

Fixed point regulating unit

Art. K063

/ Function

The fixed point regulation unit performs the function of keeping the flow temperature constant, at the set value, to the underfloor heating system with low-temperature circuit.

The temperature is adjusted by means of a three-way thermostatic valve equipped with a thermostat control device with a remote sensor (art. 995).

/ Technical features

TECHNICAL DATA:

Working fluid:	Water and glycol solutions
Maximum percentage of glycol:	30%
Primary input temperature range:	5÷110°C
Temperature adjustment range:	20÷50°C
Maximum operating pressure:	10 bar
Minimum operating pressure:	0,8 bar

MATERIALS:

Valve body and fittings:	Brass CW617N - UNI EN 12165
Caps and unions:	Brass CW617N - UNI EN 12165
Sealing elements	EPDM Perox

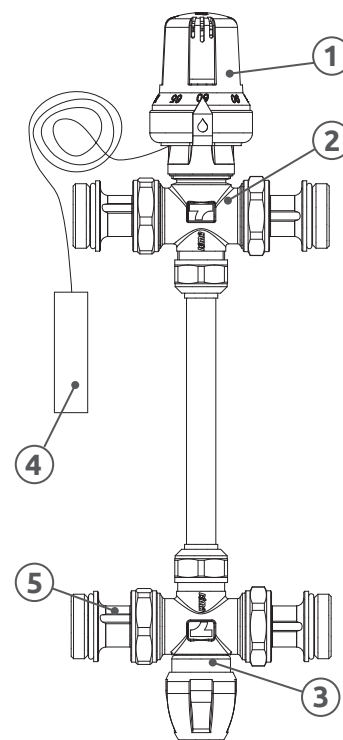


/ Components List

1. Thermostatic 20°-50°C head with remote sensor.
2. Three-way mixing valve
3. By-pass valve with manual adjustment
4. Element holder probe
5. G1" pipe unions with O-ring seal for the collector

Collector connections: G1" Male

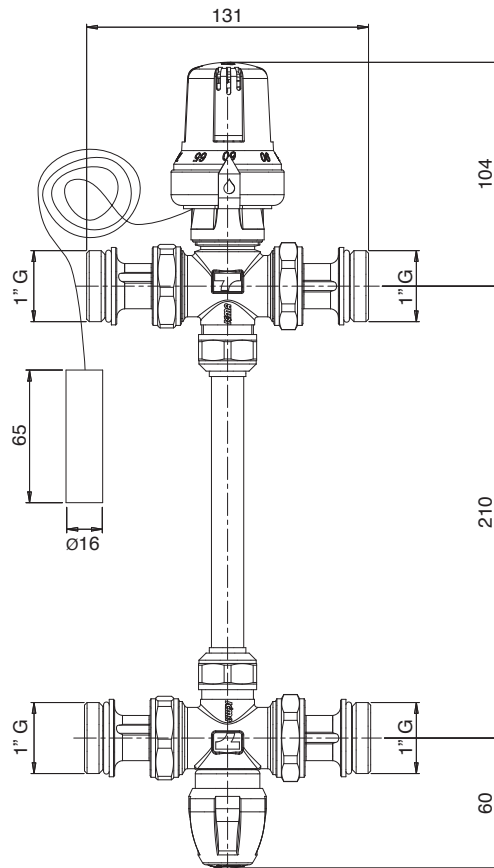
Can be installed on either the left or right side of collectors.



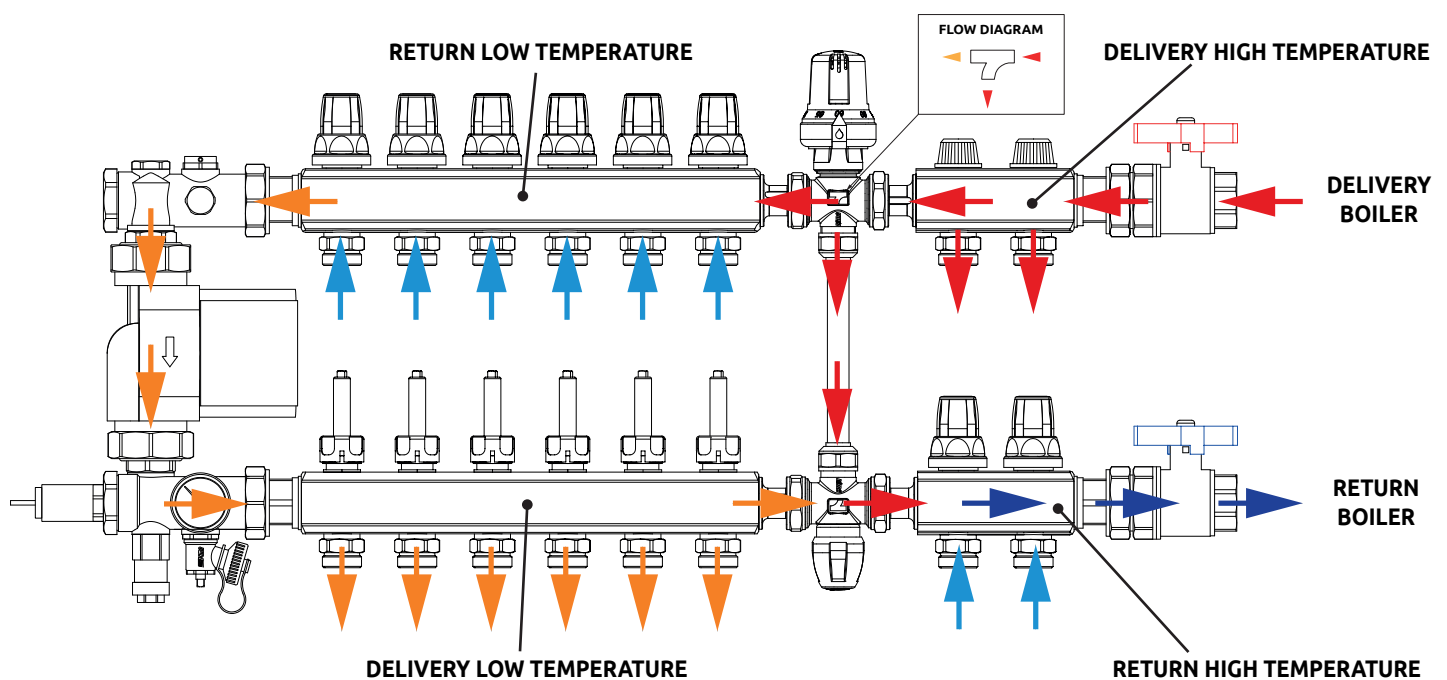
Fixed point regulating unit

Art. K063

Dimensions



Flow diagram

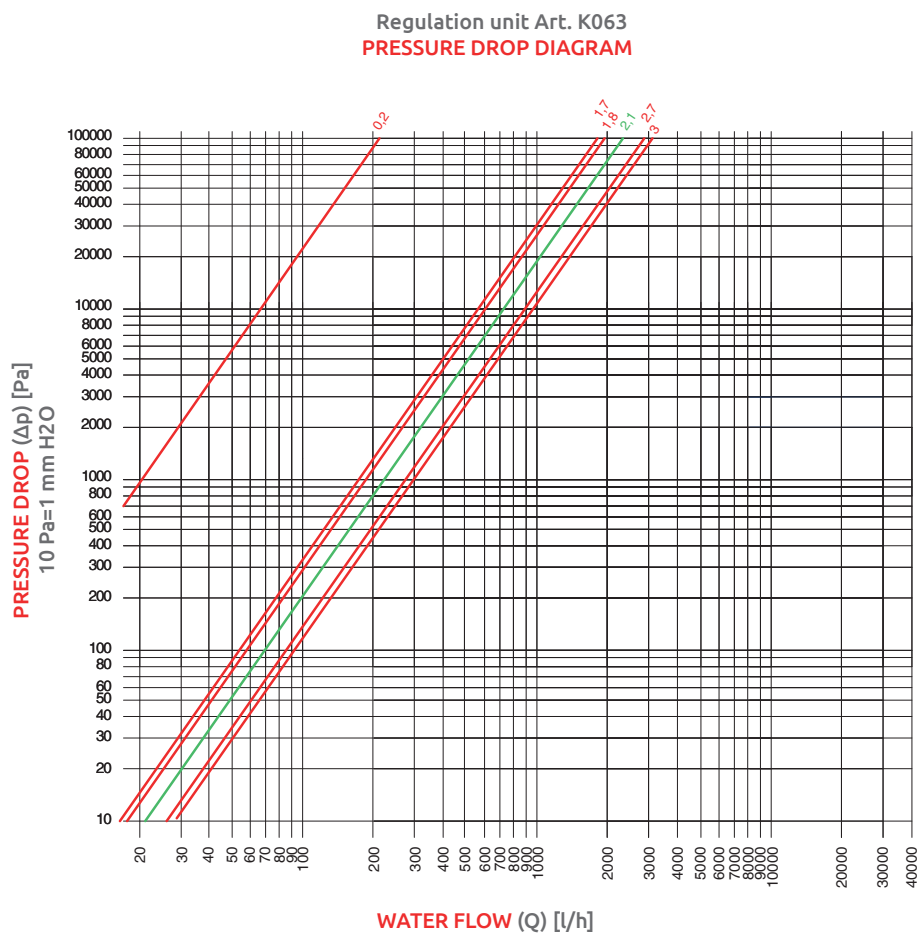


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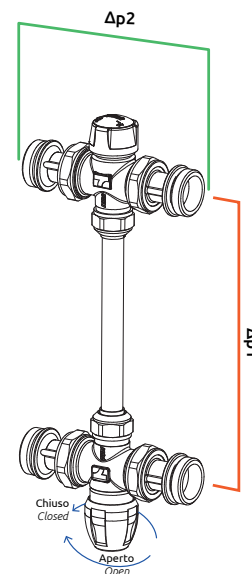
Art. K063

/ Bypass regulation

It is possible to adjust the bypass of the primary circuit and obtain the hydraulic characteristics shown below:



- Linea squadra (Kv1) / Angled way (Kv1)
- Linea diritta (Kv2) / Straight way (Kv2)



Kv1 [m3/h]
3
2,7
1,8
1,7
0,2
0

Kv2 [m3/h]
2,10

$$Kv1 = \frac{Q1}{\sqrt{\Delta P1}}$$

$$Kv2 = \frac{Q2}{\sqrt{\Delta P2}}$$

The thermostatic control with a remote sensor that is to be installed on the 3-way mixing valve is supplied with the “fixed point regulating unit”. By adjusting the thermostatic control it is possible to set the temperature of the heat transfer fluid that circulates within the low-temperature circuit of the radiant panels.

The thermostatic control has an adjustment range that goes from 20 to 50 °C, it is advisable to set a temperature of about 35/40 °C on the handwheel with the graduated scale (for a detailed description of the thermostatic control regulation refer to the sheet instructions in its package).

The three-way mixing valve, on the other hand, is equipped with a manual regulation bypass which allow to regulate the circulation of the heat-carrying fluid coming from the heat generator in the event that the mixing valve is completely closed and does not allow anything to pass toward the collector of the low-temperature circuit of the radiant panel.

