

Installation Instructions

Heating Elements Type: hotform

1. General notes

Hotset heating elements for rated voltages above 50 V AC or 75 V DC were developed in accordance with directive 2006/95/EC of THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, December 12th, 2006.

The heating elements are components, not fully operational equipment. The intended use is in industrial electrothermal machinery.

The heating elements were electrically and mechanically tested by the manufacturer and were shipped from the factory in a safe technical condition. For proper and safe operation, these installation and storage instructions must be followed.

2. Safety

Heating elements should be installed by qualified personnel. The customer is responsible for correct installation of the heating element.

For proper operation and safety, the heating element and heated block must be connected and grounded according to DIN EN 60204-1. Use of additional grounded connections may be required even if heater is equipped with a ground connection wire. Upon commissioning of the heating element within an existing system or machinery, an inspection protocol according to DIN EN 60204-1, VDE 0100-610 or adequate local law must be issued. The heating element should be included in the customer's preventative maintenance plan and checked regularly according to the operational safety regulations.

The customer is responsible for safely modifying heating elements that were ordered with bare lead wires before installation and operation.

The heating element must be protected against contact, as it may become very hot during operation.

Appropriate measures must be taken to prevent overheating of the heating element, e. g. by a temperature control system, the choice of appropriate heating element power and/or an overheating protection.

No flammable or explosive materials may come into contact with the heating element. Even in case of malfunction, fire/explosion hazard must be prevented.

3. Prior to installation or storage

Please confirm the item shipped is the heating element ordered. The connection voltage must not exceed the heating element's operating voltage (nominal voltage).

Heating elements should be stored at room temperature in a dry atmosphere.

4. Installation

4.1. General

Heating elements and sensors must be properly installed to function safely.

Heating element terminals must be protected from liquid contamination.

To avoid short-circuits, the leads must not come into contact with sharp edges and/or objects (appropriate safety devices for the terminal area are available as accessories). Observe minimum bending radii of leads, as specified in the product data sheet.

Maximum temperatures of terminal area and cables must not be exceeded. (For information on the maximum permitted service temperature of the respective terminal version please refer to the product data sheet)

Observe correct polarity in heating elements with built-in thermocouple.

Use adequate controllers for the installed total power and the type of sensors used (controllers are available at hotset).

For additional information arising from special applications, please refer to the order confirmation.

4.2. hotform Silicon Heating Elements with Self-adhesive Foil

The self-adhesive foil is permanently heat-resistant up to 150° C / 302 ° F and short term up to 180° C / 356 ° F. The adhesive films' resistance to UV and humidity is excellent.

Note: It is not recommended using films on low-energetic surfaces such as polyethylene or polypropylene.

4.3. Processing instructions

Make sure the application surfaces are clean, i. e. free of dust, grease, oil, and release agents. It should be dry, firm, and smooth. We recommend using a mild solvent for cleaning. Check compatibility with plastic surfaces.

The ideal bonding temperature is between +18° C and +30° C (65 to 86 ° F). Application temperatures below +10 ° C / 50 ° F are not recommended because the adhesive hardens too much and its immediate bonding capacity is reduced. Once the material is properly installed, low temperatures do no longer affect the bonding quality.

It is best to press firmly for a moment. This provides a complete contact with the surface and creates the right conditions for perfect bonding. Working outwards towards the edges in a firm kneading motion is a must in order to remove any air bubbles.

The adhesive strength is best when the heating element is firmly re-pressed during initial heating.

Hotset GmbH

Hueckstraße 16 · 58511 Lüdenscheid · Germany
 Phone +49/23 51/43 02-0 · Fax +49/23 51/43 02-25
 www.hotset.com · DEsales@hotset.com
 Managing Partner: Ralf Schwarzkopf
 Registered seat: Lüdenscheid · Germany
 Register court: AG Iserlohn HRB 3927
 VAT-Id.No.: DE 125800560