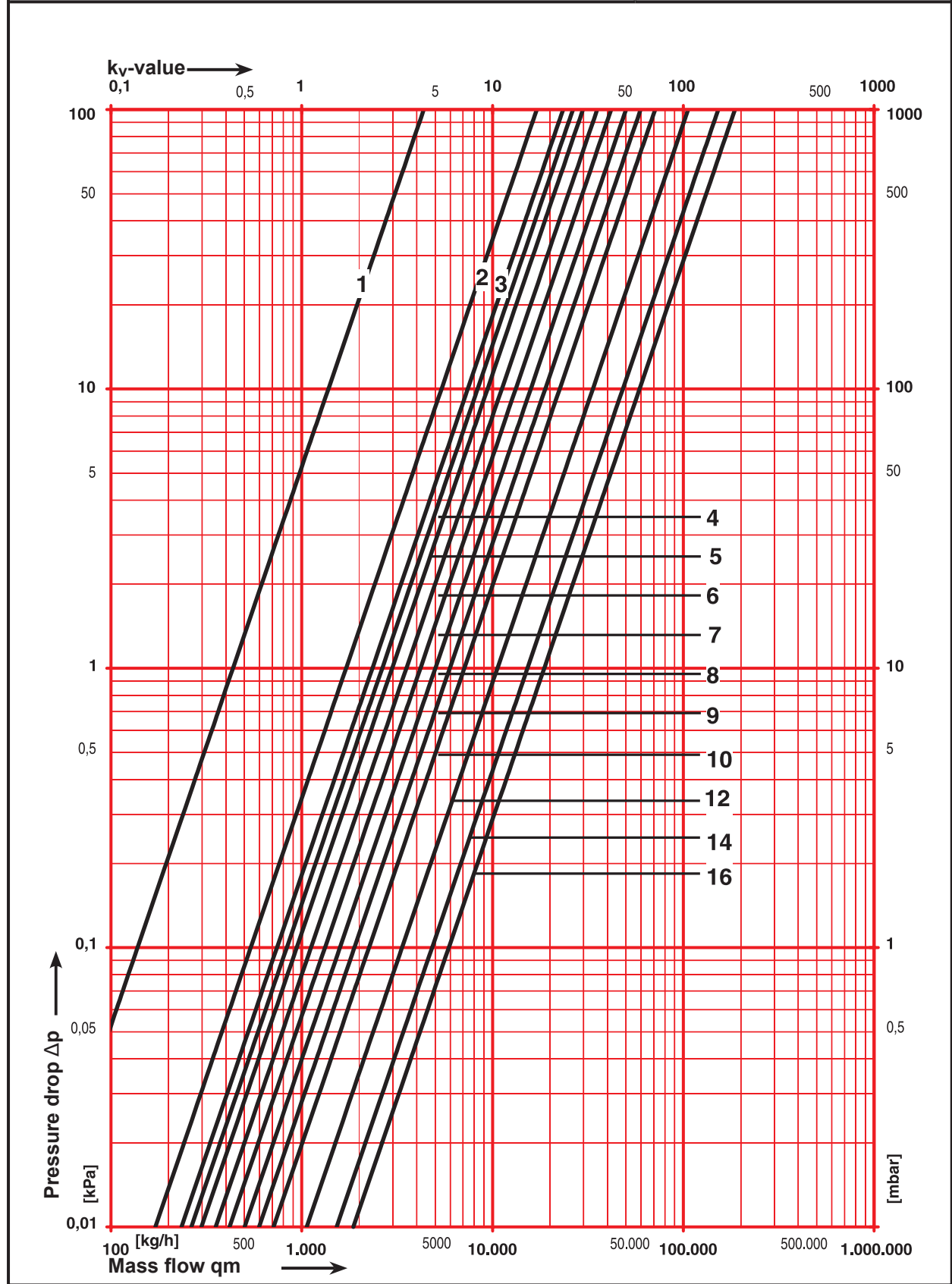


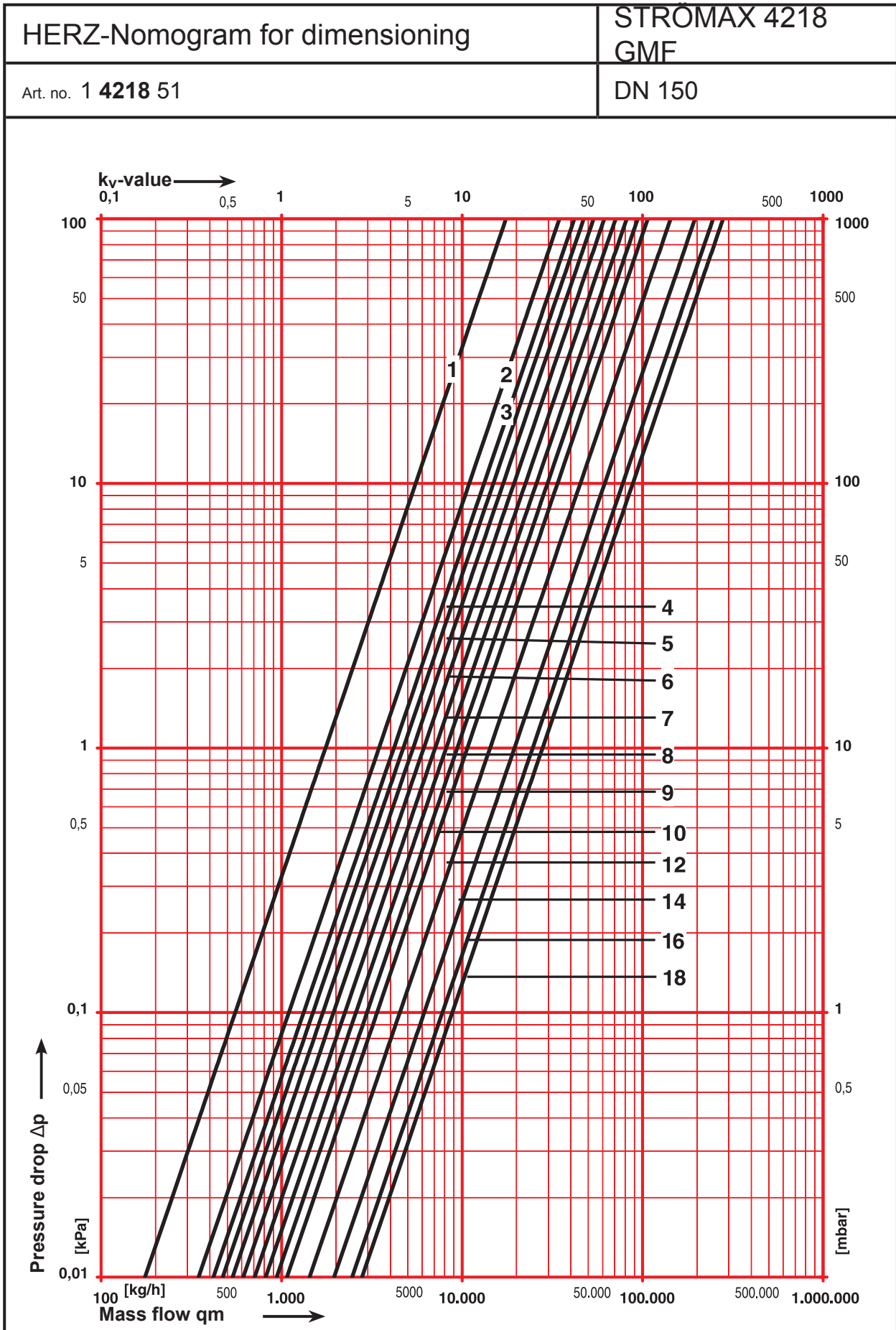






<h1>HERZ-Standard diagram</h1>	STRÖMAX 4218 GMF
Art. no. 1 4218 50	DN 125

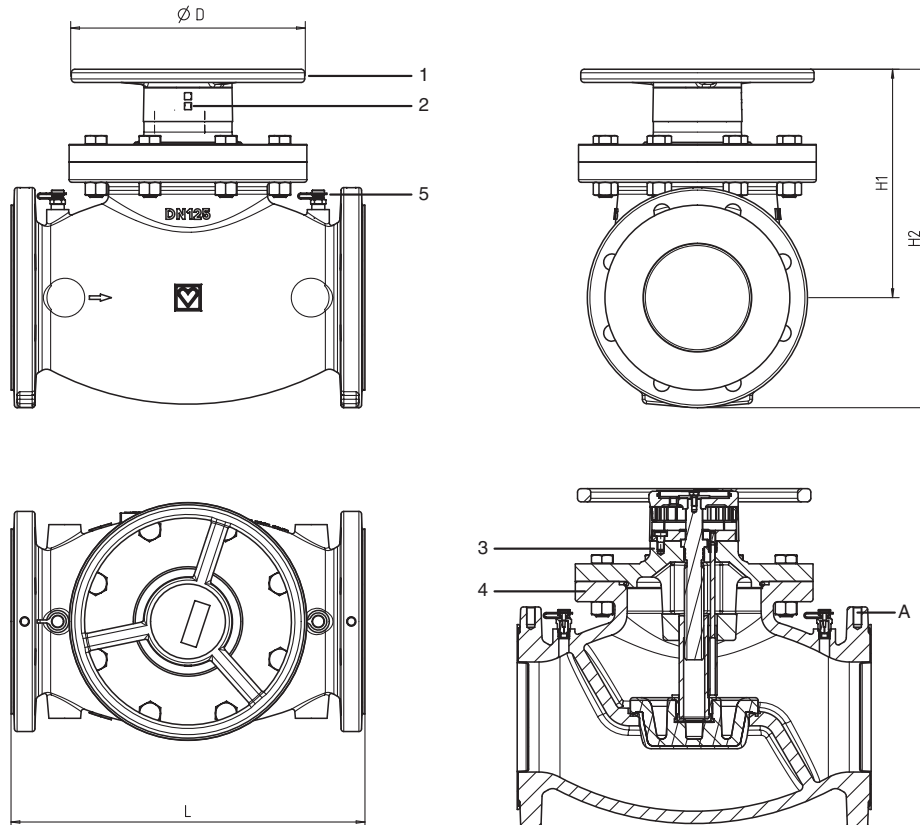




Commissioning valve STRÖMAX - 4218 GF

Data sheet 4218 GF

☑ 4218 GF STRÖMAX GF with test points



1. Handwheel
2. Digital display of the presetting levels
3. Valve upper part grey cast iron GJL 250
4. Valve body grey cast iron GJL 250
5. Test points 1/4

Flange dimensions according to EN1092-2

☑ Dimensions in mm, order numbers

Order number 4218 GF linear characteristic according to BS-7350	DN	L	H1	H2	D	A	kg	PN	kvs
1 4218 80	50	230	169	252	150	-	17	16	34,96
1 4218 81	65	290	186	279	150	-	24	16	66,94
1 4218 82	80	310	208	307	175	M10	30	16	106,78
1 4218 83	100	350	235	344	175	M10	31	16	169,45
1 4218 84	125	400	260	385	265	M10	43	16	228,85
1 4218 85	150	480	310	450	265	M10	62	16	389,54
1 4218 86	200	600	400	569	450	M10	122	16	676,33
1 4218 87	250	730	453	655	450	M10	206	16	1082,72
1 4218 88	300	850	520	783	450	M12	323	16	1784,91
1 4220 87	250	730	453	655	450	M10	206	25	1082,72
1 4220 88	300	850	520	783	450	M12	323	25	1784,91

Model

4218 GF 4218 GF STRÖMAX GF with test points DN 50 - 300

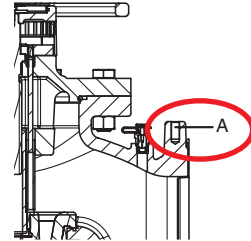
Body of grey cast iron GJL 250 according to EN 1561, flange according to EN 1092, PN 16; length according to ÖNORM EN-558-1, basic series 1; painted blue. Thermostatic upper part of grey cast iron GJL 250. Digital display of the pre-setting levels. Non-rising spindle with triple O-ring seal.

Transport

The valve must not be lifted by the handwheel !!!

Suitable lifting eyes must be used for transporting and lifting the valve!

The valve is delivered from the factory ready for installation. The valve is closed to prevent contamination of the seat during storage and transport. To avoid contamination, the flange covers must remain in place during storage and transport. Storage: temperature -10 °C to + 50 °C, humidity max. 70%.



Test point

Two test points 1 **0284** and presetting marker 1 **6517** 05 are included. test points can be mounted on top. This arrangement ensures the best accessibility and optimal connection of measuring devices in all installation positions.

Drain valves

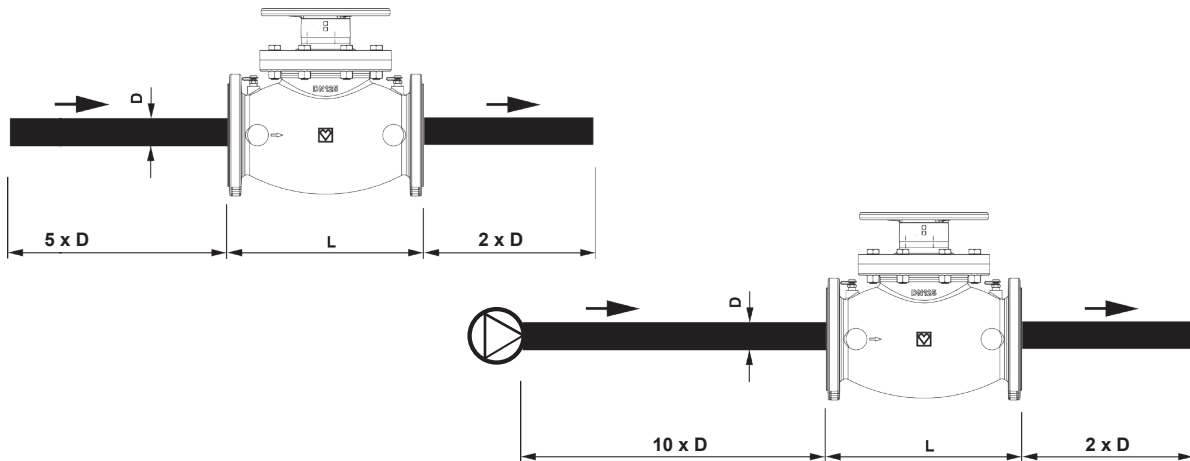
1 **0284** 2x Test point with drainage, swiveling hose connection, yellow version, hose connection 1 **6206** 02 must be ordered separately. A boiler fill and drain valve 4119 is used to drain the system.

Application

For hydraulic balancing in heating or cooling systems, regulating and shutting off distribution circuits, heat exchangers, heating and cooling terminals.

Installation

Any installation position. The direction of flow according to the arrow on the housing must be observed. According to CIBSE Code W double regulating valves must always be installed with a minimum of 5 pipe diameters of straight pipe, without intrusion, upstream of the valve. Downstream of the valve a minimum of 2 pipe diameters of straight pipe are required. If a pump is installed directly before the valve, we recommend 10 pipe diameters of straight pipe, without intrusion, upstream of the valve.



Technical data

Max. operation temperature	110 °C
Min. operation temperature	-10 °C
Max. operation pressure	16 bar

Water purity in accordance with the ÖNORM H 5195 and VDI 2035 standards. Ethylene and propylene glycol can be used in a ratio of 25-50 vol. [%] are mixed.

Material

Upper part	Gray cast iron GJL 250 according to EN 1561
Body	Gray cast iron GJL 250 according to EN 1561
Spindle	DN50 - DN100 brass, DN125 - DN300 stainless steel
Regulation spindle	Brass/ stainless steel
Valve cone	Gray cast iron GJL 250 according to EN 1561/ EPDM coated
Counting device	Plastic
O-Ring	EPDM

Characteristic

Flow direction

When installing, observe the direction of flow according to the arrow on the body.

Installation

Due to the non-rising valve spindle, which is arranged perpendicular to the valve axis, optimal accessibility and operability of the valve must be guaranteed for every installation position.

Spindle seal

The spindle seal is made by means of an elastic tripple O-ring and thus ensures tightness and ease of movement in the long term.

Tripple-O-ring

The maintenance-free tripple O-ring seal ensures permanent, secure sealing of the valve spindle and ease of movement when the valve is operated.

Differential pressure measurement

The Strömax GF double regulating and commissioning valve is equipped with two test points: If a suitable measuring device is used, the differential pressure can be measured and the respective flow rate can be determined depending on the setting level. The respective flow rate can also be read directly on the HERZ measuring computers (see device manual).

When using antifreeze, the density of the medium changes, which must be taken into account when measuring differential pressure.

Correction factors

measured differential pressure / factor = actual differential pressure

measured amount of water x 1 / $\sqrt{\text{factor}}$ = actual amount of water

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 used for measurements with the HERZ differential pressure measuring devices. Intermediate values can be interpolated.

Glycol mixtures

Ethylene and propylene glycol can be used in a ratio of 25-50 vol. [%]. Mixing must take place before filling the system. Failure to comply leads to the exclusion of the guarantee.

Mass flow tolerances

The maximum deviation of the mass flow from the characteristic curves of the double regulating and commissioning valves corresponds to the VDI guidelines.

Preset

The line regulating valve Strömax GF is delivered in the closed position. The default setting allows the maximum possible stroke. The handwheel mechanism is set so that the digital display shows 0.0 when the valve is closed.

Adjustment and fixation

Presetting process

1. Set the required presetting level according to the calculation (digital display on the handwheel)
2. 1/10 of the revolution are the red numbers and the whole revolution are the blue numbers
3. The presetting spindle is located under the cover in the handwheel. This presetting spindle is operated with a slotted screwdriver, 8mm blade. After pre-setting, this spindle is screwed in counterclockwise as far as it will go. The default setting is now fixed. The preset double regulating and commissioning valve can be shut off at any time or can be set in any position below the fixed setting. The presetting spindle is again protected from unauthorized use by the cover.
4. Mark the set position on the presetting marker or mark the digits by removing the pins and attach them to the valve. It is therefore possible, during service work, to check or reset the presetting originally made when the system was adjusted without the aid of records.

With the STRÖMAX-GF valve, it is possible to set a specific flow value without specifying the setting level using a measuring device. The setting can be carried out with a differential pressure measuring device with the aid of the HERZ setting diagrams. When using a measuring computer, the operating instructions for the device must be observed.

☑ Digital display, factory setting

The factory setting of the digital display is 0.0 when the valve is closed. If the complete handwheel (rotary handle, number wheels, base plate) is removed from the valve or a damaged part has to be replaced, proceed as follows to ensure the correct digital display:

1. Put on the complete upper case and then tighten three Allen screws and four hexagon screws.
2. Turn the valve clockwise to close.
3. If the digital display shows 0.0 in this position, the handwheel is correctly attached.
4. Then the handwheel is mounted on the spindle.
5. Screw in the handwheel fastening screw.
6. The valve can now be set to the desired position.

☑ Test points

The quick Test points 0284 are installed and the presetting marker 1 6517 05 is included.

The HERZ measuring computer has matching couplings 1 0284 00 with which a perfect attachment to the test points is guaranteed.

Warning: The test points may only be opened when a measuring device is connected. There is a risk of injury from hot water that may escape!

Please note that the following flow and setting values for the dimensioning - design - of HERZ Strömax 4218 GMF double regulating and commissioning valves are given. To check preset values and to change the setting after measuring the differential pressure at the valve during operation, separate tables are sent on request.

☑ Accesories

- | | |
|--------------|--|
| 1 6517 05 | Pre-setting marker |
| 1 0276 09 | Emptying valve 1/4 with handle and swiveling hose connection |
| 1 6206 02 | Hose connection |
| 1 0284 00 | Pressure transducer |
| 1 0284 11 | Quick test point, blue + e cap, extended design |
| 1 0284 12 | Quick test point, red + e cap, extended design |
| 1 0284 21 | HERZ test point with emptying, blue cap |
| 1 0284 22 | HERZ test point with emptying, red cap |
| 2 0284 23 | Long quick test point with drainage, blue cap |
| 2 0284 24 | Long quick test point with drainage, red cap |
| 2 0273 09 | Sealing screw 1/4 |
| 1 0284 01 | Quick test point blue |
| 1 0284 02 | Quick test point red |
| 1 0284 03 | Quick test point with pulse line connection blue |
| 1 0284 04 | Quick test point with pulse line connection red |
| 1 0284 10 | Quick test point |
| 1 4218 22-26 | Spare parts set for 4218 GF |

☑ Warning notice

In accordance with the intended use of the fittings, clean processing is required. The introduction of dirt into the fittings is to be avoided. During assembly, make sure that the screws are tightened crosswise.

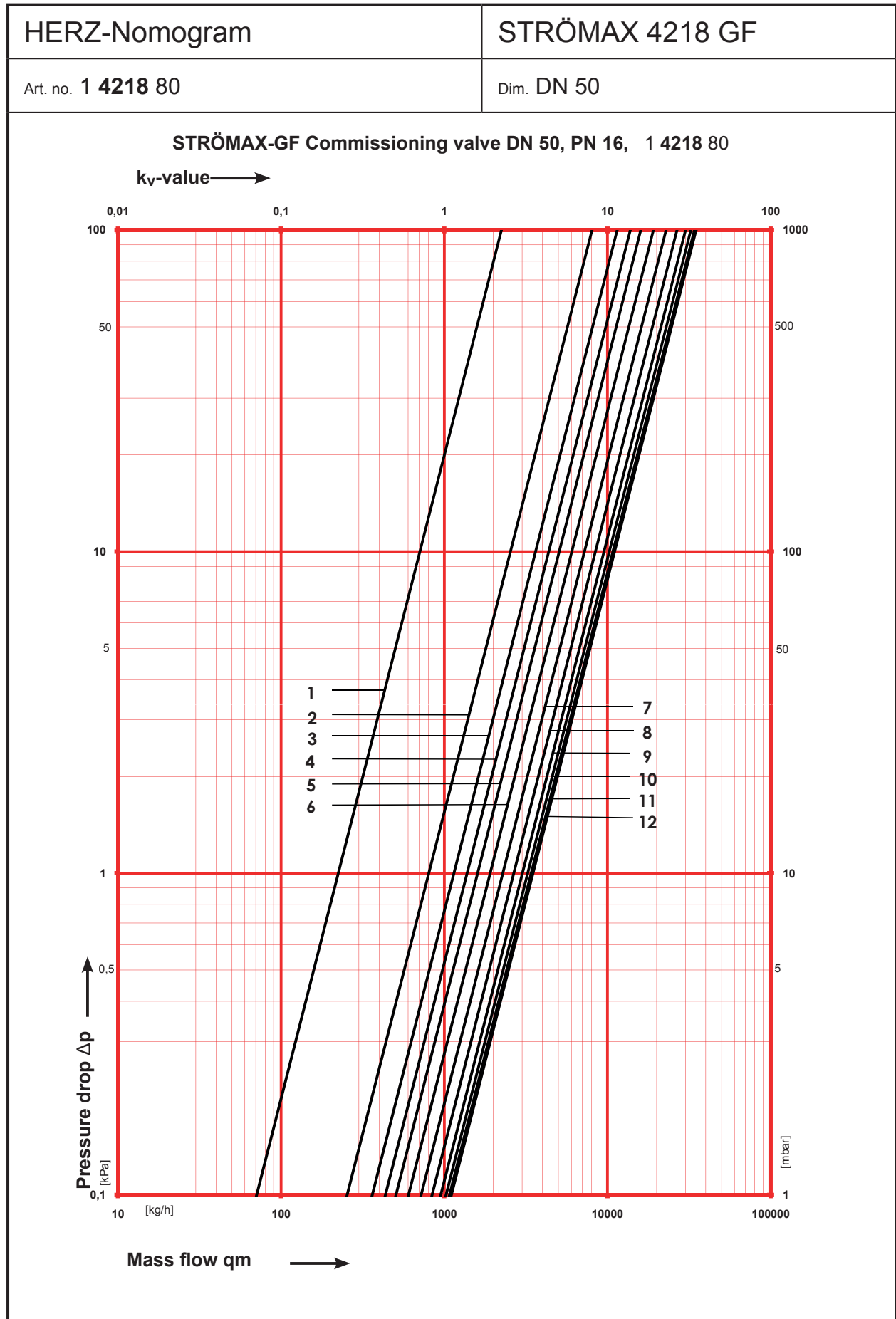
☑ Coating

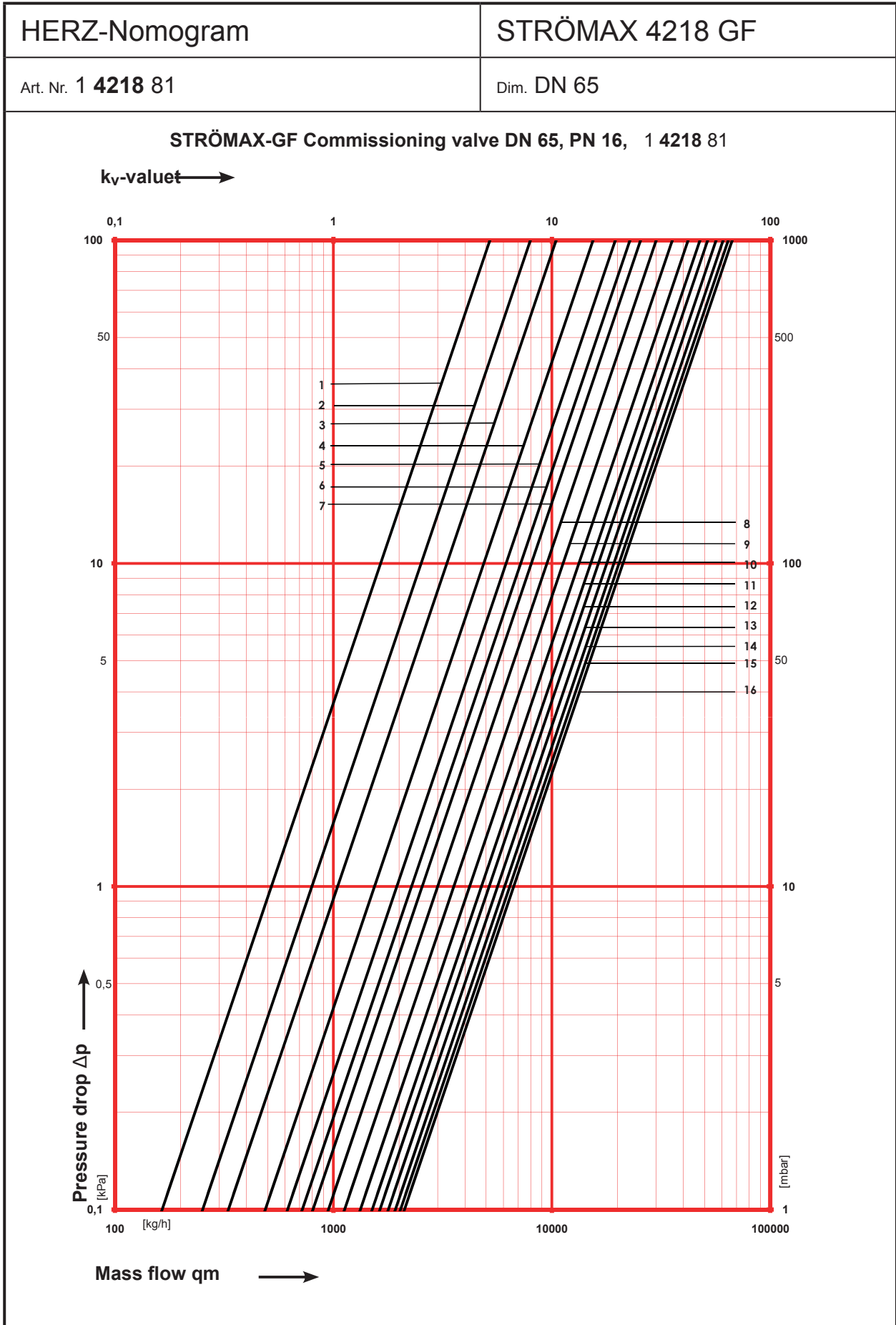
Primer based on alkyd resins (synthetic resin primer) and contains lead and chromate-free rust protection pigments.

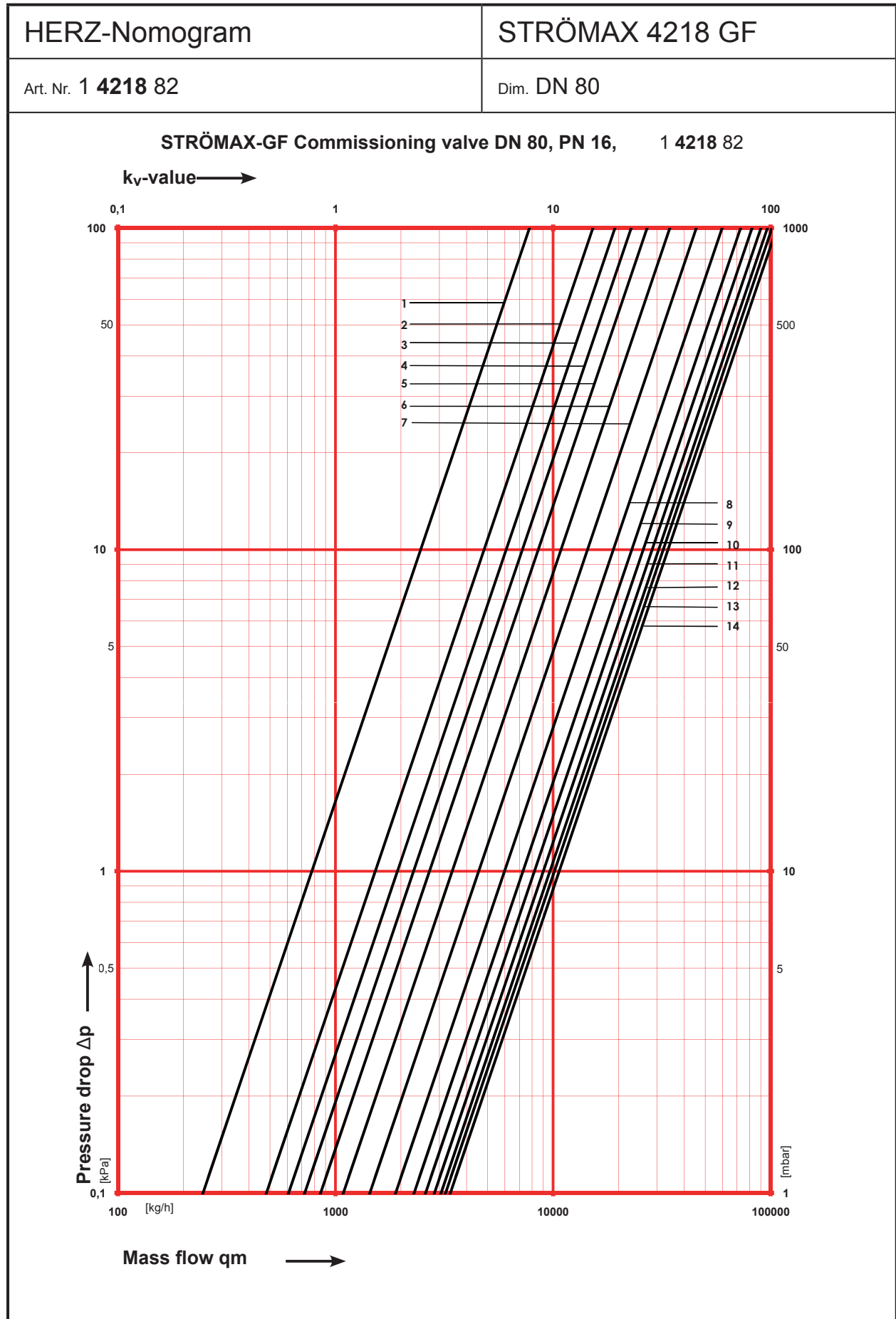
Top coat with epoxy resin. Solvent content is lower than permitted in the VOC Plant Ordinance 2002.

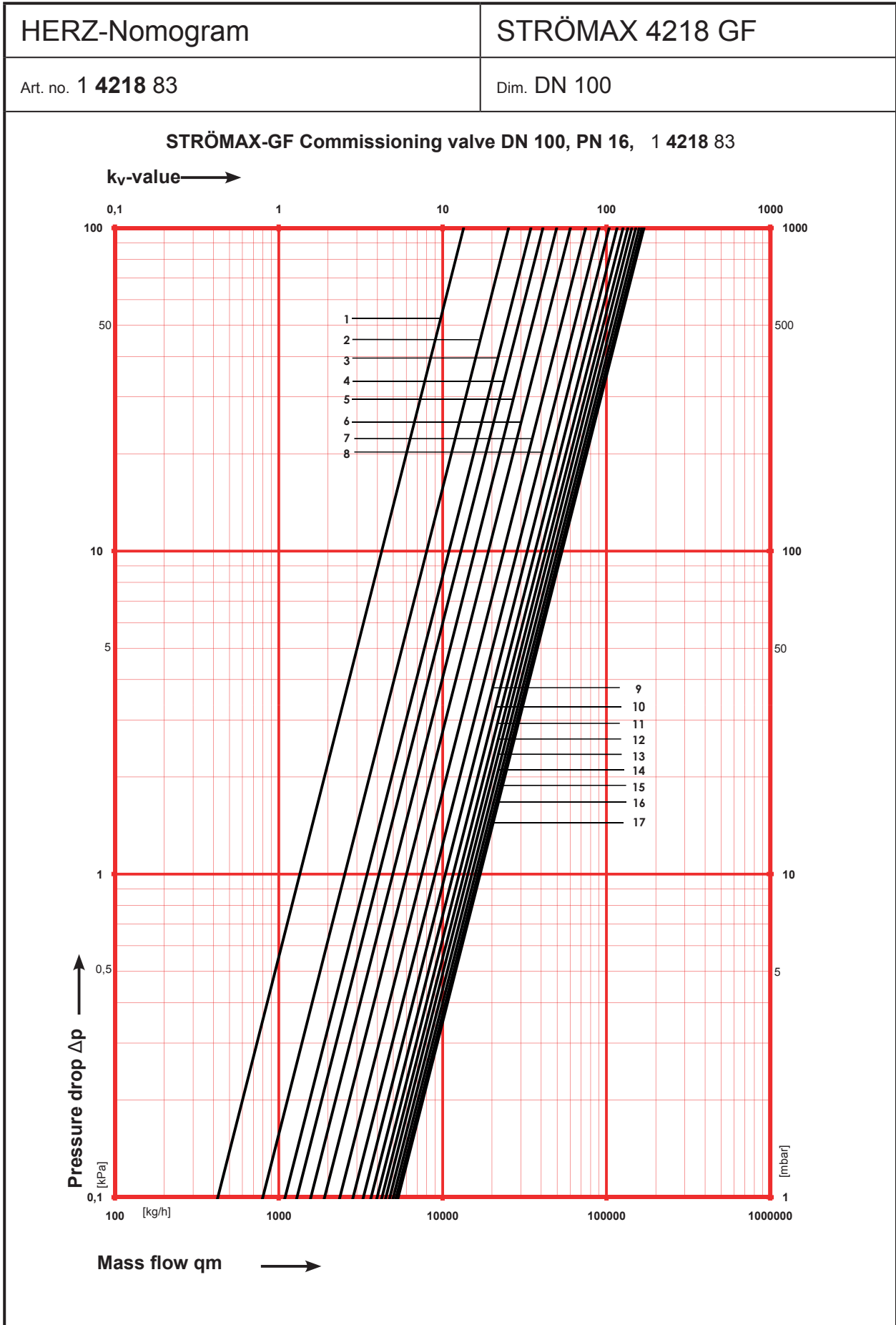
Degree of gloss: matt

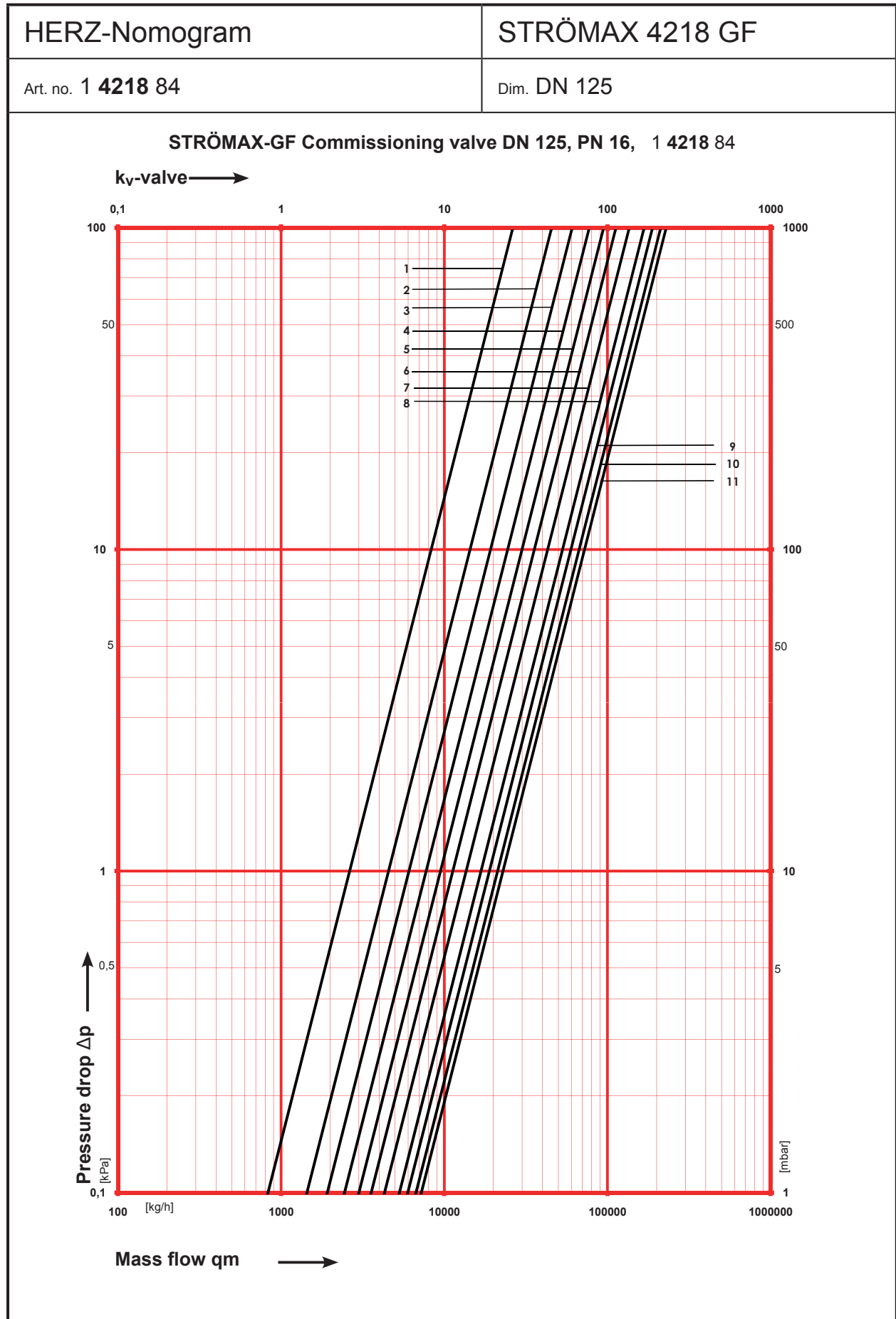
Dry layer thickness (TSD): ~ 100 µm

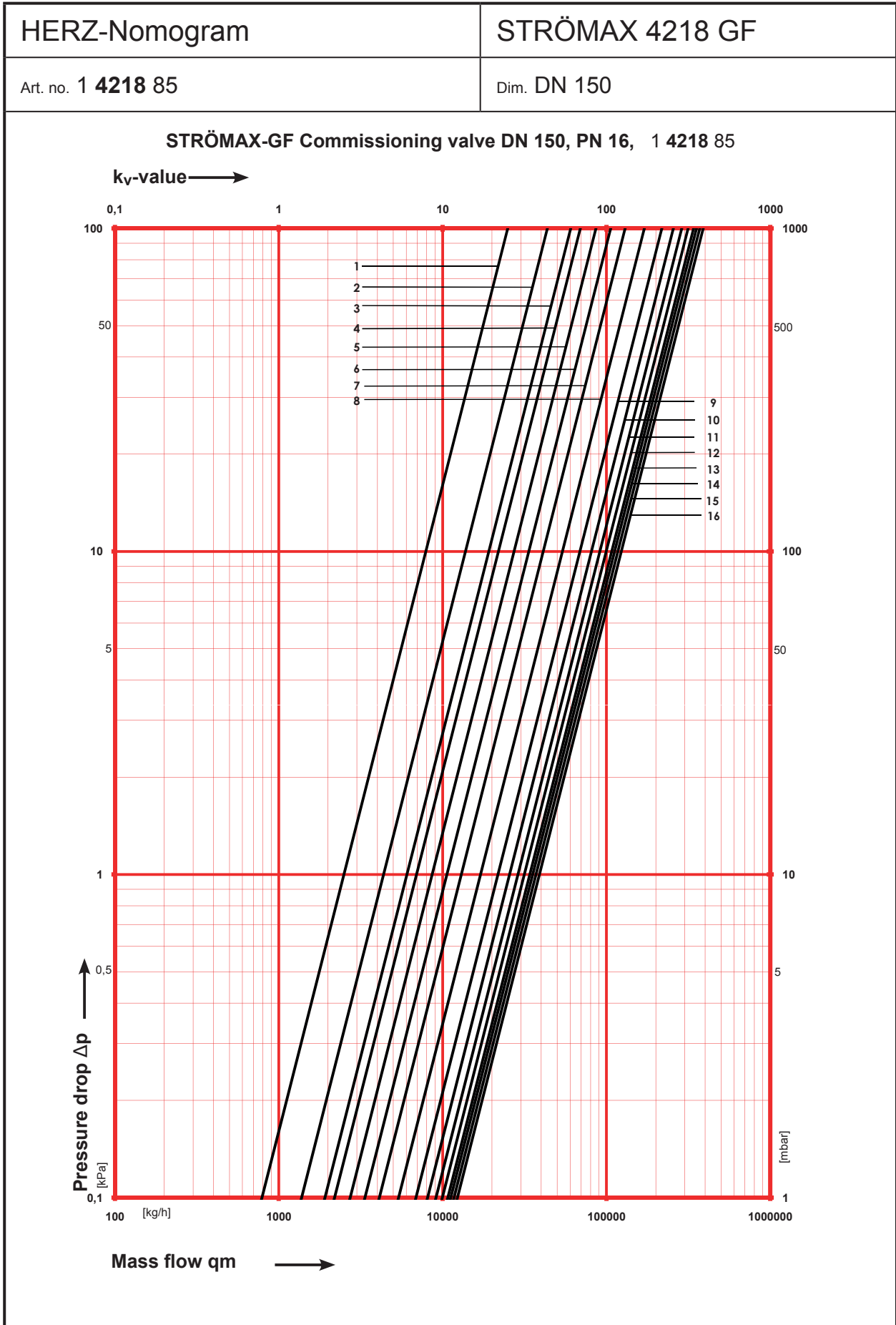


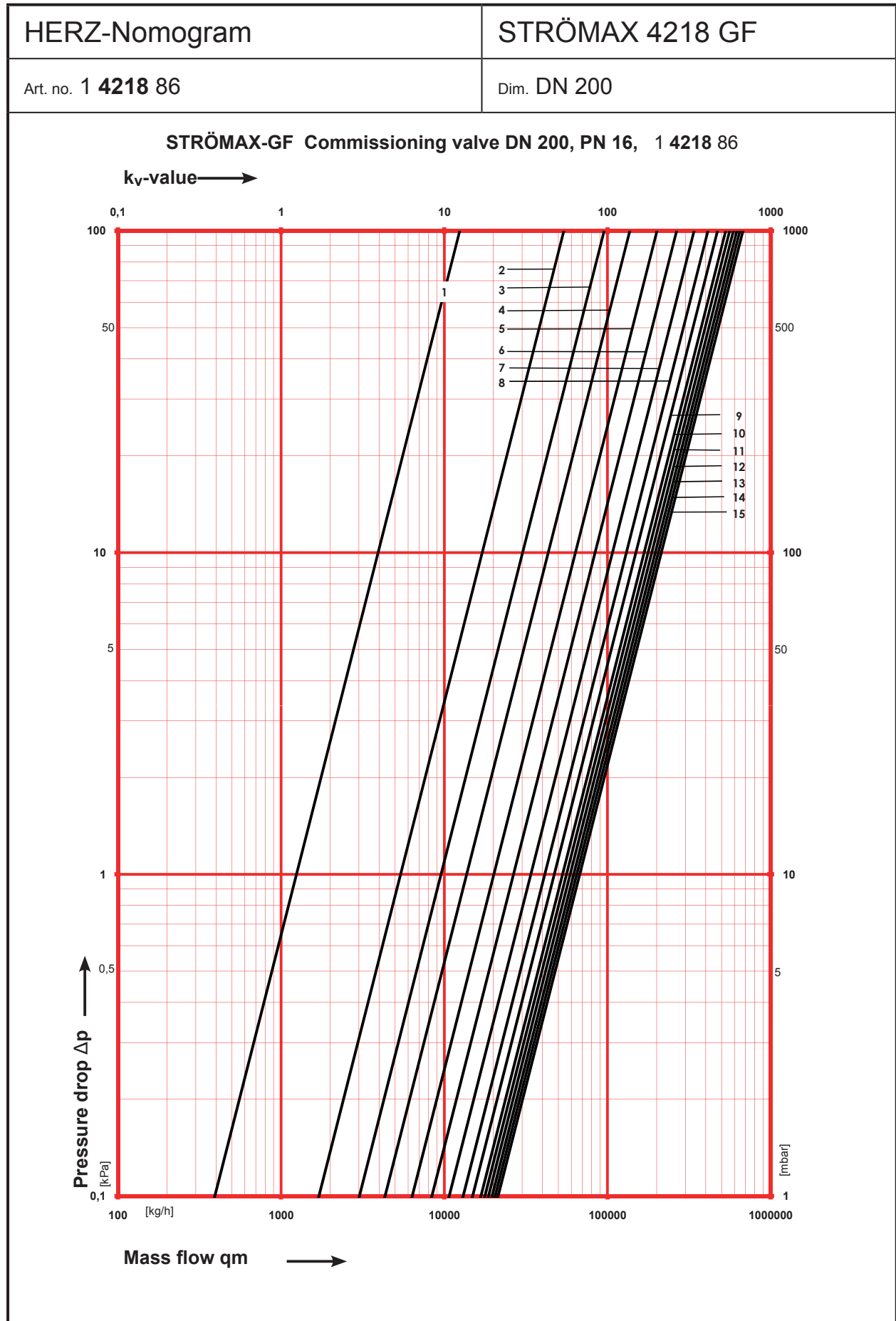


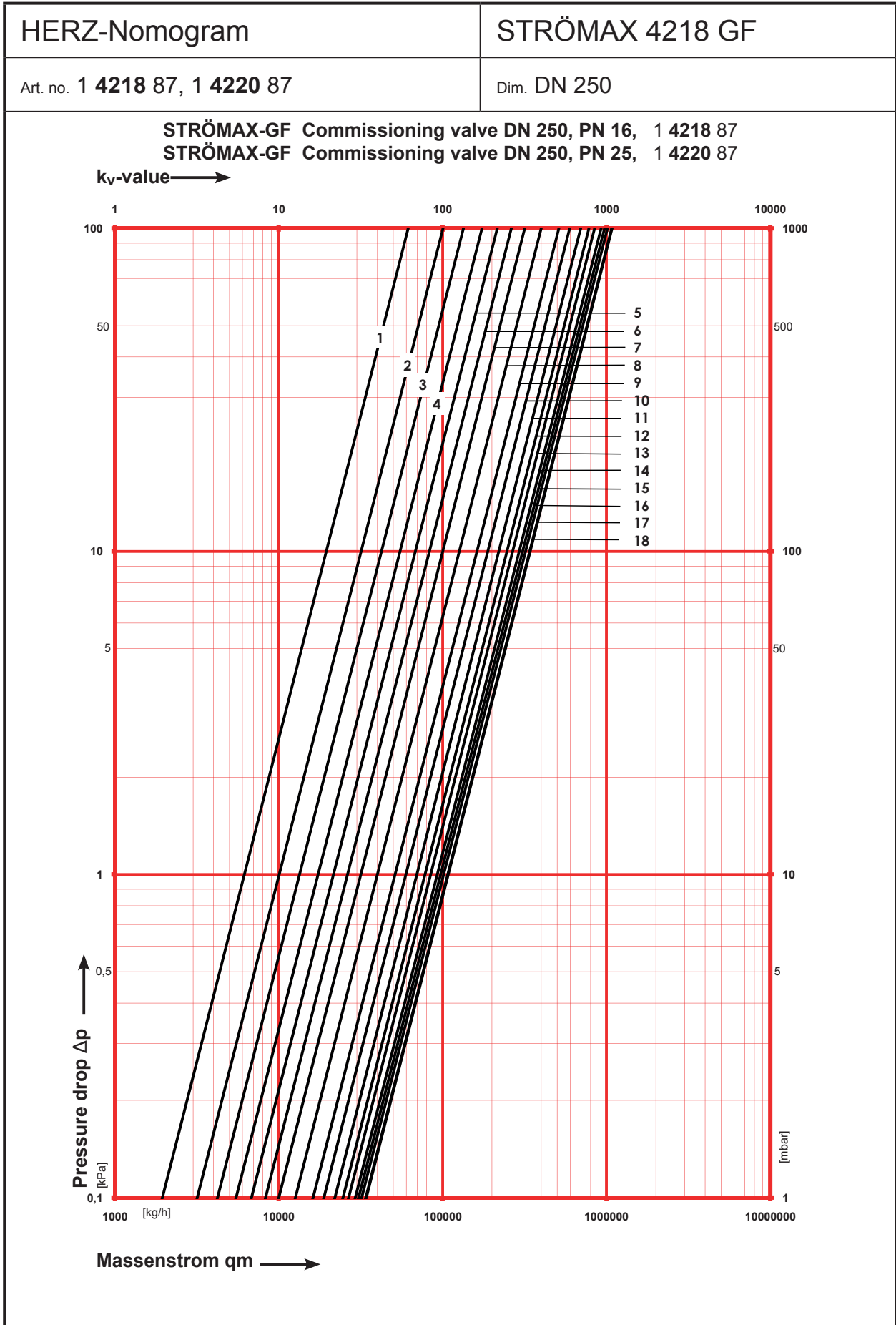


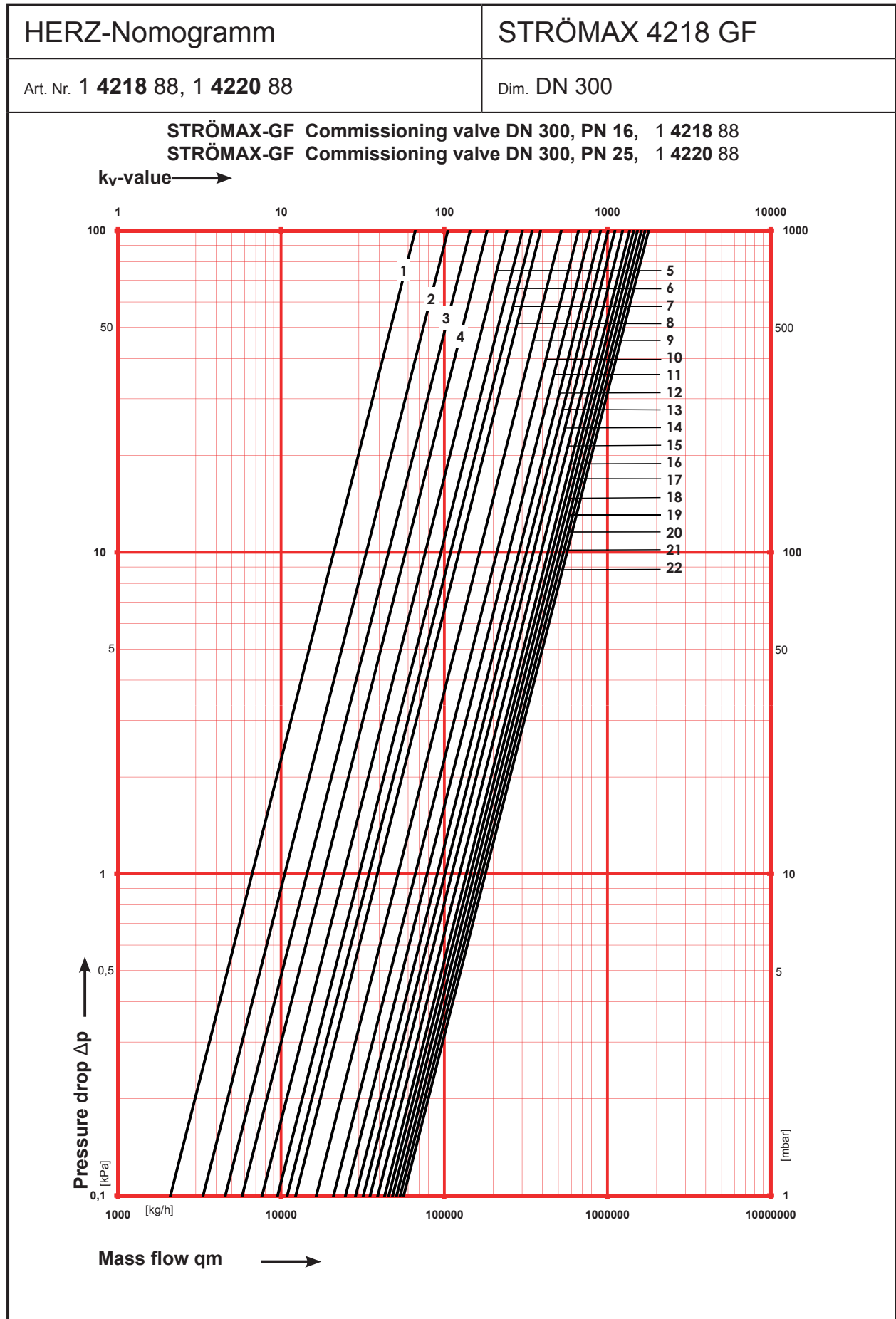












HERZ STRÖMAX - GF

DN	50	65	80	100	125	150	200	250	300
Pos.	kv	kv	kv	kv	kv	kv	kv	kv	kv
0,5	0,44	3,7	4,04	7,54	16,72	15,68	4,124	42,13	47,09
0,6	0,44	4	4,79	8,72	18,64	17,54	4,124	46,03	50,97
0,7	0,44	4,3	5,54	9,9	20,56	19,4	4,124	49,93	54,85
0,8	1,04	4,6	6,29	11,08	22,48	21,26	4,124	53,83	58,73
0,9	1,64	4,9	7,04	12,26	24,4	23,12	8,277	57,73	62,61
1,0	2,24	5,2	7,79	13,44	26,32	24,98	12,43	61,63	66,49
1,1	2,84	5,5	8,54	14,62	28,24	26,84	16,583	65,53	70,37
1,2	3,44	5,8	9,29	15,8	30,16	28,7	20,736	69,43	74,25
1,3	4,04	6,1	10,04	16,98	32,08	30,56	24,889	73,33	78,13
1,4	4,64	6,4	10,79	18,16	34	32,42	29,042	77,23	82,01
1,5	5,24	6,7	11,54	19,34	35,92	34,28	33,195	81,13	85,89
1,6	5,84	7	12,29	20,52	37,84	36,14	37,348	85,03	89,77
1,7	6,44	7,3	13,04	21,7	39,76	38	41,501	88,93	93,65
1,8	7,04	7,6	13,79	22,88	41,68	39,86	45,654	92,83	97,53
1,9	7,64	7,9	14,54	24,06	43,6	41,72	49,807	96,73	101,41
2,0	8,04	7,97	15,24	25,28	45,55	43,59	53,96	100,65	105,29
2,1	8,38	8,22	15,64	26,21	47,07	45,28	58,113	103,98	109,17
2,2	8,72	8,47	16,04	27,14	48,59	46,97	62,266	107,31	113,05
2,3	9,06	8,72	16,44	28,07	50,11	48,66	66,419	110,64	116,93
2,4	9,4	8,97	16,84	29	51,63	50,35	70,572	113,97	120,81
2,5	9,74	9,22	17,24	29,93	53,15	52,04	74,725	117,3	124,69
2,6	10,08	9,47	17,64	30,86	54,67	53,73	78,878	120,63	128,57
2,7	10,42	9,72	18,04	31,79	56,19	55,42	83,031	123,96	132,45
2,8	10,76	9,97	18,44	32,72	57,71	57,11	87,184	127,29	136,33
2,9	11,1	10,22	18,84	33,65	59,23	58,8	91,337	130,62	140,21
3,0	11,46	10,46	19,26	34,61	60,74	60,49	95,49	133,92	144,09
3,1	11,69	10,96	19,52	35,23	62,41	61,37	99,643	137,9	147,97
3,2	11,92	11,46	19,78	35,85	64,08	62,25	103,796	141,88	151,85
3,3	12,15	11,96	20,04	36,47	65,75	63,13	107,949	145,86	155,73
3,4	12,38	12,46	20,3	37,09	67,42	64,01	112,102	149,84	159,61
3,5	12,61	12,96	20,56	37,71	69,09	64,89	116,255	153,82	163,49
3,6	12,84	13,46	20,82	38,33	70,76	65,77	120,408	157,8	167,37
3,7	13,07	13,96	21,08	38,95	72,43	66,65	124,561	161,78	171,25
3,8	13,3	14,46	21,34	39,57	74,1	67,53	128,714	165,76	175,13
3,9	13,53	14,96	21,6	40,19	75,77	68,41	132,867	169,74	179,01
4,0	13,8	15,43	22,86	40,89	77,46	69,31	137,02	173,71	182,95
4,1	14	15,83	23,28	41,77	79,19	71,01	143,44	177,89	188,88
4,2	14,2	16,23	23,7	42,65	80,92	72,71	149,86	182,07	194,81
4,3	14,4	16,63	24,12	43,53	82,65	74,41	156,28	186,25	200,74
4,4	14,6	17,03	24,54	44,41	84,38	76,11	162,7	190,43	206,67
4,5	14,8	17,43	24,96	45,29	86,11	77,81	169,12	194,61	212,6
4,6	15	17,83	25,38	46,17	87,84	79,51	175,54	198,79	218,53
4,7	15,2	18,23	25,8	47,05	89,57	81,21	181,96	202,97	224,46
4,8	15,4	18,63	26,22	47,93	91,3	82,91	188,38	207,15	230,39
4,9	15,6	19,03	26,64	48,81	93,03	84,61	194,8	211,33	236,32
5,0	16	19,53	27,05	49,65	94,78	86,33	201,22	215,54	242,25
5,1	16,3	19,83	27,78	50,71	96,57	88,32	207,64	220,26	248,18
5,2	16,6	20,13	28,51	51,77	98,36	90,31	214,06	224,98	254,11
5,3	16,9	20,43	29,24	52,83	100,15	92,3	220,48	229,7	260,04
5,4	17,2	20,73	29,97	53,89	101,94	94,29	226,9	234,42	265,97
5,5	17,5	21,03	30,7	54,95	103,73	96,28	233,32	239,14	271,9
5,6	17,8	21,33	31,43	56,01	105,52	98,27	239,74	243,86	277,83
5,7	18,1	21,63	32,16	57,07	107,31	100,26	246,16	248,58	283,76
5,8	18,4	21,93	32,89	58,13	109,1	102,25	252,58	253,3	289,69
5,9	18,7	22,23	33,62	59,19	110,89	104,24	259	258,02	295,62

6,0	19,1	22,79	34,39	60,27	112,71	106,26	265,48	262,7	301,57
6,1	19,47	23,08	35,5	61,71	115,04	108,64	272,86	268,09	305,96
6,2	19,84	23,37	36,61	63,15	117,37	111,02	280,24	273,48	310,35
6,3	20,21	23,66	37,72	64,59	119,7	113,4	287,62	278,87	314,74
6,4	20,58	23,95	38,83	66,03	122,03	115,78	295	284,26	319,13
6,5	20,95	24,24	39,94	67,47	124,36	118,16	302,38	289,65	323,52
6,6	21,32	24,53	41,05	68,91	126,69	120,54	309,76	295,04	327,91
6,7	21,69	24,82	42,16	70,35	129,02	122,92	317,14	300,43	332,3
6,8	22,06	25,11	43,27	71,79	131,35	125,3	324,52	305,82	336,69
6,9	22,43	25,4	44,38	73,23	133,68	127,68	331,9	311,21	341,08
7,0	22,83	25,49	45,53	74,68	136,05	130,1	339,28	316,64	345,47
7,1	23,23	25,94	46,96	76,21	139,24	134,12	346,66	324,96	349,86
7,2	23,63	26,39	48,39	77,74	142,43	138,14	354,04	333,28	354,25
7,3	24,03	26,84	49,82	79,27	145,62	142,16	361,42	341,6	358,64
7,4	24,43	27,29	51,25	80,8	148,81	146,18	368,8	349,92	363,03
7,5	24,83	27,74	52,68	82,33	152	150,2	376,18	358,24	367,42
7,6	25,23	28,19	54,11	83,86	155,19	154,22	383,56	366,56	371,81
7,7	25,63	28,64	55,54	85,39	158,38	158,24	390,94	374,88	376,2
7,8	26,03	29,09	56,97	86,92	161,57	162,26	398,32	383,2	380,59
7,9	26,43	29,54	58,4	88,45	164,76	166,28	405,7	391,52	384,98
8,0	26,65	30,01	59,85	90,01	167,92	170,26	412,98	399,81	389,29
8,1	26,99	30,57	61,14	91,4	170,02	174,99	418,86	411,12	403,03
8,2	27,33	31,13	62,43	92,79	172,12	179,72	424,74	422,43	416,09
8,3	27,67	31,69	63,72	94,18	174,22	184,45	430,62	433,74	429,15
8,4	28,01	32,25	65,01	95,57	176,32	189,18	436,5	445,05	442,21
8,5	28,35	32,81	66,3	96,96	178,42	193,91	442,38	456,36	455,27
8,6	28,69	33,37	67,59	98,35	180,52	198,64	448,26	467,67	468,33
8,7	29,03	33,93	68,88	99,74	182,62	203,37	454,14	478,98	481,39
8,8	29,37	34,49	70,17	101,13	184,72	208,1	460,02	490,29	494,45
8,9	29,71	35,05	71,46	102,52	186,82	212,83	465,9	501,6	507,51
9,0	30,08	35,6	72,73	103,97	188,92	217,54	471,78	512,88	520,57
9,1	30,32	36,25	73,66	105,16	191,24	221,38	477,66	521,28	533,63
9,2	30,56	36,9	74,59	106,35	193,56	225,22	483,54	529,68	546,69
9,3	30,8	37,55	75,52	107,54	195,88	229,06	489,42	538,08	559,75
9,4	31,04	38,2	76,45	108,73	198,2	232,9	495,3	546,48	572,81
9,5	31,28	38,85	77,38	109,92	200,52	236,74	501,18	554,88	585,87
9,6	31,52	39,5	78,31	111,11	202,84	240,58	507,06	563,28	598,93
9,7	31,76	40,15	79,24	112,3	205,16	244,42	512,94	571,68	611,99
9,8	32	40,8	80,17	113,49	207,48	248,26	518,82	580,08	625,05
9,9	32,24	41,45	81,1	114,68	209,8	252,1	524,7	588,48	638,11
10,0	32,44	42,05	82,07	115,92	212,12	255,9	530,55	596,85	664,16
10,1	32,6	42,61	82,87	116,95	213,79	259,12	533,56	606,81	676,28
10,2	32,76	43,17	83,67	117,98	215,46	262,34	536,57	616,77	688,4
10,3	32,92	43,73	84,47	119,01	217,13	265,56	539,58	626,73	700,52
10,4	33,08	44,29	85,27	120,04	218,8	268,78	542,59	636,69	712,64
10,5	33,24	44,85	86,07	121,07	220,47	272	545,6	646,65	724,76
10,6	33,4	45,41	86,87	122,1	222,14	275,22	548,61	656,61	736,88
10,7	33,56	45,97	87,67	123,13	223,81	278,44	551,62	666,57	749
10,8	33,72	46,53	88,47	124,16	225,48	281,66	554,63	676,53	761,12
10,9	33,88	47,09	89,27	125,19	227,15	284,88	557,64	686,49	773,24
11,0	34,08	47,66	90,17	126,18	228,85	288,11	560,65	696,48	785,36
11,1	34,17	47,06	90,82	127,06		290,8	563,66	704,89	797,48
11,2	34,26	46,46	91,47	127,94		293,49	566,67	713,3	809,6
11,3	34,35	45,86	92,12	128,82		296,18	569,68	721,71	821,72
11,4	34,44	45,26	92,77	129,7		298,87	572,69	730,12	833,84
11,5	34,53	44,66	93,42	130,58		301,56	575,7	738,53	845,96
11,6	34,62	44,06	94,07	131,46		304,25	578,71	746,94	858,08

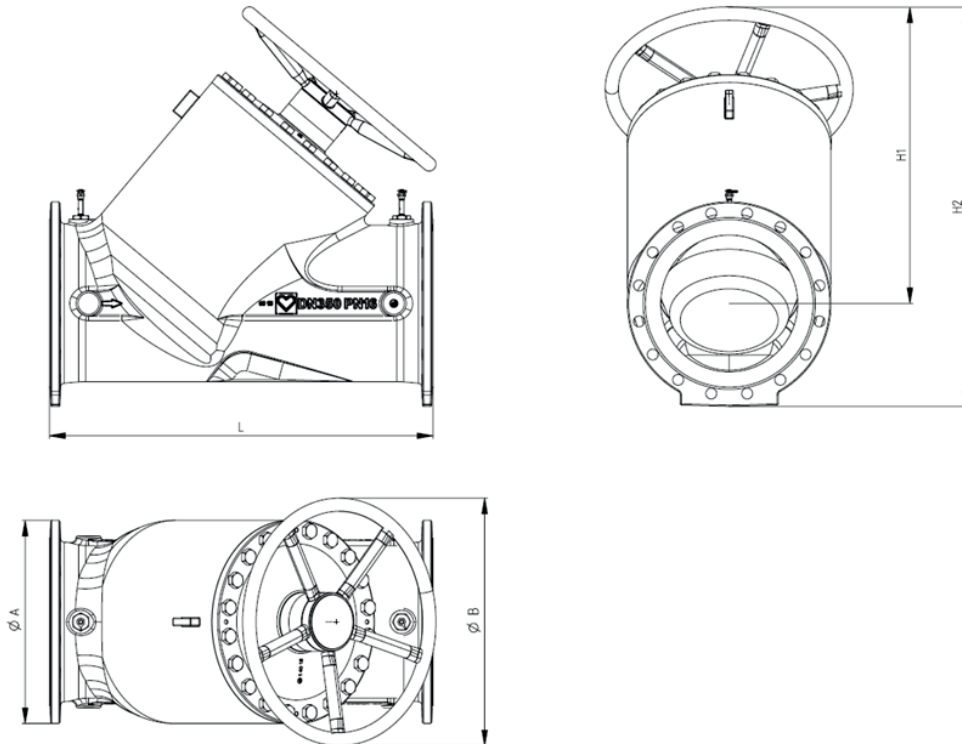
11,7	34,71	43,46	94,72	132,34		306,94	581,72	755,35	870,2
11,8	34,8	42,86	95,37	133,22		309,63	584,73	763,76	882,32
11,9	34,89	42,26	96,02	134,1		312,32	587,74	772,17	894,44
12,0	34,96	51,63	96,7	134,97		315,05	590,75	780,57	906,57
12,1		52,13	97,17	135,75		317,57	593,76	787,09	916,81
12,2		52,63	97,64	136,53		320,09	596,77	793,61	927,05
12,3		53,13	98,11	137,31		322,61	599,78	800,13	937,29
12,4		53,63	98,58	138,09		325,13	602,79	806,65	947,53
12,5		54,13	99,05	138,87		327,65	605,8	813,17	957,77
12,6		54,63	99,52	139,65		330,17	608,81	819,69	968,01
12,7		55,13	99,99	140,43		332,69	611,82	826,21	978,25
12,8		55,63	100,46	141,21		335,21	614,83	832,73	988,49
12,9		56,13	100,93	141,99		337,73	617,84	839,25	998,73
13,0		56,49	101,38	142,74		340,27	620,86	845,73	1008,97
13,1		56,89	101,92	143,54		341,73	623,63	853,91	1019,21
13,2		57,29	102,46	144,34		343,19	626,4	862,09	1029,45
13,3		57,69	103	145,14		344,65	629,17	870,27	1039,69
13,4		58,09	103,54	145,94		346,11	631,94	878,45	1049,93
13,5		58,49	104,08	146,74		347,57	634,71	886,63	1060,17
13,6		58,89	104,62	147,54		349,03	637,48	894,81	1070,41
13,7		59,29	105,16	148,34		350,49	640,25	902,99	1080,65
13,8		59,69	105,7	149,14		351,95	643,02	911,17	1090,89
13,9		60,09	106,24	149,94		353,41	645,79	919,35	1101,13
14,0		60,77	106,78	150,79		354,84	648,56	927,53	1111,34
14,1		61,11		151,54		356,48	651,33	932	1124,05
14,2		61,45		152,29		358,12	654,1	936,47	1136,76
14,3		61,79		153,04		359,76	656,87	940,94	1149,47
14,4		62,13		153,79		361,4	659,64	945,41	1162,18
14,5		62,47		154,54		363,04	662,41	949,88	1174,89
14,6		62,81		155,29		364,68	665,18	954,35	1187,6
14,7		63,15		156,04		366,32	667,95	958,82	1200,31
14,8		63,49		156,79		367,96	670,72	963,29	1213,02
14,9		63,83		157,54		369,6	673,49	967,76	1225,73
15,0		64,21		158,31		371,26	676,33	972,25	1238,44
15,1		64,48		158,94		373,09		976,4	1251,15
15,2		64,75		159,57		374,92		980,55	1263,86
15,3		65,02		160,2		376,75		984,7	1276,57
15,4		65,29		160,83		378,58		988,85	1289,28
15,5		65,56		161,46		380,41		993	1301,99
15,6		65,83		162,09		382,24		997,15	1314,7
15,7		66,1		162,72		384,07		1001,3	1327,41
15,8		66,37		163,35		385,9		1005,45	1340,12
15,9		66,64		163,98		387,73		1009,6	1352,83
16,0		66,94		164,59		389,54		1013,7	1365,63
16,1				165,08				1018,82	1373,78
16,2				165,57				1023,94	1381,93
16,3				166,06				1029,06	1390,08
16,4				166,55				1034,18	1398,23
16,5				167,04				1039,3	1406,38
16,6				167,53				1044,42	1414,53
16,7				168,02				1049,54	1422,68
16,8				168,51				1054,66	1430,83
16,9				169				1059,78	1438,98
17,0				169,45				1064,89	1447,13
17,1								1066,67	1455,28
17,2								1068,45	1463,43
17,3								1070,23	1471,58

17,4								1072,01	1479,73
17,5								1073,79	1487,88
17,6								1075,57	1496,03
17,7								1077,35	1504,18
17,8								1079,13	1512,33
17,9								1080,91	1520,48
18,0								1082,72	1528,67
18,1									1537,25
18,2									1545,83
18,3									1554,41
18,4									1562,99
18,5									1571,57
18,6									1580,15
18,7									1588,73
18,8									1597,31
18,9									1605,89
19,0									1614,47
19,1									1623,05
19,2									1631,63
19,3									1640,21
19,4									1648,79
19,5									1657,37
19,6									1665,95
19,7									1674,53
19,8									1683,11
19,9									1691,69
20,0									1700,28
20,1									1704,51
20,2									1708,74
20,3									1712,97
20,4									1717,2
20,5									1721,43
20,6									1725,66
20,7									1729,89
20,8									1734,12
20,9									1738,35
21,0									1742,58
21,1									1746,81
21,2									1751,04
21,3									1755,27
21,4									1759,5
21,5									1763,73
21,6									1767,96
21,7									1772,19
21,8									1776,42
21,9									1780,65
22,0									1784,91

Commissioning valve STRÖMAX 4218 GF

Commissioning valve for differential pressure measurement in flanged design

Data sheet 4218 GF / 4220 GF

 4218 GF / 4220 GF with test points

 Dimensions in mm, order numbers

Order number	DN	PN	L	H1	H2	Ø A	Ø B	kg	flanged according to	kvs
1 4218 89	350	16	980	758	1021	520	634	536	EN 1092-2	2917,6
1 4220 89		25			1046	555		560		3854,8
1 4218 90	400	16	1100	805	1103	580		547		5250,6
1 4220 90		25			1124	620		611		2917,6
1 4218 92	500	16	1250	1051	1413	715	1034	968		3854,8
1 4220 92		25			1421	730		1109		5250,6

 Model

STRÖMAX GF double regulating and commissioning valve with measuring valves, DN 350-500, body nodular cast iron GJS 400-15 according to EN 1561, flange according to EN 1092, PN 16 or PN 25, blue enamel. Valve upper part nodular cast iron GJS 400-15, with non-rising spindle, spindle sealing by means of a triple O-ring. Presetting steps are displayed digitally.

☑ Transport

The valve must not be lifted by the handwheel !!!

The valve is delivered from the factory ready for installation. The handwheel and the two test points are not installed on delivery. To prevent possible contamination of the seat during storage and transport, the valve is closed. To avoid contamination during storage and transport, the flange cover must remain in place.

Storage: temperature -10 °C to 50 °C , humidity max. 70%

☑ Test points

Two test points 1 0284 XX and presetting marker 1 6517 05 are included. The position of the measuring valves is optional. This arrangement ensures the best accessibility and optimal connection of measuring devices in all installation positions.

☑ Drilling size

Pipe thread 1/4, for mounting measuring valves.

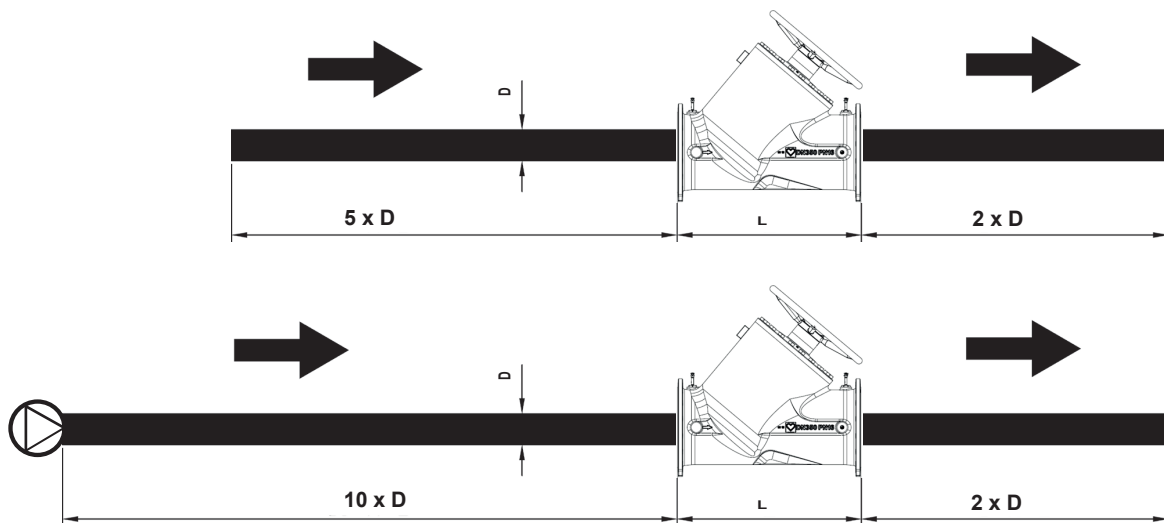
☑ Application

For hydraulic balancing in heating or cooling systems, regulating and shutting off distribution circuits, heat exchangers, heating and cooling terminals.

☑ Installation

Any installation position. The direction of flow according to the arrow on the housing must be observed.

Gemäß CIBSE Code W müssen Strangregulierventile mit einem Minimum von 5 Rohrdurchmessern gerader Rohrleitung, ohne Hindernisse, stromaufwärts des Ventils installiert werden. Stromabwärts des Ventils sind mindestens 2 Rohrdurchmesser gerader Rohrleitung erforderlich. Wenn eine Pumpe direkt vor dem Ventil installiert ist, empfehlen wir 10 Rohrdurchmesser gerader Rohrleitung, ohne Hindernisse, stromaufwärts des Ventils, um eine korrekte Messung zu erhalten.



☑ Technical data

4218:

Max. operation temperature: 110 °C
 Min. operation temperature: -10 °C
 Max. operation pressure: 16 bar

4220:

Max. operation temperature: 110 °C
 Min. operation temperature: -10 °C
 Max. operation pressure: 25 bar

Heating water quality according to ÖNORM H 5195 or VDI guideline 2035. Ethylene and propylene glycol can be used in a ratio of 25-50 vol. [%] are mixed.

☑ Material

Upper part	Ductile iron EN-GJS-400-15
Body	Ductile iron EN-GJS-400-15
Spindle	Stainless steel
Regulating spindle	Stainless steel
Valve cone	Ductile iron EN-GJS-400-15 according to EN 1561 / EPDM coated
Counter	Plastic material
O-Ring	EPDM

☑ Coated

Base coating based on alkyd hair (resin primer) and contains lead and chromate corrosion protection. Surface coating with epoxy resin. Solvent content is less than accepted in the VOC Plant Ordinance in 2002.

Gloss: matt

Dry film thickness: ~ 100 microns

☑ Constructive peculiarities**Flow direction**

When installing, observe the direction of flow according to the arrow on the housing.

Mounting position

The non-rising valve spindle is arranged at an angle to the valve axis and thus offers optimal accessibility and easy handling in every position.

Triple O-ring

The maintenance-free triple O-ring seal ensures permanent, secure sealing of the valve spindle and smooth operation of the valve.

Seal between upper part and housing (EPDM)

The temperature-resistant and permanently elastic soft seal is corrosion-resistant and allows low closing forces.

☑ Differential pressure measurement

The STRÖMAX GF double regulating and commissioning valve is equipped with two measuring valves: It is possible to measure the differential pressure with suitable measuring devices and to determine the flow rate accordingly.

☑ Mass flow tolerances

The maximum deviation of the mass flow from the characteristic curve of control valves according to VDI guidelines.

☑ Preset

The valve is delivered in the closed position. The presetting allows the maximum possible stroke. The handwheel mechanism is set so that the digital display shows 0.0 when the valve is closed.

☑ Adjustment and fixation**Presetting process**

1. Set the required presetting level according to the calculation (digital display on the handwheel)
2. 1/10 of the revolution are the red numbers and the whole revolution are the blue numbers.
3. The presetting spindle is located under the cover in the handwheel. The spindle can be adjusted with an 8 mm screwdriver. To preset, turn in counterclockwise as far as it will go. The valve is now able to close and open the preset position. Replace the cover on the handwheel
4. The preset marker (1 6517 05) is attached as a tag over the valve or pipe. The setting of the respective valve is marked by cutting off or breaking off the teeth on the figures for full and partial turns. This allows you to review and / or restore the original preset made during system setup after maintenance without relying on documentation.

The flow rate is set with a measuring device using the flow charts. Please observe the operating instructions for the measuring device.

☑ Digital display, factory settings

When the valve is closed, 0.0 is shown on the digital display. If you have to remove the complete handwheel (rotary handle, number wheels, base plate), do this as follows:

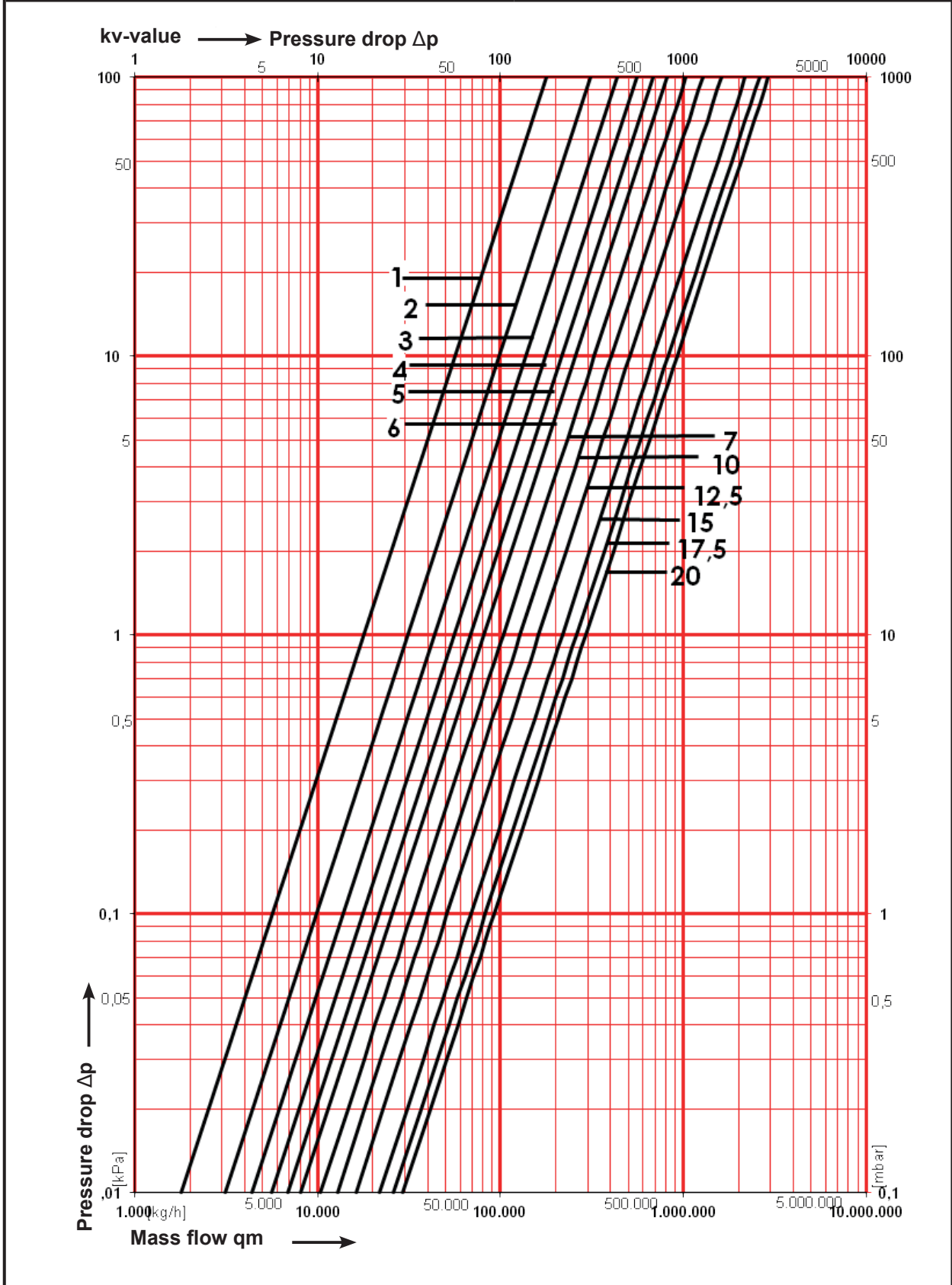
1. Adjust the complete upper part and fasten the three Allen screws and the four hexagon screws
2. Close the valve clockwise.
3. If the digital display shows 0.0, it is correct.
4. You can then mount the handwheel on the spindle
5. Screw in the handwheel fastening screw
6. The valve can now be set to the desired position.

☑ Accessories

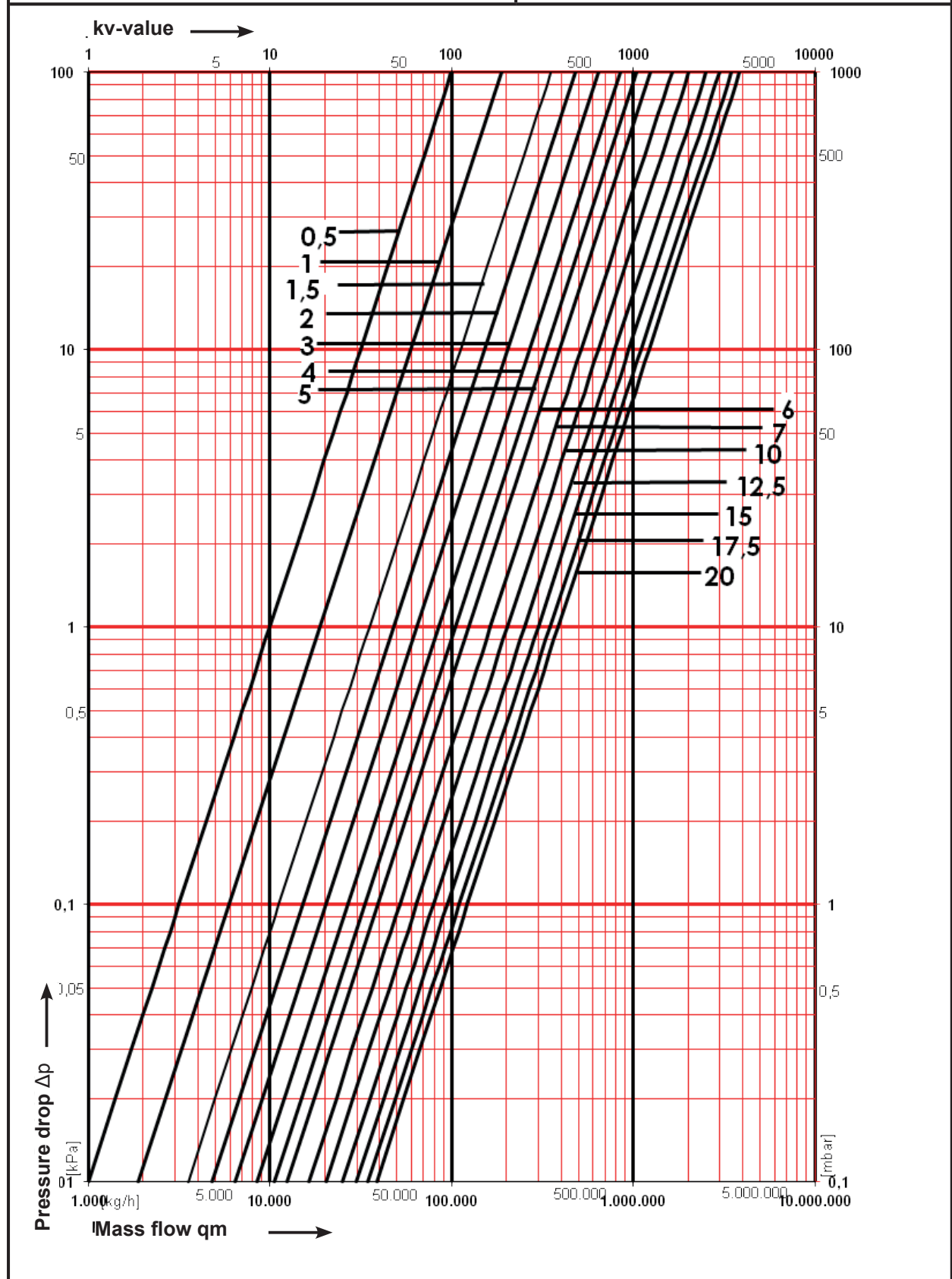
1 6517 05	Presetting flag
1 0284 01	Test point, blue
1 0284 02	Test point, red

HERZ-Standard diagram	STRÖMAX 4218 GF
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Artikel no.: 1 4218 89, 1 4220 89	Dim. DN 350
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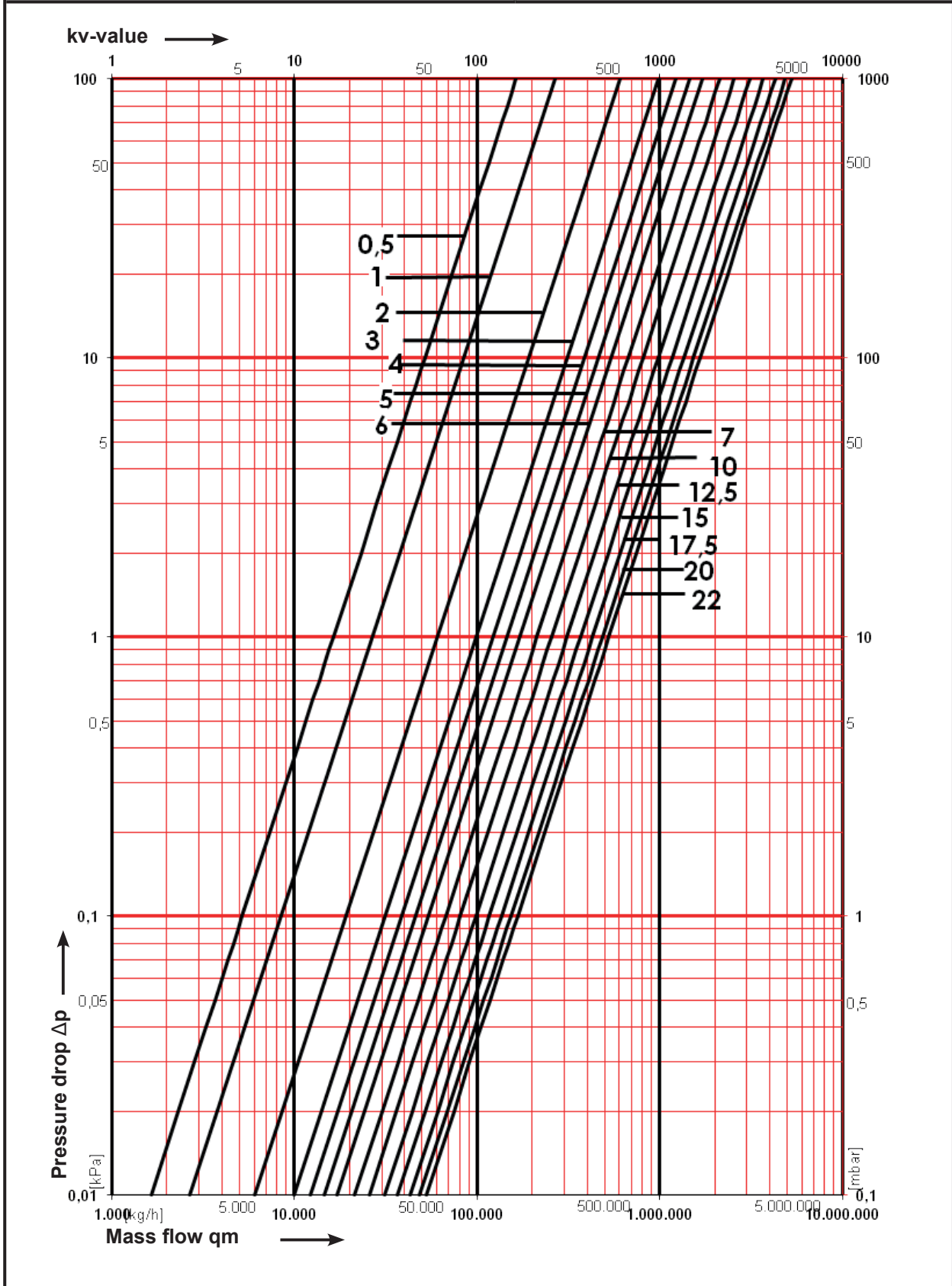


HERZ-Standard diagram	STRÖMAX 4218 GF
Artikel no.: 1 4218 90, 1 4220 90	Dim. DN 400



HERZ-Standard diagram	STRÖMAX 4218 GF
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Artikel no.: 1 4218 92 , 1 4220 92	Dim. DN 500
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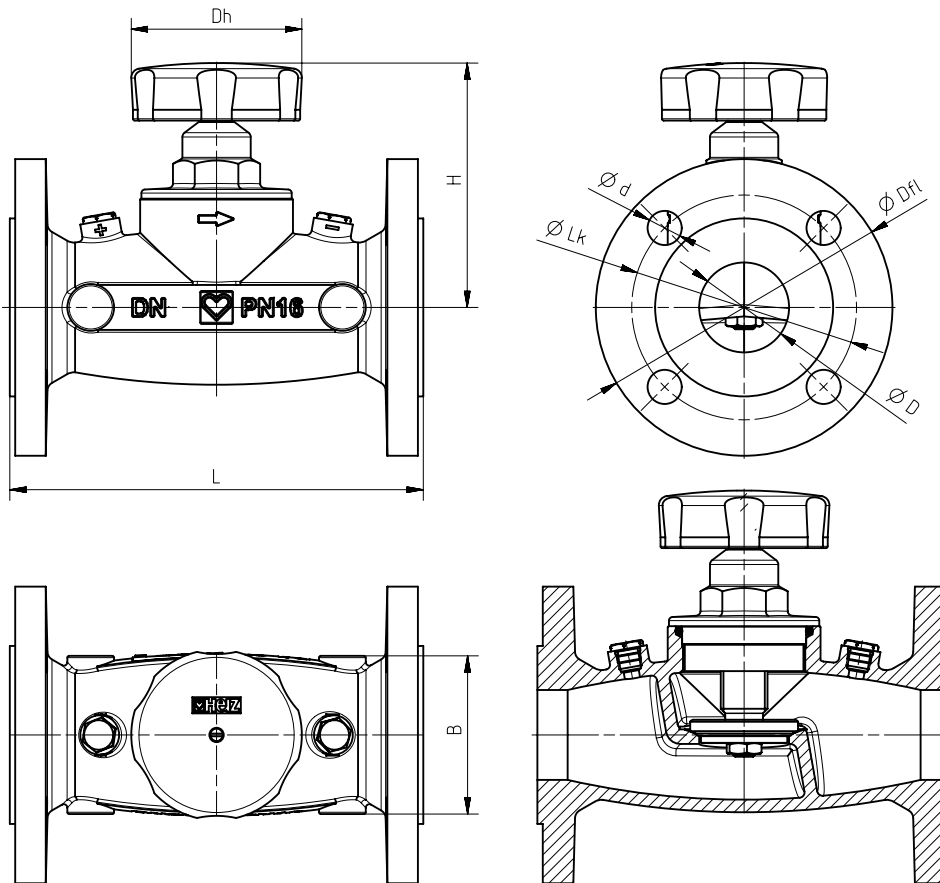


DN	350		400		500	
Kvs	2917,6		3854,8		5250,6	
Pos.	kv [m ³ /h]	Oppening [%]	kv [m ³ /h]	Oppening [%]	kv [m ³ /h]	Oppening [%]
0,5	-	-	99,4	6%	163,1	2%
1,0	178,0	5%	187,2	9%	265,5	5%
1,5	266,6	8%	352,3	11%	409,0	7%
2,0	311,3	10%	476,5	14%	605,2	9%
2,5	374,9	13%	549,0	16%	840,9	11%
3,0	434,1	15%	644,9	18%	986,7	14%
3,5	500,0	18%	740,4	21%	1149,1	16%
4,0	559,9	20%	844,5	23%	1222,6	18%
4,5	627,4	23%	945,0	26%	1453,5	20%
5,0	686,1	25%	1046,2	28%	1455,8	23%
5,5	749,0	28%	1155,0	31%	1639,6	25%
6,0	808,4	30%	1242,8	33%	1702,5	27%
6,5	872,4	33%	1319,5	35%	1839,2	30%
7,0	921,3	35%	1436,9	38%	1919,7	32%
7,5	991,3	38%	1498,6	40%	2022,8	34%
8,0	1030,5	40%	1629,8	43%	2124,2	36%
8,5	1102,5	42%	1692,3	45%	2221,1	38%
9,0	1146,4	45%	1826,3	47%	2341,6	41%
9,5	1211,8	47%	1915,0	50%	2429,9	43%
10,0	1276,8	50%	2022,9	52%	2556,3	45%
10,5	1327,9	52%	2165,9	55%	2653,1	47%
11,0	1421,4	55%	2220,7	57%	2776,9	50%
11,5	1459,9	57%	2443,9	59%	2880,5	52%
12,0	1585,3	60%	2415,9	62%	2993,2	55%
12,5	1614,5	62%	2742,3	64%	3106,3	57%
13,0	1783,8	65%	2612,5	67%	3214,2	59%
13,5	1800,9	67%	2707,1	69%	3328,0	62%
14,0	1987,2	70%	2798,9	71%	3421,5	64%
14,5	2012,5	72%	2900,6	74%	3539,0	66%
15,0	2173,5	75%	2985,9	76%	3676,5	68%
15,5	2231,3	77%	3090,4	79%	3772,8	71%
16,0	2354,8	80%	3186,0	81%	3919,9	73%
16,5	2442,6	82%	3281,9	83%	4024,7	75%
17,0	2458,4	85%	3363,9	86%	4164,2	77%
17,5	2603,1	87%	3467,7	88%	4281,3	79%
18,0	2608,4	90%	3542,3	91%	4393,9	82%
18,5	2738,9	92%	3649,1	94%	4525,7	84%
19,0	2758,2	95%	3714,4	96%	4603,6	86%
19,5	2862,9	97%	3823,3	99%	4741,4	88%
20,0	2917,6	100%	3854,8	100%	4849,6	91%
20,5					4962,1	93%
21,0					5080,3	95%
21,5					5189,5	97%
22,0					5250,6	100%

Due to different installation conditions in the laboratory and at the place of use, the table may contain deviations in the measurement results.

STRÖMAX-AGF shutoff valve with straight body, flanged design

Data sheet for 4218 AGF

 4218 AGF

 Installation dimensions in mm, order number

Order number 4218 AGF	DN	L	H	B	Dh	Dfl	D	d	kvs
1 4218 53	25	160	110	58	70	115	25	14	11
1 4218 54	32	180	110	64	70	140	30	19	20,1
1 4218 55	40	200	110	72	70	150	40	19	30,4
1 4218 56	50	230	135	90	95	165	50	19	36,9
1 4218 57	65	290	145	112	95	185	65	19	62,5
1 4218 58	80	310	145	116	95	200	80	19	75

 Model 4218 AGF

4218 AGF STRÖMAX-AGF Shutoff valve with drainage option DN 25 - 80

Body of grey cast iron GJL 250 according to EN 1561, flange according to EN 1092, PN 16; length according to ÖNORM EN-558-1, basic series 1; painted blue. Upper part of brass. Non-rising spindle, spindle sealing with double O-ring.

☒ **Drain fittings**

- 1 **0284** 2X HERZ test points with drain, yellow version
- 1 **0276** 09 Drain valve with handle and swiveling hose connection, yellow version, hose connection
- 1 **6206** 02 must be ordered separately.

☒ **Application**

For shutting off distribution lines in heating or cooling systems, circuits, heat exchangers, heating and cooling systems.

☒ **Operating data**

Maximum operating temperature 110 °C
 Maximum operating pressure 16 bar
 Heating water quality according to ÖNORM H 5195 or VDI guideline 2035. Ethylene and propylene glycol can be used in a ratio of 25-50 vol. [%] are mixed.

☒ **Material**

Valve body Gray cast iron GJL 250 according to EN 1561
 Valve upper part Brass
 O-Ring EPDM

☒ **Constructive peculiarities**

Flow direction

When installing, observe the direction of flow according to the arrow on the housing.

Mounting position

Due to the non-rising valve spindle, which is arranged perpendicular to the valve axis, optimal accessibility and operability of the valve must be guaranteed for every installation position.

Spindle seal

The spindle seal is made by means of an elastic double O-ring and thus ensures tightness and ease of movement in the long term.

Seat seal

The temperature-resistant and permanently elastic soft seal is corrosion-resistant and allows low closing forces.

☒ **Dimensions**

STRÖMAX-GMF, STRÖMAX-AGF and differential pressure regulator 4007 F valve bodies have the same dimensions, the upper parts have the same dimensions as the respective sleeves and AG models.

☒ **Coated**

Primer based on alkyd resins (synthetic resin primer) and contains lead and chromate-free rust protection pigments. Top coat with epoxy resin. Solvent content is lower than permitted in the VOC Plant Ordinance 2002.

Degree of gloss: matt

Dry layer thickness (TSD): ~ 100 µm

☒ **Accessories**

- 1 **0284** 21 HERZ test point with drain valve, blue cap
- 1 **0284** 22 HERZ test point with drain valve, red cap
- 1 **0276** 09 Draining valve 1/4 with handle and swivelling hose connection
- 1 **6206** 01 Hose connection
- 1 **0272** 09 Sealing screw 1/4
- 1 **6517** 00 DN 25 - 50 STRÖMAX-AGF Hand wheel
- 1 **6517** 01 DN 65 - 80 STRÖMAX-AGF Hand wheel
- 1 **6387** 53 DN 25 STRÖMAX-AGF Thermostatic upper part complete
- 1 **6387** 54 DN 32 STRÖMAX-AGF Thermostatic upper part complete
- 1 **6387** 55 DN 40 STRÖMAX-AGF Thermostatic upper part complete
- 1 **6387** 56 DN 50 STRÖMAX-AGF Thermostatic upper part complete
- 1 **6387** 57 DN 65 STRÖMAX-AGF Thermostatic upper part complete
- 1 **6387** 58 DN 80 STRÖMAX-AGF Thermostatic upper part complete

