

Thermostatic solar diverter valve

Art. 1541



100% MADE IN ITALY 

Function

The solar diverter valve is particularly suitable in solar systems with storage for the production of hot water.

The main function **is to divert the fluid according to the set temperature** of the valve.

The sensor is directly immersed in the fluid and this guarantees a very **fast and precise reaction** to the temperature variations of the fluid.

Basically, the fluid from the solar storage is diverted directly to the users or to the boiler or integrative storage according to the set temperature.

The deviation of the fluid occurs through a mechanical movement of the obturator caused by the integrated wax sensor, avoiding in this way the need to install electrical devices or temperature probes.

The valve is designed in compliance with the essential points of UNI EN 1111 standard.

Nickel plated with yellow brass passages. Suitable for use with domestic water.

Technical specifications

Fluids:	Water
Max working temp.:	90°C
Max working pressure:	10 bar
Set temperature:	45°C
Adjustment range:	Set value +/-2°C
Accuracy:	+/- 2°C
KV:	1,6 m³/h

Materials

Body:	Brass CW617N
Obturator:	Brass CW614N
Gaskets:	EPDM
Spring:	Stainless steel AISI302
Sensor:	Wax

Working principle

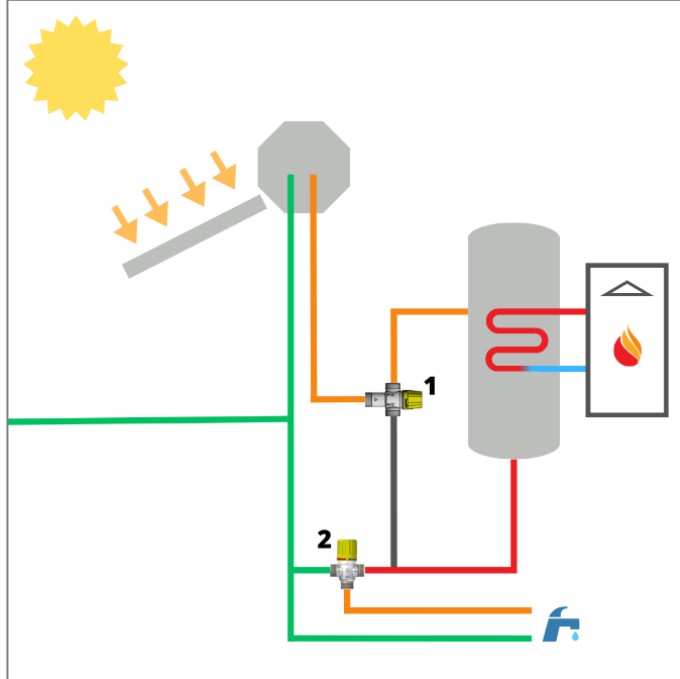
The functioning of the valve can pass through 2 different situations:

1. Inlet temperature $<45^{\circ}\text{C}$ - outlet 2
2. Inlet temperature $>45^{\circ}\text{C}$ - outlet 1

The deviation from a way to another starts at 43°C and ends at 47°C and conversely.

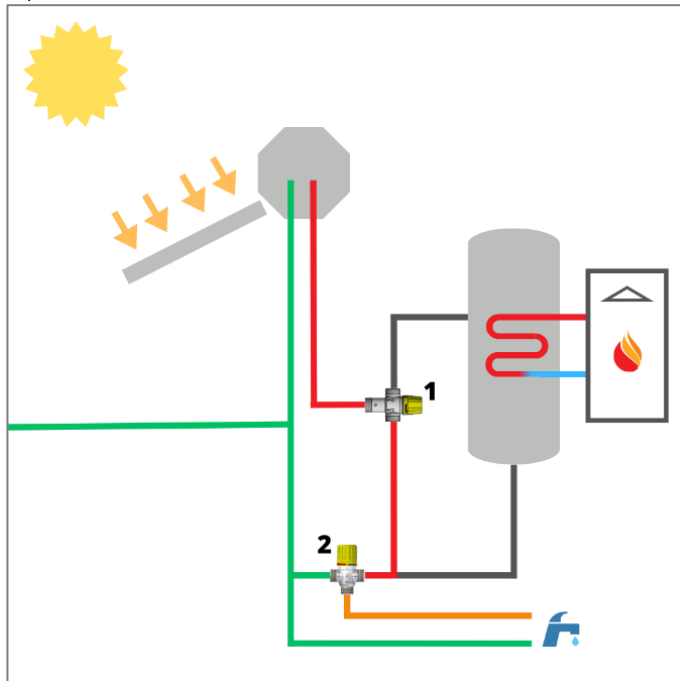
1. $T_a < 45^{\circ}\text{C}$

The water from the solar storage is diverted to the outlet 2 in the direction of the boiler or of the integrative storage. Once heated, the water is directed to the solar mixing valve to be mixed with cold water at the set temperature.

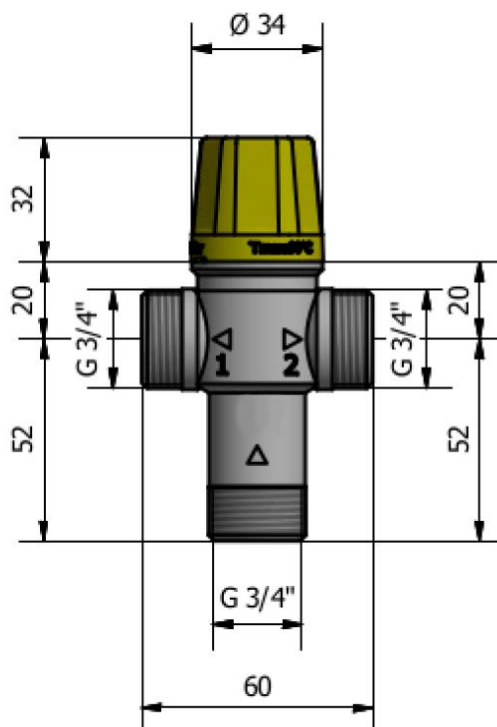


2. $T_a > 45^{\circ}\text{C}$

The water from the solar storage is diverted to the outlet 1 in the direction of the solar mixing valve to be mixed with cold water at the set temperature.



Dimensions



Installation

The valve can be installed both vertically and horizontally.
Connect the water pipe coming from the solar storage with the valve inlet (central way).
Connect output 1 with the thermostatic mixing valve marked with HOT (art. 1561-1563).
Connect output 2 with the integrative storage/boiler.

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 fluid 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): $< 0,5 \text{ mg/kg}$ ($< 0,1 \text{ mg/kg}$ for steam)

Copper (CU): $< 0,1 \text{ mg/kg}$ ($< 0,05 \text{ mg/kg}$ 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.