





# Valvola di sicurezza doppia funzione temperatura e pressione

Double function safety valve temperature and pressure

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| 1,5÷8 bar |  |
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### **TECHNICAL SPECIFICATIONS:**

Materials: Body BRASS UNI EN12165 CW617N MOULDED

Internal Stem NYLON 30% FIBER GLASS

Obtur. and diaphr EPDM

Spring STEEL EN 10270-1 SH

Control knob PA6GF Nominal pressure: PN 10

Discharge rating: 1/2" and 3/4" Ø 15; 10 kW

3/4"Ø 22; 25 kW

Medium: water
PED category: IV

Settings: temperature: 90°C

pressure: 3 - 4 - 6 - 7 - 8 bar

Connections: 1/2" M x Ø 15 mm with compression fitting for copper pipe

3/4" M x Ø 15 mm with compression fitting for copper pipe 3/4" M x Ø 22 mm with compression fitting for copper pipe

#### FUNCTION:

The TP double function relief valve controls and limits the temperature and pressure of the hot water contained in a domestic storage heater and prevents it from being able to reach temperatures of over  $100^{\circ}\text{C}$ , with the formation of steam. On reaching the settings, the valve discharges 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 - 10 bar ).

#### OPERATING PRINCIPLE:

The valve opens the outlet on reaching the settings for:

- temperature: the thermostat compound inside the temperature sensor 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 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 pres-

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

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 TP: double function relief valves comply with the essential safety requirements of Directive 97/23/EC concerning pressure equipment ( also called PED ). 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.