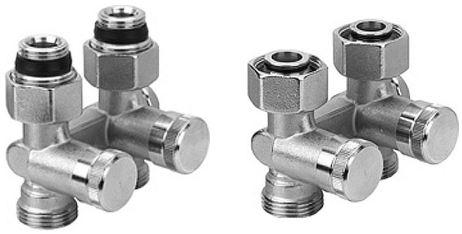
Data Sheet

H-Piece Valves, Type RLV-K, for Valve Radiators in One- and Two-Pipe Systems

Application



RLV-K straight,
radiator connection G ½ and G ¾ A

RLV-K angle,
radiator connection G ½ and G ¾ A

By means of the H-piece valve type RLV-K, every valve radiator with a centre distance between the connections of 50 mm can be blocked individually, e.g. in order to carry out trouble-free maintenance without affecting other parts of the system.

H-piece valve type RLV-K is nickel plated and is available in straight and angle versions. Special adapters ensure that the H-piece valve can be used both for radiators with an internal thread of G ½ and with an external thread of G ¾ A. All adapters are self-sealing.

RLV-K is factory set for two-pipe operation. By adjusting the bypass spindle RLV-K can easily be changed to one-pipe system operation.

By adjusting the bypass spindle the radiator share can be set to desired value.

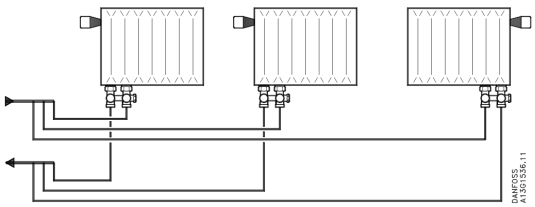
A fill and drain tap is available as an accessory to RLV-K.

Connection to copper, soft steel, PEX and Alupex pipes is made with Danfoss compression fittings. See separate data sheet.

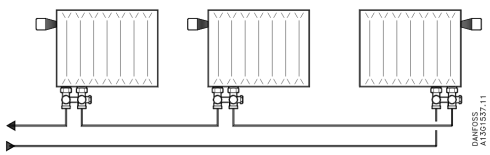
In order to avoid deposition and corrosion, the composition of the hot water should be in accordance with the VDI 2035 guideline (Verein Deutscher Ingenieure).

System

Two-pipe system



One-pipe system



Data and Ordering

Type	Version	Connection		Max. operation pressure	Test pressure	Max. water temperature	Code no.
		Radiator	System				
RLV-K	Angle	G ½ A	G ¾ A	10 bar	16 bar	120 °C	003L0282
	Straight						003L0280
	Angle	G ¾ A	G ¾ A				003L0283
	Straight						003L0281

Accessories

Product	Code no.
Fill and drain tap without nickel plating, with ¾" external thread and hose nozzle	003L0152
Adapter incl. seal for valve radiator with G ¾ A external thread, pack of 20 pcs.	003L0292
Self-sealing connection piece for valve radiator with G ½ internal thread, pack of 20 pcs.	003L0295

Capacity in Two-Pipe Systems

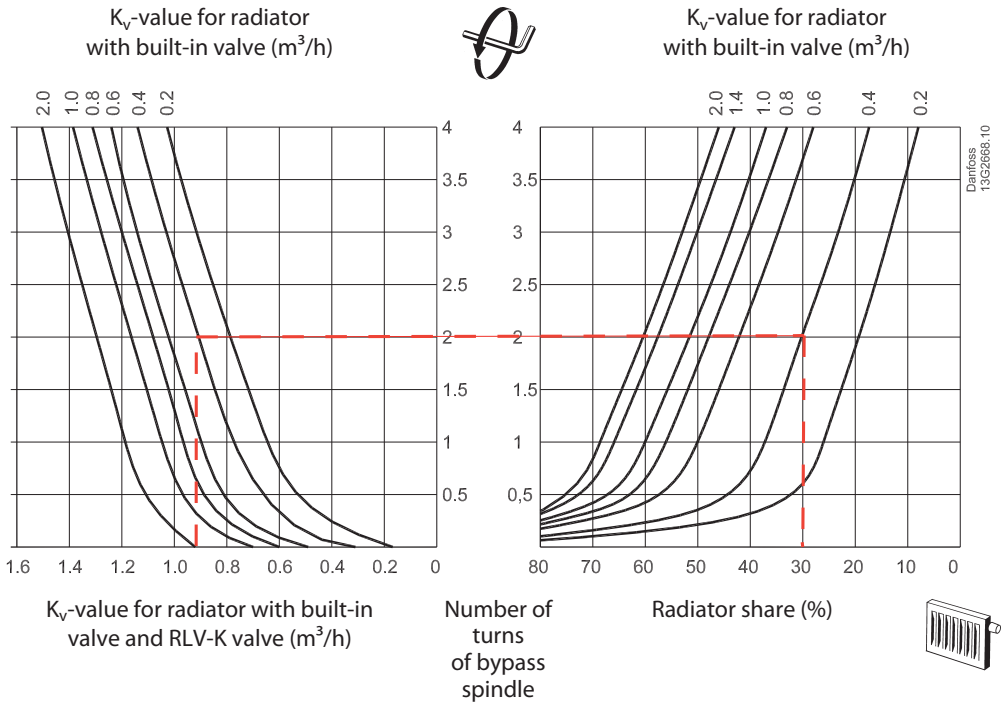
Valve	K_{vs}-value [1] (m^3/h)	K_v-value [2] (m^3/h)
RLV-K	1.4	0.7

Factory setting for RLV-K is two-pipe operation. This means the radiator share is 100%.

1) *The k_{vs}-value states the flow volume (Q) through the RLV-K on its own, with the RLV-K in factory setting.*

2) *The k_v-value is the flow volume (Q) through the RLV-K valve in combination with a Danfoss RTD-N built-in valve with $k_v = 0.78\ m^3/h$ at $X_p = 2$ K.*

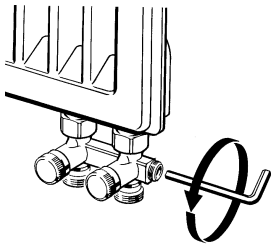
Capacity and Bypass Setting in One-Pipe Systems



From the factory RLV-K is set for two-pipe operation, which means the bypass is closed.

Changeover to one-pipe operation is done by opening the bypass spindle. See below.

Desired flow and radiator share is set using the bypass spindle.



Example:
Bypass setting for correct radiator share

Given:
K_v-value for radiator with thermostatic valve:
0.4 (m^3/h)
Desired radiator share: 30%

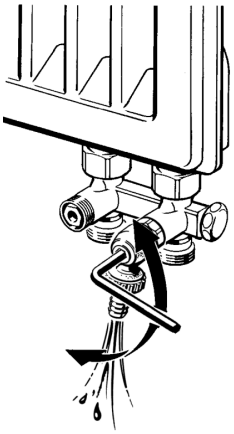
Solution:
Right graph shows that bypass spindle must be turned 2 turns. Left graph shows the total kv of radiator with built-in valve and RLV-K valve.

Draining of the Radiator

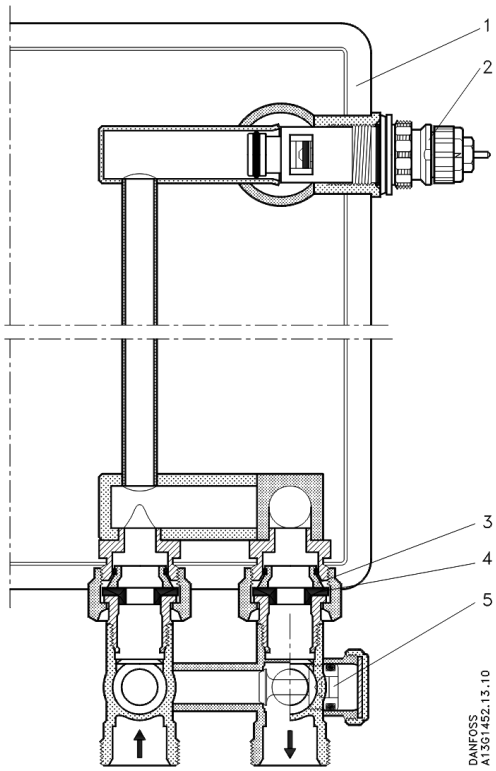
To drain the radiator, first unscrew the cover caps. Then shut-off inlet and return.

When the drain tap has been mounted, open valve outlet by turning the Allen screw as shown.

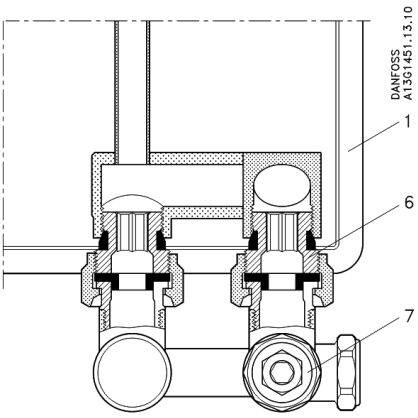
The hose nozzle can rotate freely in any direction.



Design



1. Valve radiator
2. Integrated valve
3. Adapter
4. Seal
5. Bypass-spindle
6. Self-sealing adapter
7. Blocking/drainage

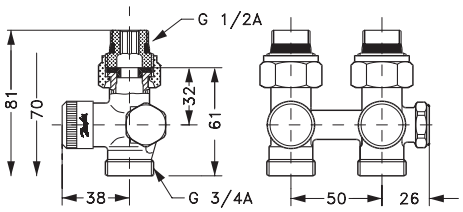


Materials in contact with water

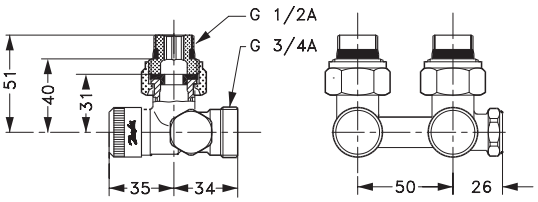
Valve body and other metal parts	Ms 58
O-ring	EPDM

Dimensions

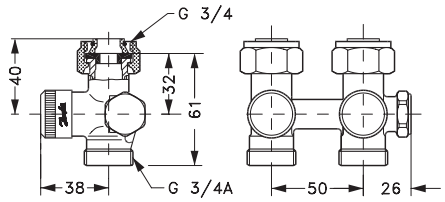
RLV-K straight, G 1/2 radiator connections



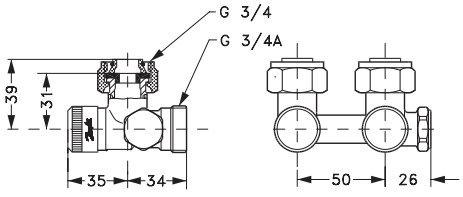
RLV-K angle, G 1/2 radiator connections



RLV-K straight, G 3/4 radiator connections



RLV-K angle, G 3/4 radiator connections



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