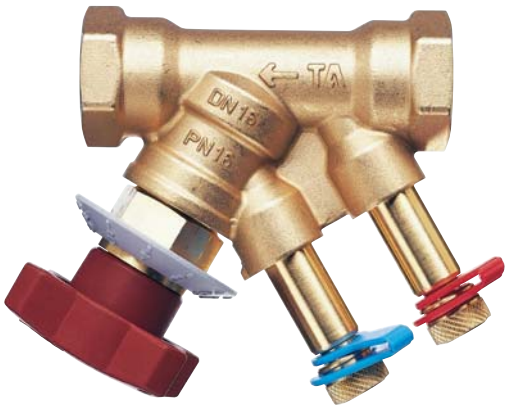


Technical description

Application:
Heating and cooling systems.

Functions:
Balancing
Pre-setting
Measuring
Shut-off

Pressure class:
PN 16

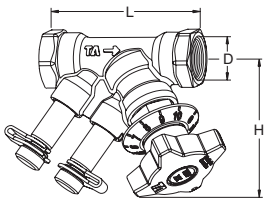
Temperature:
Max. working temperature: 120°C
Min. working temperature: -20°C

Material:
Valve body: AMETAL®
Bonnet: AMETAL®
Spindle seal: EPDM O-ring
Seat seal: Metal seated
Handwheel: Polyamide
Smooth ends:
Nipple: AMETAL®
Sealing (DN 25-50): EPDM O-ring

AMETAL® is the dezincification resistant alloy of TA.

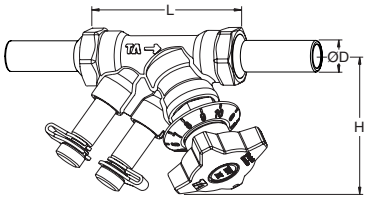
Marking:
Body: TA, PN 16/150, DN, inch size and flow direction arrow.
Handwheel: Valve type and DN.

TBV



TA No	DN	D	L	H	Kvs	Kg
52 130-015*	15	G1/2	78	72	1.8	0,38
52 130-020*	20	G3/4	91	78	3.6	0,53

Smooth ends



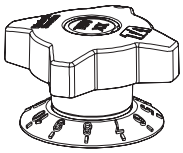
TA No	DN	D	L	H	Kvs	Kg
52 430-015	15	15	142	72	1.8	0,48
52 430-020	20	22	173	78	3.6	0,69

*) Can be connected to smooth pipes with KOMBI compression coupling. See catalogue leaflet KOMBI.

Kvs = m^3/h at a pressure drop of 1 bar and fully open valve.

Accessories

Handwheel TBV, complete

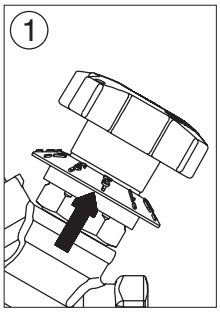


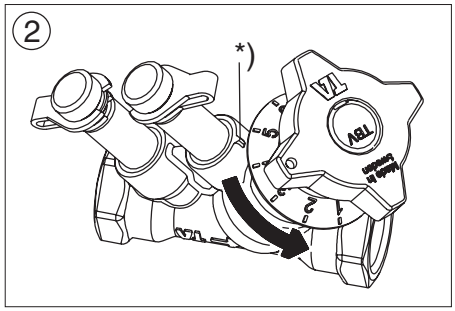
TA No
52 130-100

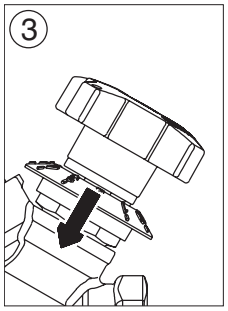
Setting TBV

Setting of a valve for a given pressure drop, eg corresponding to position 5 is done as follows:
1. Check that the scale is in upper position towards the handwheel before setting (fig 1).
2. Turn the handwheel so that position 5 is pointing at the index* of the valve body (fig 2).
3. Push the scale downwards over the bonnet (fig 3). The valve is now set.

There is a diagram for every valve size that shows the flow for different pressure drops and settings.

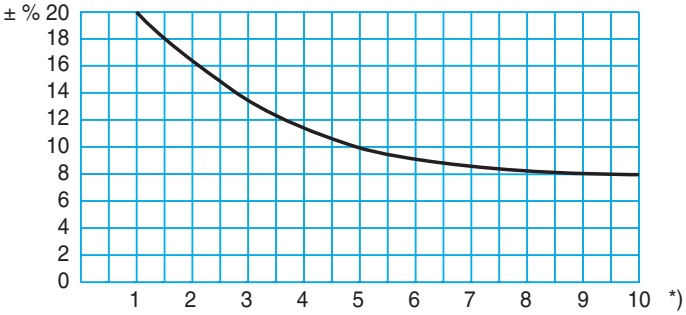






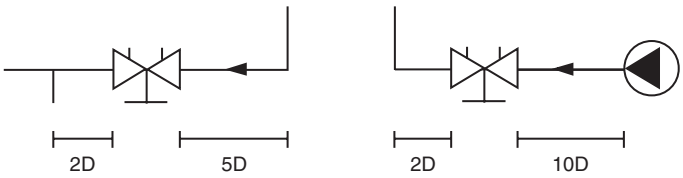
Measuring accuracy

Flow deviation at different settings



*) Position

Try to avoid mounting taps and pumps, immediately before the valve.



Sizing

When Δp and the design flow are known, use the formula to calculate the Kv-value.

$$Kv = 0{,}01 \frac{q}{\sqrt{\Delta p}}$$ q l/h, Δp kPa

$$Kv = 36 \frac{q}{\sqrt{\Delta p}}$$ q l/s, Δp kPa

Support material

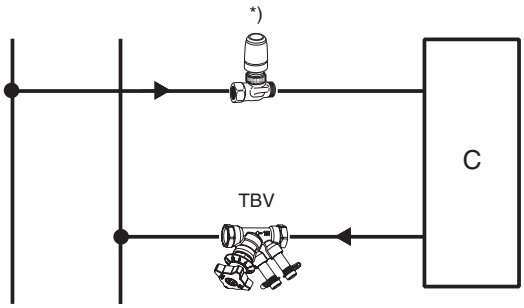
Software
TA Select: Makes it easy to choose the right balancing valves by taking into account the desired flow and pressure drop.

Measuring instruments
Use the balancing instrument TA-CBI or measuring instrument TA-CMI. They are programmed with valve characteristics for TA valves, enabling measured differential pressure to be read off directly as a flow rate.
For further information on TA-CBI and TA-CMI, see each catalogue leaflet.

Conversion disc
By using the conversion disc it is easy to calculate the relationship between flow, pressure and setting values for all valve sizes.

Manuals
See the following manuals for descriptions of various balancing methods:
Total hydronic balancing
Manual no. 1: Balancing control circuits
Manual no. 2: Balancing distribution systems
Manual no. 3: Balancing of radiator systems
Manual no. 4: Hydronic balancing with differential pressure controllers

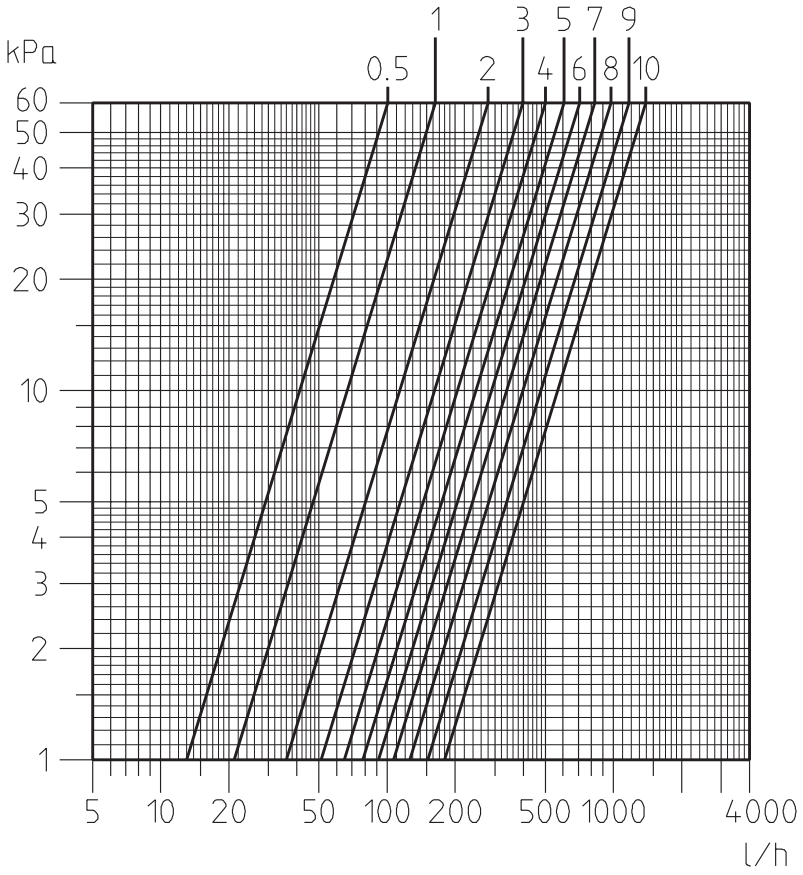
Installation



*) Control valve

Diagram TBV

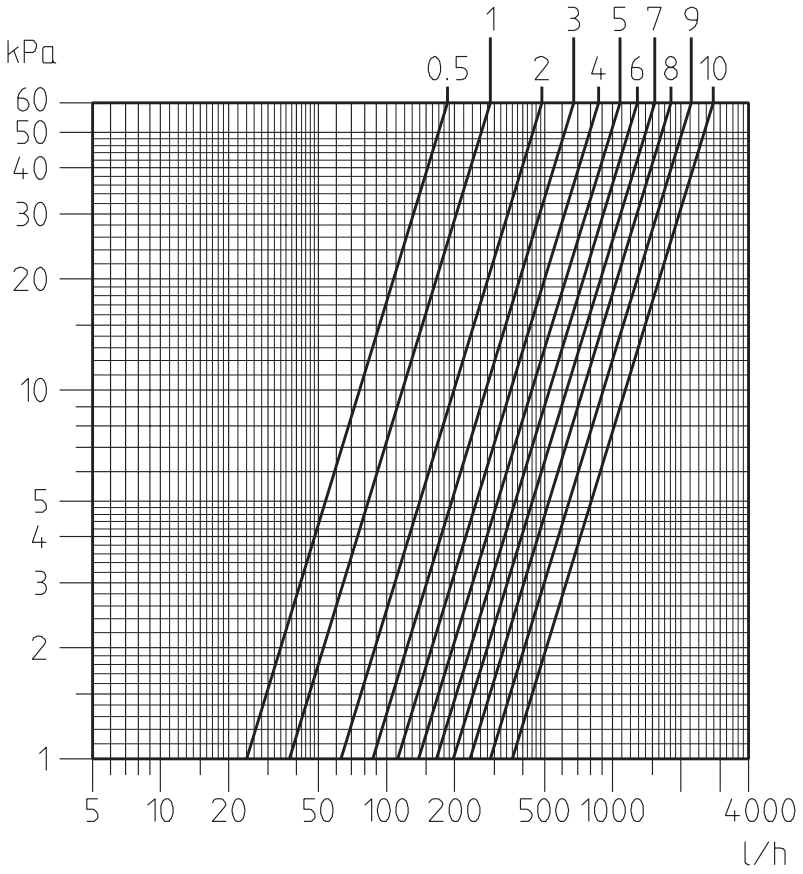
DN 15



Position	Kv
0,5	0,13
1	0,21
2	0,36
3	0,51
4	0,65
5	0,78
6	0,92
7	1,07
8	1,26
9	1,51
10	1,80

Recommended area: Pos. 3-10

DN 20



Position	Kv
0,5	0,24
1	0,37
2	0,63
3	0,87
4	1,12
5	1,39
6	1,66
7	1,98
8	2,34
9	2,88
10	3,60

Recommended area: Pos. 3-10