

Data Sheet

RLV-KDV H-Piece for Valve Radiators - Blockable and Drainable, with integrated differential pressure control

Application



The valve has an integrated differential pressure control, that ensures constant pressure over the radiator valve. The flow adjustment presetting is done on the radiator valve. Based on constant pressure.

It is available in Straight, Right / Left, and Angle, Right / Left, versions, with centre distance of 50 mm. Self sealing connection pieces ensure that RLV-KDV can be used both for radiators with an internal thread of G 1/2 and with an external thread of G 3/4 A.

RLV-KDV is a combined H-piece and lockshield valve for valve radiators in two-pipe systems. With RLV-KDV every radiator in the system is working under defined pressure conditions and ensures constant differential pressure over the radiator in full and partial load.

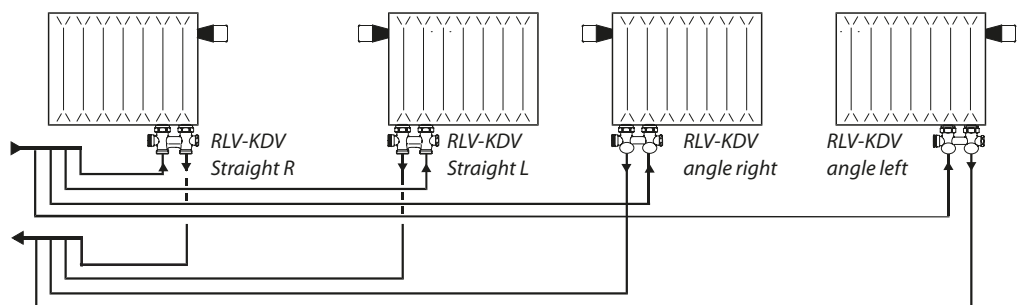
A fill and drain tap is available as an accessory. Connection to copper, soft steel, PEX and Alupex pipes is made with Danfoss compression fittings. See separate datasheet.

As a result the heating system is self balancing and working on optimal conditions in full and partial demand. This is reducing the return temperature, saves energy and prevents claims due to noise in the radiator.

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

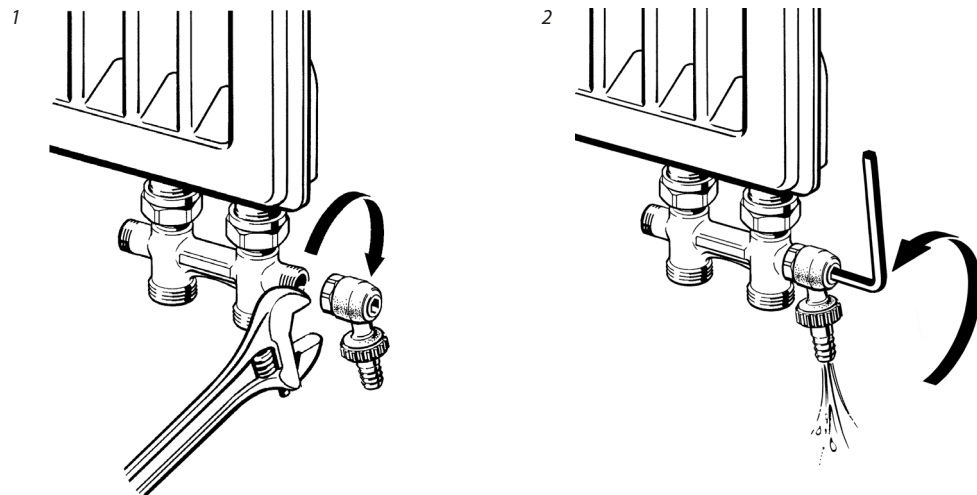
Two-pipe system with valve radiators, typical connection types.



Ordering and data

Type	Version	Connection		Max. operation pressure	Test pressure	Max. water temp.	Flow Max over RLV-KDV	Code no.
		Radiator	System					
RLV-KDV with constant differential pressure control	Straight R & L	G 1/2	G 3/4 A	10 bar	16 bar	95 °C	210 l/h	013G7870
	Angle Right							013G7871
	Angle Left							013G7872
	Straight R & L	G 3/4	G 3/4 A					013G7873
	Angle Right							013G7874
	Angle Left							013G7875

Draining the radiator

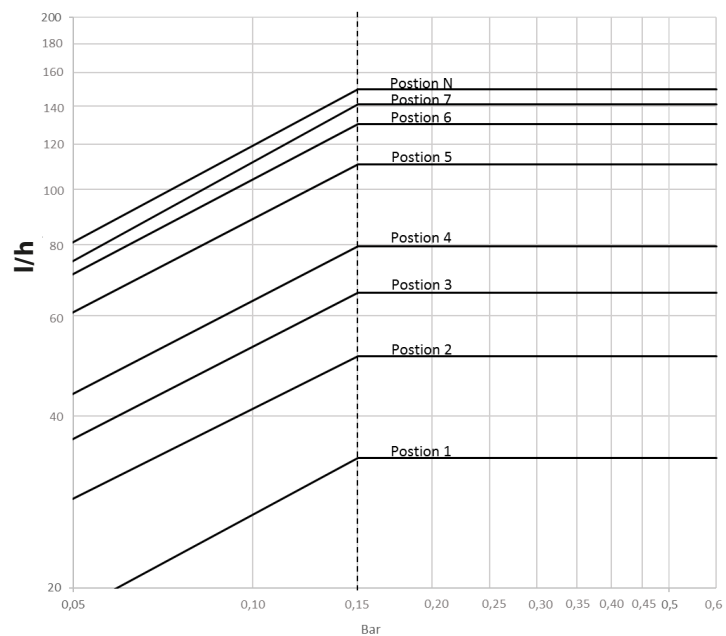


To drain the radiator, first unscrew the cover caps. Then shut off the inlet and return flow.

When the drain tap has been mounted (1), open by turning the Allen key (2).

Capacities

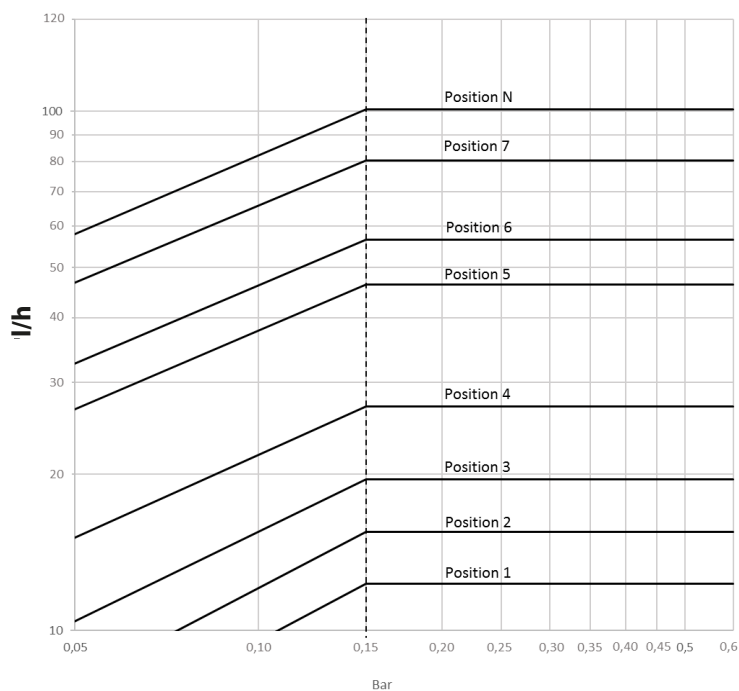
RA-N									KVS
Presetting	1	2	3	4	5	6	7	N	N
Value xp2	0.14	0.21	0.26	0.32	0.46	0.59	0.73	0.87	1.05
l/h	34	51	66	79	110	130	141	150	158



(Capacities based on radiator type: 2 plated side connection 600x1000)

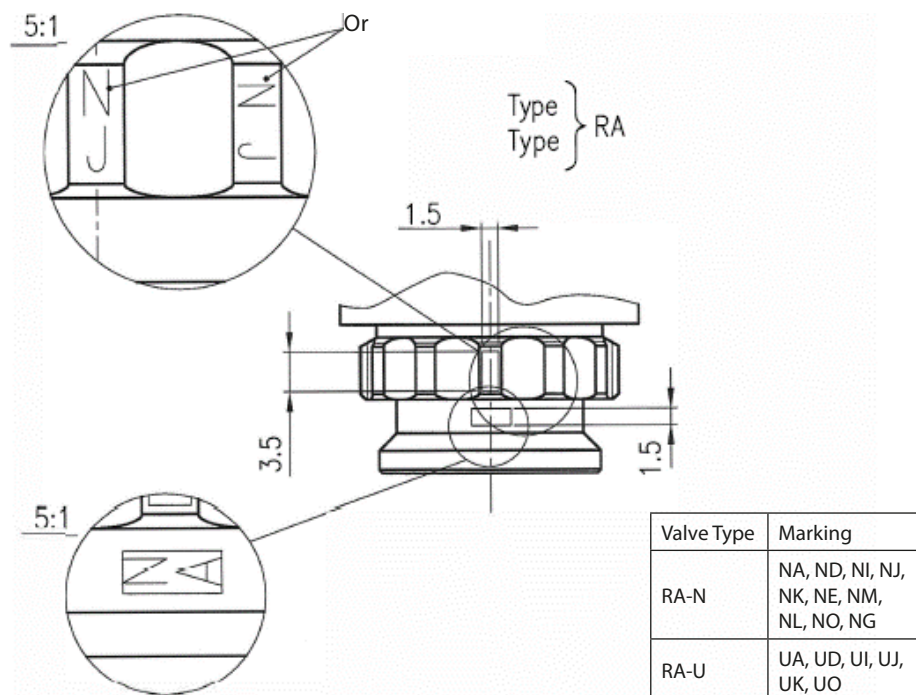
Capacities

RA-U									KVS
Presetting	1	2	3	4	5	6	7	N	N
Value xp2	0.04	0.05	0.07	0.09	0.13	0.18	0.24	0.34	0.55
l/h	13	16	17	28	49	59	85	106	114



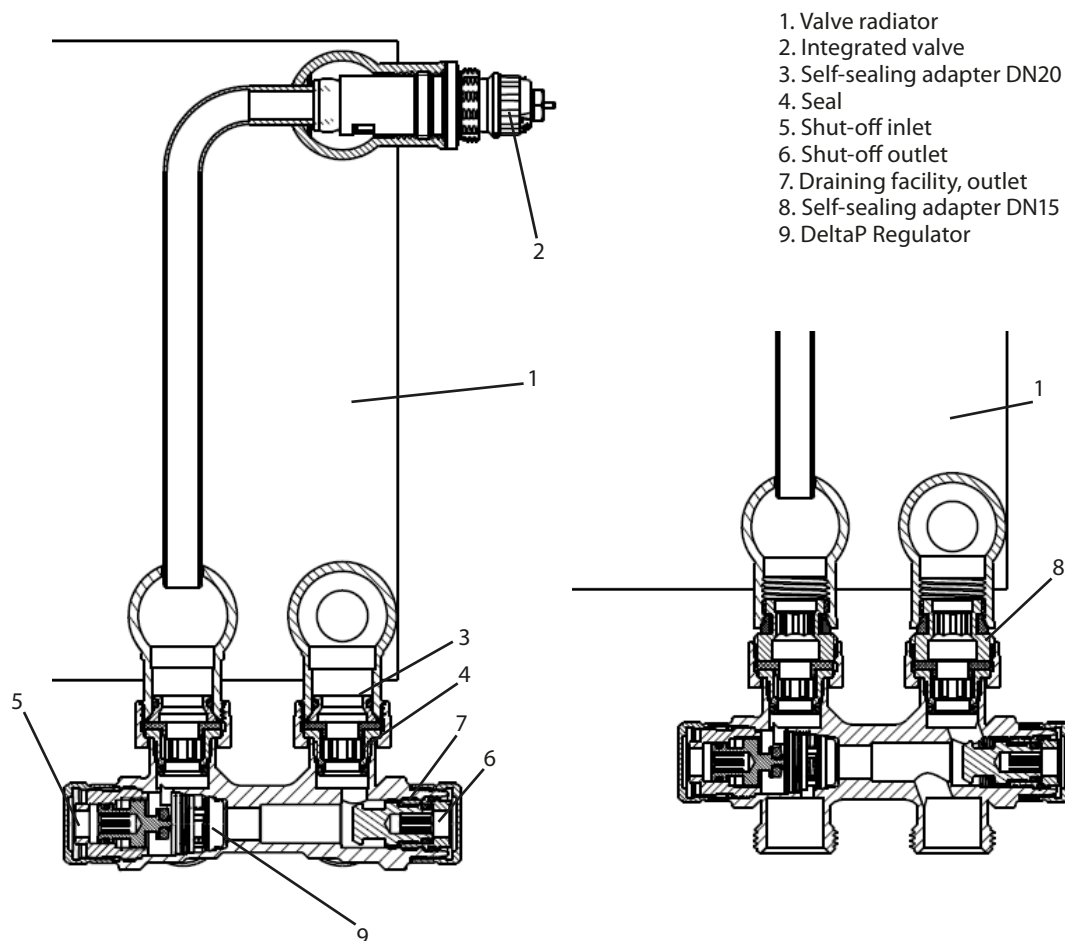
(Capacities based on radiator type: 2 plated side connection 600x1000)

Danfoss valve marking



- Danfoss build-in valves:**
- To identify the existing Danfoss build-in valves use the schedule "Valve type / marking" or see radiator manufacturer datasheet
- Renovation with Danfoss:**
- installation valves valve type can be found using the form valve marking then find pre-setting by schedule for the valve to go in with the required flow for the radiator
- Build-in valves from other manufacturers:**
- Find the kv-value in the Danfoss built in valve chart schedule and set the same kv value on the 3rd party build in valve.




Design



- 1. Valve radiator
- 2. Integrated valve
- 3. Self-sealing adapter DN20
- 4. Seal
- 5. Shut-off inlet
- 6. Shut-off outlet
- 7. Draining facility, outlet
- 8. Self-sealing adapter DN15
- 9. DeltaP Regulator

Materials in contact with water	
Valve body and other brass parts	MS58
Spring	SS EN 10270-3
Membrane	EPDM
O-rings	EPDM/NBR
Valve plate	NBR
Washer	CW452K
Seal	EPDM

Accessories

Product	Code no.
 Fill and drain tap without nickel plating, with 3/4" external thread and hose nozzle	003L0152
 Self-sealing connection nipple for valve radiator with G 1/2 internal thread	003L0249
 Δp tool for pump optimization	013G7855
Δp Controller (Sparepart)	013G7869

Dimensions

Radiator Connection	Version			Code no.
G $\frac{1}{2}$	Staight R & L			013G7870
	Angle Right			013G7871
	Angle Left			013G7872
G $\frac{3}{4}$	Staight R & L			013G7873
	Angle Right			013G7874
	Angle Left			013G7875
	Access			