

Climate  
Control

IMI Heimeier

## Vekotrim



### **Valves for radiators with integrated valve**

Double connection fitting with shut-off ball valves for radiators with integrated valves

## Vekotrim

The Vekotrim double connection fitting is designed for installation onto radiators with integrated valves with an Rp1/2 female thread and G3/4 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.



### Key features

Easy operating with screw driver

Stem sealing with EPDM O-rings

Supply and return pipes can be shut-off separately

For left and right connection to the radiator

### Technical description

#### Applications area:

2-pipe heating systems

#### Function:

Shut-off

#### Dimensions:

DN 15

#### Pressure class:

PN 10

#### Temperature:

Max. working temperature: 120 °C

Min. working temperature: 5 °C

#### Materials:

Valve body: Brass

O-rings: EPDM rubber

Flat sealing: EPDM rubber

Ball seal: PTFE

#### Surface treatment:

Valve body and fittings are nickel-plated.

#### Radiator connection:

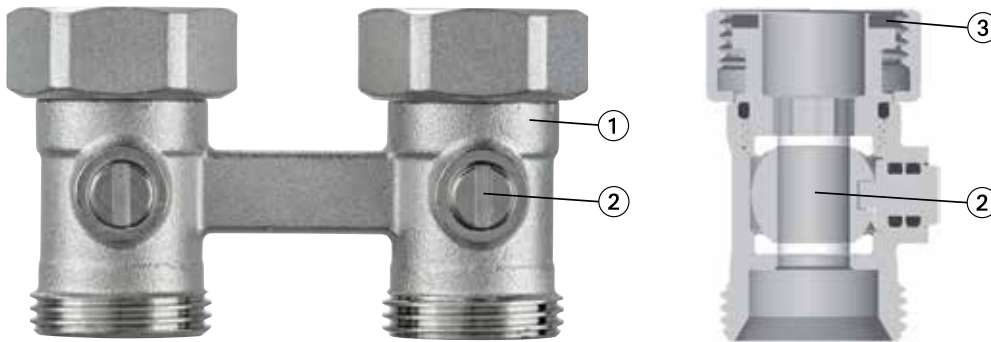
Adapters for R1/2 or G3/4 according to EN 16313 (Eurocone), for radiator connections. Tolerance compensation  $\pm 1,0$  mm with special union nuts and flexible flat seal system for installation free of tension.

#### Pipe connection:

G3/4 external thread according to EN 16313 (Eurocone) for compression fittings for plastic, copper, precision steel or multi-layer pipe.

## Construction

### Vekotrim



1. Body nickel plated
2. Shut-off ball valve
3. Flat sealing

## Application

The Vekotrim double connection fitting is designed for installation onto radiators with integrated valves with an Rp1/2 female thread and G3/4 male thread.

Self sealing connections enable easy mounting to the radiator.

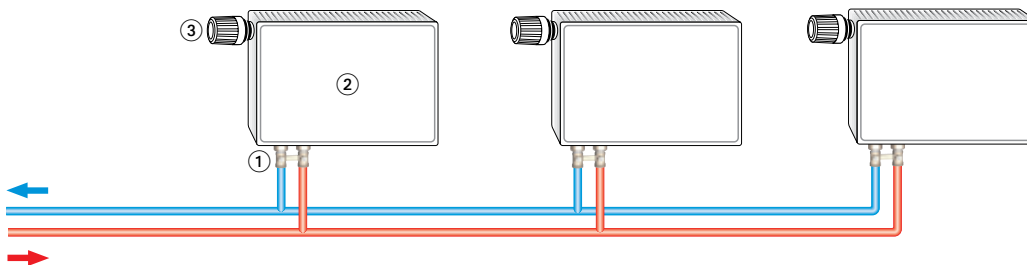
Models in angle and straight forms, each designed for two-pipe systems, mean that the connection fitting can be used in a number of different ways. For example, the straight form can be used for pipe connection vertical to the floor. If a free floor area is required, the angle form is used for the wall connection.

Radiators can be shut off individually with the Vekotrim connection fitting. For dismantled radiators decorating and service work, for example, can be carried out without interruption to other radiators.

Mounting of the Vekotrim 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.

### Sample application

Two-pipe system



1. Vekotrim
2. Radiator
3. Thermostatic head

### Note

– To avoid damage and the formation of scale deposit in the hot water heating system, the composition of the heat transfer medium should be in accordance with the VDI guideline 2035. For industrial and long-distance energy systems, see the applicable codes VdTÜV and 1466/AGFW FW 510.

A heat transfer medium containing mineral oils, or any type of lubricant containing mineral oil can have extremely negative effects and usually lead to the disintegration of EPDM seals.

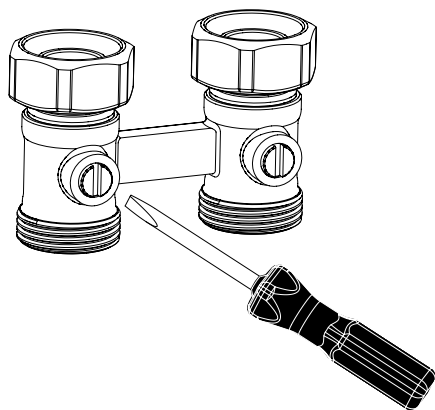
When using nitrite-free frost and corrosion resistance solutions with an ethylene glycol base, pay close attention to the details outlined in the manufacturers' documentation, particularly concerning concentration and specific additives.

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## Operation

### Shut-off

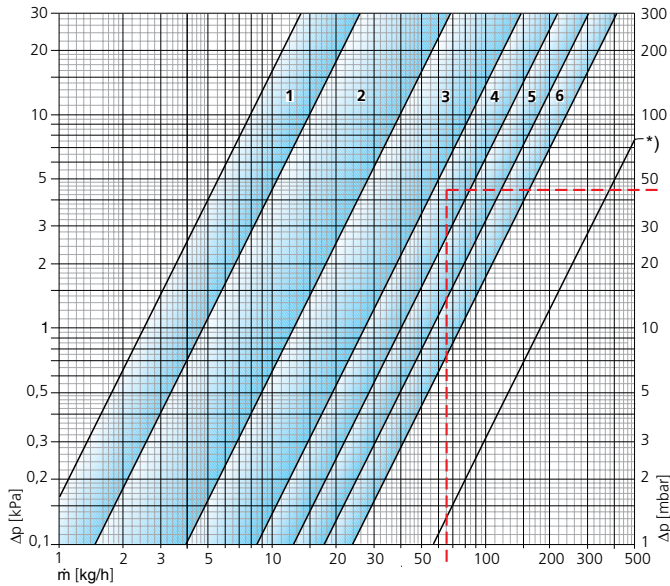
Supply and return of Vekotrim are closed by using a screw driver (slot size 8.5 mm x 2 mm) and turning the slots in a horizontal position.



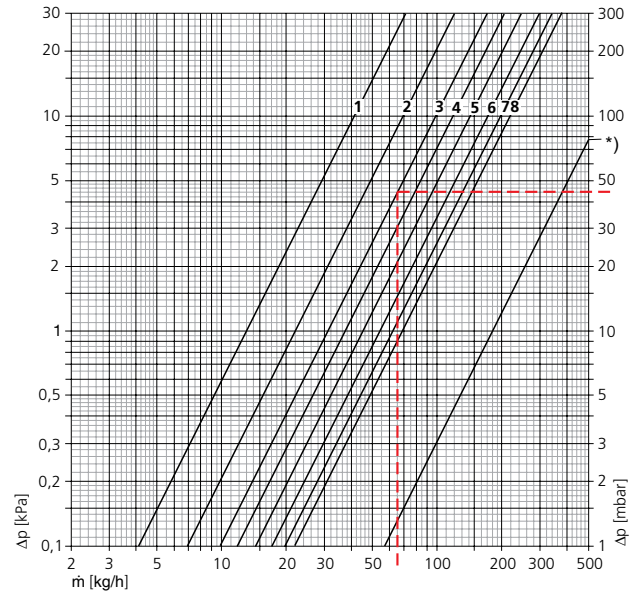
## Technical data

### Diagram, Vekotrim two-pipe connection fitting

Thermostatic insert VHV with 6 presetting ranges



Thermostatic insert VHV8S with 8 infinitely variable presetting values



### Radiator with integrated valve with Vekotrim two-pipe-connection fitting

	Presetting Thermostatic insert								Kvs Vekotrim without radiator *)
	1	2	3	4	5	6	7	8	
<b>Thermostat insert VHV with 6 presetting ranges and Thermostatic head</b>									
min	0,025	0,047	0,126	0,266	0,401	0,569	-	-	1,80
Kv-value	-	-	-	-	-	-	-	-	
max	0,047	0,126	0,266	0,401	0,569	0,761	-	-	
Kvs	0,051	0,133	0,290	0,418	0,595	0,861	-	-	
<b>Thermostat insert VHV8S with 8 infinitely variable presetting values and Thermostatic head</b>									
Kv-value	0,13	0,22	0,31	0,37	0,45	0,54	0,62	0,69	1,80
Kvs	0,16	0,27	0,37	0,42	0,61	0,86	1,02	1,12	

$Kv/Kvs = m^3/h$  at a pressure drop of 1 bar.

### Calculation example

Required:  
Presetting value

Given:  
Heat flow  $Q = 1135 \text{ W}$   
Temperature spread  $\Delta t = 15 \text{ K (65/50 } ^\circ\text{C)}$   
Pressure loss thermostatic valve  $\Delta p_v = 44 \text{ mbar}$

Solution:  
Mass flow  $m = Q / (c \cdot \Delta t) = 1135 / (1,163 \cdot 15) = 65 \text{ kg/h}$

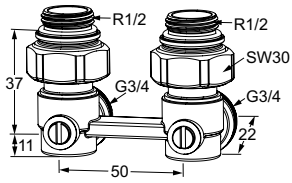
Presetting value from diagram:  
with thermostatic insert VHV with 6 presetting ranges: 4  
with thermostatic insert VHV8S with 8 infinitely variable presetting values: 3

$$Cv = \frac{Kv}{0,86}$$

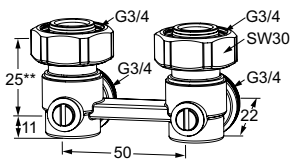
$$Kv = Cv \cdot 0,86$$

## Articles

### Angle

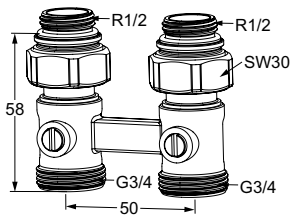


Connection radiator with integrated valves	Two-pipe system Kvs *)	EAN	Article No
Rp 1/2 internal thread	1,80	4024052951819	0565-50.000

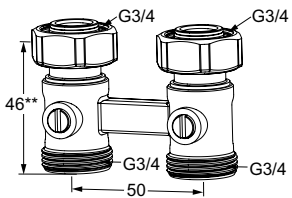


Connection radiator with integrated valves	Two-pipe system Kvs *)	EAN	Article No
G 3/4 external thread	1,80	4024052952014	0567-50.000

### Straight



Connection radiator with integrated valves	Two-pipe system Kvs *)	EAN	Article No
Rp 1/2 internal thread	1,80	4024052951710	0564-50.000



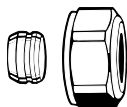
Connection radiator with integrated valves	Two-pipe system Kvs *)	EAN	Article No
G 3/4 external thread	1,80	4024052951918	0566-50.000

\*) common value for supply and return pipes.

Kv/Kvs = m<sup>3</sup>/h at a pressure drop of 1 bar.

\*\*\*) Bearing surface seal top edge

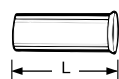
## Accessories



### Compression fitting

for copper or precision steel pipe according to DIN EN 1057/10305-1/2. Connection external thread G3/4 according to DIN EN 16313 (Eurocone). Metal-to-metal joint. Nickel-plated brass. With a pipe wall thickness of 0.8-1 mm insert supporting sleeves. Heed pipe manufacturer's technical advice.

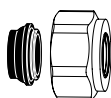
Ø Pipe	EAN	Article No
12	4024052214211	3831-12.351
15	4024052214617	3831-15.351
16	4024052214914	3831-16.351
18	4024052215218	3831-18.351



### Support sleeve

for copper or precision steel pipe with a 1 mm wall thickness. Brass.

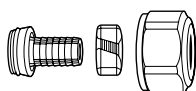
Ø Pipe	L	EAN	Article No
12	25,0	4024052127016	1300-12.170
15	26,0	4024052127917	1300-15.170
16	26,3	4024052128419	1300-16.170
18	26,8	4024052128815	1300-18.170



### Compression fitting

for copper or precision steel pipe according to DIN EN 1057/10305-1/2. Connection external thread G3/4 according to DIN EN 16313 (Eurocone). Soft sealed, max. 95°C. Nickel-plated brass.

Ø Pipe	EAN	Article No
15	4024052515851	1313-15.351
18	4024052516056	1313-18.351



### Compression fitting

for plastic pipe according to DIN 4726, ISO 10508. PE-X: DIN 16892/16893, EN ISO 15875; PB: DIN 16968/16969. Connection external thread G3/4 according to DIN EN 16313 (Eurocone). Nickel-plated brass.

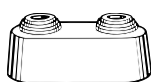
Ø Pipe	EAN	Article No
14x2	4024052134618	1311-14.351
16x2	4024052134816	1311-16.351
17x2	4024052134915	1311-17.351
18x2	4024052135110	1311-18.351
20x2	4024052135318	1311-20.351



### Compression fitting

for Alu/PEX multi-layer pipe according to DIN 16836. Connection external thread G3/4 according to DIN EN 16313 (Eurocone). Nickel-plated brass.

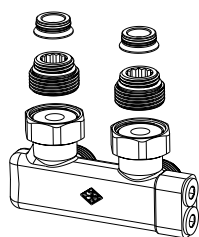
Ø Pipe	EAN	Article No
16x2	4024052137312	1331-16.351
18x2	4024052137411	1331-18.351



### Double rosette

Dividable in the middle, made of plastic, white, for various pipe diameters. Centre distance 50 mm. Overall height max. 31 mm.

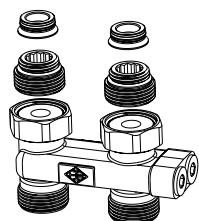
EAN	Article No
4024052120710	0520-00.093



**Deflector piece, angle**

for exchanged supply and return,  
Connection for Rp1/2 and G3/4,  
flat sealing, with shut-off, for two-pipe  
systems, to prevent connection ducts  
from intersecting.  
Nickel-plated brass.

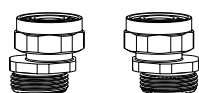
Connection	EAN	Article No
G3/4 / R1/2	4024052835010	0541-50.000



**Deflector piece, straight**

for exchanged supply and return,  
Connection for Rp1/2 and G3/4,  
flat sealing, with shut-off, for two-pipe  
systems, to prevent connection ducts  
from intersecting.  
Nickel-plated brass.

Connection	EAN	Article No
G3/4 / R1/2	4024052835119	0542-50.000



**S-connection set**

consisting of 2 adapter pieces  
G3/4 x G3/4.  
Nickel-plated brass.

	Model	EAN	Article No
<b>Set 1</b>	Axial distance min. 40/50 to max. 60/50	4024052840816	1354-02.362
<b>Set 2</b>	Axial distance min. 35/50 to max. 65/50	4024052840915	1354-22.362