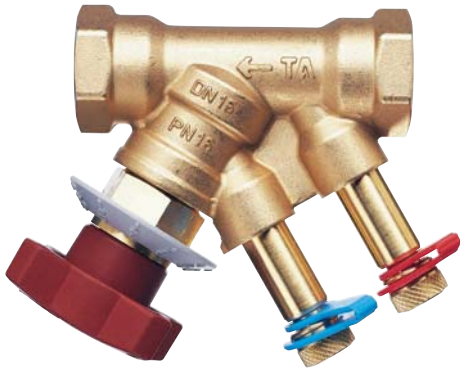
TBV (NPT threads and soldering)

5-5-26

Terminal valves

2004.10



Technical description

Application:
Heating and cooling systems.

Functions:
Balancing
Pre-setting
Measuring
Shut-off

Pressure class:
PN 16 (Class 150)

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

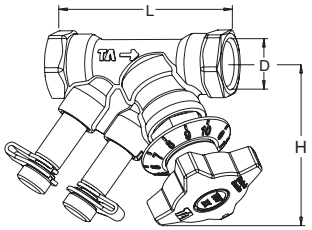
Material:
Valve body: AMETAL®
Bonnet: AMETAL®
Seat seal: Metal seated
Spindle seal: EPDM O-ring
Handwheel: Polyamide

AMETAL® is the dezincification resistant alloy of TA.

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

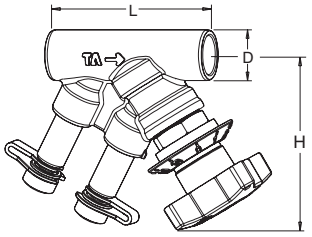
TBV (NPT threads and soldering)

NPT thread



TA No	DN	(Size)	D	L	H	Kvs
52 130-515	15	1/2”	1/2 NPT	78	72	1.8
52 130-520	20	3/4”	3/4 NPT	91	78	3.6

Soldering



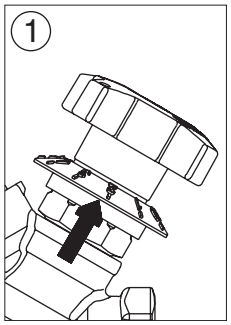
TA No	DN	(Size)	D	L	H	Kvs
52 130-915	15	1/2”	1/2”	68	72	1.8
52 130-920	20	3/4”	3/4”	87	78	3.6

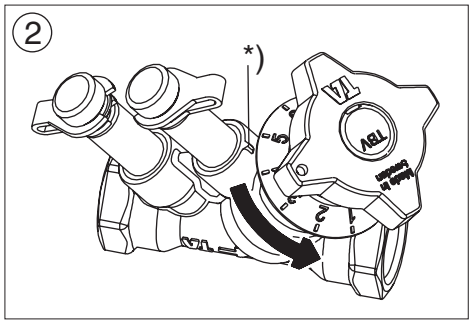
Kvs = m^3/h at a pressure drop of 1 bar and fully open valve.

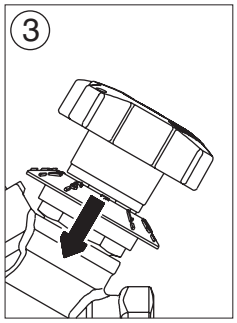
Setting TBV

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.

When changing the set value, pull the scale upwards and repeat step 1-3.





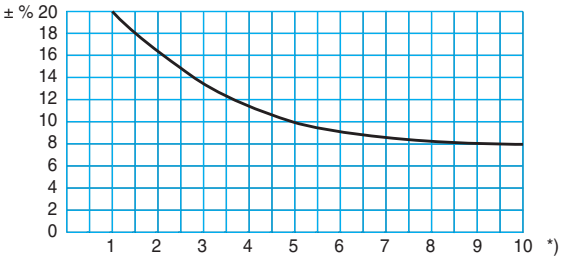


Support material

Measuring instruments
Use the balancing instrument TA-CBI. See catalogue leaflet for further information on TA-CBI.

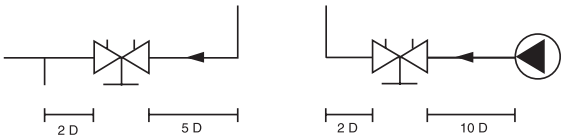
Measuring accuracy

Flow deviation at different settings



*) Position

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



Sizing

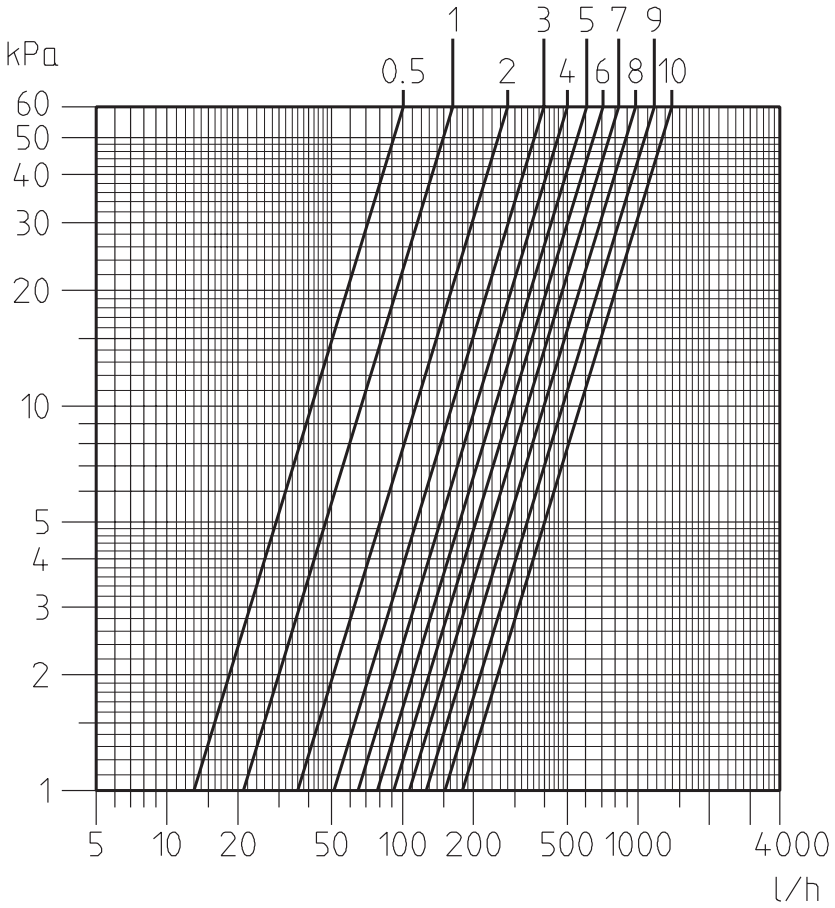
When Δp and the design flow are known, use the formula to calculate the Kv-value or use the diagram.

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

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

Diagram TBV

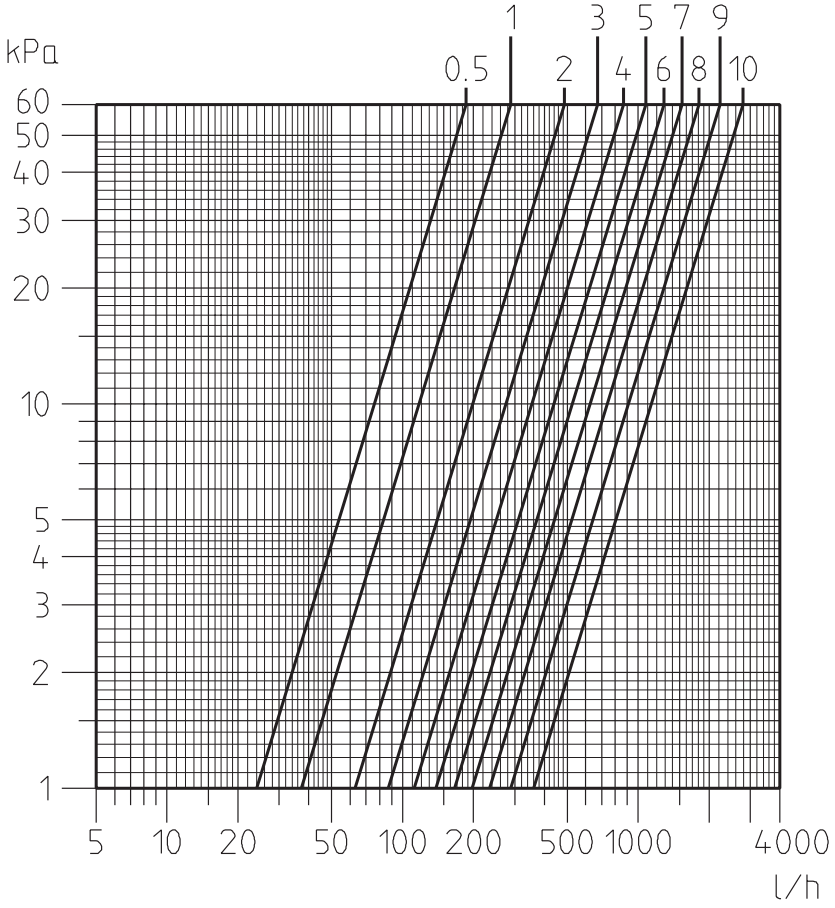
DN 15



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

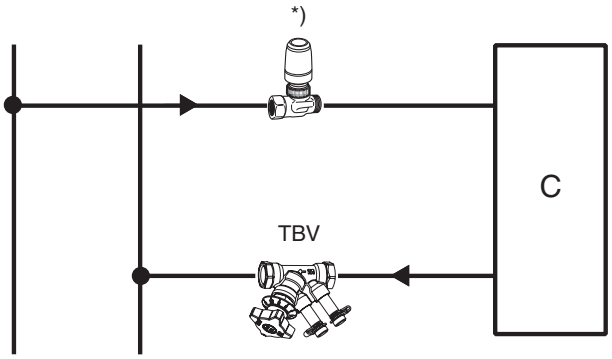
DN 20



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

Installation

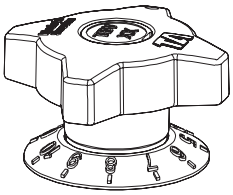


*) Control valve

Installation TBV soldering
When soldering cover valve body with wet cloth to prevent premature deterioration of the internal valve components. Solder the valve body to the pipe, using 95/5 (95% tin, 5% antimony) type solder.

Accessories

Handwheel
Complete



TA No
52 130-100