

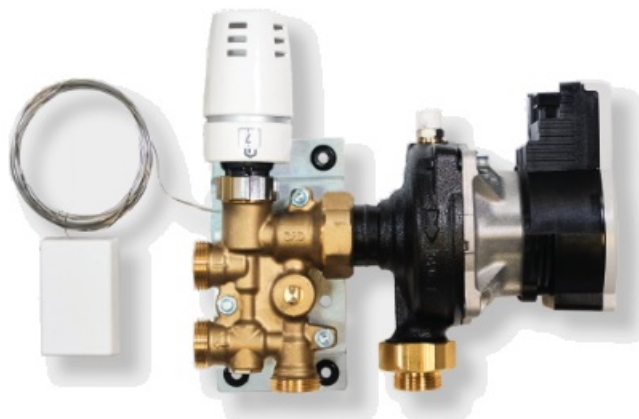


Roth Minishunt Plus Thermostat and Capillary Sensor Installation Guide

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Living full of energy
Minishunt Plus Thermostat and Capillary Sensor
Installation Guide

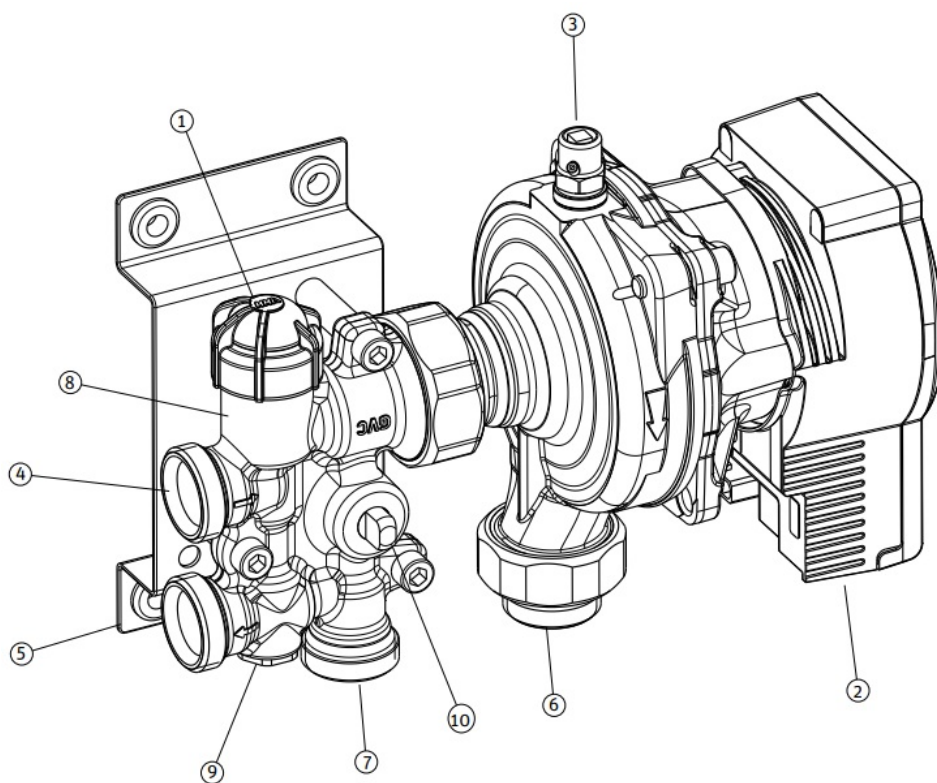


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Description:

The Roth Minishunt is intended for supplying one or two underfloor heating circuits in a room. The shunt can be connected “outside the installation” just like a radiator and can be supplied with a Duo distributor for connecting 2 circuits. Can be used on both 1 – and 2 string systems and provided with temperature restriction on 45°C. For wireless installation guide control see separately guidance.



Roth Mini Shunt

- 1. Valve for thermostat element or thermometer
- 2. Circulation pump
- 3. Venting screw
- 4. Flow, plant
- 5. Return, facility
- 6. Supply, underfloor heating
- 7. Return, underfloor heating
- 8. Control valve for water quantity
- 9. By-pass valve for 1 – or 2 – string system

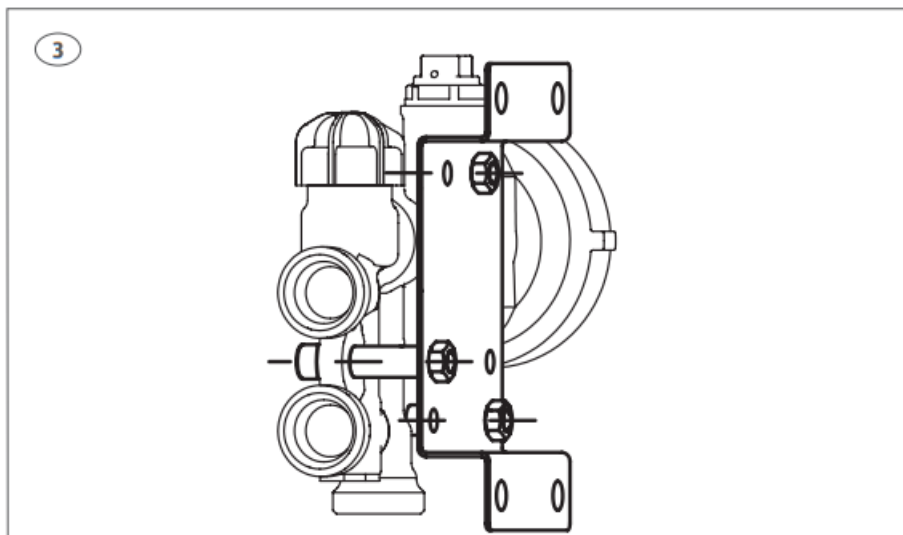
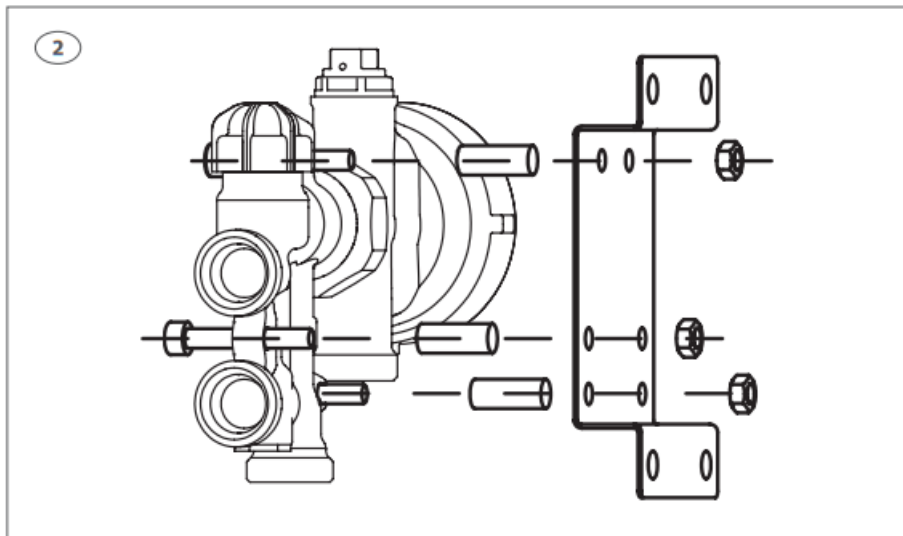
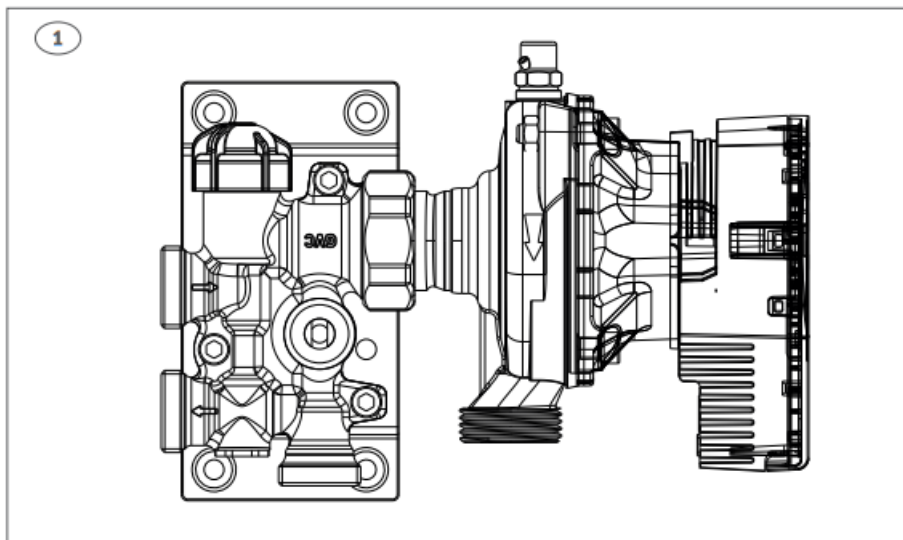
10. Shut-off valve

Stir dim	Number of circuits	Max. pipe length
10,5 mm	1	70 m
10,5 mm	2	2 x 70 m
16 mm	1	90 m
16 mm	2	2 x 90 m
20 mm	1	120 m
20 mm	2	2 x 120 m

When you install 2 circuits, they must always be the same length.

Installation requirements

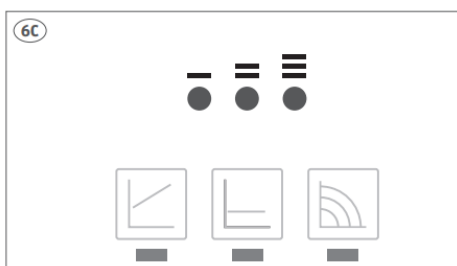
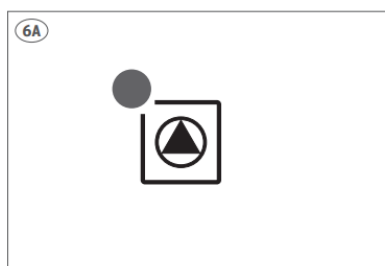
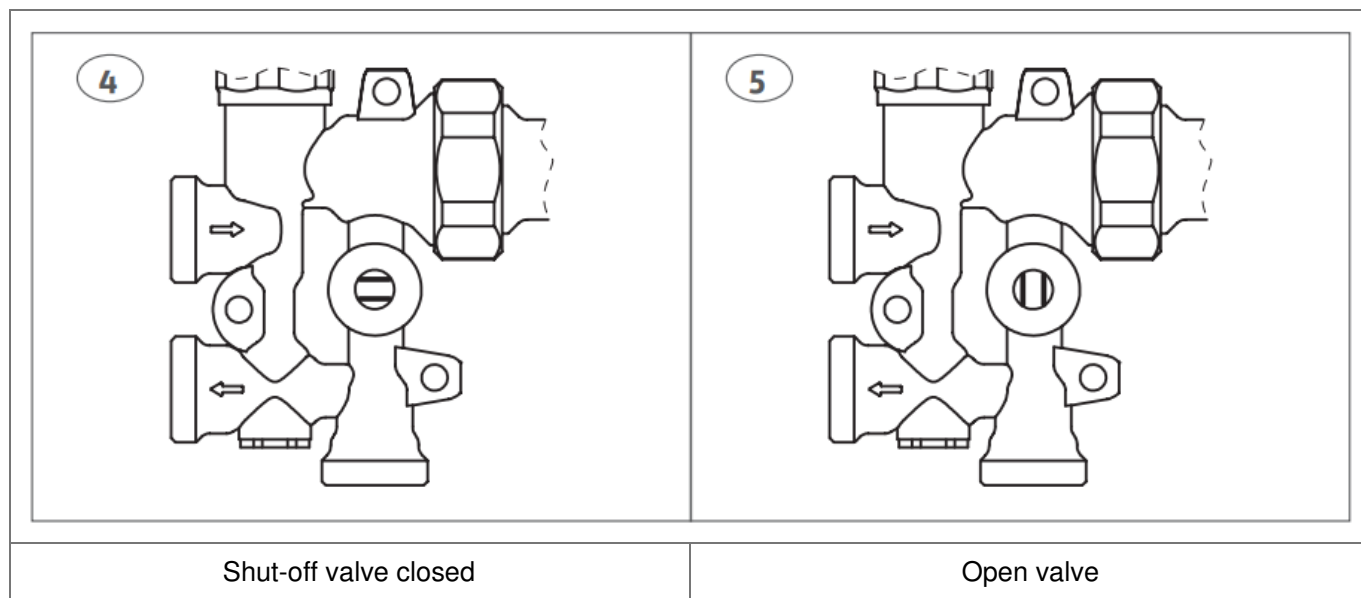
- The mini shunt must be mounted in a horizontal position, as shown in picture 1.
- It must be ensured that there is a differential pressure of min. 15 kPa and max. 50 kPa.
- The water temperature on the system side must be at least 15°C higher than the underfloor heating circuit.
- Always flush the existing installation before mounting the mini-the shunt.
- Joints in heating systems must be visible or located so that they are accessible league.
- When installing in built-ins or cabinets, these must be provided with at least 50mm waterproof bottom, service hatch and indication to prevent leakage can quickly be detected. Service hatch must not be placed in wet zone 1.



Assembly

- Mount the Minishunt on a suitable wall. The pump can give rise to a bit of noise, therefore it is recommended to mount the shunt in a place where it does not will bother.
- Bleed air and carry out pressure testing in accordance with industry regulations. on water filling, flushing and venting are optimized by closing shut-off ring valve. Remember to open again before commissioning, see picture 4 and 5.

- Set between 1- and 2-string systems, see page 5.
- Set the flow temperature, see page 5.
- Mount the thermostatic sensor element or the thermometer (only for wireless control) on the valve.
- Sensor or thermostat is placed approx. 1.7 m above the floor on an interior wall representative place.
- Set the pump to constant pressure. Normally, a setting as shown in image 6E be sufficient to achieve optimum comfort.



Indicator lights (LEDs)

(6A)

- Signal display
- LED lights up green during normal operation
- LED lights up/flashes in the event of an error

(6B)

- Display of the selected pump operation, select constant pump pressure, (the middle option).

(6C)

- Display of the selected pump curve (I, II, III).

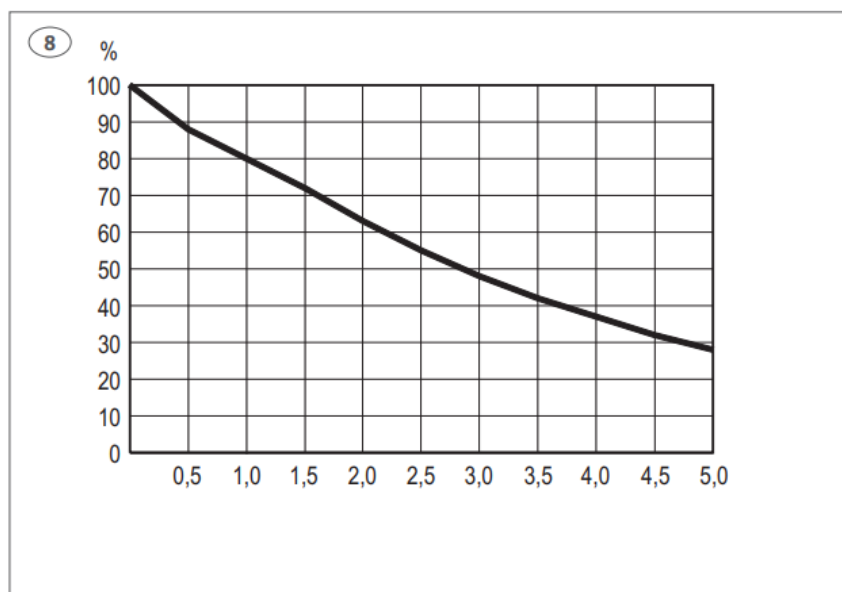
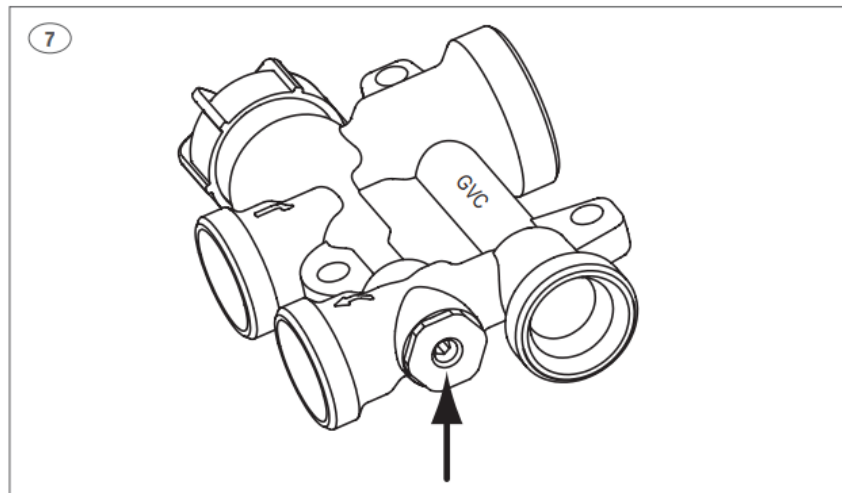
(6D)

- LED indicator combinations during airing program, manual restart and key lock. We refer to the instructions on the pump.
- No light in LED = No power.

Setting of mini shunt for 1- or 2-string system, picture 7+8

(The factory setting is 2-string)

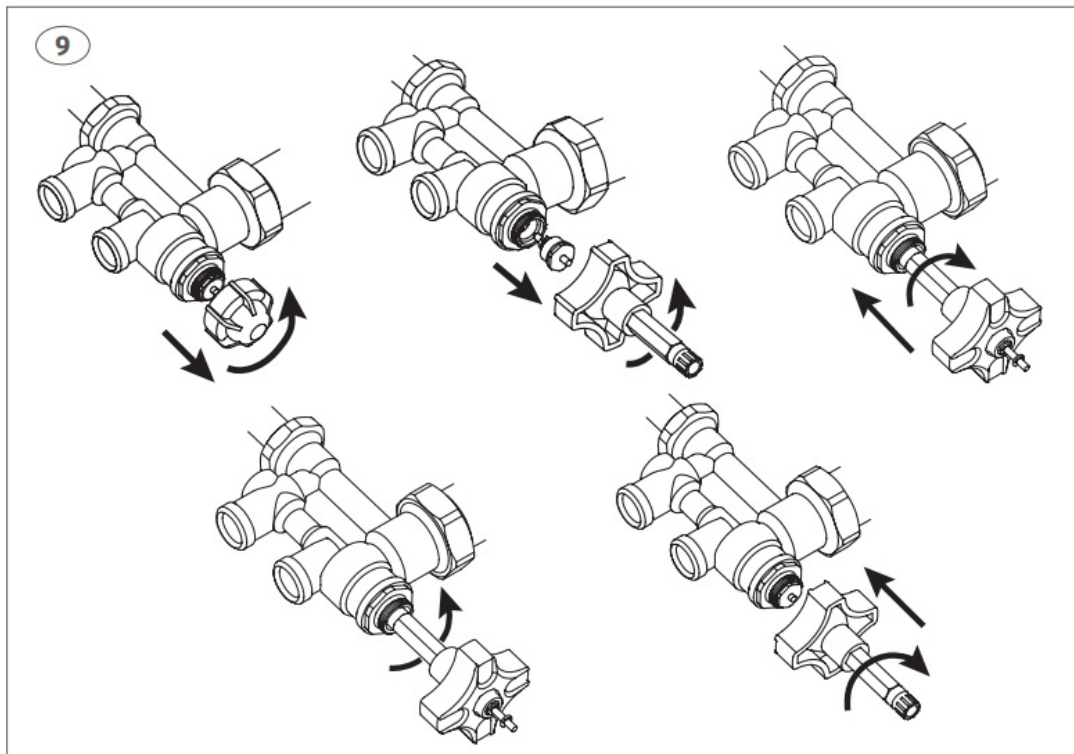
- 2-string system 2.5 mm Allen screw must be all the way down, see picture 7.
- 1-string system, 2.5 mm Allen screw must be set in relation to the desired bypass water volume. In picture 8, you can read how big a percentage is of the water that is led through the mini shunt.



Setting the supply temperature see picture 9:

- Remove the protective cap on the mini shunt.
- Primary temperature must be at its normal range (55 – 60°C).
- Floor temperature must be approx. 20°C.
- Wait for 10 minutes.
- The supply temperature must be 30 – 35°C for concrete floors and 40 – 45°C for light floor constructions (always follow the floor manufacturer's instructions)
- Check the flow temperature of the underfloor heating circuit. Is it too high or low, the water quantity on the primary side must be adjusted.

Adjust with the supplied key. If you turn clockwise, you reduce the temperature.



Technical data

Field of application	Underfloor heating systems
Roth Minishunt with wireless regulation	Plumbing no. 466210.371
Roth Minishunt with thermostatic regulation	Plumbing no. 466210.105
Max. operating pressure	6 bars
Operating temperature	Max. 80°C on the plant side
	Max. 45°C on the underfloor heating side
Pump	WILO PARA 15-130/4-20SC
Connection on primary side	EURO ¾" ext
Connection on secondary side	EURO ¾" ext
Material	Brass
Mounting bracket	Galvanized steel
Supply voltage	230V, 50 Hz
Effect	3-20W
Frost protection	Water with up to 50% Glycol.
Room thermostat setting range	0-28°C

Accessories:

Duo distributor for 2-hose solution 10.5 mm	Plumbing no. 401974,830
Duo distributor for 2-hose solution 12 – 20 mm	Plumbing no. 046296.220
Roth distributor coupling 10.5 mm	Plumbing no. 401974,810
Roth distributor coupling 16 mm	Plumbing no. 401974,816
Roth distributor coupling 20 mm	Plumbing no. 401974,820
Roth plug-in coupling 16 mm x ¾" EURO	Plumbing no. 046217.546
Roth plug-in coupling 20 mm x ¾" EURO	Plumbing no. 046217.550



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Documents / Resources

	<p>Roth Minishunt Plus Thermostat and Capillary Sensor [pdf] Installation Guide 466210310, Minishunt Plus Thermostat and Capillary Sensor, Minishunt, Plus Thermostat and Capillary Sensor, Thermostat and Capillary Sensor, Plus Thermostat, Thermostat</p>
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References

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- [Hej! Welcome to Sweden | sweden.se – the official website of Sweden](#)
- [UK.COM](#)

Manuals+.