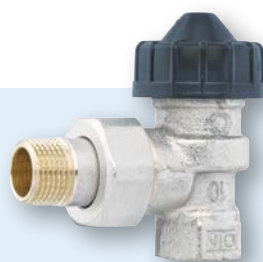


Thermostat valve bodies

Vario



- Fully adjustable
- Valve insert can be replaced without system having to be drained
- Various versions and sizes for virtually any application



Adjustment key ES-SV



Application Suitable for small, medium and large water volumes. For installation in dual-pipe central heating systems.

Description Low-noise thermostat valve body with threaded connection M30 x 1.5 mm for thermostat control heads and actuators. Mounting cap with valve shut-off function. Fully adjustable with ES-SV adjustment key. Valve spindle with double O ring seal. The valve insert can be replaced with the MGV mounting unit at operating pressure without the system having to be drained.

8

Technical specifications

System connection

See ordering table

Thermostat head/actuator connection

Threaded connection M30 x 1.5 mm

Nominal pressure

Max. 10 bar

Nominal diameter

DN 10, DN 15, DN 20

Operating temperature range

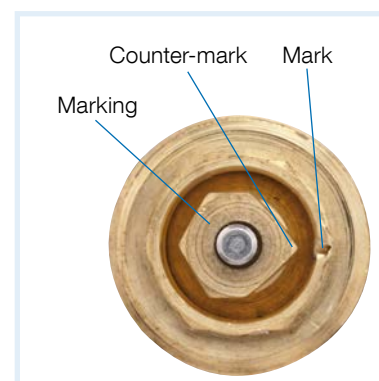
Medium: $T_{max} = 120\text{ °C}$

Housing

Gunmetal, nickel-plated

Valve pre-adjustment

Vario thermostat valves are fully adjustable by means of the ES-SV adjustment key, starting with the open position (8 = open). The numbers 1–8 are shown on the adjustment key. Mark and counter-mark are aligned. Each $\frac{1}{8}$ of a turn corresponds to one flow characteristic, shown in a diagram (see operating instructions).



Type overview

Valve type	Marking at valve insert	Colour of mounting cap
Vario S	1 ring/red	Red
Vario M	2 rings	Black
Vario L	3 rings/green	Green

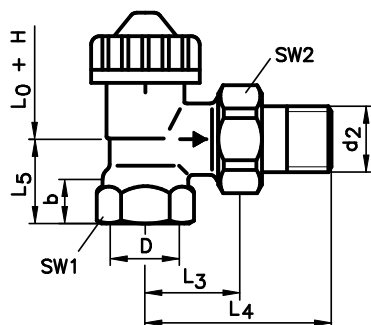


See page 238 for prices.

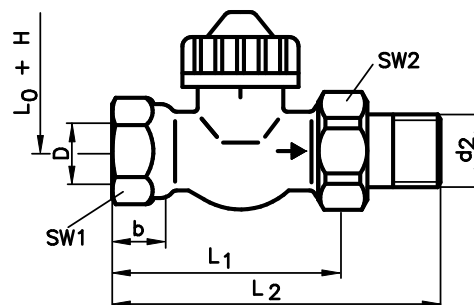
Thermostat valve bodies Vario

Types and dimensions as per EN 215, series D

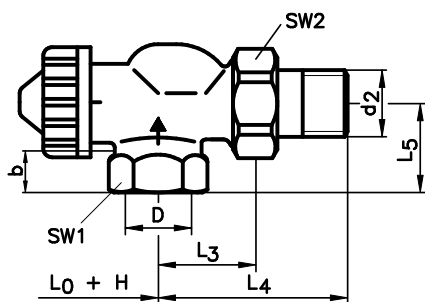
Vario S, M, L – angled



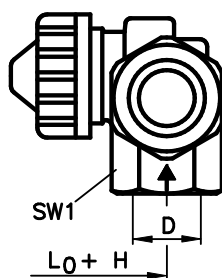
Vario S, M, L – straight



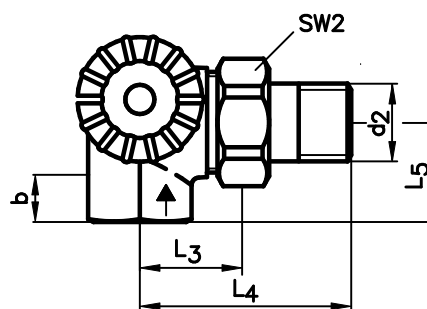
Vario S, M, L – axial



Vario S, M, L – angled-angled, left



Vario S, M, L – angled-angled, right



Dimensions (mm)

DN	D	d2	Spanner size SW1	Spanner size SW2	H	L0	L1 ±2	L2 ±2	L3 ±1	L4 ±1.5	L5 ±1.5	b min
10	Rp3/8	R3/8	22	27	= Height control head	23	59	85	26	52	22	10.1
15	Rp1/2	R1/2	27	30		23	66	95	29	58	26	13.2
20	Rp3/4	R3/4	32	37		23	74	106	34	66	29	14.5







Thermostat valve bodies Vario

DG: V, PG: 2	Version	Nominal diameter	Connection	Flow coefficient* (m ³ /h)	Flow coefficient NS** (m ³ /h)			Part no.	Price €
Vario S for small water volumes									
	Angled	DN 10	Rp $\frac{3}{8}$ x R $\frac{3}{8}$	0.019–0.25	0.30	1	40	141 110.101	
		DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$			1	40	141 120.101	
		DN 20	Rp $\frac{3}{4}$ x R $\frac{3}{4}$			1	-	141 130.101	
	Straight	DN 10	Rp $\frac{3}{8}$ x R $\frac{3}{8}$	0.019–0.25	0.30	1	40	141 160.101	
		DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$			1	40	141 170.101	
		DN 20	Rp $\frac{3}{4}$ x R $\frac{3}{4}$			1	-	141 180.101	
	Axial	DN 10	Rp $\frac{3}{8}$ x R $\frac{3}{8}$	0.019–0.25	0.30	1	-	143 110.101	
		DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$			1	-	143 120.101	
	Angled-angled, right	DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$	0.019–0.25	0.30	1	-	145 120.101	
	Angled-angled, left	DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$	0.019–0.25	0.30	1	-	147 120.101	
Vario M for medium water volumes									
	Angled	DN 10	Rp $\frac{3}{8}$ x R $\frac{3}{8}$	0.038–0.40	0.79	1	-	141 210.101	
		DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$			1	40	141 220.101	
		DN 20	Rp $\frac{3}{4}$ x R $\frac{3}{4}$			1	25	141 230.101	
	Straight	DN 10	Rp $\frac{3}{8}$ x R $\frac{3}{8}$	0.038–0.40	0.79	1	-	141 260.101	
		DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$			1	40	141 270.101	
		DN 20	Rp $\frac{3}{4}$ x R $\frac{3}{4}$			1	25	141 280.101	
	Axial	DN 10	Rp $\frac{3}{8}$ x R $\frac{3}{8}$	0.038–0.40	0.79	1	-	143 210.101	
		DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$			1	-	143 220.101	
	Angled-angled, right	DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$	0.038–0.40	0.79	1	-	145 220.101	
	Angled-angled, left	DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$	0.038–0.40	0.79	1	-	147 220.101	
Vario L for large water volumes									
	Angled	DN 10	Rp $\frac{3}{8}$ x R $\frac{3}{8}$	0.174–0.49	1.10	1	-	141 310.101	
		DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$			1	-	141 320.101	
		DN 20	Rp $\frac{3}{4}$ x R $\frac{3}{4}$			1	-	141 330.101	
	Straight	DN 10	Rp $\frac{3}{8}$ x R $\frac{3}{8}$	0.174–0.49	1.10	1	-	141 360.101	
		DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$			1	-	141 370.101	
		DN 20	Rp $\frac{3}{4}$ x R $\frac{3}{4}$			1	-	141 380.101	
	Axial	DN 10	Rp $\frac{3}{8}$ x R $\frac{3}{8}$	0.174–0.49	1.10	1	-	143 310.101	
		DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$			1	-	143 320.101	
	Angled-angled, right	DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$	0.174–0.49	1.10	1	-	145 320.101	
	Angled-angled, left	DN 15	Rp $\frac{1}{2}$ x R $\frac{1}{2}$	0.174–0.49	1.10	1	-	147 320.101	

* The flow coefficient corresponds to the water flow in m³/h through the valve at a given valve stroke (proportional offset, e.g. 1 K or 2 K) and a differential pressure of 1 bar.

**The flow coefficient NS is the flow coefficient of the valve at nominal stroke (100 % open).

Accessories for thermostat valve bodies Vario

DG: V	Description	PG			Part no.	Price €
	Adjustment key ES-SV , for valve bodies Vario and VarioQ	1	1	40	140 110.850	
	Valve insert S for DN 10–DN 20	2	1	-	140 110.221	
	Valve insert M for DN 10–DN 20	2	1	-	140 210.221	
	Valve insert L for DN 10–DN 20	2	1	-	140 310.221	
	Filling and draining unit FEV 04 For valve bodies Vario/VarioQ and combination blocks THK/Twin	2	1	-	140 110.870	
	Mounting unit MGV for replacing the valve inserts Vario S-L $\frac{3}{8}$ " – $\frac{3}{4}$ ", standard $\frac{3}{8}$ " – $\frac{3}{4}$ ", V_{max} $\frac{3}{8}$ " – $\frac{1}{2}$ " and old inserts of the Gampper series V, VV, VF.	2	1	2	140 110.860	