



### General Information

The temperature and pressure relief valves (TP) 309 series are made by Antares S.r.l. in compliance with the essential safety requirements laid down by Directive 97/23/EC of the European Parliament and the Council of the European Union for harmonisation of Member States with regard to pressurised equipment.

### Function

The temperature and pressure relief valve controls and limits the temperature and pressure of the hot water contained in a domestic storage heater and prevents it from being reaching temperatures of over 100°C, with the formation of steam. On reaching the settings, the valve discharges a sufficient amount of water into the atmosphere so that the temperature and pressure return within the system's operating limits.

*This particular series of valves is certified as conforming to the performance requirements of the European standard EN 1490 (for settings of 4 - 7 bar).*

### Technical specifications

#### Materials

Body:	dezincification CR EN 12165 CW602N
Spindle:	brass EN 12164 CW614N
Obturator and diaphragm:	EPDM
Spring:	steel EN 10270-1 SH
Control knob:	PA6GF

#### Performance

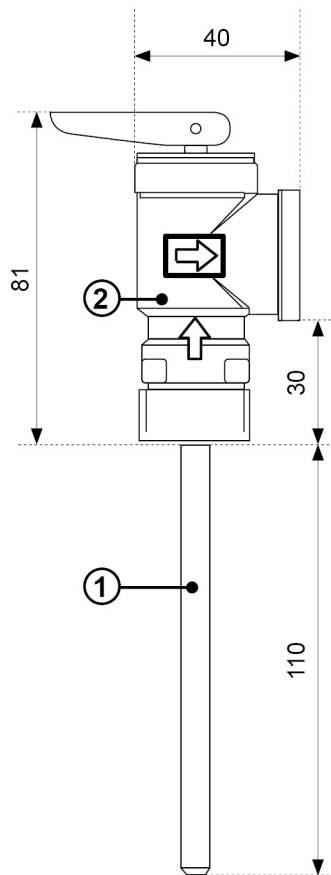
Nominal pressure:	PN 10
Discharge rating:	- 1/2" and 3/4" Ø 15 10 kW
Liquid:	water
PED Category:	IV

<b>Setting:</b>	- temperature:	92°C
	- pressure:	4 - 7 bar

<b>Connections:</b>	1/2" M
	3/4" M

### Factory setting

The setting of these TP safety valves is carried out by the manufacturer. It is forbidden to interfere with or alter this temperature and pressure value in any way.



### 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. Upon reduction of temperature and pressure subsequent closing of the valve within the permissible tolerances.

### 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. The TP Safety valves can be installed vertically or horizontally, not upsidedown. In this way are avoids the deposit of impurity interfering into the correct function.

### 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. The valve is suitable exclusively for the use in sanitary systems in protection of the water storage.

E.033 - Temperature and pressure relief valve  
Sizes: 1/2", 3/4".

