0788EN April 2016

TEMPERATURE AND PRESSURE RELIEF VALVE FOR SOLAR THERMAL SYSTEMS R140PT-1





Description

The R140PT-1 temperature and pressure relief valve limit the temperature and pressure of the hot water contained in a sanitary accumulation, preventing temperatures of more than 100 °C and the consequential formation of steam. Once the calibrated values have been reached, the valve discharges into the atmosphere just enough water to ensure that the temperature and pressure return within the system operating limits.

The R140PT-1 valves comply with European standard EN 1490 and Directive 97/23/EC concerning pressurised equipment.

Versions and product codes

Product code	Connections	Calibration pressure [bar]	
R140PX028	1/2" x Ø 15 mm	10	
R140PX038	3/4" x Ø 22 mm	10	

Technical data

- Nominal pressure (PN): 10 bar
- · Drain potential:
- R140PX028 (1/2" x Ø 15 mm): 10 kW
- R140PX038 (3/4" x Ø 22 mm): 25 kW
- Fluid used: water
- PED category: IV
- Calibration settings:
- Temperature: 100°C
- Pressure: 10 bar
- Connections:
- $1/2'' \, \text{M} \, \text{x} \, \emptyset$ 15 mm with compression fitting for copper pipes
- 3/4" M x Ø 22 mm with compression fitting for copper pipes

Materials

- Body: brass CW602N (DZR) chrome plated
- Stem: copper
- Shutter and membrane: EPDM
- Spring: steel UNI EN 10270-1 SH
- Command knob: ABS (orange colour)

Operation

The valve opens the drainage point when the calibrated pressure/temperature values are reached. In particular:

- if the water reaches a temperature higher than 100 °C: the temperature probe immersed in the hot water boiler contains a thermostat element that expands as the temperature rises; this causes a pin to move and push against the shutter, thereby opening the valve.
- if the water reaches a pressure level equal to the calibrated value: the shutter, restrained by a calibrated spring, rises when the pressure value is reached and fully opens the drainage passage.

The pressure calibration is selected according to the maximum pressure permitted in the system. As the temperature or pressure falls, the valve recloses automatically.

Installation

Before installing a P+T relief valve, it is essential for specialised technical personnel to ascertain the correct size on the basis of the regulations in force for the specific applications.

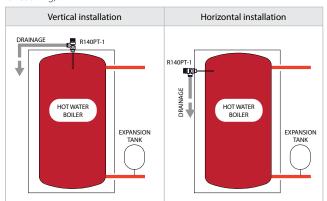
Any other use apart from the correct one is forbidden.

The P+T safety valves must be installed by qualified technical personnel, respecting the regulations in force.

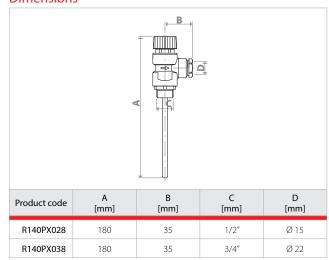
The flow must follow the directions indicated by the arrows on the valve itself. The R140PT-1 valve is only suitable for use in sanitary water systems as protection for the hot water boiler.

They must be installed on the top of the accumulation, making sure the temperature probe is correctly immersed in the boiler.

The P+T safety valves can be fitted vertically or horizontally, but not upside down (to avoid any impurities from settling and compromising the correct functioning).



Dimensions



COMPONENTS FOR SOLAR THERMAL SYSTEMS

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Product specifications

R140PT-1								
Temperature and pressure relief valve								
compression fitting for copper pipes. E Fluid used: water.	Brass body, steel spring, A	BS knob. Calibrat	tion temperature 100°	C. Calibrated pressure:	10 bar. Nominal pressure (PN): 10 b	oar.		
riuid used: water.								

Additional information

For additional information please check the website www.giacomini.com or contact the technical service: **\textit{ = 43 0322 923372} \textit{ = 43 0322 923355} \times \text{ consulenza, prodotti@giacomini.com} \text{ This pamphlet is merely for information purposes. Giacomini S.p.A. retains the right to make modifications for technical or commercial reasons, without prior notice, to the items described in this pamphlet. The information described in this technical pamphlet does not exempt the user from following carefully the existing regulations and norms on good workmanship.

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