TEMPSENS

Thermal and Cable Solutions

ISO 9001-2015 CE IEC CCOE Underwriters Laboratories

MICA BAND HEATERS

TEMPSENS INSTRUMENTS (I) PVT. LTD.

B188A, Road No.-5, M.I.A., Madri, Udaipur, (Rajasthan.) INDIA 313 003

Ph.: +91 294 3507700, **Fax :** +91 294 3507731

E-mail : info@tempsens.com

www.tempsens.com

MICA BAND HEATERS

Mica band heaters offer efficient and economical solutions for heating cylindrical surfaces that require external indirect heating. They are ideal solution for high watt density and high temperature application. It uses nickel chromium resistance strip as heating element which is precisely wound on a dielectric material for even heat distribution. The heating element is insulated within a mica core enclosed in a metal sheath which provides exceptional insulation, dielectric strength and heat transfer capability for faster heat up and longer heater life.

Heaters can incorporate various sized holes and cut-outs and are customizable for various dimensions, wattages, voltages and materials to suit different applications requirements. Mica band heaters can also accommodate built in thermocouple which helps in controlling temperature more accurately. Thermocouples can be type “J” or type “K”, grounded or ungrounded.

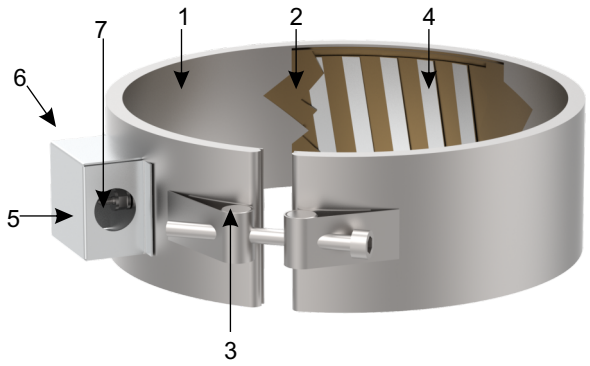
Technical Specifications

Sheath Material	Stainless Steel, Galvanized Iron
Max Sheath Temp.	425 °C
Voltage	120 V & 240 V, single phase, 2 phase and 3 phases
Watt density	up to 45w/in2
Minimum diameter	2”
Minimum width	1”
Wattage tolerance	+5%, -10%
Resistance tolerance	+10%, -5%

Note : For custom design requirements please contact factory

Construction

1. **SS/Aluminised Sheath** for good thermal conductivity and oxidation/corrosion resistance at elevated temperatures.
2. **Mica Insulation** provides excellent electrical insulation and resistant to moisture.
3. **Clamping Band** designed to maintain clamping pressure and firm contact with the cylinder surface thus eliminating air gaps at the contact
4. **Nickel Chromium Resistance Strip** evenly wound for uniform heat distribution and reliable accuracy.
5. **Terminal Box** to provide protection against exposed terminals and helps guard terminals from spill over's, dripping.
6. **Lead Protection** is available where abrasion is a problem.
7. **Stainless Steel** screw terminals for maximum amperage carrying capacity and firm connection with the winding.



Applications

- Plastic Injection, Extrusion and Moulding Processes
- Plastic Processing Industry,
- Chemical Industries
- Food Processing Industries
- Oil Lubricating Unit
- External Tank & Vessel Heating
- Blown Film Dies

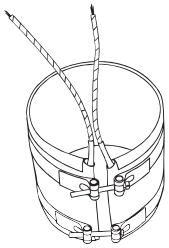
Advantage

- Various shape options in mica strip heater
- Reasonably high temp
- Good efficiency
- Good lifetime
- Low cost
- Less in thickness

MICA BAND HEATERS

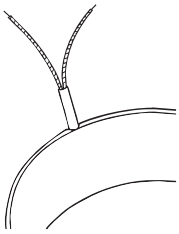
Fibreglass Lead & Stainless Steel Braid terminations

Order Type L1/B1



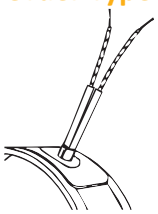
- Leads exiting both sides of gap are standard unless otherwise specified.
- High temperature fiberglass leads are rated to 455°C.
- Standard lead length is 10”

Order Type L2/B2



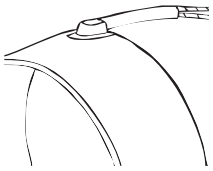
- Lead wires exiting 180 degrees from gap are common on nozzle
- heater applications.
- 1.5” of sleeve protection is standard on lead exits.

Order Type L3/B3



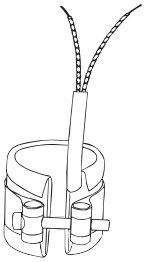
- Leads exiting straight out the side are available on any construction.
- Leads exit through a brass eyelet.

Order Type L4/B4



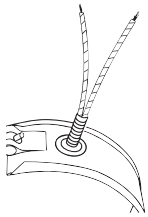
- Leads may exit at right angle out of cap from any position on the heater.
- 1.5” of sleeve protection is standard.

Order Type L5/B5



- Lead wires on one side of gap are available on any construction.
- Common exit for small band heaters.
- Standard gap is .300”

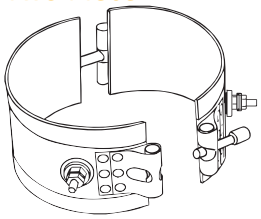
Order Type L6/B6



- Stainless steel spring provides extra support, protecting leads from sharp bends.

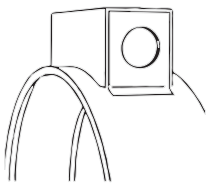
Marathon Special Constructions

Two Piece



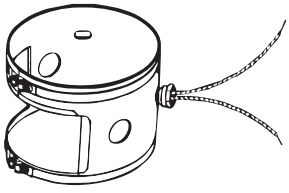
- Two piece construction is available for easy nstallation and removal.
- Please specify total wattage when ordering
- Min. I.D. 3”

Terminal Box



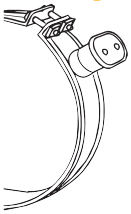
- Terminal boxes are excellent for preventing electrical shock or electrical shorts. Terminals boxes are available on any clamping or construction style.

Holes



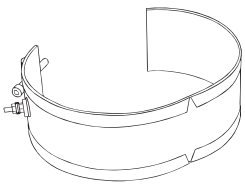
- Band Heaters can be manufactured with custom holes or slots for thermocouples or special mounting needs.
- Minimum of 1/2” is required from the hole to the edge of the heater.

Euro Plug



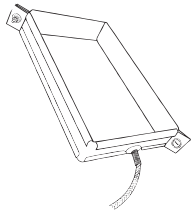
- European type plugs are
- available upon request.
- 1” x 1.75” x 1”

Expandable



- Expandable Mica Heaters allow you to open the heaters to the diameters of the barrel for easy installation.
- Min. I.D. 3”
- Heaters should only be opened all the way one time.

Box



- Box or rectangular heaters are efficient for heating dies on plastic extruders or the barrels of twin extruders.
- They can be manufactured in one or two piece construction.