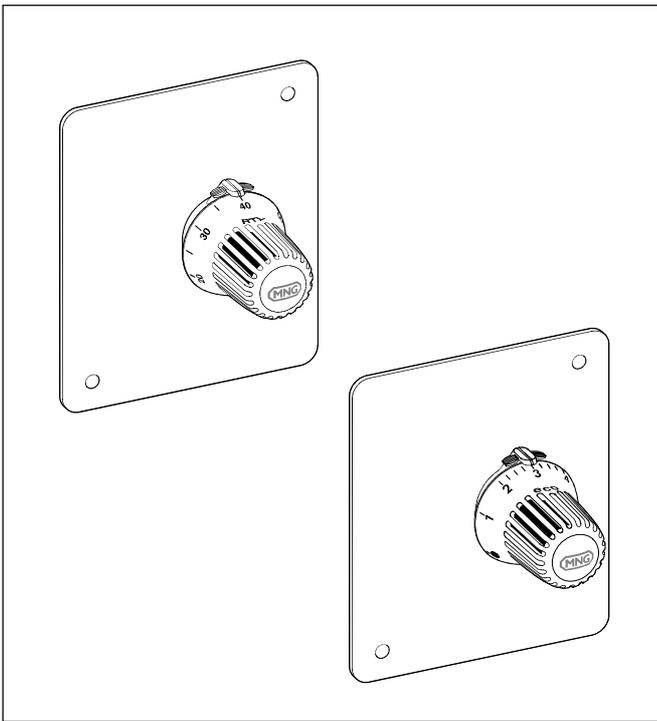


T6101, T6102

Underfloor Heating Controllers

SETS FOR THE CONTROL OF UNDERFLOOR HEATING LOOPS

PRODUCT DATA



Design

The sets are made up of:

- Underwall case with lid, frame, screws, screw-caps and mounting brackets
- Protective render lid for use during building phase
- Thera-RTL or Thera-3 thermostat with trim ring
- Thermostatic valve PN10, DN15, double or horizontal angle body, with external threads to ISO 228 (Eurocone). Connections for copper, plastic or composite tube - see 'Accessories' on page 3.
- Air vent

Materials

- Handwheel and thermostat base made of plastic, white to RAL9010
- Lid made of powder-coated sheet steel, white to RAL9010
- Underwall box and render lid made of dark grey plastic
- Thermostatic valve made of red bronze (horizontal angle body) or brass (double angle body)
- Valve insert made of brass with EPDM O-rings and seat sealing
- Air vent made of brass

Application

The underfloor heating sets are used to control underfloor heating loops with or without additional radiator.

The **RTL-Set** limits the return temperature of an underfloor heating loop in combined underfloor/radiator heating systems. The thermostat is set between 20 and 50°C (68 and 122°F) depending on the desired return temperature. It is available with visible or concealed thermostat. The RTL-Set with the concealed thermostat is set only once whereas the setting of the visible thermostat can easily be changed anytime.

The **Room Control-Set** controls the flow of the medium through single underfloor heating loops, without additional radiators, depending on the ambient room temperature.

NOTE: The system designer has to make sure that the supply temperature is suitable for the floor design of the underfloor heating system. A too high supply temperature may result in damage to the floor.

Features

- **Good readability of setting from every angle**
- **Easy blocking and limiting of setting without tools**
- **Thermostatic valves follow AT-Concept**

Specifications

Medium	Heating water, quality to VDI 2035
pH-value	8...9,5
Setting range	RTL-Set approx. 20...50°C (68...122°F) Room Control-Set approx. 6...28°C (43...82°F)
Operating pressure	max. 10 bar (145 psi)
Differential pressure	max. 1 bar (14,5 psi)
kvs-value	RTL-Set with visible thermostat - 1,0 with concealed thermostat - 1,7 Room Control-Set - 1,0

Dimensions

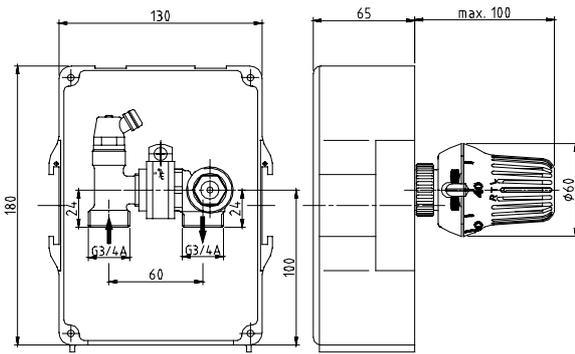


Fig. 1: RTL-Set with visible thermostat

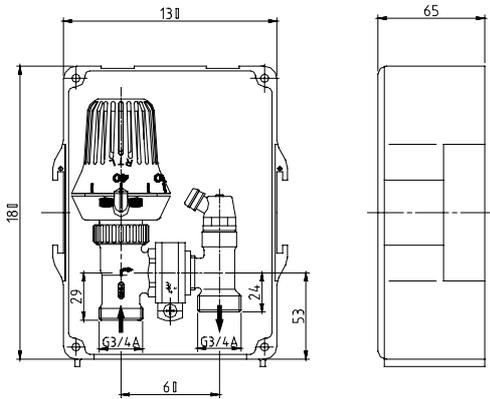


Fig. 2: RTL-Set with concealed thermostat

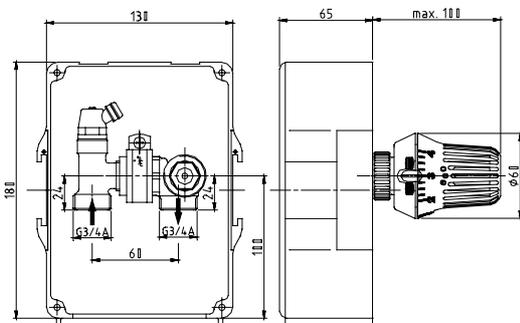


Fig. 3: Room Control-Set

Function

The RTL-Set is installed in the return of the underfloor heating loop. When the return temperature increases the sensor of the thermostat expands and acts onto the valve. This movement causes the valve to close and the flow of water into the underfloor heating loop is throttled. When the return temperature decreases the thermostat contracts and the valve opens by spring force.

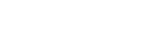
The Room Control-Set is installed either in the supply or return of the underfloor heating loop. The thermostat senses the ambient room temperature and controls the flow of the medium through the heating loop accordingly.

Ordering Information

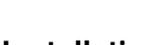
Type	kvs-value	OS-No..
RTL-Set with visible thermostat (Fig. 1)	1,0	T6102RUB15
RTL-Set with concealed thermostat (Fig. 2)	1,7	T6102AUB15
Room Control-Set (Fig. 3)	1,0	T6101RUB15

Accessories

Connections for copper and soft steel pipe (2 pcs)

	3/4" x 10 mm	VA7200A010
	3/4" x 12 mm	VA7200A012
	3/4" x 14 mm	VA7200A014
	3/4" x 15 mm	VA7200A015
	3/4" x 16 mm	VA7200A016
	3/4" x 18 mm	VA7200A018

Connection for PE-X pipe

	3/4" x 14 x 2 mm	OT112M-3/4D
	3/4" x 15 x 2,5 mm	OT112M-3/4E5
	3/4" x 16 x 2 mm	OT112M-3/4F
	3/4" x 16 x 2,2 mm	OT112M-3/4F2
	3/4" x 17 x 2 mm	OT112M-3/4G
	3/4" x 18 x 2 mm	OT112M-3/4H
	3/4" x 18 x 2,5 mm	OT112M-3/4H5
	3/4" x 20 x 2 mm	OT112M-3/4K
	3/4" x 20 x 2,8 mm	OT112M-3/4K8

Connection for multilayer pipe

	3/4" x 14 x 2 mm	OT113M-3/4D
	3/4" x 16 x 2 mm	OT113M-3/4F
	3/4" x 16 x 2,25 mm	OT113M-3/4F25
	3/4" x 18 x 2 mm	OT113M-3/4H
	3/4" x 20 x 2 mm	OT113M-3/4K
	3/4" x 20 x 2,25 mm	OT113M-3/4K25
	3/4" x 20 x 2,5 mm	OT113M-3/4K5

Soft connection for copper pipe

	3/4" x 10 mm	OT114M-3/4B
	3/4" x 12 mm	OT114M-3/4C
	3/4" x 14 mm	OT114M-3/4D
	3/4" x 15 mm	OT114M-3/4E
	3/4" x 16 mm	OT114M-3/4F
	3/4" x 18 mm	OT114M-3/4H

Installation Example

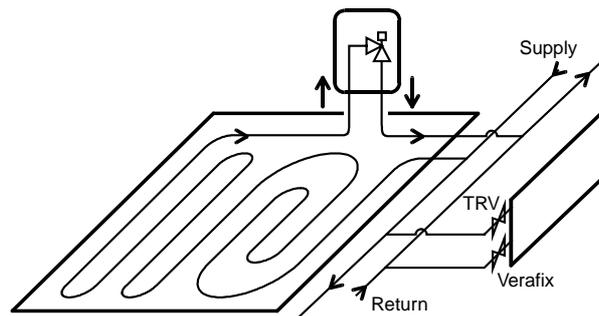


Fig. 4. RTL-Set

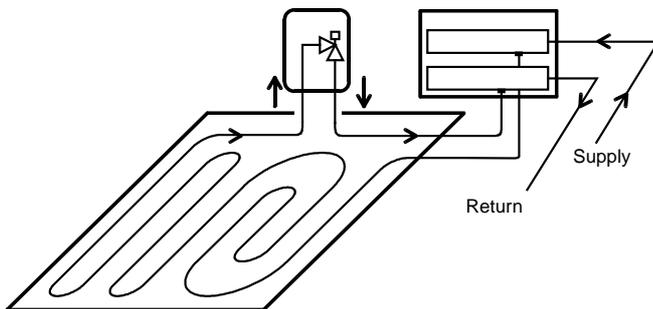


Fig. 5. Room Control Set, installed in the return

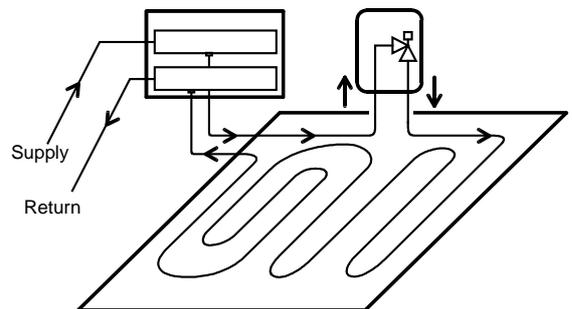
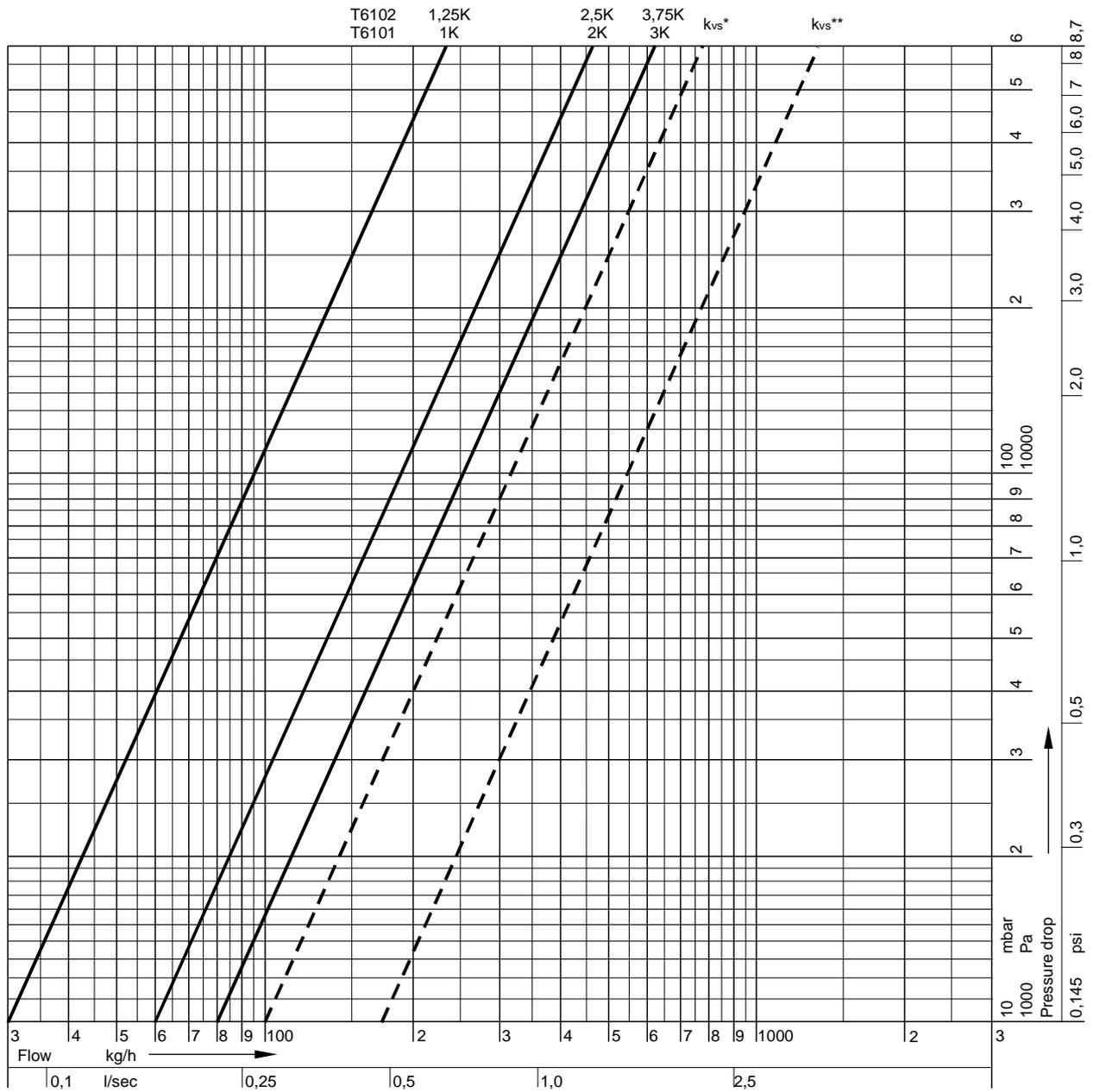


Fig. 6. Room Control Set, installed in the supply

Flow Diagram



Flow Values

P-Band T6102	1,25K	2,5K	3,75K	open = kvs	
P-Band T6101	1K	2K	3K		
kv-value	0,3	0,6	0,8	1,0*	1,7**

NOTE: * kvs-value of sets with visible thermostat
 ** kvs-value of RTL-Set with concealed thermostat (T6102 only)