

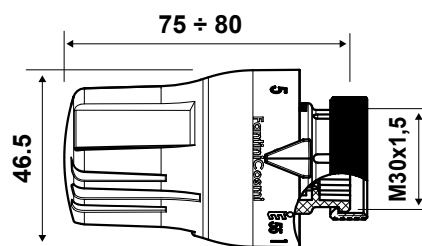
# ZTTLA

## Manual thermostatic head with built-in sensor for series 158...

The thermostatic valves automatically regulate the flow of hot water in the radiators according to the room temperature set on the control knob. The use of valves with thermostatic heads allows the requirements of thermal comfort to meet the needs of the user, thus obtaining significant savings in heating costs.



Dimensions (mm)



	Temperature adjustment scale	Antifreeze position	Connection	Sensitive element
ZTTLA	6 ÷ 30°C	6°C	M30x1.5mm	with highly expandable liquid

## CHARACTERISTICS

Sensitive liquid element with built-in sensor.  
 Compact size and attractive design.  
 Low thermal inertia: 22 min.  
 Temperature adjustment range: 6÷30°C.  
 Economy condition: 20°  
 Antifreeze position 6°C.  
 Maximum static operating pressure: 10 bar.  
 Maximum operating temperature: 120°C.  
 Maximum differential pressure: 1 bar.  
 Control hysteresis at 20°C <0.4K.  
 Sensor stroke 0.22 mm/K.  
 Effect of water temperature (W) 0.7 K.  
 Unalterable range -15°C ÷ +60°C.  
 Ring in CW 614 N UNI-EN 12164-98  
 Rotational limit selectors for pre-setting the adjustment range.  
 Head body in white RAL9016 ABS.  
 Standard connection M30x1.5mm.

# INSTALLATION

Horizontal installation to allow better heat exchange with the ambient.

- Vertical installation DOES NOT allow the valve to work properly (figure 4).
- Avoid direct exposure to sunlight and air currents (figure 1).
- Do not let furnishings, such as shelves (figure 3), radiator covers or curtains (figure 5), or alcoves prevent the free circulation of air.



Figure 1

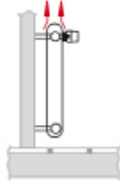


Figure 2



Figure 3



Figure 4



Figure 5

These installations are not correct since the thermostatic valve would assess a different temperature to the one in the room. For proper system operation we recommend you install a pressure relief valve between the supply and return lines. To prevent excessive noise, do not use thermostatic valves with  $\Delta p$  values higher than 0.2-0.25 bar.

## ASSEMBLY INSTRUCTIONS

Before installing the thermostatic head, turn the selector to "5" to facilitate the subsequent installation operations:

- Then unscrew the protective cap mounted on the radiator valves.
- Screw the brass ring of the thermostatic head on the same body thread.
- Then turn the selector to the desired temperature.



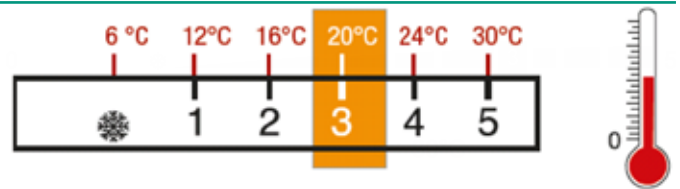
## HOMOLOGATION AND STANDARDS

The ZTTLA is classed as "a low thermal inertia" device and therefore meets the requirements set forth under the Decree of the Italian Ministry of Economy and Finance dated 19 February 2007, "Provisions relating to deductions for energy upgrading costs of existing buildings, pursuant to art. 1, paragraph 349, law 27/12/2006, no. 296".

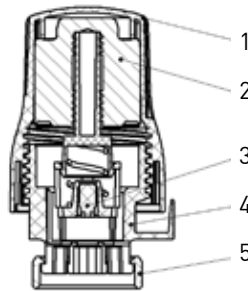
Keymark approved and tested in compliance with DIN EN 215.

## OPERATION

The ZTTLA thermostatic head adjusts the flow of hot water in the radiator through the radiator valve. The room temperature can be adjusted between 6°C and 30°C by setting the control knob.



1. Control knob
2. Liquid sensor
3. Piston
4. Body
5. Locking ring



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The thermostatic head consists of a sensor (1) filled with highly expandable wax. The wax, which is inside the control knob (2), is able to expand or shrink according to the increase or decrease in room temperature, noticing even the slightest variations. When the surrounding temperature increases, the wax expands and, through the axial thrust movement (3), affects the position of the shutter, thus controlling the action of the valve. The flow of the heat transfer fluid can be regulated by opening and closing the valve. When the temperature drops, the opposite happens thanks to the thrust generated by the return spring. The thermostatic head accurately keeps the ambient temperature stable. The value is set by turning the control knob, the numbers on it correspond to a given temperature.

### TEMPERATURE BLOCK AND LIMIT

The temperature can be blocked on any number on the scale or the stroke can be limited. You can block or limit it simply by turning the fork pin (1) on the head body:



Fig. 1



Fig. 2



Fig. 3

If you wish to block adjustment on "3", first turn the head until the desired position is reached. There is a tab on the bottom diametrically opposite the indicator. The temperature is blocked when the pin is inserted over this indicator (fig.1).

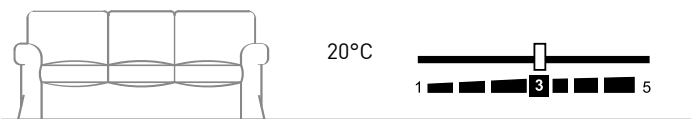
When the pin is inserted to the left of the tab the temperature is limited between "3" and "5" (fig.2), when inserted to the right it is limited between "3" and "❄" (fig.3).

## EXAMPLES OF CORRECT ADJUSTMENT

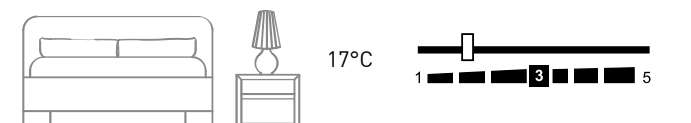
IT IS IMPORTANT TO KNOW THAT...

THE heating elements will not all be evenly hot, only those in the room needing heating will heat up. Proper operation of the thermostatic valve also causes a strong reduction of the water flow; the radiators tend to cool down at the bottom, which shows that the temperature set on the valve is being reached.

Lounge



Bedroom



Bathroom

