

# TIOMIX0003 MIXING UNIT TECHNICAL DATA

PRODUCTS FOR THE BUILT ENVIRONMENT



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# TIOMIX0003

## MIXING UNIT WITH PROBE - WILO PUMP

### KEY FEATURES

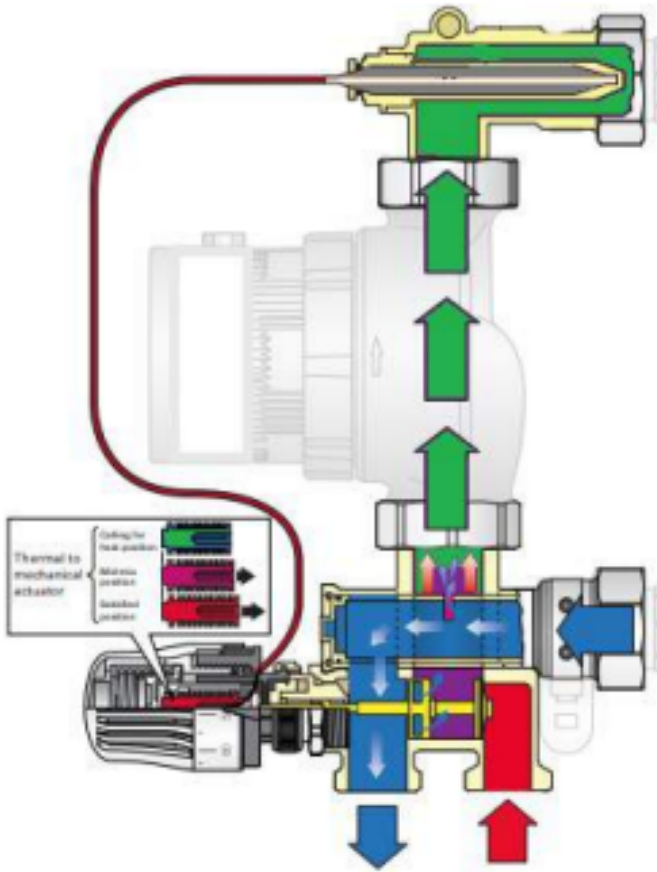


- Adjustable temperature range from 20°C to 70°C making it suitable for screed drying purposes
- Thermostatic mixing valve with remote sensor for accurate control of flow temperature
- Easy to use thermostatic head with temperature locking feature
- Flow increase valve to increase flow rate for larger manifolds / heat outputs
- Built-in non-return valve to aid filling during commissioning
- 1" male close coupled primary flow and return connections
- 1" male manifold connections with union for fast assembly / removal
- Optional ball valve set for fitting to 1" M primary connections
- Valve body kv range: 3.0 – 4.8
- Built -in manual air vent
- Built-in temperature gauge

The TM3 Control Group has an uniquely designed mixing valve at its heart which ensures accurate temperature control of underfloor heating. The unique design of the internal mixing valve components ensures that hot water from the heat source and return water from the underfloor circuit are mixed together in the valve body to produce a range of temperatures from 20oC to 70oC. This range of temperatures suits the whole field of underfloor heating applications, from commissioning new floor screeds to operating with very thick floor screeds in commercial applications. The illustrations below show how the mixing valve operates through its remote sensing thermostatic head:



# MIXING UNITS



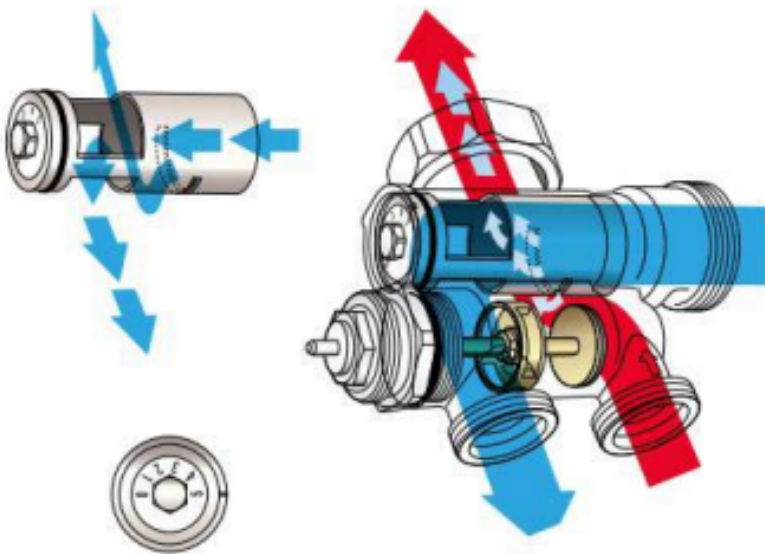
Initially the cool liquid in the remote sensing probe, allows almost all of the primary hot water from the heat source through the valve.

Gradually the temperature of the probe rises as the underfloor circuits begin to warm up.

Depending on the temperature setting of the thermostatic head, as the temperature of the probe rises, the shuttle starts to close off the primary hot water allowing return water to maintain the temperature set on the head, up to 70°C if required.

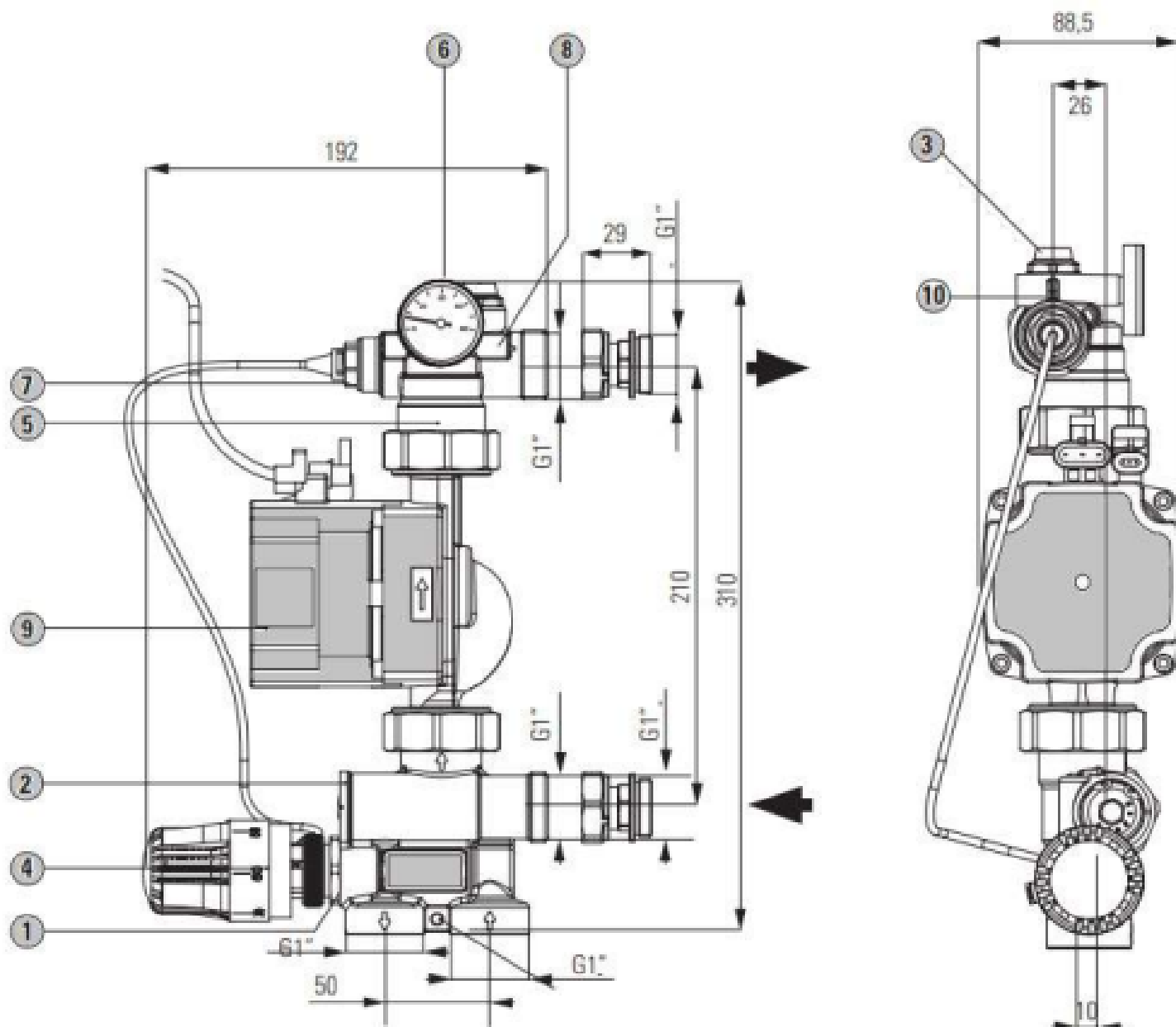
Once the temperature set on the head has been reached at the probe, the shuttle balances the right amount of primary hot water and secondary return water to maintain this temperature.

Depending on the thermostat setting, the hot water could be almost completely closed off allowing very low temperatures suitable for commissioning screed floors right down to 20°C if required



The thermostatic mixing valve has a flow increase valve which allows return water to flow directly into the mixed water outlet. This cools the mixed water temperature sensed by the remote probe and causes the mixing valve to open allowing more primary hot water through the mixing chamber and raises the temperature to the setting on the head

# UNIT PARAMETERS



- 1.No.1 mixing valve M30x1.5 thread for the installation of thermostatic head with an immersion probe from 20 -65°C or an electric servomotor (not supplied)
- 2.Nr. 1 calibration valve and by-pass;
- 3.Nr. 1/2" manual air vent valve;
- 4.Nr. 1 thermostatic head with immersion probe setting from 20-65°C limited to 50°C
- 5.Nr. 1 non-return valve;
- 6.Nr.1 thermometre 0-80°C scale;
- 7.Nr.1 housing for flow temperature probe;
- 8.Nr.1 housing for safety thermostat probe;
- 9.Nr.1 electronic circulator Wilo PARA 25/7 (where applicable)
10. Predispositions for creating a hole for the wall mounting by mean of screw and dowel (not supplied);





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