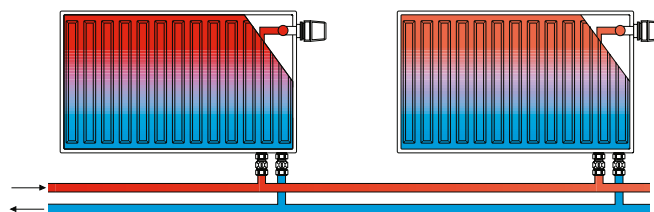


# GENERAL INFORMATION - VENTIL KOMPAKT

## Two-pipe heating system

When installing VENTIL KOMPAKT steel panel radiators, it is necessary to preset the valve to such a position that the radiator will perform as calculated. It is the responsibility of the installer to make sure this has been done.

At the factory the valve is preset at level 8 and after rinsing and before the start of the heating test it must be set by a special key to the desired position.



## Example of calculation

**Target value:** level of valve setting

**Values known:** heat output  
cooling of water  
pressure loss of radiator with valve  
heat capacity of water

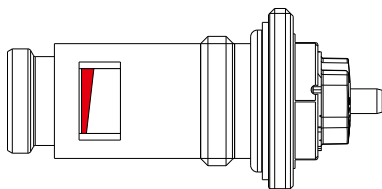
$Q = 1135 \text{ W}$   
 $t_1 - t_2 = 15 \text{ K (65/50 } ^\circ\text{C)}$   
 $\Delta p = 30 \text{ mbar}$   
 $c = 1,163 \text{ Wh/kg.K}$

**Solution:** mass flow

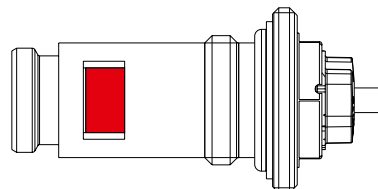
$$m = \frac{Q}{c \cdot (t_1 - t_2)} = \frac{1135}{1,163 \cdot 15} = 65 \text{ kg/h}$$

level of presetting (see diagram):

4



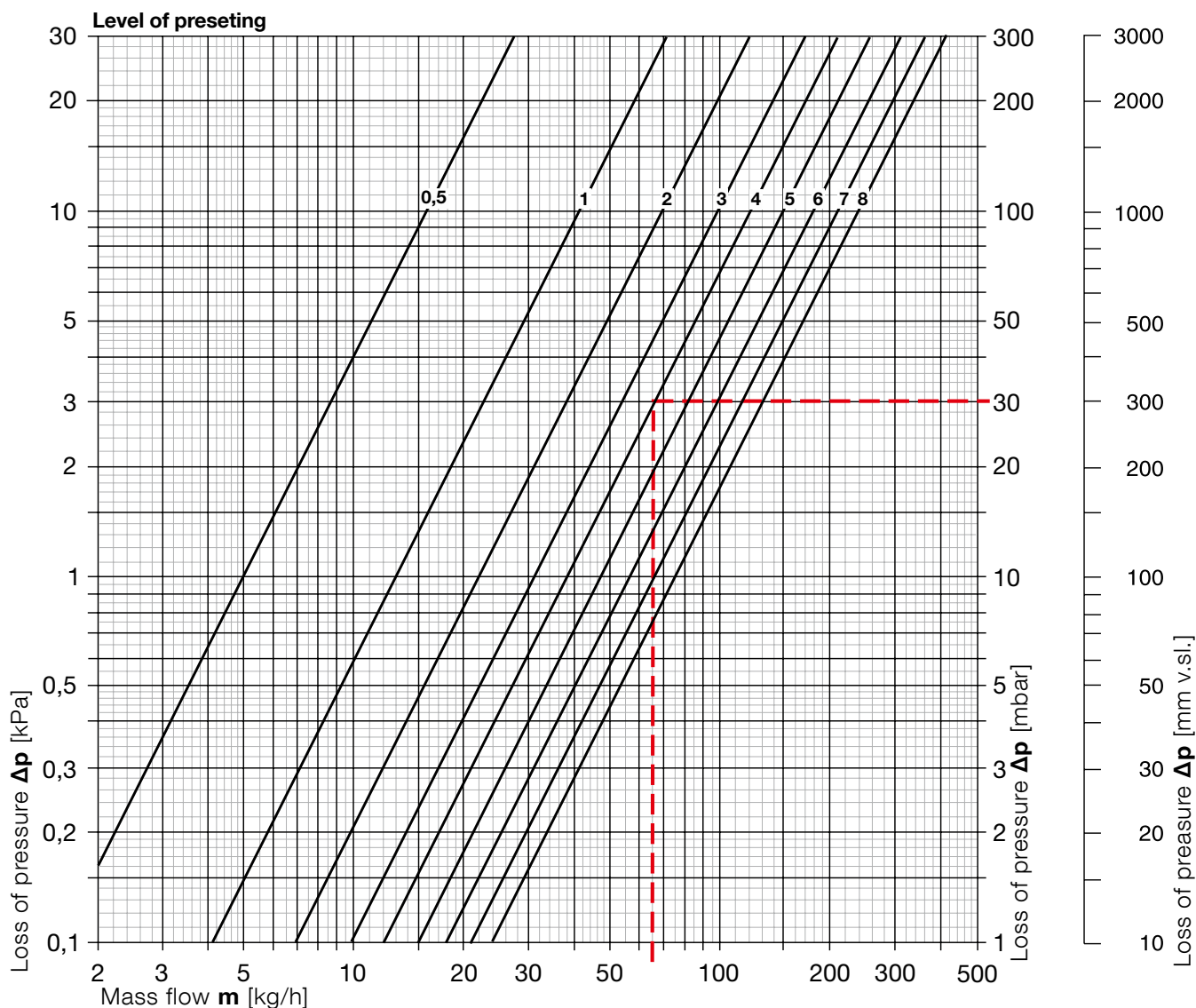
Level 4 presetting



Level 8 presetting



## Two-pipe heating system



## Table

Valve with thermostatic head

Level of valve setting	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	7,5	8
$k_v$ [ $\text{m}^3/\text{h}$ ]	0,05	<b>0,13</b>	0,18	<b>0,22</b>	0,27	<b>0,31</b>	0,35	<b>0,38</b>	0,42	<b>0,47</b>	0,52	<b>0,57</b>	0,62	<b>0,66</b>	0,71	<b>0,75</b>

Valve without thermostatic head

Level of valve setting	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	7,5	8
$k_{vs}$ [ $\text{m}^3/\text{h}$ ]	0,05	<b>0,16</b>	0,22	<b>0,27</b>	0,33	<b>0,38</b>	0,41	<b>0,43</b>	0,54	<b>0,65</b>	0,82	<b>0,98</b>	1,11	<b>1,23</b>	1,33	<b>1,43</b>

Highest allowed working temperature: 110 °C

Highest allowed working pressure: 10 bar

The indicated values of  $k_v$  comply with proportionality interval of 2K.