

# SET POINT REGULATING UNIT FOR UNDERFLOOR HEATING SYSTEMS

## ART.3493



Set point regulating unit for underfloor heating systems.

- Primary side connections (boiler): 1" male
- Secondary side connections (manifold): 1" female with swiveling nut
- · Manual air vent valve
- · Seat with T gauge
- Double 1/2" connection for safety thermostat installation
- 130mm template for pump installation
- Thermostatic mixer with 18  $\div$  55  $^{\circ}$ C scale

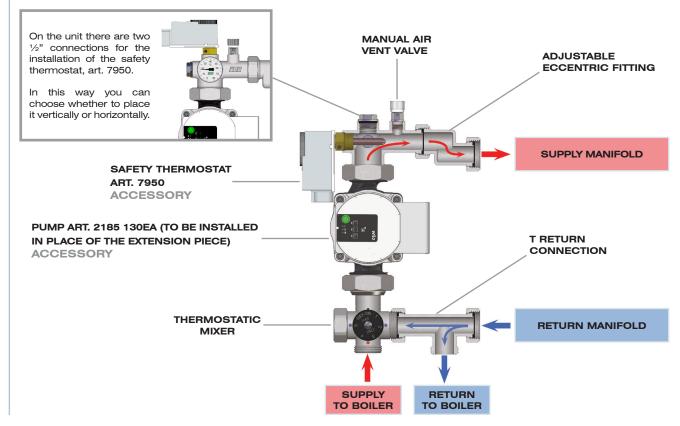
## 1 DESCRIPTION

The Set Point Regulation unit is suitable for heating systems with low temperature, this unit can be manually adjusted by turning the handle of the thermostatic mixer to the desired flow temperature value.

## 2 CONSTRUCTION DETAILS

Circulation is as follows: water leaves the mixer unit, passes through the pump (installed in place of the extention piece) and is pumped to the flow side of the unit where there are the safety thermostat (accessory) and the manual air vent valve. The water then passes through the adjustable eccentric fitting and enters the delivery manifold from whence it is distributed to the individual underfloor heating loops.

Water coming back from the return manifold passes through the T connection, where a part re-enters to the boiler and another one goes towards the thermostatic mixer.





#### THERMOSTATIC MIXER

The thermostatic mixer is designed to keep constant the temperature

The supply temperature setup must be carried out when starting up the system, considering the correspondence between the numbering present on the mixer and the outlet water temperature, as better specified in the table.

The temperature values at the different positions will not correspond exactly to the values in the table. Tolerance is built in to match the features of the individual system served by the unit. Temperature regulation must be carried out by means of the regulating handle with reference to the value on the temperature gauge.



POSITION	T [°C]
MIN	18 ± 2
1	20 ± 2
2	22 ± 2
3	30 ± 2
4	40 ± 2
5	50 ± 2
MAX	55 ± 2

#### HIGH EFFICIENCY ELECTRONIC PUMP (ACCESSORY)



In order to operate correctly, the plastic template on the unit must ALWAYS be replaced with an appropriately sized pump in order to avoid flow resistance in the low temperature

· Art.2185 130EA: high efficiency electronic pump with 130mm centre distance. Variable head from 1 to 7m, 230V supply and 3.5 m/h max. capacity.



#### SAFETY THERMOSTAT (ACCESSORY)

The immersion thermostat is designed to shut down the pum or the boiler, in the event that the supply water temperature exceeds the set value.

The graduated knob allows the operator to set the maximum temperature value for the system.

• Temperature setting range: 10-90°C



## INSTALLATION



The connections of the supply and return pipes must be made following the directions of the arrows, as shown in the example on the side.

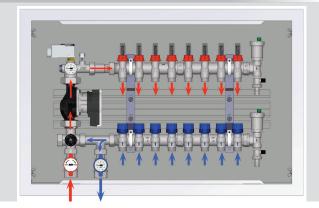


For a proper operation, the plastic template on the unit must ALWAYS be replaced with an appropriately sized pump.

The regulating unit is reversible therefore connections can be installed to the left or to the right of the unit, according to system requirements.

The possibility of installing the electronic part of circulator turned inwards allows to save space, and to install the unit in the inspection boxes.

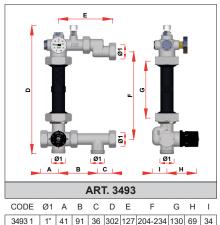
## Example of installation in an inspection box



## TECHNICAL FEATURES

Nominal pressure: 10 bar Max. initial flow temperature at mixer inlet: 95°C 18°C-55°C Mixer setting range: 130mm Center distance of the pump to install: Safety thermostat connections: 1/2"

### DIMENSIONAL FEATURES



3493 1 | 1" | 41 | 91 | 36 | 302 | 127 | 204-234 | 130 | 69 | 34