

# Vekotec

**Double connection fitting  
for radiators with integrated valves**



To be precise.



## Description



HEIMEIER Vekotec double connection fitting with shut-off function. Separate shut-off cone for supply and return pipes. Operation with an allen key size 5 AF.

Two-pipe design in angle and straight with R 1/2 and G 3/4 connection.

Centre to centre distance of the connections 50 mm. Tolerance compensation  $\pm 1.0$  mm by means of union nut and flexible flat sealing system for tension-free mounting.

Sealing on stems by means of EPDM O-rings.

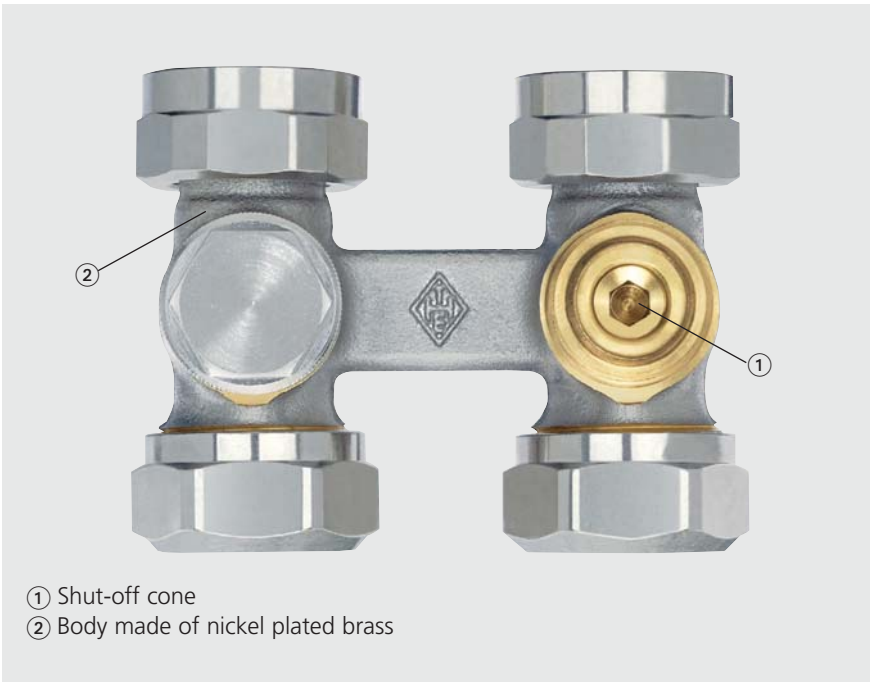
Body made of nickel plated brass.

Connection on pipe side G 3/4 with compression fitting for plastic, copper, precision steel or multi-layer pipe.

Use only the designated compression fittings for HEIMEIER fittings (e.g. designation 15 THE).

## Construction

Vekotec



- Operation with an allen key size 5 AF
- Stem sealing with EPDM O-rings
- Supply and return pipes can be shut off separately
- For left and right connection to the radiator

## Application

The Vekotec double connection fitting is designed for installation onto radiators with integrated valves with an Rp 1/2 female thread and G 3/4 male thread. Self sealing connections enable easy mounting to the radiator.

Models in angle and straight forms, each designed for two-pipe systems, mean that the connection fitting can be used in

a number of different ways. For example, the straight form can be used for pipe connection vertical to the floor. If a free floor area is required, the angle form is used for the wall connection.

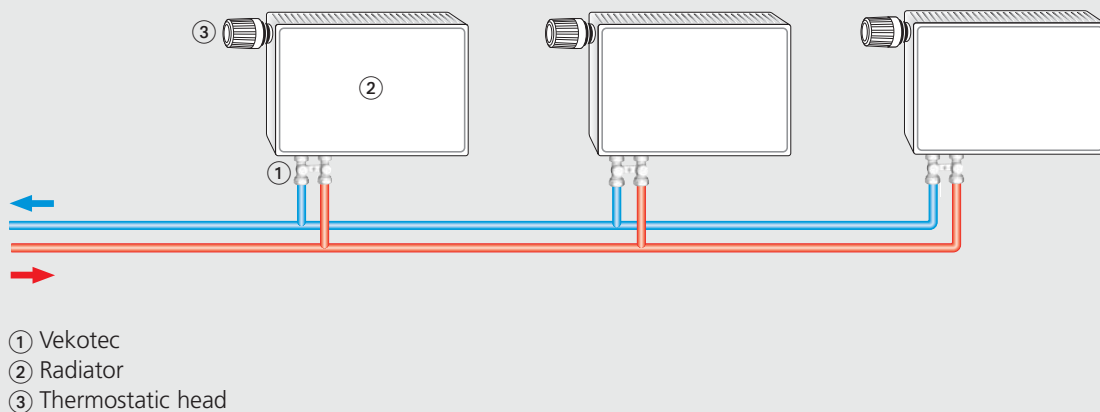
Radiators can be shut off individually with the Vekotec connection fitting. For dismantled radiators decorating and service work, for example, can be carried

out without interruption to other radiators.

Mounting of the Vekotec connection fitting is possible on the left as well as on the right of the radiator. This is especially advantageous when the radiator is turned around.

### Application example

Two-pipe system



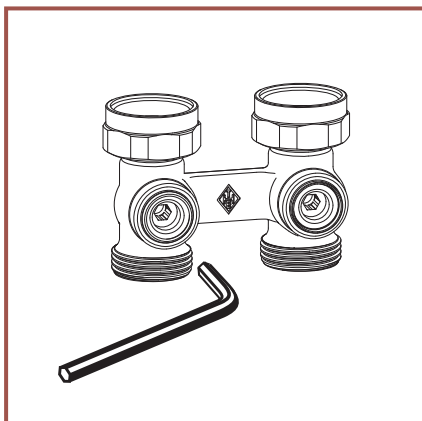
### Note

To avoid damage and the formation of stones in hot water systems the composition of the heating medium should comply to VDI guidelines 2035. For industrial and long distance energy systems the VdTÜV-Explanatory Leaflet 1466/AGFW-Explanatory Leaflet 5/15 must be observed.

Mineral oils, or greases of all types containing mineral oil, in the heating medium lead to severe swelling and, in most cases, to failure of the EPDM seals. When using nitrite-free frost and corrosion protective substances based on ethylene glycol, the appropriate information, especially about the concentration of

individual additives, is to be taken from the manufacturer's documentation for frost and corrosion protection.

## Operation



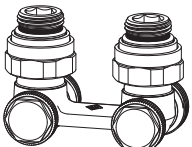
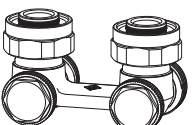
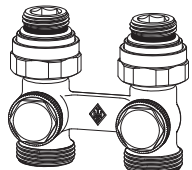
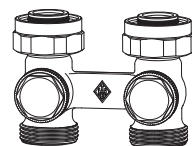
### Shut-off

Unscrew blanking cap.

Close supply and return pipe return shut-offs of the Vekotec connection fitting by turning clockwise with an allen key size 5 AF (Fig.).

Screw blanking cap back on again.

## Article numbers

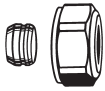
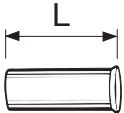
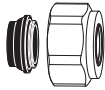


Construction	Connection radiator with integrated valves	Two-pipe system	
		$k_{VS}$ -value <sup>*)</sup>	Art. no.
<b>Angle</b> 	Rp 1/2 female thread	1.23 m <sup>3</sup> /h	<b>0551-50.000</b>
<b>Angle</b> 	G 3/4 male thread	1.23 m <sup>3</sup> /h	<b>0553-50.000</b>
<b>Straight</b> 	Rp 1/2 female thread	1.23 m <sup>3</sup> /h	<b>0550-50.000</b>
<b>Straight</b> 	G 3/4 male thread	1.23 m <sup>3</sup> /h	<b>0552-50.000</b>

Permitted operating temperature TB 120°C (248°F). Permitted operating pressure PB 10 bar.

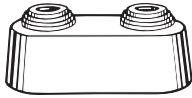
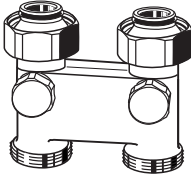


\*) common value for supply and return pipes.

## Accessories

1 mm = 0,0394 inch

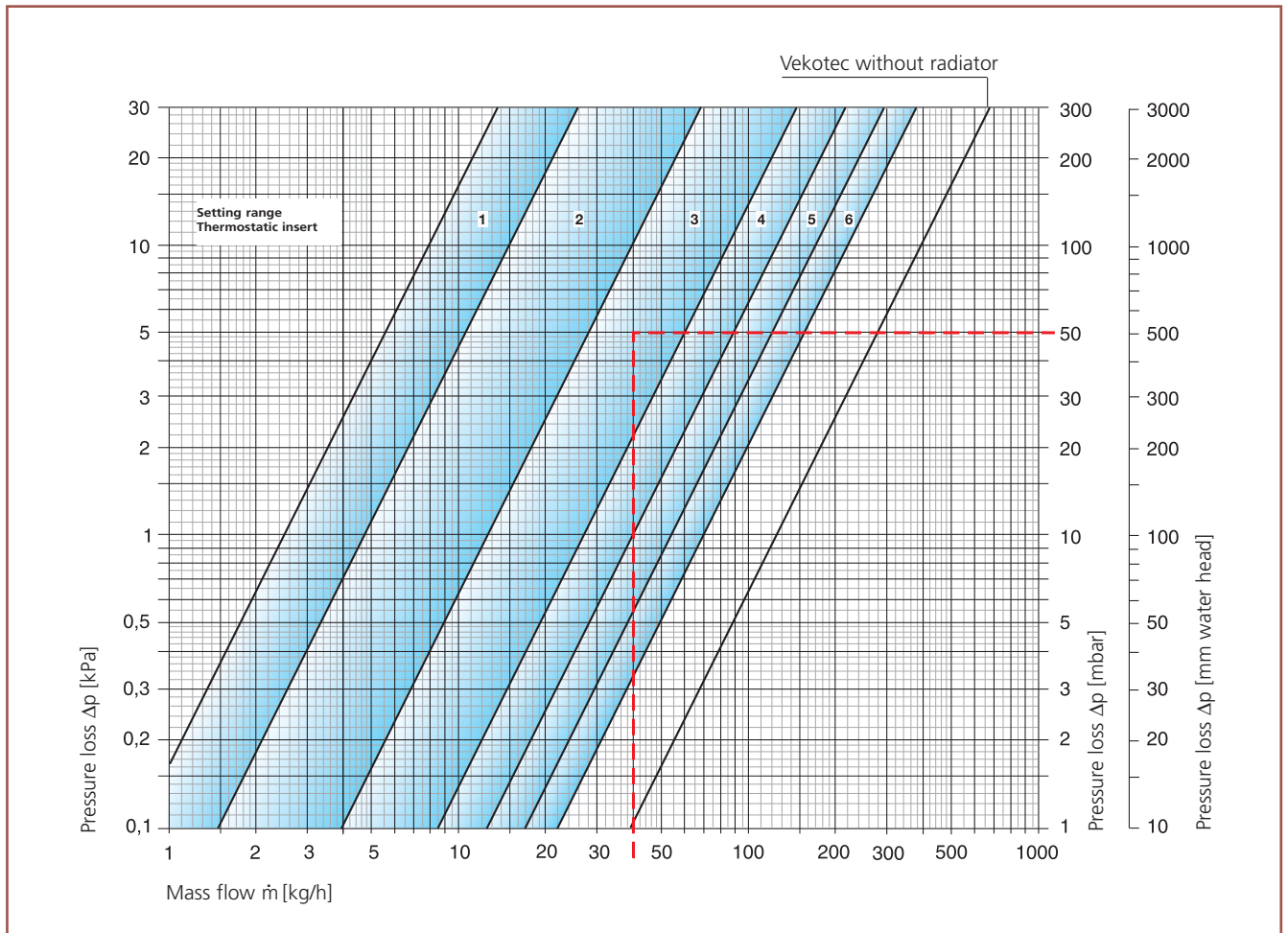
Illustration	Description	L [mm]	Ø Pipe	Art. no.
	<b>Compression fitting</b> for copper or precision steel pipe. Nickel plated brass. For pipe wall thickness of 0.8 – 1 mm supporting sleeves must be used. Pay attention to pipe manufacturer information.	10		<b>3831-10.351</b>
		12		<b>3831-12.351</b>
		14		<b>3831-14.351</b>
		15		<b>3831-15.351</b>
		16		<b>3831-16.351</b>
		18		<b>3831-18.351</b>
	<b>Supporting sleeves</b> for copper or precision steel pipe with a wall thickness of 1 mm.	18.5	10	<b>1300-10.170</b>
		25.0	12	<b>1300-12.170</b>
		25.0	14	<b>1300-14.170</b>
		26.0	15	<b>1300-15.170</b>
		26.3	16	<b>1300-16.170</b>
		26.8	18	<b>1300-18.170</b>
	<b>Compression fitting</b> for copper or precision steel pipe. Nickel plated brass. Soft sealed.	12		<b>1313-12.351</b>
		14		<b>1313-14.351</b>
		15		<b>1313-15.351</b>
		16		<b>1313-16.351</b>
		18		<b>1313-18.351</b>
	<b>Compression fitting</b> for plastic pipe. Nickel plated brass.	12 x 2		<b>1311-12.351</b>
		14 x 2		<b>1311-14.351</b>
		16 x 2		<b>1311-16.351</b>
		17 x 2		<b>1311-17.351</b>
		18 x 2		<b>1311-18.351</b>
		18 x 2.5		<b>1312-18.351</b>
		20 x 2		<b>1311-20.351</b>
21 x 2.5		<b>1311-21.351</b>		
	<b>Compression fitting</b> for multi-layer pipe. Nickel plated brass.	14 x 2		<b>1331-14.351</b>
		16 x 2		<b>1331-16.351</b>
		18 x 2		<b>1331-18.351</b>

## Accessories

Illustration	Description	Art. no.
 A technical drawing of a double rosette, which is a white plastic component with two threaded ports on top and a central slot for a pipe.	<b>Double rosette</b> dividable in the middle, made of plastic, white, for various pipe diameters, centre distance 50 mm, overall height max. 31 mm.	0520-00.093
 A technical drawing of a change over piece, a nickel-plated brass component with two G 3/4 ports on top and two Rp 1/2 ports on the bottom.	<b>Change over piece</b> G $\frac{3}{4}$ , self-sealing connection with shut-offs, for reversing supply and return flow, for avoidance of crossed connection pipes, nickel plated brass.	0540-50.000
 A technical drawing of a double nipple, a brass component with two Rp 1/2 ports on top and a hexagonal socket on the bottom.	<b>Double nipple</b> G $\frac{3}{4}$ x R $\frac{1}{2}$ , self-sealing, for change over piece for direct mounting on the integrated valve with Rp $\frac{1}{2}$ connection, with hexagon socket, brass.	0550-02.350
 A technical drawing of an L-shaped allen key.	<b>Allan key</b> for the Vekotec shut-off, size 5 AF DIN 911.	0301-05.256

## Technical data

Diagram, Vekotec two-pipe connection fitting



Integrated valve with Vekotec two-pipe connection fitting in angle and straight form		Presetting thermostatic insert						$k_{VS}$ -value without radiator [m <sup>3</sup> /h]	Permitted operating temperature*) TB [°C]	Permitted operating pressure PB [bar]
		1	2	3	4	5	6			
Thermostatic insert with presetting and thermostatic head	min $k_V$ -value	0.025	> 0.047	> 0.125	> 0.263	> 0.395	> 0.540	1.23	120	10
	max $k_V$ -value	0.047	0.125	0.263	0.395	0.540	0.694			
	$k_{VS}$ -value [m <sup>3</sup> /h]	0.051	0.132	0.286	0.406	0.561	0.766			

\*) with actuator on the radiator with integrated valves TB 100 °C (212 °F)

$k_V$ -value in [m<sup>3</sup>/h]

### Calculation example

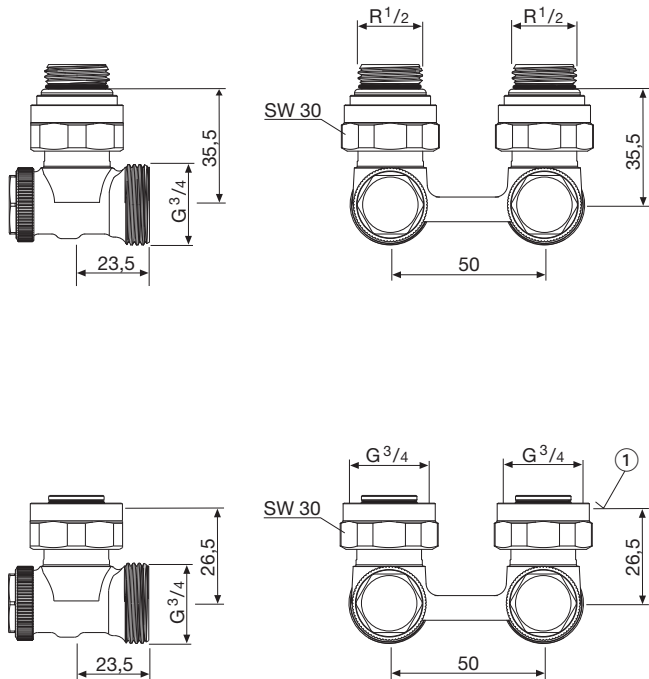
Required: presetting range  
 Given: heat flow  $\dot{Q} = 930 \text{ W}$   
 temperature spread  $\Delta t = 20 \text{ K (70/50°C)}$   
 pressure loss radiator with integrated valve incl. Vekotec  $\Delta p_{ges} = 50 \text{ mbar}$

Solution: mass flow  $\dot{m} = \frac{\dot{Q}}{c \cdot \Delta t} = \frac{930}{1.163 \cdot 20} = 40 \text{ kg/h}$   
 Presetting range from graph: 3

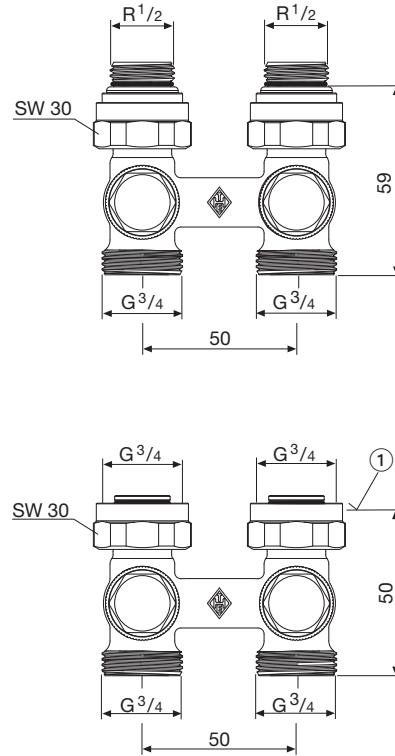
Formula:  
 $C_V = \frac{k_V}{0,86}$   
 $k_V = C_V \cdot 0,86$

## Dimensions

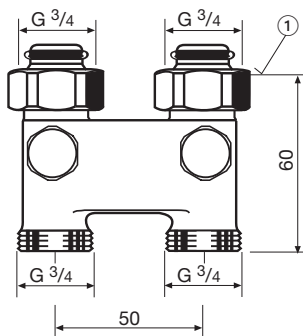
### Vekotec angle form



### Vekotec straight form



### Deflector piece



① Bearing surface seal top edge

1 mm = 0,0394 inch



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