

Mikrotherm

Manual radiator valves



To be precise.

Mikrotherm

Description



HEIMEIER Mikrotherm manual radiator valves made of corrosion-resistant gunmetal, with white plastic hand wheel cap, tight-packed with protection film.

Lengths according to DIN 3841 part 1.

Accurate presetting of the mass flow and finest heat apportioning through a non-rising double spindle with a Mikrotherm presetting cone with tandem sealing (metal and O-ring sealing).

Spindle for NW 10 to NW 20 with double O-ring sealing.

Spindle sealing for NW 25 and NW 32 through stuffing box packaging which can be tightened.

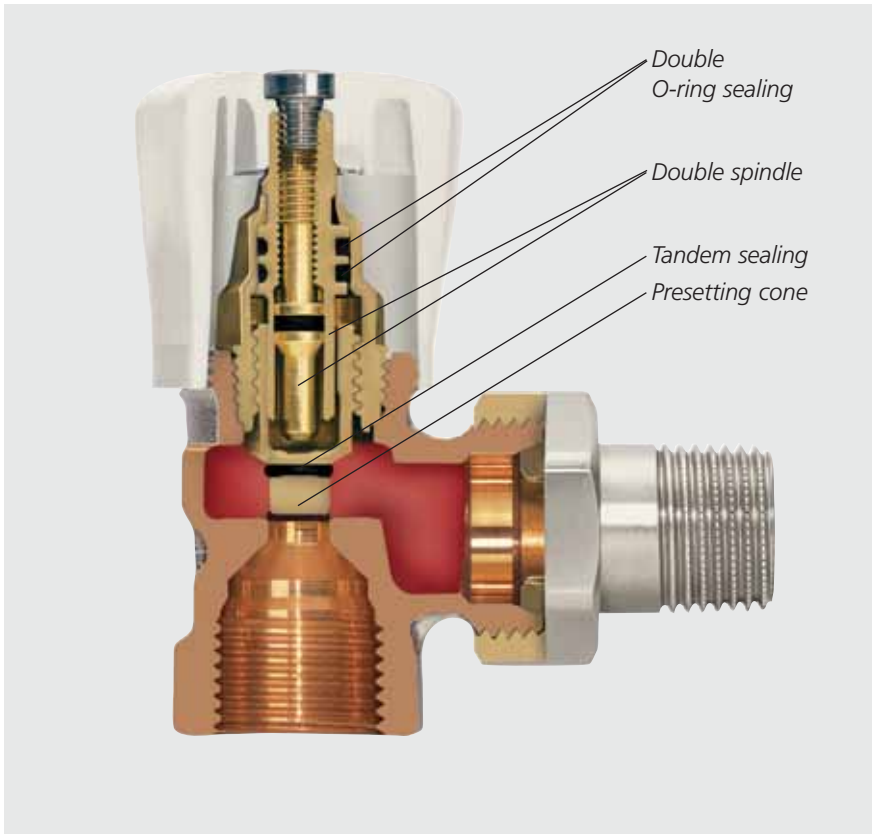
Can be retrofitted as a thermostatic valve by replacing the Mikrotherm insert with a thermostatic insert.

Can be connected to a threaded pipe, or with compression fittings to a copper, precision steel or multi-layer pipe.

For HEIMEIER Mikrotherm, only use the auxiliary, labelled HEIMEIER compression fittings (label e. g. 15 THE).

Assembly

Mikrotherm



- Body made of corrosion-resistant gunmetal nickel plated
- Double O-ring sealing (NW 10 – NW 20)
- Presetting through a non-rising double spindle
- Can be retrofitted as a thermostatic valve

Application

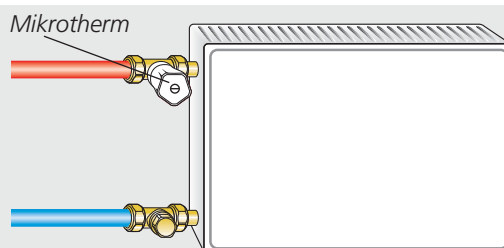
The HEIMEIER Mikrotherm manual radiator valve is used in warm water pump heating systems, gravity or low pressure steam systems. With models in angle and straight form from NW 10 to NW 32,

the manual radiator valve can be used for a number of different purposes.

The non-rising double spindle with the Mikrotherm presetting cone makes hydraulic balancing through presetting

possible. The aim here is to provide e. g. all heat consumers with hot water according to their needs.

Sample application



Note

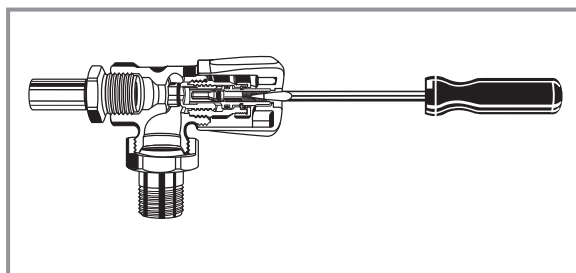
The contents of the heat transfer medium should comply with VDI guideline 2035 on damage and scale deposit formation in warm water heating systems.

For industrial and long-distance energy systems, see the applicable codes

VdTÜV 1466 and AGFW 5/15. Mineral oils in the heat transfer medium or lubricants containing mineral oils of any type lead to strong swelling and in most cases cause EPDM seals to fail.

When using nitrite-free frost and corrosion resistance solutions with an ethylene glycol base, pay close attention to the details outlined in the manufacturers' documentation, particularly details concerning concentration and specific additives.

Operation

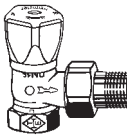
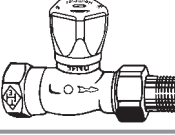


Presetting

1. Close the valve.
2. Unscrew the hand wheel fastening screw.
3. Screw in the control pin with a screw driver by turning it clockwise until it stops.
4. Use the diagrams to determine the presetting and preset by turning to the left.
5. Insert the hand wheel fastening screw and screw tight.

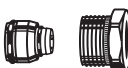
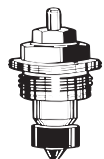
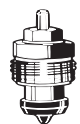
Notes: – The insert should only be loosened or tightened when the valve is opened.
– After the first test heating with NW 25 and NW 32, check the stuffing box union nut and tighten if necessary.

Article numbers

Structure	NW	k_{vs} value [m ³ /h]	Gunmetal nickel-pl. Art. no.
Angle 	EM 10 (3/8")	1.71	0121-01.500
	EM 15 (1/2")	1.99	0121-02.500
	EM 20 (3/4")	3.30	0121-03.500
	EM 25 (1")	6.60	0121-04.500
	EM 32 (1 1/4")	10.10	0121-05.500
Straight 	DM 10 (3/8")	1.17	0122-01.500
	DM 15 (1/2")	1.61	0122-02.500
	DM 20 (3/4")	3.10	0122-03.500
	DM 25 (1")	6.20	0122-04.500
	DM 32 (1 1/4")	8.90	0122-05.500

Permitted operating temperature TB 120°C (248°F). Permitted operating pressure PB 10 bar, low pressure steam 110°C (230°F)/0.5 bar.

Accessories

Illustration	Description	L [mm]	NW	Ø pipe	Art. no.
	Compression fitting For copper or precision steel pipe female thread connection Rp 3/8 – Rp 3/4. For a pipe thickness of 0.8 – 1 mm, support sleeves should be used. Note the information provided by the manufacturer.		Valve		Nickel-plated brass
			10 (3/8")	10	2201-10.351
			15 (1/2")	10	2202-10.351
			10 (3/8")	12	2201-12.351
			15 (1/2")	12	2202-12.351
			15 (1/2")	14	2201-14.351
			15 (1/2")	15	2201-15.351
			15 (1/2")	16	2201-16.351
			20 (3/4")	18	2201-18.351
			20 (3/4")	22	2201-22.351
	Support sleeve	18,5		10	1300-10.170
	For copper or precision steel pipes	25,0		12	1300-12.170
	with a wall thickness of 1 mm.	25,0		14	1300-14.170
		26,0		15	1300-15.170
		26,3		16	1300-16.170
		26,8		18	1300-18.170
	Compression fitting For multi-layer pipes. Female thread connection Rp 1/2.			14 x 2	Nickel-plated brass
				16 x 2	1335-14.351
					1335-16.351
	Thermostatic insert Conversion insert for valve bodies with a "T label". Series to 1985.		10 (3/8"), 15 (1/2")		4101-02.300
			20 (3/4")		4101-03.300
			25 (1")		2001-04.299
			32 (1 1/4")		2001-05.299
	Thermostatic insert Conversion insert for valve bodies with a connector thread for the thermostatic head. Series from 1985.		10 (3/8"), 15 (1/2")		1302-02.300
			20 (3/4")		2001-03.300
	Thermostatic insert Standard. Conversion insert for valve bodies with a boss marking. Series from 1994.		10 (3/8"), 15 (1/2")		2001-02.300
	Thermostatic insert Presetting (V-exakt). Conversion insert for valve bodies with a boss marking. Brass numerical cap. Series from 1994.		10 (3/8"), 15 (1/2")		3501-02.300
	Thermostatic insert Finest presetting (F-exakt). Conversion insert for valve bodies with a boss marking. Nickel-plated brass numerical cap. Series from 1994.		10 (3/8"), 15 (1/2")		3420-02.300

1 mm = 0,0394 inch

Technical data

Diagram NW 10 ($\frac{3}{8}$ ")

EM (angle)
DM (straight)
0121-01 / 0122-01

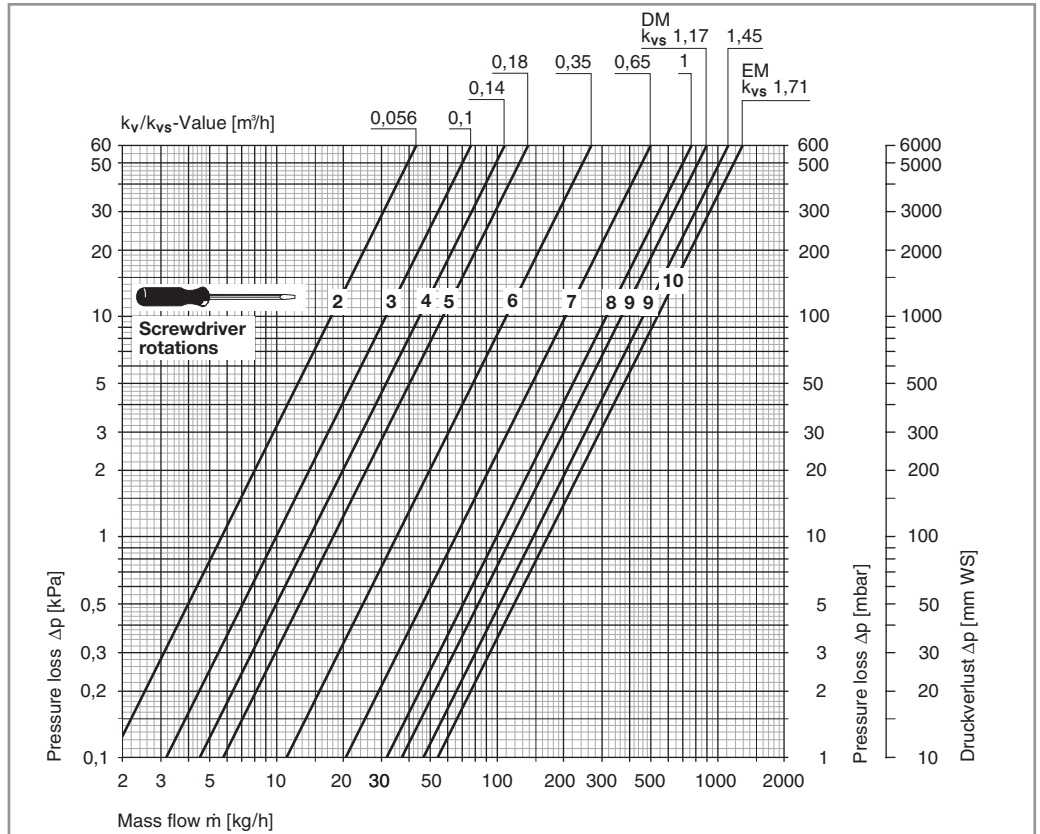
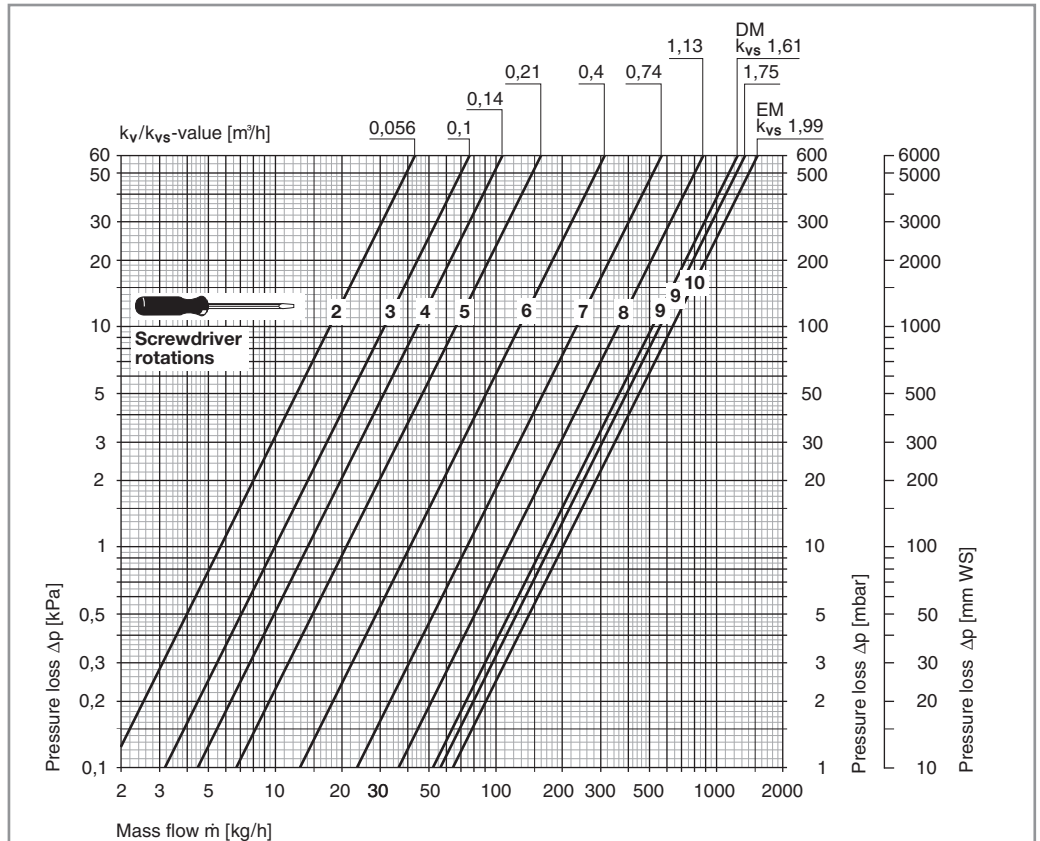


Diagram NW 15 ($\frac{1}{2}$ ")

EM (angle)
DM (straight)
0121-02 / 0122-02



Technical data

Diagram NW 20 (3/4")

EM (angle)
DM (straight)
0121-03 / 0122-03

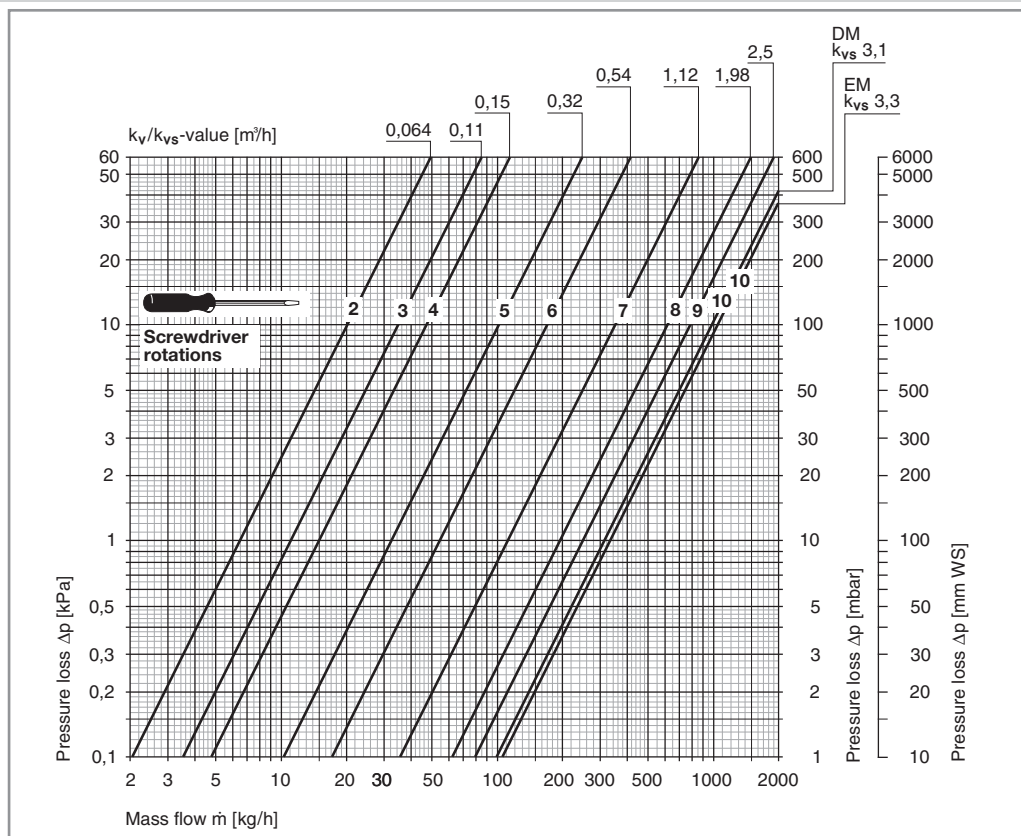
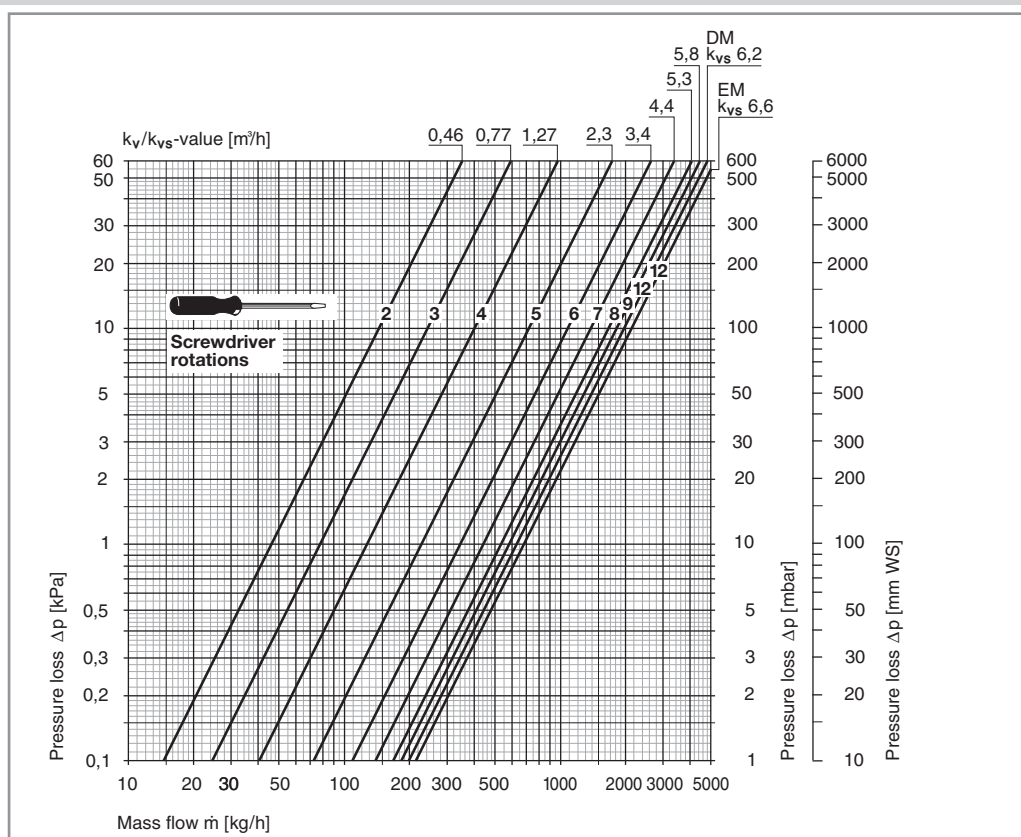


Diagram NW 25 (1")

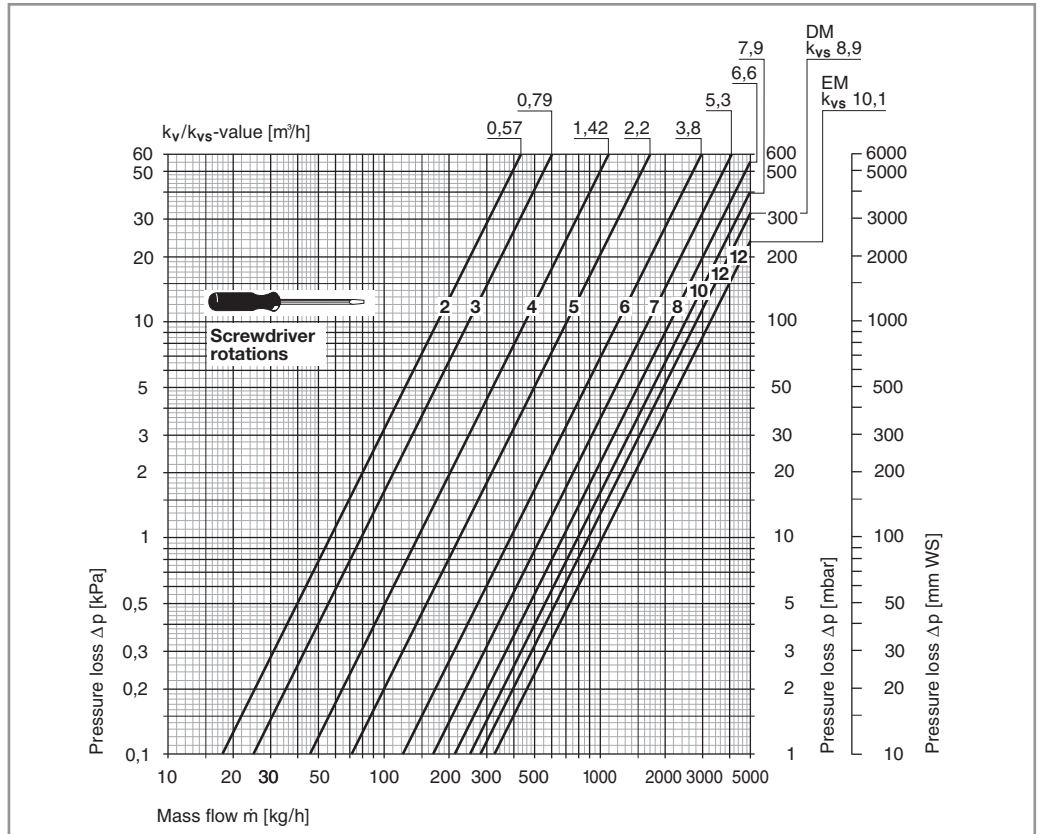
EM (angle)
DM (straight)
0121-04 / 0122-04



Technical data

Diagram NW 32 (1 1/4")

EM (angle)
DM (straight)
0121-05 / 0122-05



Sample calculation

Target:	Preset value	
Given:	Heat flow	$\dot{Q} = 2210 \text{ W}$
	Temperature spread	$\Delta t = 20 \text{ K (70/50°C)}$
	Pressure loss in manual valve NW 15	$\Delta p_v = 30 \text{ mbar}$
Solution:	Mass flow	$\dot{m} = \frac{\dot{Q}}{c \cdot \Delta t} = \frac{2210}{1.163 \cdot 20} = 95 \text{ kg/h}$
	Screw driver turns form diagram NW 15, page 5	$= 6.5 \text{ turns}$

Formula:

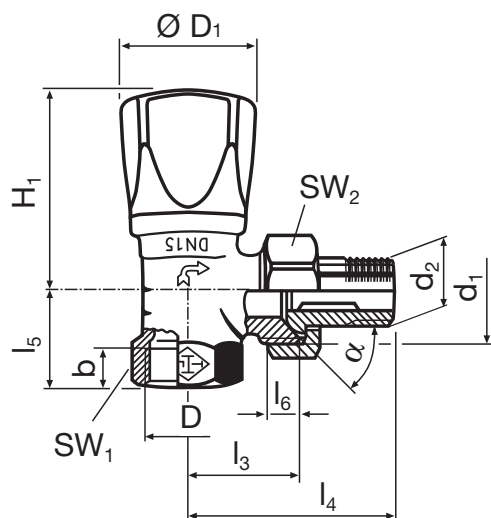
$$C_v = \frac{k_v}{0.86}$$

$$k_v = C_v \cdot 0.86$$

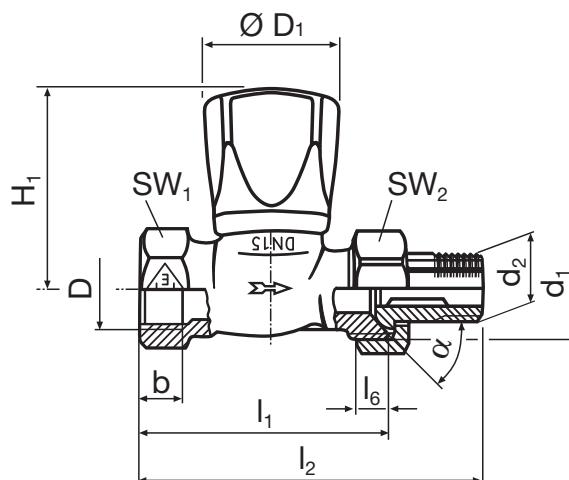
Dimensional data sheet

Lengths according to DIN 3841, part 1

Angle form EM



Straight form DM



NW	D	b	d ₁	d ₂	l ₁ ±2	l ₂ ±2	l ₃ ±1	l ₄ ±1.5	l ₅ ±1.5	l ₆ min.	α	Spanner opening		H ₁	D ₁
10	R _p 3/8	10.1	G 5/8	R 3/8	59	85	26	52	22	6		22	27	56	42
15	R _p 1/2	13.2	G 3/4	R 1/2	66	95	29	58	26	7		27	30	56	42
20	R _p 3/4	14.5	G 1	R 3/4	74	106	34	66	29	8	70°±10°	32	37	58	42
25	R _p 1	13	G 1 1/4	R 1	84	118	40	75	30.5	9		41	47	73	55
32	R _p 1 1/4	15	G 1 1/2	R 1 1/4	95	135	46	85	39	10		49	52	74	55

1 mm = 0,0394 inch



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