

# Vekotec



## Valves for radiators with integrated valve

Double connection fitting for radiators with integrated valves

*Engineering  
GREAT Solutions*

# Vekotec

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.



## Key features

- > Supply and return pipes can be shut-off separately
- > For left, right and center connection to the radiator
- > Stem sealing with EPDM O-rings

## Technical description

### Applications area:

2-pipe heating systems

### Function:

Shut-off.  
Separate shut-off cone for supply and return pipes.

### Dimensions:

DN 15

### Pressure class:

PN 10

### Temperature:

Max. working temperature: 120 °C  
Min. working temperature: -10 °C

### Materials:

Valve body: Brass  
O-rings: EPDM rubber  
Stems: Brass

### 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 male thread according to EN 16313 (Eurocone) for compression fittings for plastic, copper, precision steel or multi-layer pipe.

## Construction

### Vekotec



1. Shut-off cone
2. Body made of nickel plated brass

## Application

The Vekotec 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

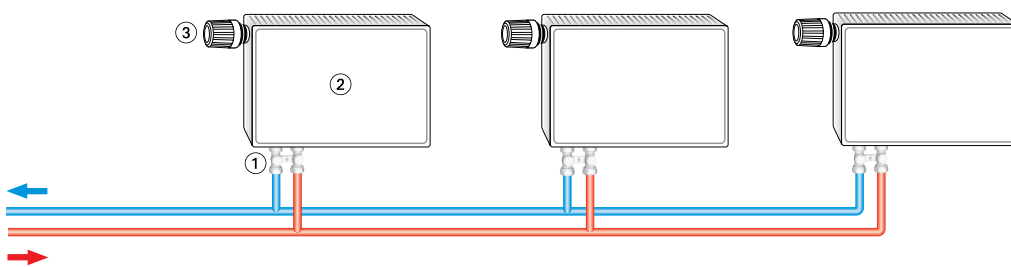
is required, the angle form is used for the wall connection.

Radiators can be shut off individually with the 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.

### Sample application

Two-pipe system



1. Vekotec
2. Radiator
3. Thermostatic head

### 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/AGFWExplanatory Leaflet FW 510 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.

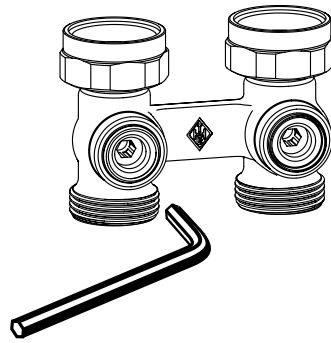
## Operation

### Shut-off

Unscrew blanking cap.

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

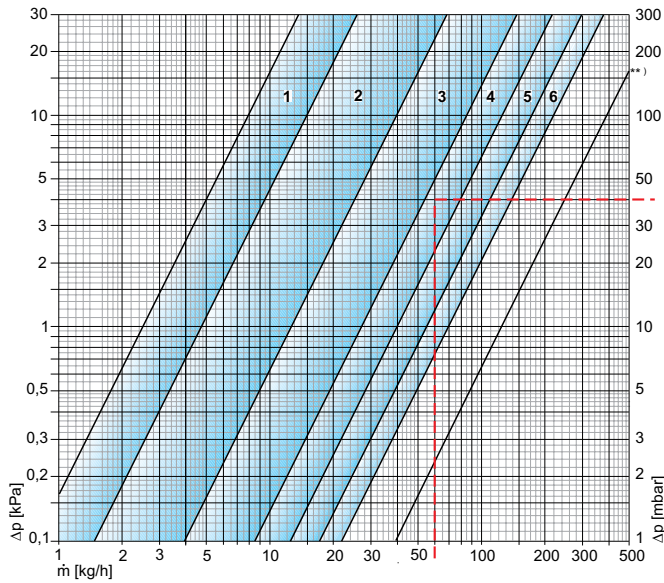
Screw blanking cap back on again.



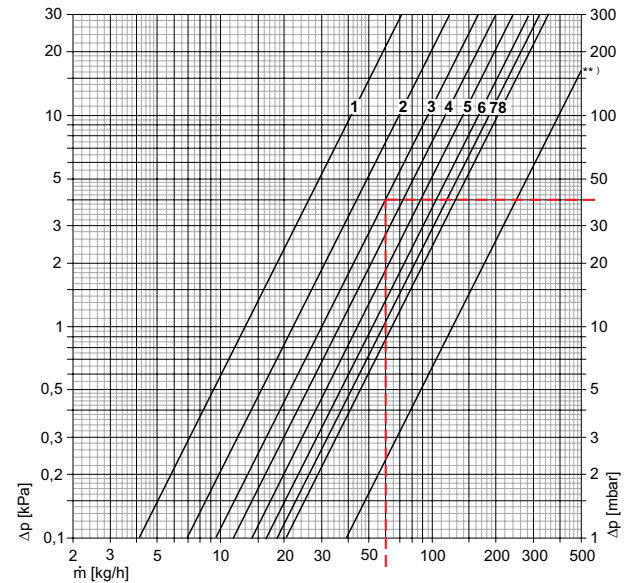
## Technical data

### Diagram, Vekotec 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 Vekotec two-pipe-connection fitting

	Presetting Thermostatic insert								Kvs Vekotec 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	0,125	0,263	0,395	0,540	-	-	1,23
Kv-value	-	-	-	-	-	-	-	-	
max	0,047	0,125	0,263	0,395	0,540	0,694	-	-	
Kvs	0,051	0,132	0,286	0,406	0,561	0,766	-	-	
<b>Thermostat insert VHV8S with 8 infinitely variable presetting values and Thermostatic head</b>									
Kv-value	0,13	0,22	0,30	0,36	0,44	0,52	0,58	0,64	1,23
Kvs	0,16	0,26	0,36	0,41	0,57	0,77	0,87	0,93	

\*) with protection cap or actuator 100 °C (212 °F).

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

### Calculation example

Required:

Presetting value

Given:

Heat flow Q = 1045 W

Temperature spread  $\Delta t = 15$  K (65/50 °C)

Pressure loss thermostatic valve  $\Delta p_v = 40$  mbar

Solution: Mass flow  $m = Q / (c \cdot \Delta t) = 1045 / (1,163 \cdot 15) = 60$  kg/h

Presetting value from diagram:

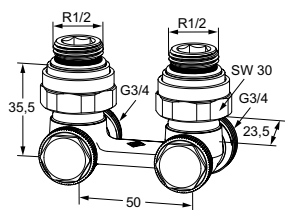
with thermostatic insert VHV with 6 presetting ranges: 4

with thermostatic insert VHV8S with 8 infinitely variable presetting values: 3

$$C_v = \frac{K_v}{0,86}$$

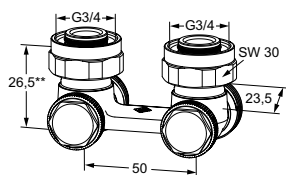
$$K_v = C_v \cdot 0,86$$

## Articles

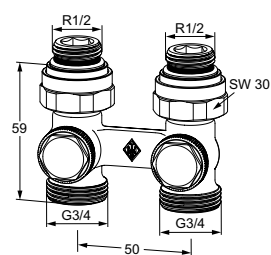


## Angle

Connection radiator with integrated valves	Two-pipe system Kvs *)	EAN	Article No
Rp 1/2 female thread	1,23	4024052406654	0551-50.000

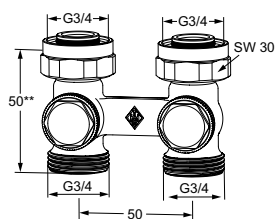


Connection radiator with integrated valves	Two-pipe system Kvs *)	EAN	Article No
G 3/4 male thread	1,23	4024052406852	0553-50.000



## Straight

Connection radiator with integrated valves	Two-pipe system Kvs *)	EAN	Article No
Rp 1/2 female thread	1,23	4024052406555	0550-50.000



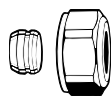
Connection radiator with integrated valves	Two-pipe system Kvs *)	EAN	Article No
G 3/4 male thread	1,23	4024052406753	0552-50.000

\*) 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 male thread G3/4 according to DIN EN 16313 (Eurocone). Metal-to-metal joint. Nickel-plated brass. Support sleeves should be used for a pipe wall thickness of 0.8 – 1 mm. Follow the specifications of the pipe manufacturer.

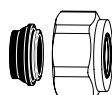
Ø Pipe	EAN	Article No
12	4024052214211	3831-12.351
15	4024052214617	3831-15.351
16	4024052214914	3831-16.351
18	4024052215218	3831-18.351



### Support sleeve

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

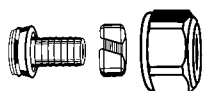
Ø Pipe	L	EAN	Article No
12	25,0	4024052127016	1300-12.170
15	26,0	4024052127917	1300-15.170
16	26,3	4024052128419	1300-16.170
18	26,8	4024052128815	1300-18.170



### Compression fitting

for copper or precision steel pipe according to DIN EN 1057/10305-1/2 and stainless steel pipe. Connection male thread G3/4 according to DIN EN 16313 (Eurocone). Soft sealed. 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 male thread G 3/4 according to DIN EN 16313 (Eurocone). Nickel plated brass.

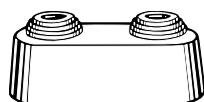
Ø Pipe	EAN	Article No
14x2	4024052134618	1311-14.351
16x2	4024052134816	1311-16.351
17x2	4024052134915	1311-17.351
18x2	4024052135110	1311-18.351
20x2	4024052135318	1311-20.351



### Compression fitting

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

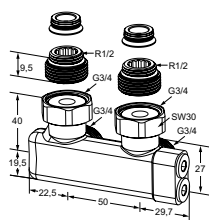
Ø Pipe	Article No
16x2	1331-16.351
18x2	1331-18.351



### Double rosette

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

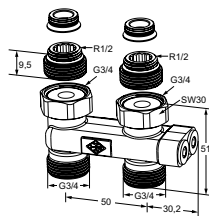
EAN	Article No
4024052120710	0520-00.093



### Deflector piece, angle

for exchanged supply and return,  
Connection for Rp 1/2 and G 3/4,  
flat sealing, with shut-off, for two-pipe  
systems, to prevent connection ducts  
from intersecting. Nickel-plated brass.

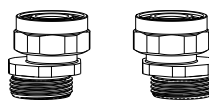
Connection	EAN	Article No
G3/4 / R1/2	4024052835010	0541-50.000



### Deflector piece, straight

for exchanged supply and return,  
Connection for Rp 1/2 and G 3/4,  
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.  
Brass nickel-plated.

	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



### Double nipple

Brass, interior hex, self sealing.  
For connection with Vekolux, Vekotec  
and Multilux to radiators with Rp 1/2  
female thread.

Model	EAN	Article No
Flat sealing R 1/2 x G 3/4	4024052523412	0550-22.350