# USER INSTRUCTIONS TS9510-TS9520 SINGLE BOXED THERMOSTATS

TS9510: immersion boxed thermostat with external temperature adjustement (pic.1) TS9520: capillary boxed thermostat with external temperature adjustement (pic.3)

## CONDITIONS OF USE

For the correct working and for safety reasons the thermostat is to be installed and used according to the instructions herebelow provided. The thermostat must be protected from water and dust. The boxed thermostats have been tested in compliance with the European standards for safety and have been classified as follows:

1) according to its manufacture: as an automatic control device by independent mounting.

2) according to its automatic operating feature: as a 1.B operated control type.

### INSTALLATION

Installation of TS9510 is made by means of a copper pocket or a ventilated tube. Proceed as follows: - by means of a COPPER POCKET (pic.4): fix the pocket in the seat on the appliance and screw it through the threaded connection, put the thermostat probe inside the pocket and fix the pocket to the thermostat base using the fixing screw (pic.2) - by means of a VENTILATED TUBE (pic.5): fix the flange of the ventilated tube in the seat on the appliance, put the thermostat probe inside the ventilated tube and fix the tube to the thermostat base using the fixing screw (pic.2). Installation of TS9520 is made using the 2 holes which are in the base of the thermostat (pic.3). Proceed as follows: - remove the knob, unscrew the 2 screws on the cover, place the thermostat, screw the 2 fixing screws on the holes, proceed with the electrical connection (as shown herebelow), replace the cover first and then the knob.

#### ELECTRICAL CONNECTION

Before proceeding with the electrical connection, make sure that there is no voltage in the cables. The electrical connection is ensured by means of screw terminals. Maximum diameter of the cross-section=2,5mm.<sup>2</sup>

We recommend the use of electrical connections suitable for the operating temperature.

The wiring diagram is shown on the label inside the product. The electrical connection must be executed by professional personnel according to standards and to laws in force.

Remove the knob and the cover by unscrewing the 2 screws, put the wires of the system through the cable-gland and make the electrical connections to the cable-box, replace the cover, fix the scews and replace the knob.

CONNECTION C-1: opens the circuit when temperature rises. CONNECTION C-2: closes the circuit when temperature rises.

## THERMAL, ELECTRICAL AND MECHANICAL FEATURES

Temperature ranges:  $-35 \div +35 \degree C$ ,  $0 \div +60 \degree C$ ,  $0 \div +90 \degree C$ ,  $0 \div +300 \degree C$ Nominal load: C-1 16 (3)A / 250V ~ (opening contact) C-2 6 (1)A / 250V ~ (closing contact) Max. ambient temperature: T90 Differential:  $2 \div 5K$  (dependig on the model of thermostat) Protection degree: IP 40 Insulation class: Storage temperature:  $0 \div 60\degree C$ 



Type of disconnection: micro-disconnection Micro-environment pollution degree: 2 Group of insulation material: IIIa Overvoltage class: II 1500 V Duration of electric stress: long period Number of cycles: 100.000



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