Miniature Heaters

H&b Sensors manufacture a select range of high temperature nickel and inconel® sheathed miniature heaters with operating temperatures of up to 900°C. The heaters are designed for use in applications where size, high reliability and long life are important.

The miniature heaters supplied by H&b have a uniform external diameter of approximately 1.5mm. Incorporating virtually non-hygroscopic materials minimises the problems associated with moisture ingress of the conventional mineral insulated heaters. The heaters have been designed so they can be subjected to very high levels of vibration during operation without performance levels being affected.

H&b's miniature heaters can be formed into virtually any shape; with a minimum bend radius of 1.5mm. All heaters are hermetically sealed with a choice of terminations to suit a wide variety of applications.

After forming but prior to termination, the heaters can be attached to an item or structure by high temperature brazing, metal spraying or moulding.

The heaters are normally constructed with a cold lead at each end; special heaters can be built with composite elements to supply a variable wattage density or intermediate unheated section.

All heaters manufactured by H&b Sensors are extremely adaptable to meet virtually any laboratory or industrial application and can be tailored to exact customer requirements. Thermocouples can be incorporated into the structure for temperature measurement or control purposes along with a variety of electronic components.

Constant Wattage Heaters

These heaters are designed to operate at a fixed wattage, independent of ambient temperature for rapid heating, where it is necessary to dissipate large amounts of heat over a small area. The wattage density of the heaters can vary up to 20W/cm dependent upon voltage.

Self Regulating Heaters

The power uptake ranges inversely with the change of ambient temperature. These heaters are designed primarily for operation under icing conditions or to prevent overheating during zero flow conditions when heating moving fluids.