

Operating principle

The valve opens the outlet on reaching the settings for:

- **temperature:** the thermostat compound inside the temperature sensor 1) submerged in the hot water storage heater, expands as the temperature increases. This expansion causes a thrust pin to move and act on the obturator 2) opening the valve. The valve is set to open at temperatures of over 90°C.
- **pressure:** the obturator, opposed by a set spring, raises on reaching the pressure setting and opens the outlet completely. The pressure setting is chosen according to the maximum permissible pressure in the system.

As the temperature and pressure decrease, the opposite action occurs with the valve subsequently reclosing within the set tolerances.

Certification

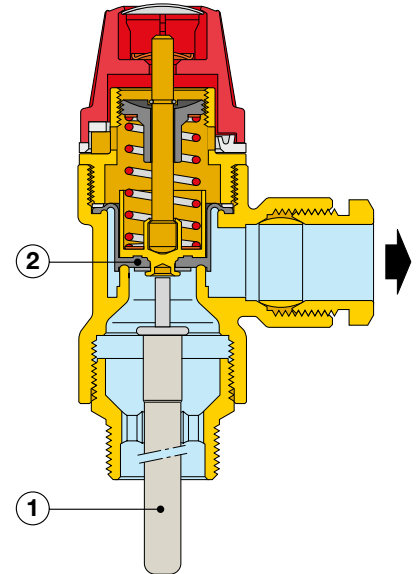
CE mark

309 series TP relief valves comply with the essential safety requirements of Directive 2014/68/EU concerning pressure equipment (also called P.E.D.). They are therefore classified as category IV and are equipped with the CE mark.

Product certification in accordance with European Standard EN 1490

European Standard EN 1490: 2000, entitled "Building valves - Combined temperature and pressure relief valves - Tests and requirements", describes the constructional and performance specifications that TP relief valves must have.

Caleffi 309 series TP relief valves are certified by Buildcert (UK) to comply with the requirements of the European Standard EN 1490 (for settings 4 - 7 - 10 bar).



Installation

Before installing a TP relief valve it is necessary for the sizing to be performed correctly by specialized technical personnel in accordance with the current regulations for the specific applications. Any use other than the intended use is prohibited.

The TP relief valves must be installed by qualified technical personnel in accordance with current regulations.

The TP relief valve must be installed observing the direction of flow indicated by the arrow on the valve body.

Assembly

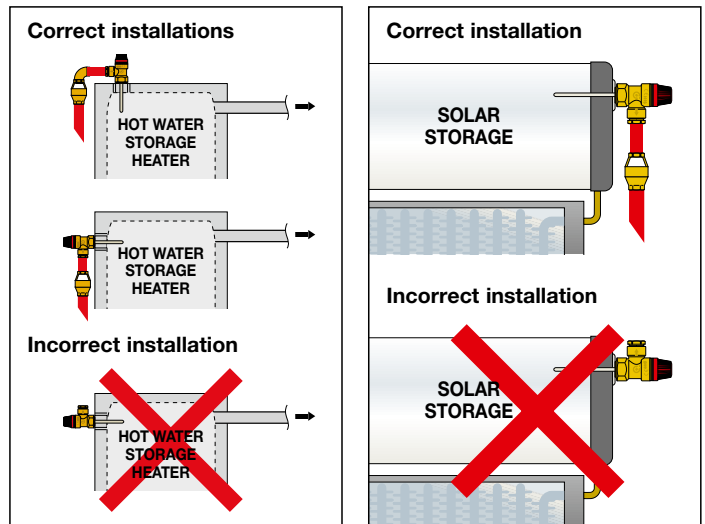
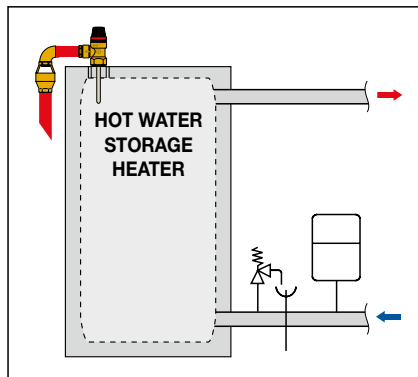
Plumbing system

TP relief valves must be installed on the top of the hot water storage heater, making sure that the temperature sensor is correctly submerged in the tank.

Make sure that there are no shut-off devices between the valve and the storage heater.

TP relief valves can be fitted vertically or horizontally, but not overturned.

This prevents debris from impairing operation.



SPECIFICATION SUMMARIES

309 series

Temperature and pressure relief valve. Equipped with the CE mark in accordance with directive 2014/68/EU. Threaded 1/2" M connections on the inlet and Ø 15 mm (3/4" x Ø 15 mm and 3/4" x Ø 22 mm) with compression fitting for copper pipe on the outlet. Temperature setting 90°C. Pressure setting 3 bar (available settings: 3-4-6-7-10 bar for 1/2", 4 bar for 3/4" x Ø 15 mm, 3-6-7-10 bar for 3/4" x Ø 22 mm). Valves with 4-7-10 bar setting certified to EN 1490 standard. Discharge rating: 1/2" x Ø 15 mm: 10 kW, 3/4" x Ø 15 mm: 10 kW, 3/4" x Ø 22 mm: 25 kW. Medium: water. Nominal pressure: PN 10. Dezincification resistant alloy body. Brass stem. Obturator and diaphragm in EPDM. Steel spring. Control knob in glass-fiber re-inforced nylon.

We reserve the right to make changes and improvements to the products and related data in this publication, at any time and without prior notice.