

Technical description

Application:

Heating and cooling systems

Function:

Controlling
Presetting
Shut-off

Pressure class:

PN 10

Max. differential pressure:

Maximum permissible differential pressure to ensure that the valve does not open against a closed thermostat: 100 kPa.

Temperature:

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

Materials:

Valve body: Gunmetal
O-rings: EPDM rubber
Valve disc: EPDM rubber
Return spring: Stainless steel
Valve insert: Brass, PPS (polyphenylsulphide)
Spindle: Stainless steel

Surface treatment:

Valve body and fittings are nickel-plated

Marking:

TRV-1: Presetting scale in brass
TRV-1S: Presetting scale in nickel-plated brass

TRV-1: Is supplied with a white protective wheel

TRV-1S: Is supplied with a red protective wheel

Valves are marked with TA, country code, flow direction arrow, size and CEN symbol.

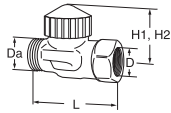
Standards:

Valves and fittings comply with EN 215/1 and HD 1215-2.

TRV-1, TRV-1S with presetting

Connection to thermostatic head: M30x1.5

Straight
excluding radiator union

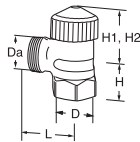


TA No	DN	D	Da	L	H1	H2*	Kv Δ T2K
50 181-610	10	G3/8	M22x1,5	50	36	107	0,047-0,468
50 181-615	15	G1/2	M26x1,5	58	38	109	0,047-0,468
50 181-620	20	G3/4	M34x1,5	68	38	109	0,047-0,468

TRV-1S Low flow

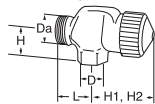
TA No	DN	D	Da	L	H1	H2*	Kv Δ T2K
50 181-010	10	G3/8	M22x1,5	50	36	107	0,017-0,316
50 181-015	15	G1/2	M26x1,5	58	38	109	0,017-0,316
50 181-020	20	G3/4	M34x1,5	68	38	109	0,017-0,316

Angle
excluding radiator union



TA No	DN	D	Da	L	H	H1	H2*	Kv Δ T2K
50 183-610	10	G3/8	M22x1,5	23	20	36	107	0,047-0,468
50 183-615	15	G1/2	M26x1,5	26	24	38	109	0,047-0,468
50 183-620	20	G3/4	M34x1,5	31	28	36	107	0,047-0,468

Reversed angle
excluding radiator union

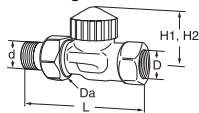


TA No	DN	D	Da	L	H	H1	H2*	Kv Δ T2K
50 184-610	10	G3/8	M22x1,5	23	21	47	119	0,047-0,468
50 184-615	15	G1/2	M26x1,5	26	25	47	119	0,047-0,468

TRV-1S Low flow

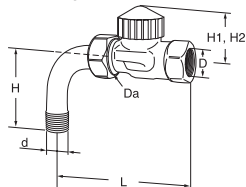
TA No	DN	D	Da	L	H	H1	H2*	Kv Δ T2K
50 184-010	10	G3/8	M22x1,5	23	21	47	119	0,017-0,316
50 184-015	15	G1/2	M26x1,5	26	25	47	119	0,017-0,316

Straight
including radiator union



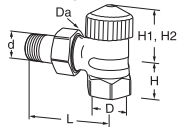
TA No	DN	d	D	Da	L	H1	H2*	Kv Δ T2K
50 181-110	10	R3/8	G3/8	M22x1,5	75	36	107	0,047-0,468
50 181-115	15	R1/2	G1/2	M26x1,5	88	38	109	0,047-0,468
50 181-120	20	R3/4	G3/4	M34x1,5	102	38	109	0,047-0,468

Straight
including radiator union, bend



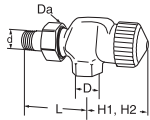
TA No	DN	d	D	Da	L	H	H1	H2*	Kv Δ T2K
50 182-110	10	R3/8	G3/8	M22x1,5	93	46	36	107	0,047-0,468
50 182-115	15	R1/2	G1/2	M26x1,5	106	52	38	109	0,047-0,468
50 182-120	20	R3/4	G3/4	M34x1,5	118	62	38	109	0,047-0,468

Angle
including radiator union



TA No	DN	d	D	Da	L	H	H1	H2*	Kv Δ T2K
50 183-110	10	R3/8	G3/8	M22x1,5	48	20	36	107	0,047-0,468
50 183-115	15	R1/2	G1/2	M26x1,5	56	24	38	109	0,047-0,468
50 183-120	20	R3/4	G3/4	M34x1,5	65	28	38	107	0,047-0,468

Reversed angle
including radiator union



TA No	DN	d	D	Da	L	H	H1	H2*	Kv Δ T2K
50 184-110	10	R3/8	G3/8	M22x1,5	48	21	47	119	0,047-0,468
50 184-115	15	R1/2	G1/2	M26x1,5	56	25	47	119	0,047-0,468

*) Valve with fitted thermostat.

Kv = m³/h at $\Delta p = 1$ bar.

Kv Δ T2K = The values are valid when used together with thermostatic head TERMORETT TRV 300.

All valves can be connected to smooth pipes by means of the KOMBI compression coupling - See catalogue leaflet KOMBI.

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Accessories

Presetting tool



TA No

50 198-001

Operating instruction

The valve is supplied (as standard) with a protective wheel.
The protective wheel can easily be replaced by a handwheel,
thermostatic head or an actuator without draining the system.

Setting

The valve has 6 fixed positions.

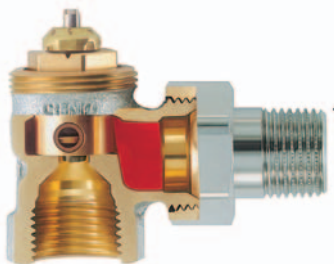
NOTE! Do not set the valve between positions.

The presetting is adjusted by the presetting tool.

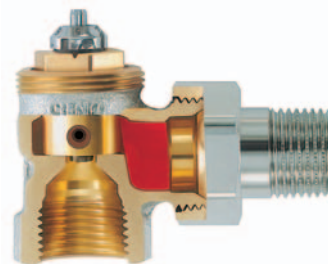
The valve is delivered with the presetting of 6, i.e. fully open valve.



TRV-1



TRV-1S



Noise

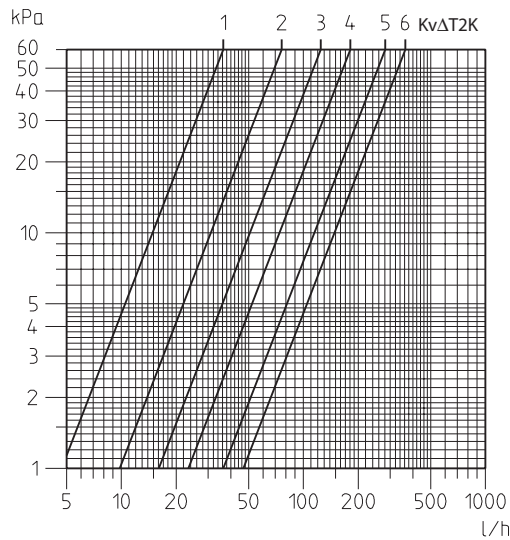
The following conditions must be fulfilled in order to avoid noise in the heating system:

- Flows correctly balanced
- The water in the system must have been de-aerated
- Circulation pumps which do not give too high differential pressure

The maximum recommended pressure drop in order to avoid noise: 30 kPa = 0,3 bar.

Diagram TRV-1

Straight, angle, reversed angle



Presetting value	1	2	3	4	5	6
KvΔT2K*	0,047	0,098	0,161	0,234	0,364	0,468
Fully open valve disc**	0,054	0,104	0,174	0,247	0,459	0,73***

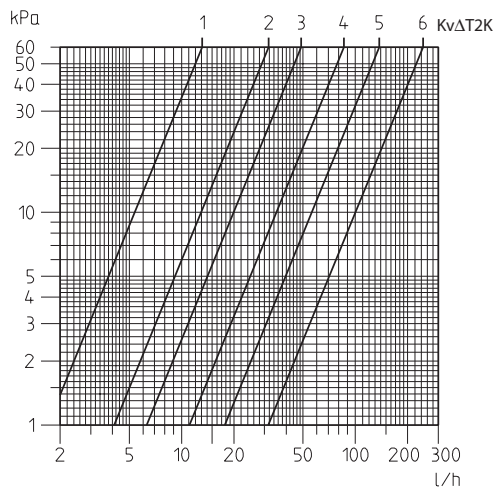
*) The values are valid when used together with thermostic head TERMORETT TRV 300.

**) The values are valid for on/off regulation with, for example, thermo actuator TSE 150.

****) Fully open valve.

Diagram TRV-1S Low flow

Straight, reversed angle



Presetting value	1	2	3	4	5	6
KvΔT2K*	0,017	0,041	0,063	0,111	0,177	0,316
Fully open valve disc**	0,017	0,041	0,063	0,114	0,187	0,35***

*) The values are valid when used together with thermostic head TERMORETT TRV 300.

**) The values are valid for on/off regulation with, for example, thermo actuator TSE 150.

****) Fully open valve.

TA Hydronics retains the right to make changes to its products and specifications without prior notice.