

Set point mixing unit group

Art. 8150 – 8150p



100% MADE IN ITALY 

Function

The set point mixing unit is suitable to be used on all Pintossi + C stainless steel manifolds series. It is the best solution to obtain an important **energy savings** in underfloor heating systems.

The set point unit allows to control fluid's distribution temperature of the heating circuit, maintaining it constant to a set value. The regulation can be done using the thermostatic head positioned on the hot water circuit coming from the heat generator.

The thermostatic head is equipped with a probe which detects the temperature of the mixed water and it's located on the hot water delivering manifold. In this way the hot water flow coming from the boiler is adjusted, by the thermostatic head, together with the water coming back from the underfloor heating circuit, depending on the actual request.

As an alternative it is possible to use an electronic actuator (not included), instead of the thermostatic head, with connection 30x1,5, with external probe for the climatic compensation regulation.

In the end part of the unit, on the back circuit to the heat generator, is positioned a safety thermostat set to a fix temperature of 60°C. In the event the backward fluid temperature should reach higher values, the safety thermostat would start working, opening the contact and blocking the circulator.

The unit is equipped with 1" connections. The sealing is guaranteed by **PTM system (Pintossi soft sealing)**, which allows a quick and safe installation, without the use of additional sealing materials, like hemp or PTFE ribbon.

Nickel plated.

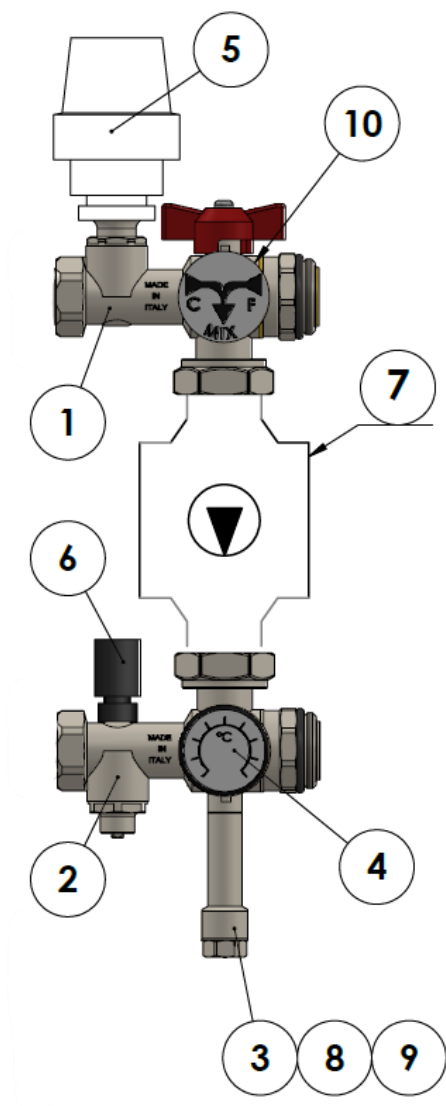
Technical specifications

Fluids:	Water or glycol solutions
Max glycole:	30%
Max working temp.:	70°C (with flowmeters) – 90°C (with lockshields)
Max working pressure:	6 bar (with flowmeters) – 10 bar (with lockshields)
Max differential pressure:	1 bar
Thermostatic head regulation:	20-70°C
Safety thermostat set temp.:	55°C ± 3°C (reset 45°C ± 3°C)

Materials

Body:	Brass CW617N
Gaskets:	EPDM
Handles:	Plastic
Thermostatic head:	Plastic
Probe:	Copper

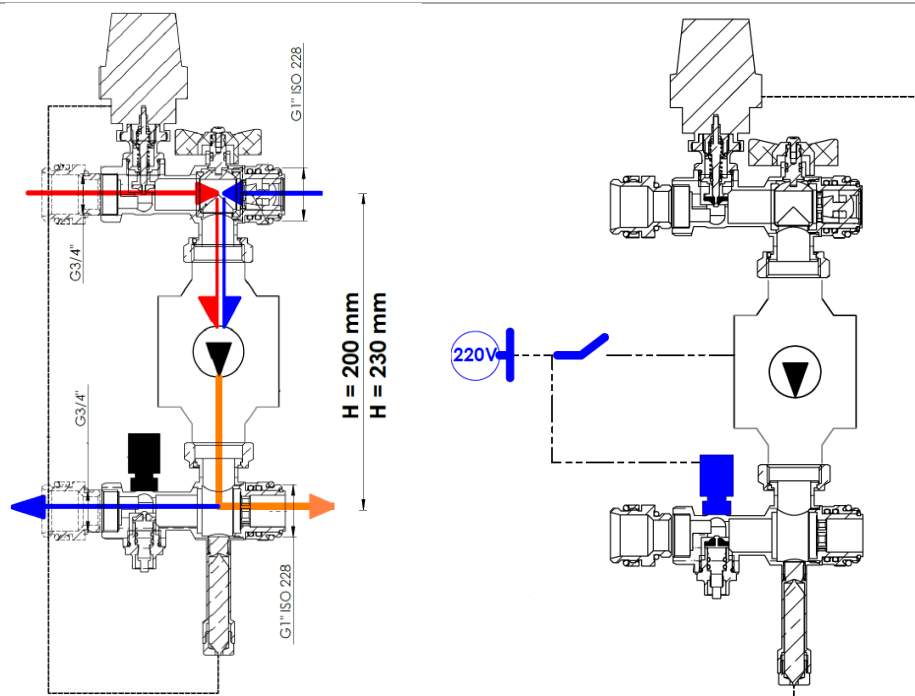
Components



N°	COMPONENTS
1	THERMOSTATIC VALVE
2	THERMOSTATIC VALVE
3	PROBE HOLDER
4	THERMOMETER
5	THERMOSTATIC HEAD WITH PROBE
6	SAFETY THERMOSTAT
7	PUMP
8	PROBE
9	PROBE HOLDER PLUG
10	BALL VALVE



Functioning and power supply scheme



The safety thermostat is set to a temperature of 60°C. When the fluid temperature is >60°C the thermostat opens the contact, shutting off the pump.

Circulation pump

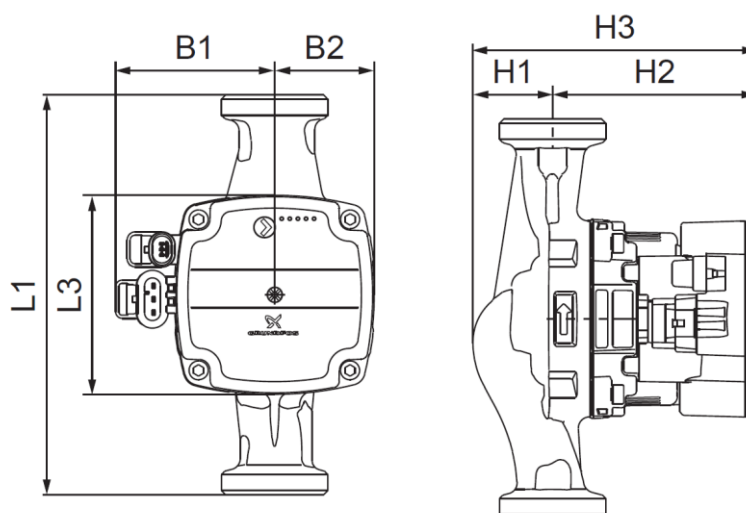
The mixing unit can be equipped with adjustable speed GRUNDFOS circulation pump, in A energy efficiency class.

HIGH EFFICIENCY CIRCULATOR – GRUNDFOS UPM3 AUTO 25-70 52W

PUMP TECHNICAL DATA

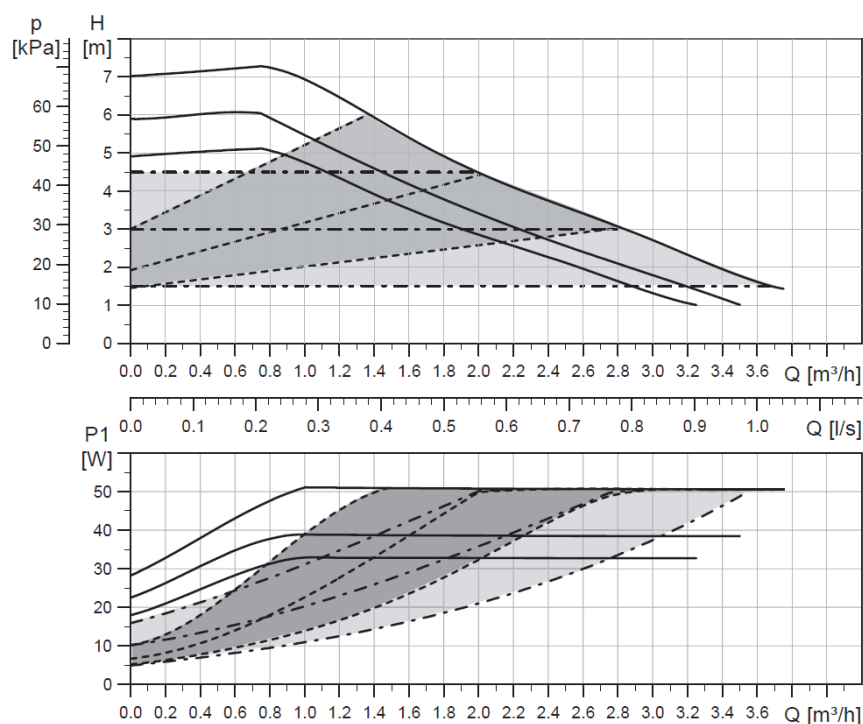
SUPPLY VOLTAGE	1 x 230 V (+10%-15%); FREQUENCY 50/60 HZ
ENERGY EFFICIENCY RATIO	EEI ≤ 0,20 PART3
PROTECTION CLASS	IP44 (NO CONDENSATION) – IPX4D (CONDENSATION)

DIMENSIONS



L1	L3	B1	B2	H1	H2	H3
130	90	72	45	36	92	128

PERFORMANCE AND REGULATION DIAGRAM



LINE TYPE	DESCRIPTION
————	CONTANT CURVE
-----	PROPORTIONAL PRESSURE
- . - . - . - . - .	CONSTANT PRESSURE

High temperature

In the event that it should be requested to use even high temperature manifolds (for radiators, towel warmer, etc.) it is necessary to install them before the set point mixing unit. The installation can be easily done using 1" nipples art. 670, that can be positioned at the beginning of the supply water manifold and at the end of the return circuit. In this case the manifolds for high temperature must be installed in reverse position compared to the underfloor heating systems ones.

Fluid characteristics

Reference standard for water treatments in heating systems is Norm UNI 8065:2019 which regulates the parameters that must be observed to avoid scale and corrosion phenomena.

In order to grant product warranty, the fluids characteristics must comply with the rules in force in the country of relevance or at least present features not less to the ones prescribed by the Norm UNI 8065:2019.

In particular, minimum standards necessary but not sufficient to control are the following:

Fluid aspect: Limpid

PH: Between 7 and 8

Iron (FE): < 0,5 mg/kg (< 0,1 mg/kg for steam)

Copper (CU): < 0,1 mg/kg (< 0,05 mg/kg for steam)

Antifreeze: Passivated Propylene Glycol

Conditioning: as indicated by the producer

In any case when using antifreeze and conditioning solutions, is required to control and verify the correct compatibility between these substances and the construction materials stated in Pintossi+C technical datasheet.