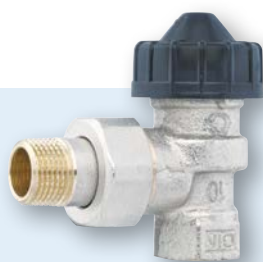


# Thermostat valve bodies Vario



- 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 medium and large water volumes. For installation in dual-pipe central heating systems.

**Description** Low-noise thermostat valve body with threaded connection M 30 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.

## Technical specifications

### System connection

See ordering table

### Thermostat head/actuator connection

Threaded connection M 30 x 1.5 mm

### Nominal pressure

Max. 10 bar

### Nominal diameter

DN 10, DN 15, DN 20

### Operating temperature range

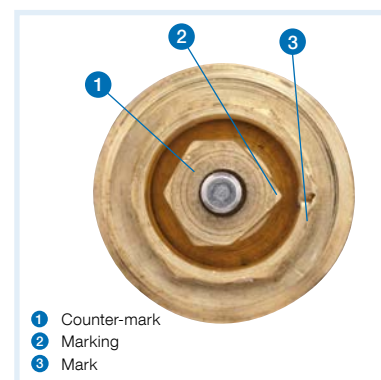
Medium:  $T_{max} = 120\text{ °C}$

### 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 M    | 2 rings                 | Black                  |

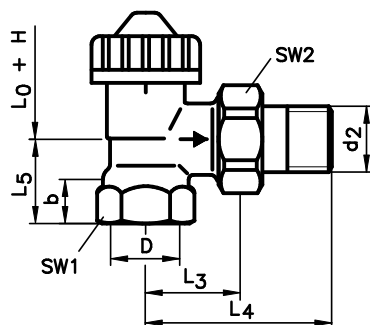


See page 251 for prices.

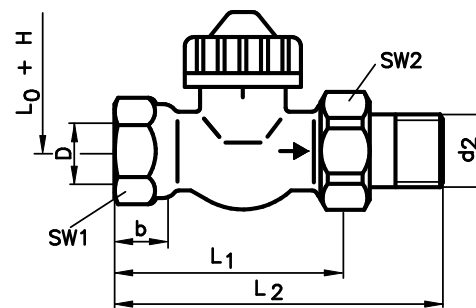
# Thermostat valve bodies Vario

Types and dimensions as per EN 215, series D

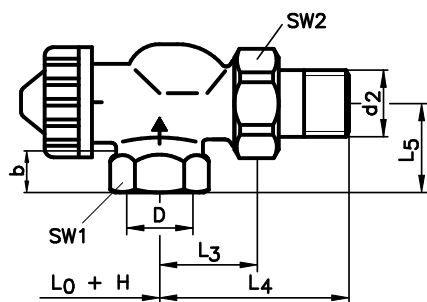
Vario M – angled



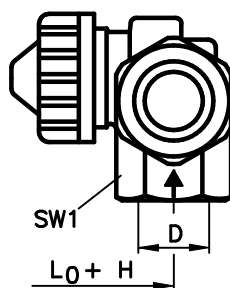
Vario M – straight



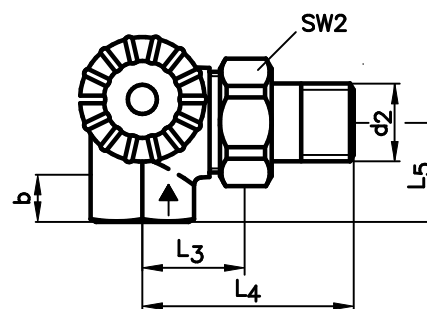
Vario M – axial



Vario M – angled-angled, left










Vario M – 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 | Rp $\frac{3}{8}$ | R $\frac{3}{8}$ | 22               | 27               | = Height control head | 23 | 59    | 85    | 26    | 52      | 22      | 10.1  |
| 15 | Rp $\frac{1}{2}$ | R $\frac{1}{2}$ | 27               | 30               |                       | 23 | 66    | 95    | 29    | 58      | 26      | 13.2  |
| 20 | Rp $\frac{3}{4}$ | R $\frac{3}{4}$ | 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 <sup>3</sup> /h) | Flow coefficient NS** (m <sup>3</sup> /h) |  |  | Part no.           | Price € |
|---|-----------------------------|------------------|--|---------------------------------------|---|---|---|--------------------|---------|
| <b>Vario M</b> for medium water volumes   |                             |                  |  |                                       |   |   |   |                    |         |
|  | <b>Angled</b>               | DN 10            | Rp <sup>3</sup> / <sub>8</sub> x R <sup>3</sup> / <sub>8</sub> | 0.038 - 0.40                          | 0.79                                      | 1   | -   | 141 210.101        |         |
|   |                             | DN 15            | Rp <sup>1</sup> / <sub>2</sub> x R <sup>1</sup> / <sub>2</sub> |                                       |   | 1   | 40  | <b>141 220.101</b> |         |
|   |                             | DN 20            | Rp <sup>3</sup> / <sub>4</sub> x R <sup>3</sup> / <sub>4</sub> |                                       |   | 1   | 25  | <b>141 230.101</b> |         |
|  | <b>Straight</b>             | DN 10            | Rp <sup>3</sup> / <sub>8</sub> x R <sup>3</sup> / <sub>8</sub> | 0.038 - 0.40                          | 0.79                                      | 1   | -   | 141 260.101        |         |
|   |                             | DN 15            | Rp <sup>1</sup> / <sub>2</sub> x R <sup>1</sup> / <sub>2</sub> |                                       |   | 1   | 40  | <b>141 270.101</b> |         |
|   |                             | DN 20            | Rp <sup>3</sup> / <sub>4</sub> x R <sup>3</sup> / <sub>4</sub> |                                       |   | 1   | 25  | <b>141 280.101</b> |         |
|  | <b>Axial</b>                | DN 15            | Rp <sup>1</sup> / <sub>2</sub> x R <sup>1</sup> / <sub>2</sub> | 0.038 - 0.40                          | 0.79                                      | 1   | -   | 143 220.101        |         |
|  | <b>Angled-angled, right</b> | DN 15            | Rp <sup>1</sup> / <sub>2</sub> x R <sup>1</sup> / <sub>2</sub> | 0.038 - 0.40                          | 0.79                                      | 1   | -   | 145 220.101        |         |
|  | <b>Angled-angled, left</b>  | DN 15            | Rp <sup>1</sup> / <sub>2</sub> x R <sup>1</sup> / <sub>2</sub> | 0.038 - 0.40                          | 0.79                                      | 1   | -   | 147 220.101        |         |

\* The flow coefficient corresponds to the water flow in m<sup>3</sup>/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 € |
|---|---|----|---|---|--------------------|---------|
|  | <b>Adjustment key ES-SV,</b><br>for valve bodies Vario and VarioQ   | 1  | 1   | 40  | <b>140 110.850</b> |         |
|  | <b>Valve insert M</b> for DN 10–DN 20   | 2  | 1   | -   | 140 210.221        |         |
|  | <b>Filling and draining unit FEV 04</b><br>For valve bodies Vario/VarioQ and<br>combination blocks THK/Twin | 2  | 1   | -   | 140 110.870        |         |
|   | <b>Mounting unit MGV</b><br>for replacing the valve inserts Vario, VarioQ and Vario-DP                      | 2  | 1   | 2   | 140 110.860        |         |