

- The RVT thermostatically controlled radiator valve is intended for use with 2-pipe pump-circulated hot water systems and is very effective in keeping the room temperature at a constant value and saving energy.
- On delivery the valve is provided with a plastic protecting cap by means of which the valve can be controlled by hand until the thermostat is fitted. If there is to be a long period of hand control before fitting of the thermostat unit, handwheel 50 399—001 is recommended.
- The RVT has a valve body of die cast AMETAL® with bonnet of brass and spindle of stainless steel. Spindle sealing is by means of an O-ring which can be replaced if necessary without having to drain off the system.
- The sensing element, which is in the upper part of the handwheel contains an expansion medium consisting of wax and pulverised copper. The thermostat acts on the valve cone which regulates the water flow and thereby the heat given off by the radiator. All parts between the valve body and sensing element are made of heat-insulating material and are well ventilated to prevent heat from the valve affecting the sensing element.
- The desired temperature is set with the handwheel, the scale of which is marked 1—5. Alteration of the temperature is made by turning the handwheel towards the (5) or (—) positions. The temperature range can be limited to a maximum or minimum. The valve can also be locked at the desired temperature to prevent unauthorised adjustment.

Type	TA.No
Valve body, straight (RVT 58)	75 321
Valve body, angled (RVT 57)	75 323
Valve body, reverse angle for horizontal head (RVT 59)	75 324
Thermostat unit, fixed sensor (RVT 50)	75 341
Thermostat unit, remote sensor (RVT 60)	75 342
Thermostat unit, remote head (RVT 90)	75 346
Handwheel (RVT 55)	50 399
Straight union	50 701
Bent union	50 702

All types of RVT valves can be connected to smooth tubes by means of the KOMBI compression coupling.

The KOMBI compression coupling consists of a thrust screw and cone. A support sleeve must be used. For further information, see the KOMBI sheets under section 4.

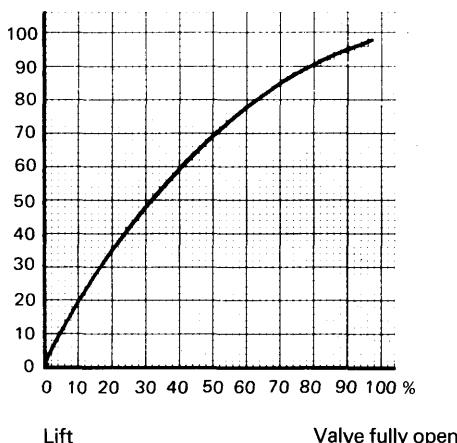
For connecting dimensions, see the following pages.

TECHNICAL DESCRIPTION — THERMOSTATICALLY CONTROLLED RADIATOR VALVE RVT

Applications:	Heating installations, 2 pipe systems with pumped circulation.
Nominal range of temperature:	8–24° C (46–75° F)
Max. pressure:	1.0 MPa = 10 bar ≈ 140 psi
Max. differential pressure:	5 mWG ≈ 50 kPa = 0.5 bar (7.1 lbf/in ²) With very small water quantities, e.g. when a thermostatically regulated valve is close to the shut-off position, a higher pressure drop is acceptable, but not more than 20 m (66 ft) water column.
Max. working temperature:	+120° C. (The thermostatic head may not be affected to a higher temperature than +50° C (122° F) or lower than –15° C (59° F).
Dead time:	1.3 ± 0.1 min
Time constant:	26.5 ± 0.3 min
Hysteresis:	0.6 ± 0.05° C
The sensibility of differential pressure:	< 0.004° C/kPa
Heat conduct:	$\Delta t_{20-65} \approx 0.7^{\circ}\text{C}$
The approx temperature of the set points:	 — 1 — 2 — 3 — 4 — 5 ca 8 14 18 21 24° C
Surface treatment:	Nickel-plated
Length of capillary tube:	2 m, 5 m or 8 m. Applicable for valves with separate sensing element.
Packing:	The valves are packed in cardboard boxes according to packing list.

The valve characteristic

Capacity %



Marking

Thermostatic head

1. The control mark of the Swedish Board of Urban Planning on the flat top of the handwheel.
 2. The French control mark Norm de France on the flat top of the handwheel.
 3. Date of manufacturing eg 7914 (ie 1979 w 14)

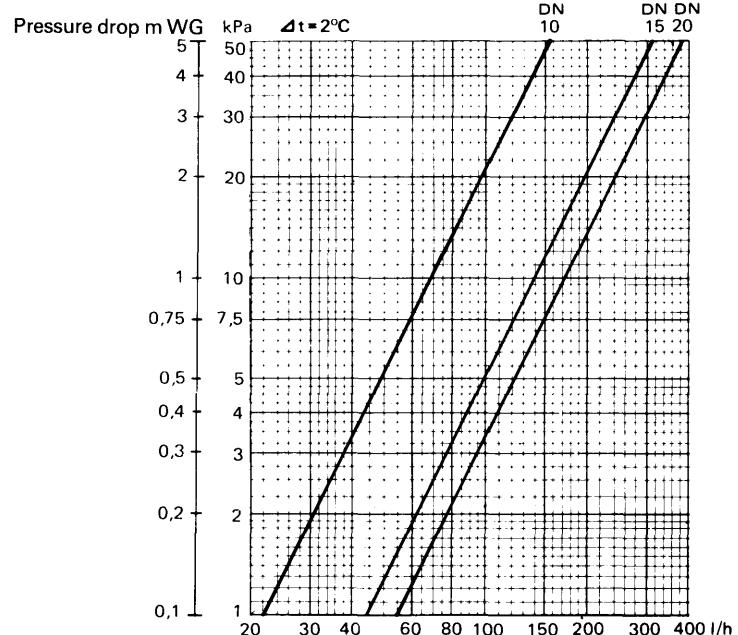


Valve body

1. Cast: Flow direction arrow
 2. Punched: (ky-value) and date of manufacture

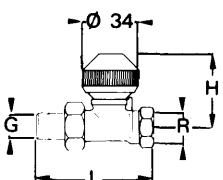
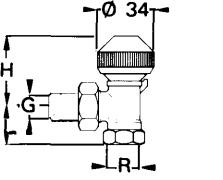
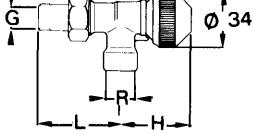
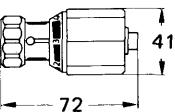
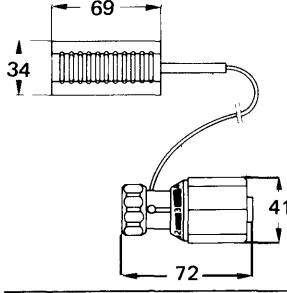
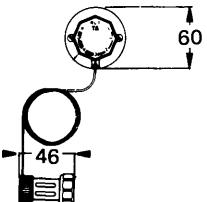
Pressure drop graph

The lines give the pressure drop at a temperature deviation of 2°C = nominal lift



Nominal lift will be adjusted with the protection cap in the following manner:

1. Close the valve
 2. Open it slowly till the moment when the heat first is faintly recognized.
 3. Then open it two graduations more.
The valve coefficient k_v at the nominal lift: size 3/8 = 0.22 size 1/2 = 0.45 size 3/4 = 0.55.

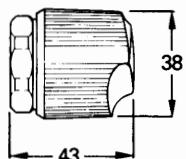
	TA.No	Conn. DN	L	H	R	G	Weight kg
75 321 (RVT 58) Valve body straight	75 321-110 -115 -120	10 15 20	75 88 102	49 50 51	3/8 1/2 3/4	M22x1,5 M26x1,5 M34x1,5	0.21 0.30 0.42
							
75 323 (RVT 57) Valve body, angle	75 323-110 -115 -120	10 15 20	46 54 63	49 50 51	3/8 1/2 3/4	M22x1,5 M26x1,5 M34x1,5	0.21 0.27 0.39
							
75 324 (RVT 59) Valve body, reverse angle for horizontal head	75 324-110 -115 -120	10 15 20	47 56 65	45 49 52	3/8 1/2 3/4	M22x1,5 M26x1,5 M34x1,5	0.21 0.28 0.40
							
75 341 (RVT 50) Thermostat head, fixed sensor	75 341-601 -620* -621* -622*					8-24° (46-75° F) max 20° C (68° F) max 21° C (70° F) max 22° C (72° F)	0.12 0.12 0.12 0.12
							
75 342 (RVT 60) Thermostat unit, remote sensor	75 342-001 -020* -021* -022* -051 -081					Length for capillary tube	
						8-24° (46-75° F) 2 m max 20° C (68° F) 2 m max 21° C (70° F) 2 m max 22° C (72° F) 2 m 8-24° C (46-75° F) 5 m 8-24° C (46-75° F) 8 m	0.25 0.25 0.25 0.25 0.25 0.25
75 346 (RVT 90) Thermostat unit, remote head	75 346-001 -051 -081					8-24° C (46-75° F) 2 m 8-24° C (46-75° F) 5 m 8-24° C (46-75° F) 8 m	0.25 0.25 0.25
							

*Thermostat units with max. limitation to other temperatures can be supplied to special order.

**50 399 (RVT 55)
Handwheel**

TA.No.

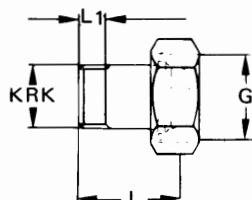
50 399-001



Weight 0.02 kg

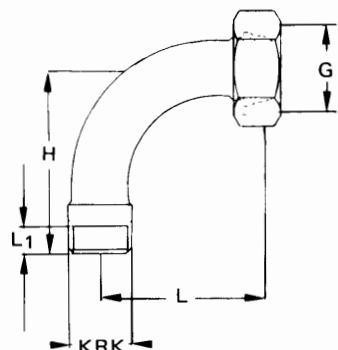
**50 701
Straight union**

TA.No	Conn. DN	L	L ₁	H	KRK	G	Weight kg
50 701-110	10	25	8	—	3/8	M22x1,5	0.05
—115	15	30	10	—	1/2	M26x1,5	0.09
—120	20	34	11	—	3/4	M34x1,5	0.14



**50 702
Bent union**

50 702-110	10	44	8	48	3/8	M22x1,5	0.11
—115	15	46	10	56	1/2	M26x1,5	0.15
—120	20	51	11	65	3/4	M34x1,5	0.24



All valves can be connected to smooth tubes by means of KOMBI compression couplings

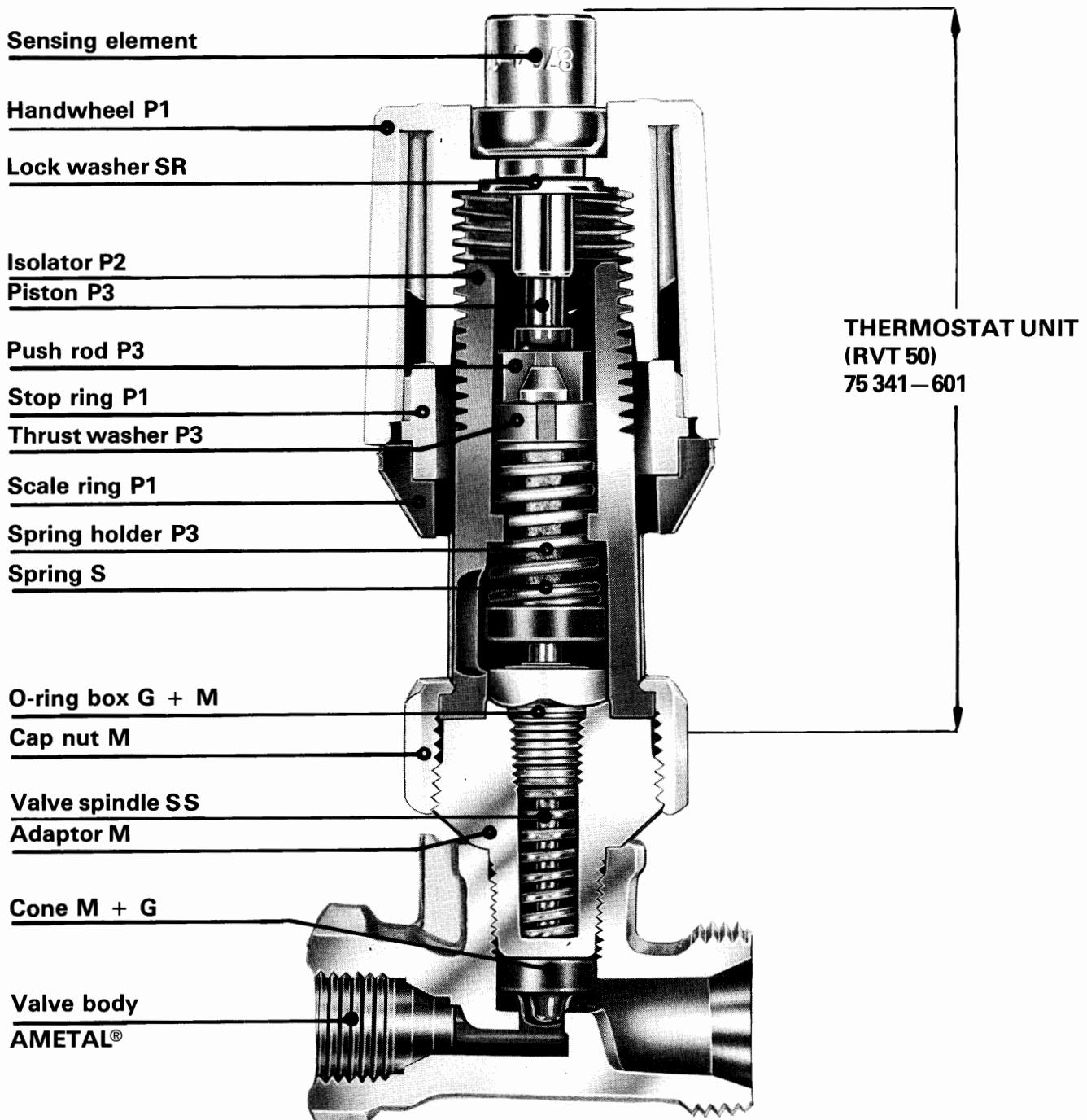
R = Cylindrical pipe thread
KRK = Short tapered pipe thread

Connection R	Pipe (mm)
3/8"	8, 10, 12
1/2"	8, 10, 12, 15, 16
3/4"	15, 16, 18, 22

KOMBI is to be ordered separately.

When ordering, specify article number of KOMBI coupling (58 235), connection R and pipe (mm).

Example: 53 235-10x8. Further information concerning KOMBI couplings can be found under section 4.



Material:

M = Brass

P1 = ABS-Plastic

P2 = Glassfibre reinforced Nylon

P3 = Glassfibre reinforced Norylplastic

G = Rubber

S = Steel

SS = Steel Stainless

