Climate
Control

IMI TA

RADIETT, RENOVETT

Thermostatic valves with radiator connection system

One-pipe (convertible to two-pipe)

Breakthrough
engineering for
a better world

RADIETT, RENOVETT

The RADIETT-S/U and renovation valve RENOVETT valve delivers optimum balancing and room temperature control functionality. The valves are available with one-pipe function, with possibility to convert to two-pipe function.

Key features

Presetting
Ensures accurate balancing with a simple allen key operation.

PTFE coated spindle
Eliminates sticking, making for trouble-free operation and simpler maintenance.

Shut-off function
For easy maintenance.

Technical description

Application:
Heating systems.
RADIETT: For new installations
RENOVETT: For renovation

Functions:
Regulating
Presetting
Shut-off
Convertible to two-pipe

Pressure class:
PN 10

Max differential pressure:
100 kPa = 1 bar

The maximum recommended pressure drop in order to avoid noise:
3 mVp = 30 kPa = 0.3 bar (for all valves and sizes)

Temperature:
Max working temperature: 120°C

Material:
Valve body: Brass
Valve disc: Brass
Upper part of spindle is PTFE-coated.

Surface treatment:
Nickel-plated

Marking:
TA, RADIETT or R-ETT and flow direction arrows.

Connection to thermostatic head:
M30x1,5

Installation

Notes
– 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.

– Flush the system before changing thermostatic valves in heavy polluted existing systems.

– The thermostatic valve bodies can be used with all IMI Heimeier thermostatic heads and IMI Heimeier or IMI TA thermal actuators or motorized. The optimal tuning of the components guarantees maximum safety. When using actuators from other manufacturers, make sure that the pressure power is appropriate for thermostatic valve bodies with soft sealing valve discs.

One-pipe or two-pipe function

Bottom-entry valves
The plug beneath the adjusting head indicates whether the valve is set for one-pipe or two-pipe connection.
One-pipe: The plug is nickel-plated.
Two-pipe: The plug is untreated (yellow).

Side-entry valves
One-pipe: The inner spindle fully open (anti-clockwise until stop).
Two-pipe: The inner spindle fully closed (clockwise until stop).

Changeover one-pipe / two-pipe

To convert a **side-entry** valve to a two-pipe arrangement, remove the valve cover and use a 2,5 mm Allen key to close the inner spindle fully (= turn clockwise).
Screwing the inner spindle fully anti-clockwise will make the valve operate as a one-pipe valve. This changeover can be carried out with the valve in operation.

Bottom-entry one-pipe valves can be changed to two-pipe connection by replacing the one-pipe plug by a Article No 50 670-008 two-pipe plug (see Accessories).

Note: Bottom-entry valves cannot be converted while in operation.

Presetting, one-pipe systems

General
The valve can be preset and can also be used as a radiator shut-off valve.

Adjustable flow to the radiator
In order to control heat emission in each room, the RADIETT series of valves incorporate individually presettable flow distribution to the radiator, capable of providing 0-50 % adjustment. Temporary excess heat is controlled by the thermostat.

The valves can be preset to different Kv values. Preset the valves as follows:

Bottom entry valves
Remove the cover and close the spindle. Then open the spindle through the number of turns needed to give the required preset and replace the cover.

Side entry valves
Remove the cover and close the outer spindle (allen key 4 mm). Then open the spindle through the number of turns needed to give the required preset and replace the cover.

Adjustment tool:
RADIETT-U:
Allen key 4 mm.
RADIETT-S:
Inner spindle: Allen key 2,5 mm.
Outer spindle: Allen key 4 mm.

Presetting, two-pipe systems

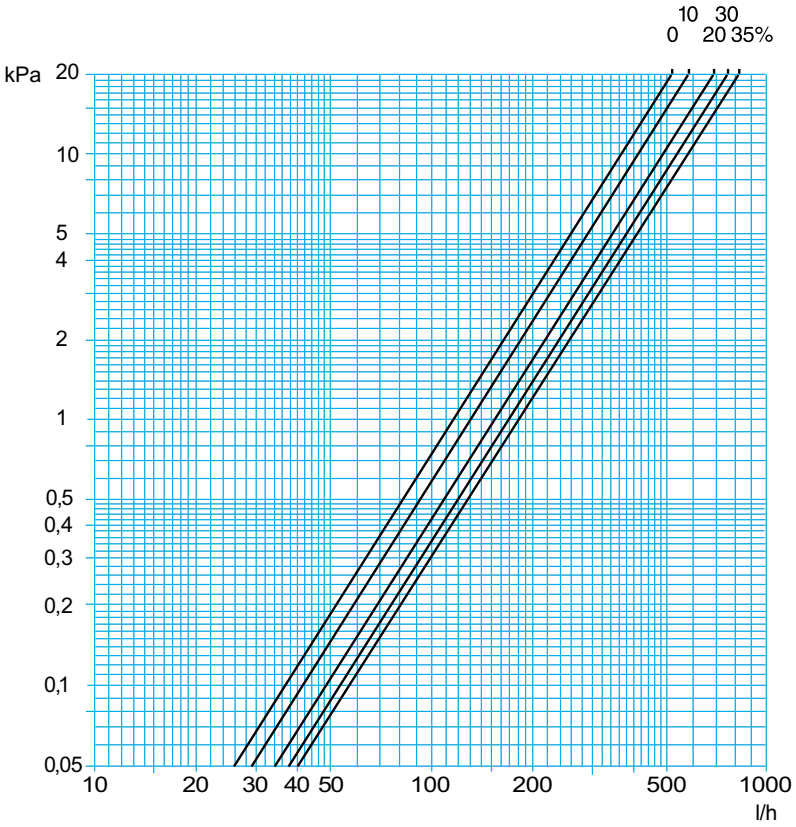
General
The valve can be preset and can also be used as a radiator shut-off valve.
The valves can be preset to different Kv values. Preset the valves as follows:

Bottom entry valves
Remove the cover and close the spindle. Then open the spindle through the number of turns needed to give the required preset and replace the cover.

Side entry valves
Remove the cover and close the outer spindle (allen key 4 mm). Then open the spindle through the number of turns needed to give the required preset and replace the cover.

Adjustment tool:
RADIETT-U:
Allen key 4 mm.
RADIETT-S:
Inner spindle: Allen key 2,5 mm.
Outer spindle: Allen key 4 mm.

Diagram RADIETT-U/RENOVETT-U, one-pipe / Thermostatic controlled



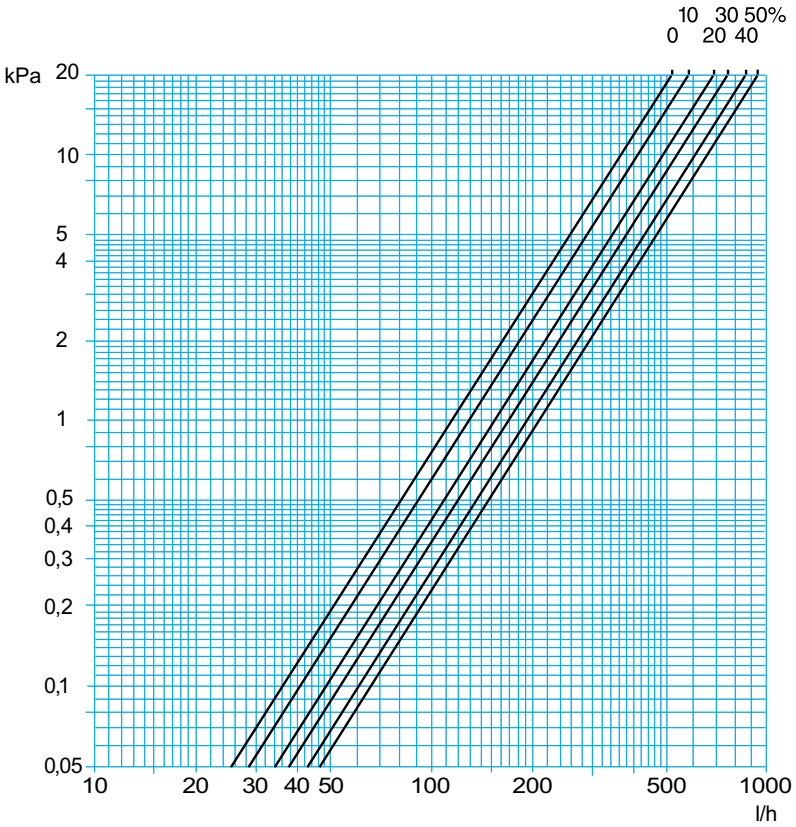
Delivery setting 35% to radiator.

% flow to radiator	KvΔT2K	No of turns
0	1,15	**)
10	1,3	1
20	1,55	2,5
30	1,7	4
35	1,8	*)

*) Fully open
**) Closed

Diagram RADIETT-U/RENOVETT-U, one-pipe / Hand controlled

On/off regulation with thermo actuator EMO T.

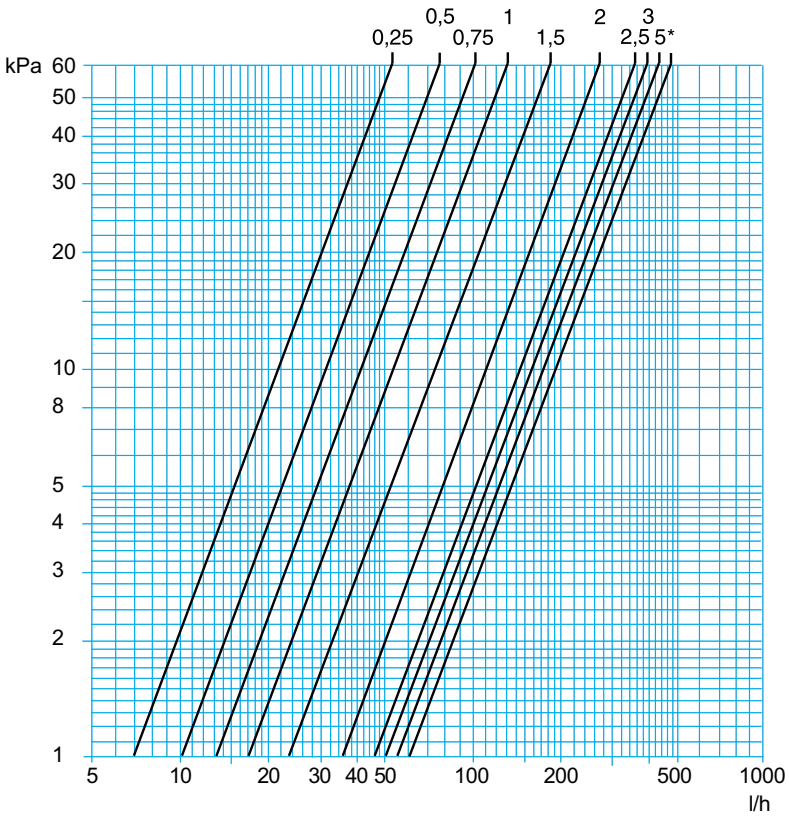


Delivery setting 50% to radiator.

% flow to radiator	Kv	No of turns
0	1,15	**)
10	1,3	1
20	1,55	2
30	1,7	2,75
40	1,95	4
50	2,1	*)

*) Fully open
**) Closed

Diagram RADIETT-U/RENOVETT-U, two-pipe / Thermostatic controlled

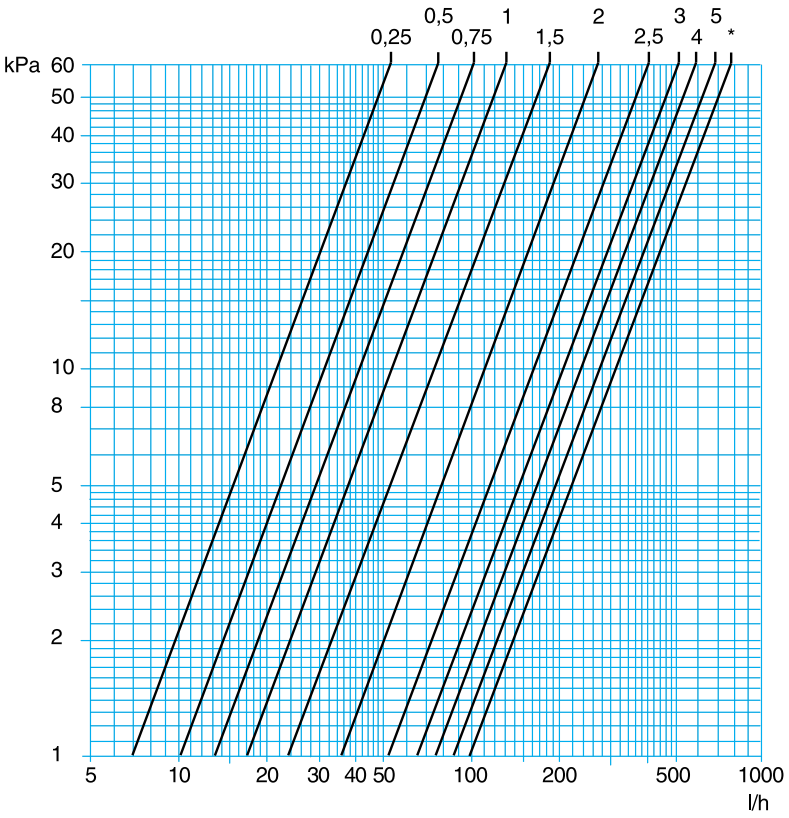


Delivery setting *) = Fully open.

Number of turns	KvΔT2K
0,25	0,07
0,5	0,1
0,75	0,13
1	0,17
1,5	0,23
2	0,35
2,5	0,46
3	0,5
5	0,56
*)	0,6

Diagram RADIETT-U/RENOVETT-U, two-pipe / Hand controlled

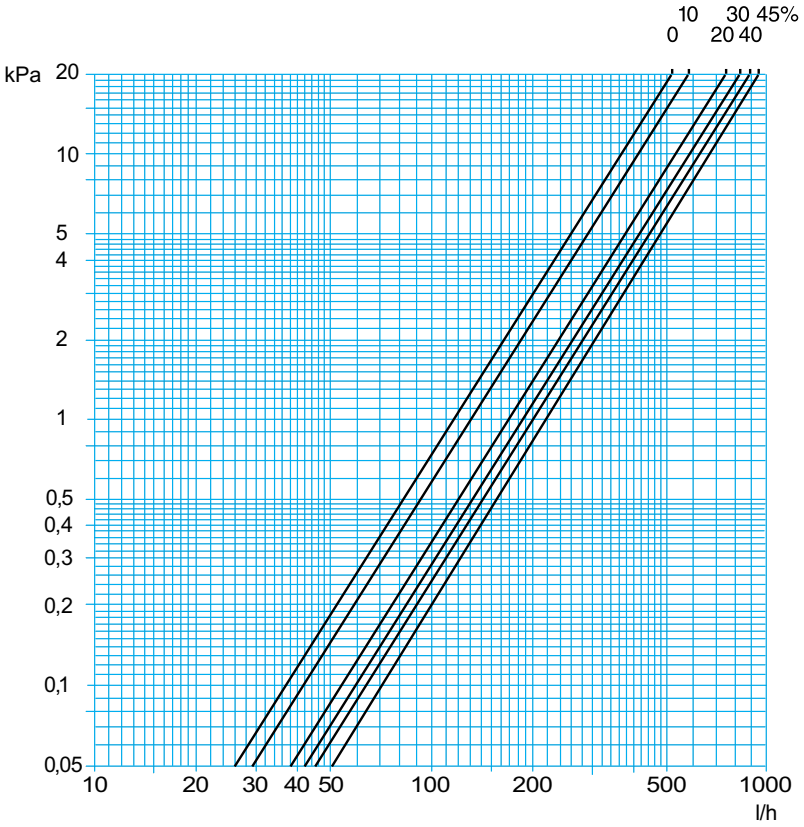
On/off regulation with thermo actuator EMO T.



Delivery setting *) = Fully open.

Number of turns	Kv
0,25	0,07
0,5	0,1
0,75	0,13
1	0,17
1,5	0,23
2	0,35
2,5	0,52
3	0,65
4	0,75
5	0,9
*)	1

Diagram RADIETT-S/RENOVETT-S, one-pipe / Thermostatic controlled



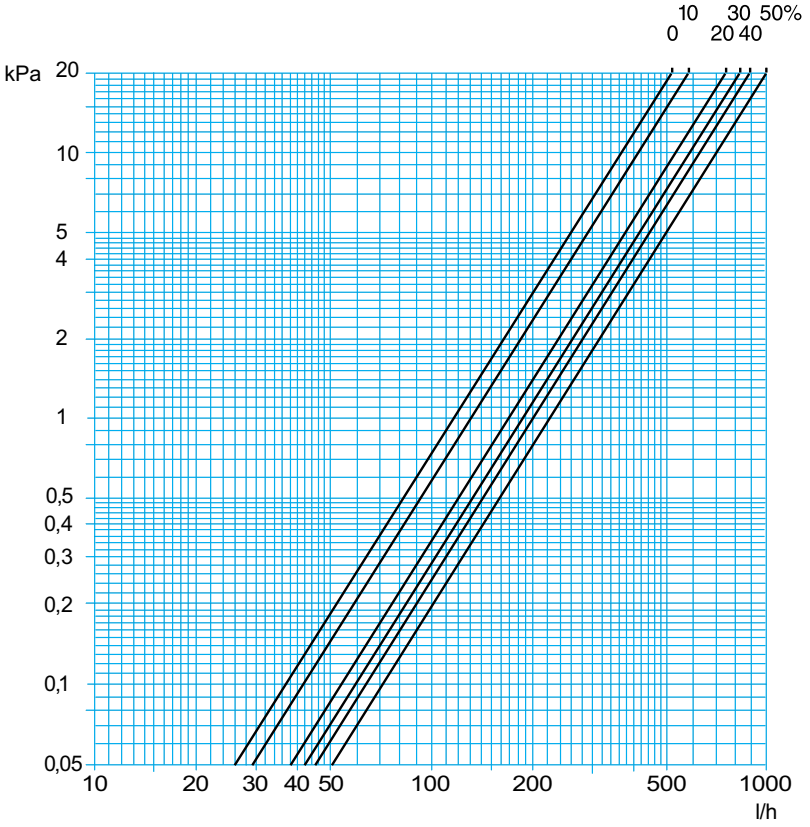
Delivery setting 45% to radiator.

% flow to radiator	KvΔT2K	No of turns
0	1,15	**)
10	1,3	1
20	1,7	2
30	1,85	3
40	2,0	4
45	2,1	*)

*) Fully open
**) Closed

Diagram RADIETT-S/RENOVETT-S, one-pipe / Hand controlled

On/off regulation with thermo actuator EMO T.

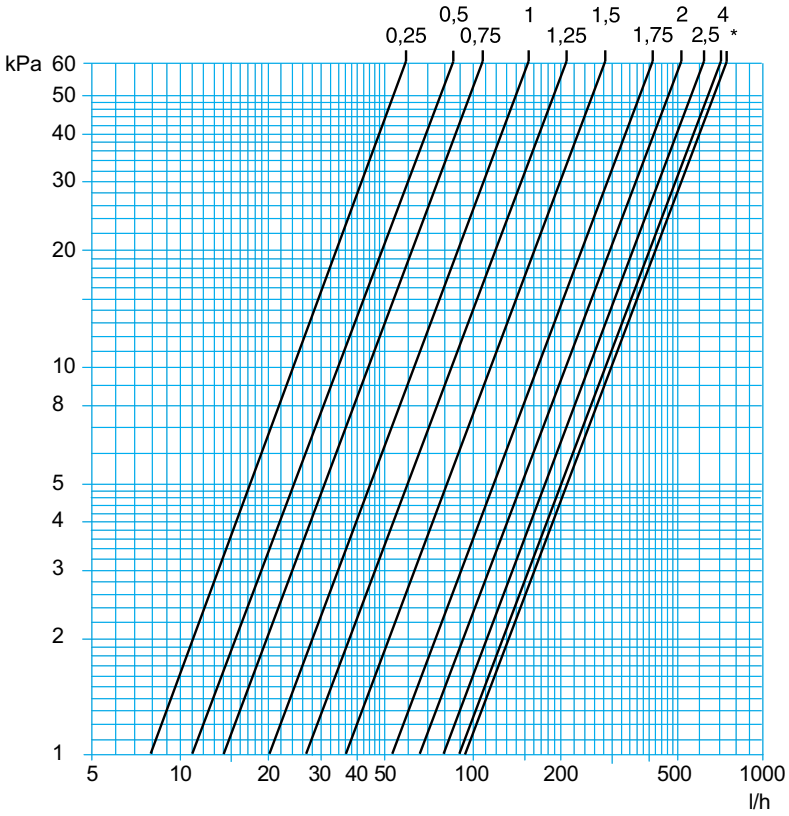


Delivery setting 50% to radiator.

% flow to radiator	Kv	No of turns
0	1,15	**)
10	1,3	1
20	1,7	1,7
30	1,85	2,3
40	2	3
50	2,3	*)

*) Fully open
**) Closed

Diagram RADIETT-S/RENOVETT-S, two-pipe / Thermostatic controlled

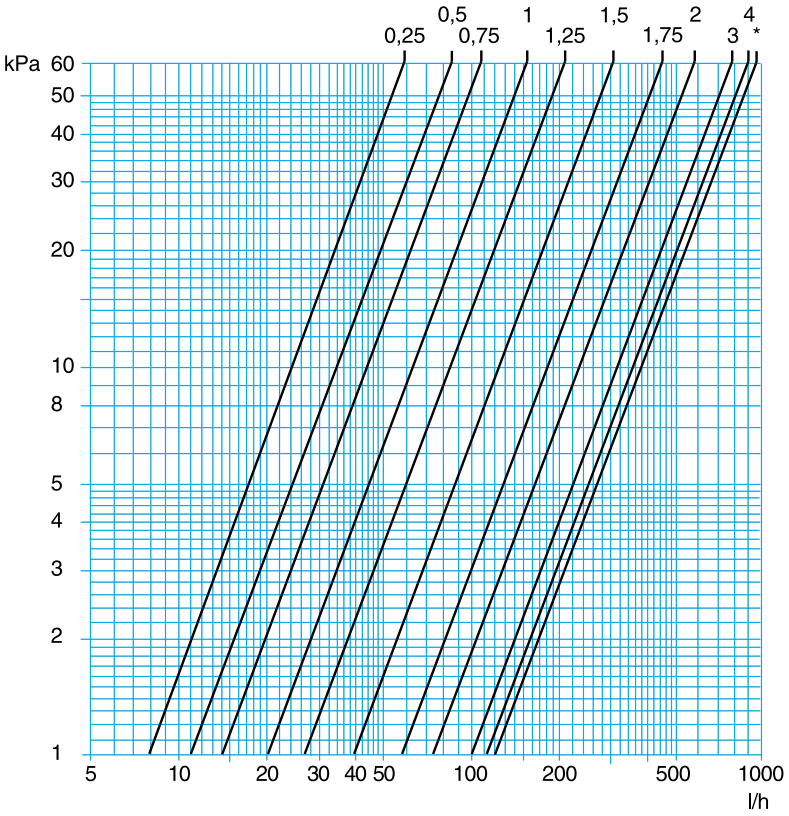


Delivery setting *) = Fully open.

Number of turns	KvΔT2K
0,25	0,08
0,5	0,11
0,75	0,14
1	0,2
1,25	0,27
1,5	0,36
1,75	0,53
2	0,66
2,5	0,8
4	0,9
*)	0,95

Diagram RADIETT-S/RENOVETT-S, two-pipe / Hand controlled

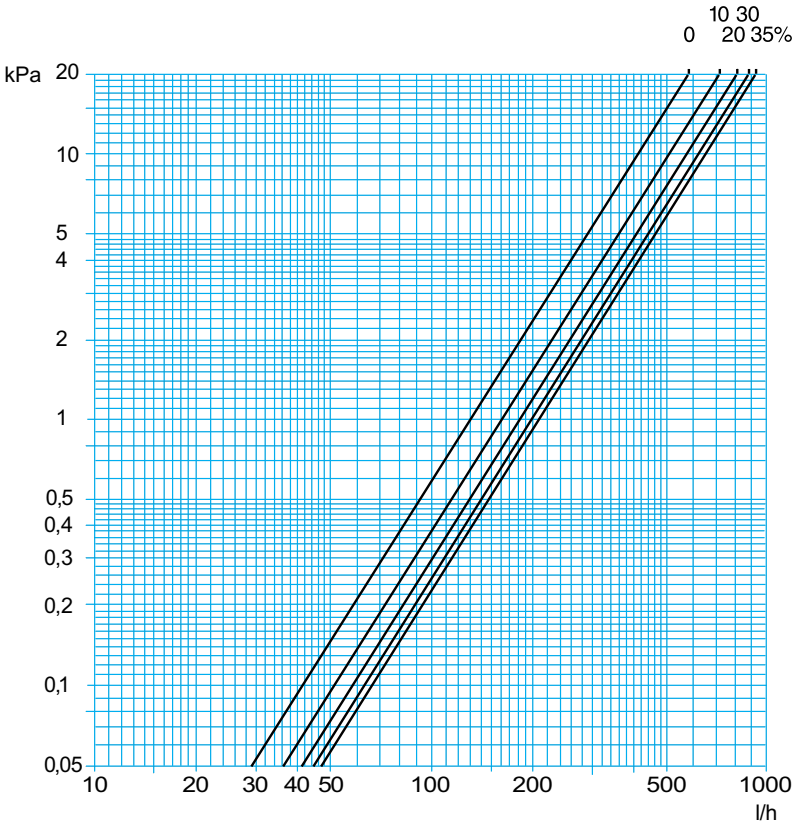
On/off regulation with thermo actuator EMO T.



Delivery setting *) = Fully open.

Number of turns	Kv
0,25	0,08
0,5	0,11
0,75	0,14
1	0,2
1,25	0,27
1,5	0,39
1,75	0,57
2	0,75
3	1
4	1,15
*)	1,25

Diagram RENOVETT-RVES, one-pipe / Thermostatic controlled



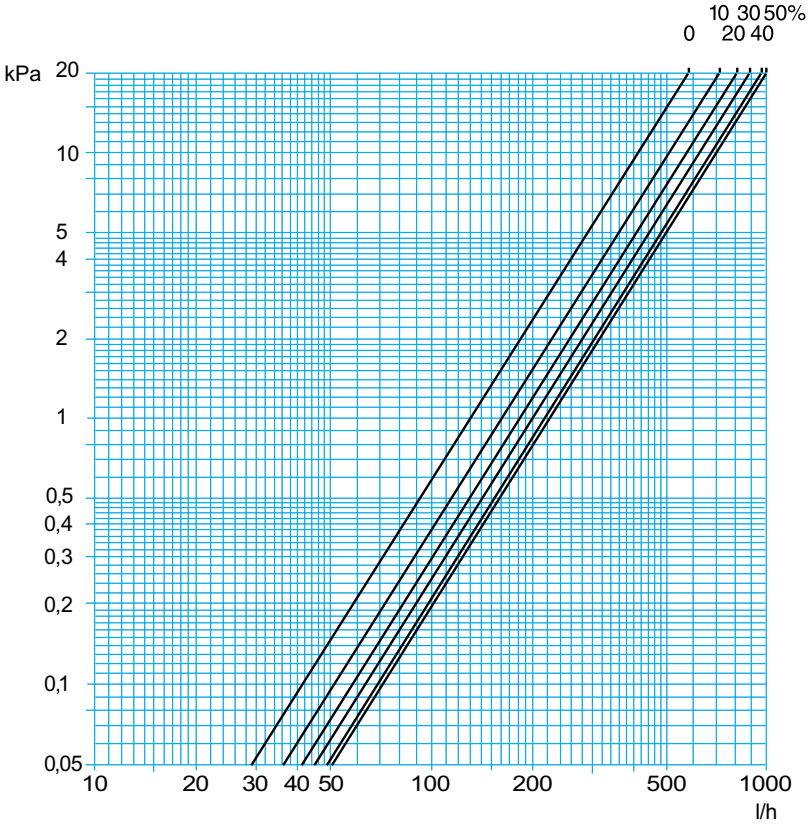
Delivery setting 35% to radiator.

% flow to radiator	KvΔT2K	Number of turns
0	1,3	**)
10	1,6	1
20	1,8	3
30	2	4
35	2,1	*)

*) Fully open
**) Closed

Diagram RENOVETT-RVES, one-pipe / Hand controlled

On/off regulation with thermo actuator EMO T.

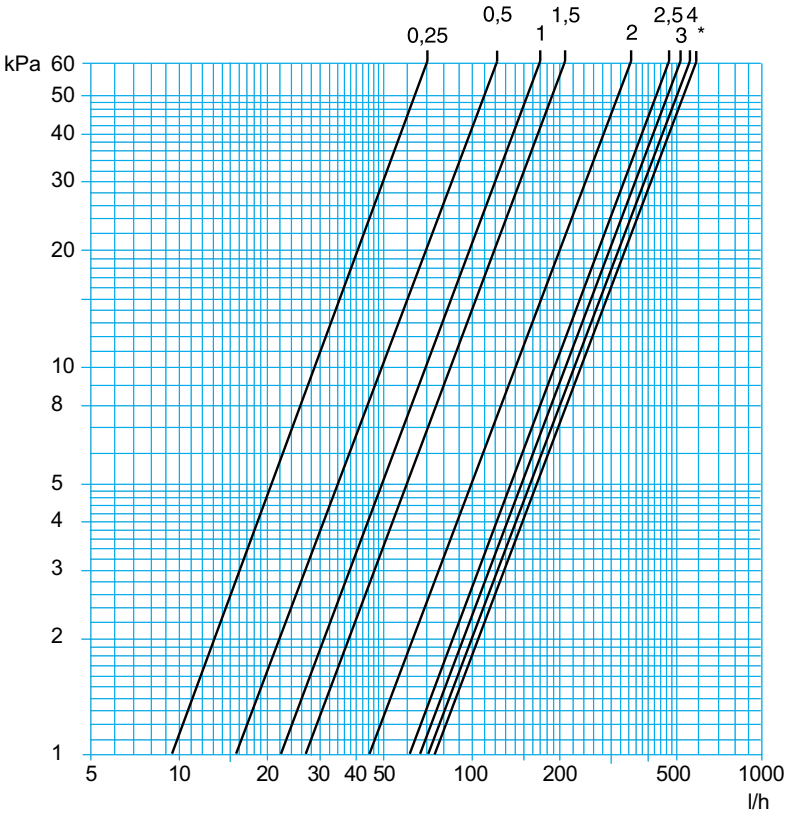


Delivery setting 50% to radiator.

% flow to radiator	Kv	Number of turns
0	1,3	**)
10	1,6	1
20	1,8	2
30	2	2,7
40	2,2	3,5
50	2,3	*)

*) Fully open
**) Closed

Diagram RENOVETT-RVES, two-pipe / Thermostatic controlled

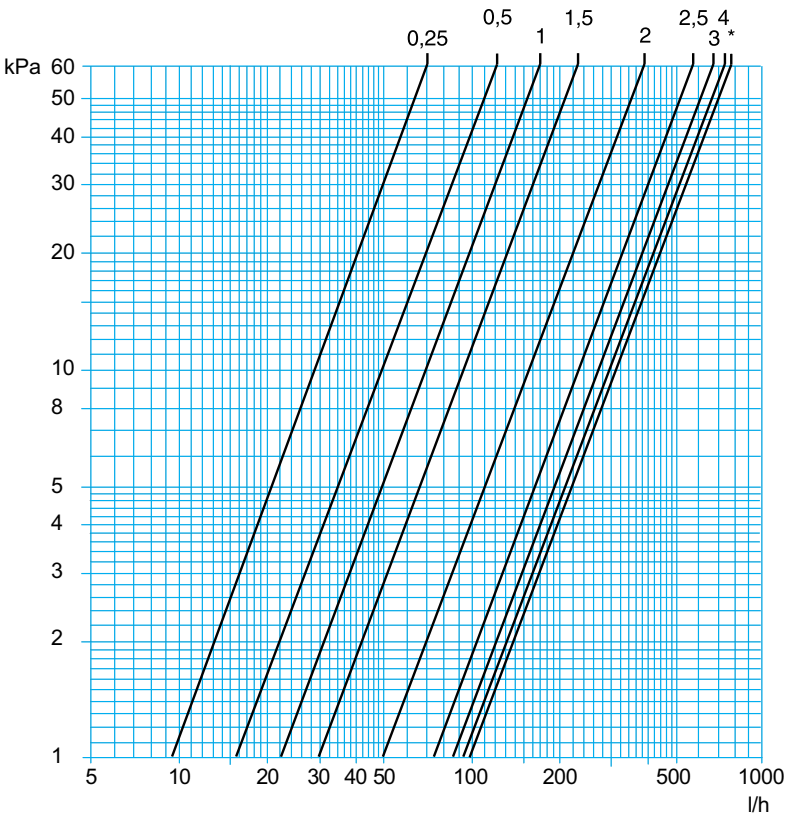


Delivery setting *) = Fully open.

Number of turns	KvΔT2K
0,25	0,09
0,5	0,16
1	0,22
1,5	0,27
2	0,45
2,5	0,6
3	0,67
4	0,72
*)	0,75

Diagram RENOVETT-RVES, two-pipe / Hand controlled

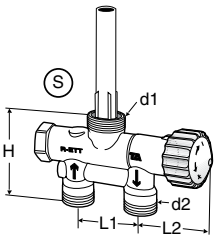
On/off regulation with thermo actuator EMO T.



Delivery setting *) = Fully open.

Number of turns	Kv
0,25	0,09
0,5	0,16
1	0,22
1,5	0,3
2	0,5
2,5	0,75
3	0,88
4	0,95
*)	1

RADIETT

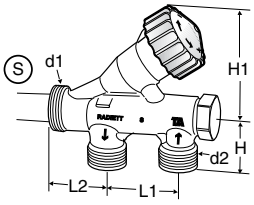


Bottom entry

TA RADIETT-U/S74
External FPL-thread

1-pipe

d1	d2	L1	L2	H	EAN	Article No
M26x1,5	M22x1,5	40	40	60	7318792675300	50 670-005



Side entry

TA RADIETT-S
External FPL-thread

1-pipe

d1	d2	L1	L2	H	H1	EAN	Article No
M28x1,5	M22x1,5	40	31	27	58	7318792680502	50 680-005

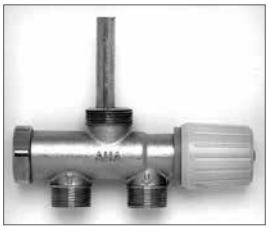
S = Spheric

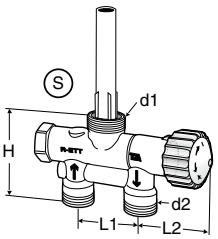
RENOVETT for renovation

TA, AHA, NAF

Bottom entry

S74/RADIETT-U
External FPL-thread



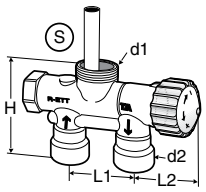


1-pipe

d1	d2	L1	L2	H	EAN	Article No
M26x1,5	M22x1,5	40	40	60	7318792675300	50 670-005

S = Spheric

RVE
G1/2 female thread for KOMBI

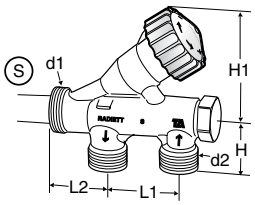


1-pipe

d1	d2	L1	L2	H	EAN	Article No
M26x1,5	G1/2	35	40	65	7318792682704	50 683-005

Side entry

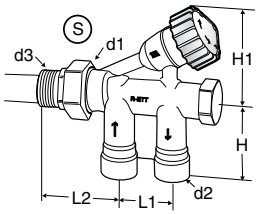
RADIETT-S
External FPL-thread



1-pipe

d1	d2	L1	L2	H	H1	EAN	Article No
M28x1,5	M22x1,5	40	31	27	58	7318792680502	50 680-005

RVES
Incl radiator union
G1/2 internal thread for KOMBI



1-pipe

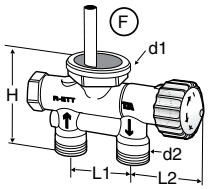
d1	d2	d3	L1	L2	H	H1	EAN	Article No
M28x1,5	G1/2	R1/2	35	55	48	56	7318792683107	50 684-005

S = Spheric

ARCU

Bottom entry

ACRU K 1000/K 1100
External FPL-thread

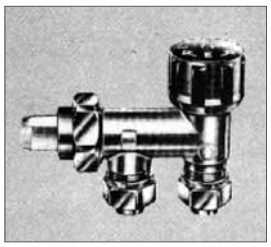


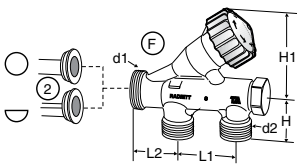
1-pipe

d1	d2	L1	L2	H	EAN	Article No
M34x1,5	M22x1,5	40	40	64	7318792676307	50 672-005

Side entry

ARCU K 100
External FPL-thread





1-pipe

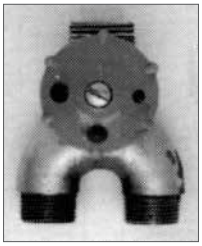
d1	d2	L1	L2	H	H1	EAN	Article No
M34x1,5	M22x1,5	40	27	29	58	7318792681509	50 681-005

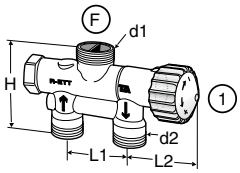
2 = Optional connection points, inlet and outlet (2 different injection pipes incl.).
F = Flat

Fellingsbro

Bottom entry

Fellingsbro TKM cc 35
External FPL-thread





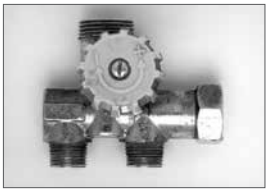
1-pipe

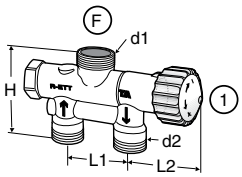
d1	d2	L1	L2	H	EAN	Article No
G3/4	M18x1,5	35	40	72	7318792677908	50 675-005

Fellingsbro M68 cc 35
External FPL-thread

M18x1,5

M21x1,5 / M22x1,5





1-pipe

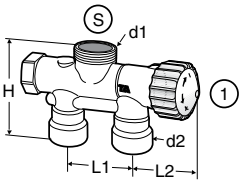
d1	d2	L1	L2	H	EAN	Article No
G3/4	M18x1,5	35	40	68	7318792679308	50 677-005
G3/4	M21x1,5	35	40	68	7318792680106	50 679-005
G3/4	M22x1,5	35	40	68	7318792679704	50 678-005

1 = Optional connection points, inlet and outlet (provided by a socket in the radiator).
F = Flat

OSBY

Bottom entry

OSBY
Internal thread G1/2

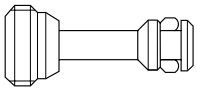


1-pipe

d1	d2	L1	L2	H	EAN	Article No
M28x1,5	G1/2	40	40	72	7318792683404	50 685-005

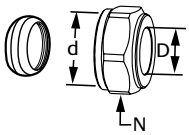
1 = Optional connection points, inlet and outlet (provided by a socket in the radiator).
S = Spheric

Accessories



Plug, two-pipe
For bottom entry valves

	EAN	Article No
Yellow	7318792675409	50 670-008



TA 372 Compression connection with cone

D	d	N	EAN	Article No
12	M22x1,5	25	7318793632708	53 372-412
14	M22x1,5	25	7318793632807	53 372-414
15	M22x1,5	25	7318793632906	53 372-415
16	M22x1,5	25	7318793633002	53 372-416
18	M22x1,5	25	7318793633101	53 372-418

Radiator connections, see Accessories and spare parts for thermostatic radiator valves