

### Application:

Temperature control for domestic and industrial heating installations, underfloor heating systems, boilers, air heaters, dish washers, oil pre-heaters, air dryers, water mixers, condensers e.t.c.

### Working parameters:

Flow temperature up to 120° C and 10 bar pressure.

The valves of the uni 101 00 and 101 01 type are suitable for systems with a differential pressure up to 1 bar and up to 0,5 bar excess pressure in case of steam at a temperature of 110° C.

For controllers of the 113 00 and 114 00 type permissible differential pressure is up to 0,7 bar for 3/4" valve size, 0,5 bar for 1" size and 0,2 bar for valve size 1 1/2".

### Temperature control range:

Controller Type 1 = 20 – 50° C

Controller Type 2 = 40 – 70° C

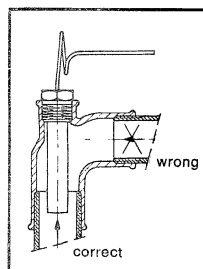
Controller Type 3 = 70 – 100° C

### Installation:

Pay attention to the direction of flow, (see arrow on the valve body). Before fitting the valve flush thoroughly the pipework. Solder beads, metal swarf or insoluble sediment can damage the valve disc. A plastic line strainer, (Part No. 101 99) should be fitted with each valve in older installations. If compression fittings are used, the compression nut thread and the olive should be lightly oiled. **USE NO GREASE!** On no account should the EPDM composition rubber valve disc come in contact with oil or grease. The EPDM material is not resistant to mineral oils or greases. Only the original OVENTROP compression fittings must be used, in accordance with fitting instructions.

### Installation of the temperature probe pocket:

To achieve the best control results ensure that the probe pocket is fully immersed in the heating medium. When fitted in the pipework the pocket should point against the direction of flow, (see the diagram).



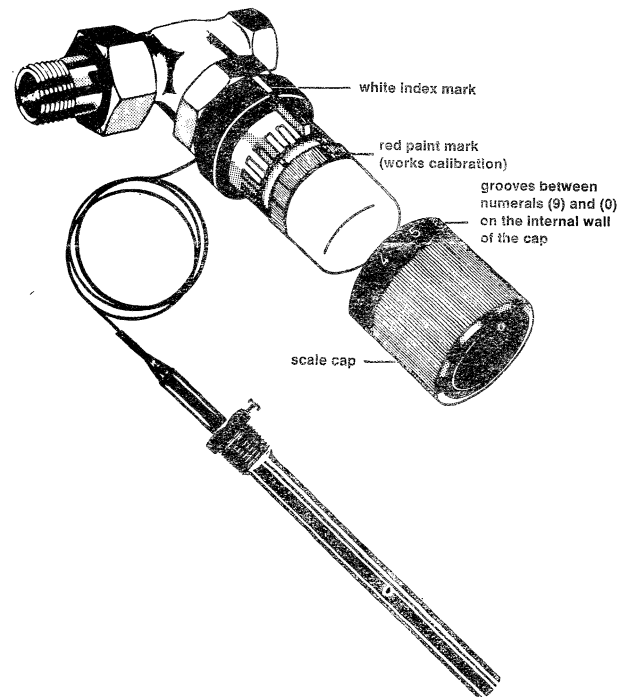
### Fitting the temperature controller:

Keep the temperature controller in such a way that the index mark is in upper or front position. Then tighten the unit. The capillary tube must not be bent or squashed.

### Temperature limiting:

The control range of the temperature controller can be restricted within the standard range, to a required upper or lower limit. For an upper limit restriction, first set the scale cap to the required level of temperature, (bearing in mind that for the 20 - 50° C range and the numeral (5) against white index line, the valve closes when the flow temperature reaches 35° C, 55° C for the 40 - 70° C range and 85° C for the 70 - 100° C range. Hence each division between the numerals (1) and (9) represents a change in temperature of approximately 3,75° C.

Then pull-off the cap and replace it so that the two grooves on the internal wall of the cap lie directly to the right of the stop ridge on the housing base, (opposite the white index line).



For limiting the lower temperature range, set the required level and remove the cap as described above, but replace it with the two grooves to the left from the stop ridge on the housing base.

When removing or replacing the scale cap care should be taken that the white knurled ring showing the red paint mark is not displaced. Should this ring be accidentally moved, its original position can be re-established as follows: turn the knurled ring clockwise until it makes contact with the housing base, then turn it anticlockwise until the red paint mark is opposite the white index line on the housing base. Then replace the scale cap with the numerical (5) opposite the white index line, thus the original setting is restored.

### Temperature locking:

As in the previous procedure set the required temperature first, then pull-off the scale cap and replace it so that the stop ridge on the housing base fits between the two grooves on the internal wall of the cap.

### Note:

(This applies only to valves of the 101 00 and 101 00 series.) The temperature controller adjusts the temperature by changing the rate of flow through the valve. At a time when there is only a small demand for change in the room temperature the valve is just at the point of either closing or opening and high differential pressure may cause flow noises. To counteract this effect a differential pressure control valve, (Item No. 108 50) must be fitted in the circuit.

### Important:

When fitting the actuator on the valve body, do not use tools or excessive force for tightening the hexagon connecting nut. Ensure that both serrations, on the valve body and on the base of actuator interlock and are in correct mesh.