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## **OWNER'S MANUAL**

### **TYPE 1005**

### **CERAMIC CORE HEATERS**

#### **1 - DESCRIPTION :**

Resistors made of spirally wound nickel/chromium wire housed in ceramic cylinders. The unit is kept in place by a central stainless steel rod (or by nickel/chromium wire on certain models). Connection is by means of threaded terminals, or by nickel plaiting beneath a glass silk casing (or beneath beads for high-temperature use).

#### **2 - PRECAUTIONS FOR USE :** Check that :

- 2 - 1 - The diameter of the glove-finger (where heating liquid or gas) or the bored housing (where heating solids) is compatible with that of the cylinders. It must fit as closely as possible with that of the cylinders, taking into account their tolerance; aim for a diameter which is no more than 2mm greater than the nominal diameter of the resistor.
- 2 - 2 - The internal length of the glove-finger or the boring is greater than the beneath-head-length (BHL) of the resistor; it is recommended that this be :
 
$$\geq (LST + 25) \times 1.02$$
- 2 - 3 - The heating length is not located outside the zone where the heat exchanges are due to occur (e.g. where heating liquid with a glove-finger resistor in the vertical position, the heating length must always be below the minimum level).
- 2 - 4 - The interior of the glove-finger or the boring is completely clean, and has no traces of any metal chips, water, dampness or oil.
- 2 - 5 - The supply voltage used is that stated on the resistor head.

#### **3 - FITTING AND ELECTRICAL CONNECTION :**

##### **3 - 1 - FITTING :**

- It is recommended that, for resistors of 47 and 58, glove-fingers (for heating liquids) and Vulcanic housings are used. Fit the glove-finger and the housing following the information given in the wiring diagrams in the sales brochure.
- Introduce the resistor into the glove-finger or the boring, after passing it through the opening in the fixed connector of the housing, if provided.

##### **IMPORTANT NOTE :**

For uses where the temperature inside the glove-finger or the bored housing is likely to be over 500°C, withdraw the central rod when fitting : only the horizontal fitting position can be considered in this case.

### 3 - 2 - ELECTRICAL CONNECTION :

- Connect directly to the resistor terminals (for the threaded terminals option) or via connecting blocks (for the plaiting output option).
- Connect the earth terminal to the installation earth.

### 4 - MAINTENANCE :

4 - 1 - After 50 hours operating : check that all the connections are tight.

4 - 2 - At least once a year or more often if necessary : same operation as § 4-1. Where fitting is in a glove-finger configuration, also check that the latter has not become furred up; clean it if necessary.

### 5 - GUARANTEE :

Our guarantee conforms to inter-union electrical construction agreements, and our general terms and conditions of sale.

We cannot be held liable for any deterioration caused by :

- using the appliance above 10% over the nominal voltage intended,
- lack of maintenance, impacts, rough handling or inexperience on the part of the user.