

Silicone heating panels fitting instruction



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CE Statement

WARNING:

- Before use read this manual carefully.
 - Warning label must not be removed.
 - Heating panels must only be used by qualified personnel.
 - Installation and maintenance must be carried out by qualified personnel.
 - Heating panels must be installed maintaining good contact to surface that is to be heated.
 - Ensure the use of adequate thermal control.
 - Do not use in explosive or hazardous areas.
 - Do not touch when heating panel is energised.
 - Do not exceed maximum operating temperatures.
 - Do not overlap heating panels.
 - Do not use if heating panel is damaged.
-

GENERAL:

Heating panels of the H/SR series are silicone insulated heating devices for industrial use.

Dependant on the requirement, they can be designed with:-

- adhesive backing.
- Temperature sensors and controllers.
- Various fixing methods.
- A range of operating voltages and ratings.
- UL or VDE approval.

They are used for heating up and compensation of heat losses on a variety of applications.

The maximum temperature of use is 200°C (180°C with adhesive backing). The maximum achievable temperature, however, depends on the specific operating conditions. It may be influenced by the heat conductivity of the materials and media to be heated as well as the throughput, the ambient temperature, the insulating material and the insulation thickness.

SAFETY INSTRUCTIONS:

The heating panels are intended for use in industrial electric heating apparatus.

They correspond to the
BS EN 60335-1:2002.

The heating panel has to be operated in accordance with these standards and regulations.

The heating panel should be installed on an electrical system protected by a residual-current circuit breaker.

MALFUNCTION:

Heating panels or their cables that show visible signs of damage or are not operating correctly should be disconnected from the electrical supply and removed from the installation immediately.

COMMISSIONING AND OPERATION:

- The maximum temperature for using the heating panels is 200°C (180°C with adhesive backing).
- Do not allow the heating panels to exceed this temperature.
- Suitable temperature control must be used.
- Please observe the requirements of the standards listed under 'Safety Instructions'.
- Correct function of temperature control and limiting devices must be checked on first operation.

MAINTENANCE AND CARE:

Maintenance and care is performed according to the standards listed under 'Safety Instructions'.

The function of the temperature controlling and limiting safety device must be checked and the surface and connection cable should be inspected for visible damage at least once a year. The surface of the heater should be cleaned with a damp cloth. Do not use solvents.

TECHNICAL DATA:

For nominal voltage, mains frequency and nominal performance please refer to specification:-

| | |
|-----------------------------------|---------------------------|
| Electrical Protection | None |
| System of protection | IP 64 |
| Temperature sensor/ controller | Refer to specification |
| Heating conductor temperature | |
| Non adhesive | 200 °C |
| Self adhesive | 180 °C |
| Dimensions and weight | Refer to specification |

INSTALLATION AND CONNECTION:

The heating panels are fitted to the component to be heated and fixed using springs, hooks, quick release fasteners, adhesive backing, silicone glues or separate straps.

When fitting with adhesive backing or silicone glue all surfaces must be clean and de-greased. Ensure there are no sharp edges that may damage the silicone insulation.

The heating panels are moisture resistant and are not suited for immersion.

Metallic components coming in contact with the heating panel have to be incorporated in the protection measures of Protection Class I (protective earthing).

A residual current device circuit breaker is recommended.

INSTALLATION OF NON-ADHESIVE HEATER MAT:

- 1 Ensure surface to be heated is clean of grease and dirt (use cleaning solvent if required).
- 2 Whilst the elements are flexible, care should be taken not to roughly handle, fold or crease them.
- 3 Ensure H/SR heating element is clean of dust and dirt. (to clean use a damp cloth).
- 4 Apply a thin layer of suitable silicone rubber adhesive to the side of the element which is to be placed in contact with the surface to be heated.
- 5 Place H/SR element into position, against surface to be heated and press firmly ensuring good, even contact.
- 6 Route and secure heater mat cold lead/cable
- 7 Visually inspect heater mat installation.
- 8 Electrically static test heater mat for correct element resistance reading and earth isolation.
- 9 Equipment that the heater mat is fitted to should provide protection against electrical shock according to relevant European standards.

INSTALLATION OF SELF-ADHESIVE HEATER MAT:

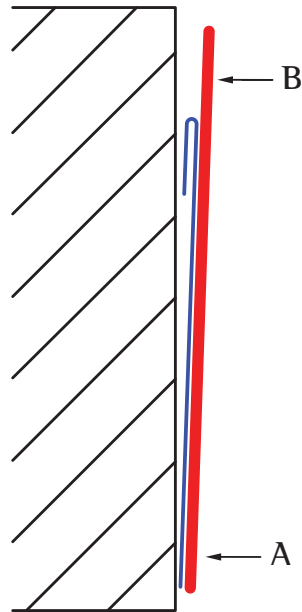
- 1 Care should be taken not to bend, crease or fold the element especially whilst the backing paper is on the mat.
- 2 Ensure surface to be heated is clean of grease and dirt (use cleaning solvent if required).
- 3 Peel release paper from farthest corner away from the lead connection (as Fig.1)
- 4 Place the heater mat into position immediately after peeling off the paper to avoid any dust or grit adhering to the heater (as Fig. 2)
- 5 Place the heater mat into exact position, roll from one edge against the surface to be heated and press firmly ensuring good even contact (as Fig. 3)
- 6 Route and secure heater mat cold lead/cable
- 7 Visually inspect heater mat installation.
- 8 Electrically static test heater mat for correct element resistance reading and earth isolation.
- 9 Equipment that the heater mat is fitted to should provide protection against electrical shock according to relevant European standards.

1



Peel away approximately 50mm of release paper and fold back on itself

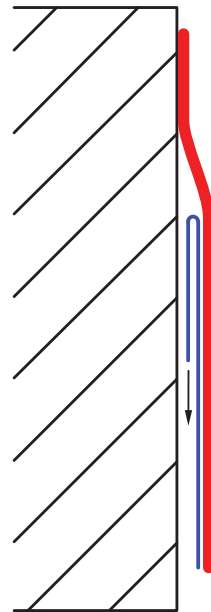
2



Position edge of mat against component at "A" keeping exposed adhesive away from surface at "B"

When heater is in correct position, press exposed adhesive against surface at "B"

3



Pull release paper back at the same time pressing or rolling heater mat on to component

Note. Once heater mat is installed it cannot be re-applied

CE STATEMENT:

In line with the company policy of continued improvement and incorporation of the latest development on electrical construction and safety of our products, we are pleased to issue the following statement with respect to the EEC Directive 768/2008/EC on CE Marking of electrical products.

The insulation system and construction of the Heaters meet the requirements of all the relevant EEC Directives including the Low Voltage Directive (LVD) and the Electromagnetic Compatibility Directive (EMC).

To meet these requirements "The Heaters" are produced to meet or exceed the requirements of all the relevant national and international standards.

In line with these directives we have "CE" marked the heaters this being The Recognised Declaration within the European Economic Area (EEA) of compliance with EEC Directives.

As required by the EEC Directives, 2006/95/EEC (LVD) and 2004/108/EC (EMC), the following are held at our Registered Company Office and Main Factory:-

- Technical Files.
- Design details and drawings.
- Construction details and drawings.
- Test details.
- Third party test reports where applicable.

As the "Heater" is supplied as a component to the customers specifications for installation by them as part of a final product, the installation and conditions of "The Heater" are beyond our control. The suitability for use and assessment to the EEC directives when "The Heater" is incorporated within the final product will need to be made by the customer.

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