Moisture Proof Mica Band Data Sheet



Mica insulated moisture proof band heaters are fully sealed to protect against the admission of liquids, molten plastics or other contaminants. Moisture proof band heaters are manufactured with 24-guage stainless steel. The edges are welded together and all terminations are protected with a brass cap that is silver brazed securely onto the heater making it resistant to moisture.

For extreme conditions, TriVolt developed the MPBI heater which is 100% fully sealed and has been tested by being fully submerged in water. Sealed to operate underwater, in saltwater and in open air conditions.

TriVolt adopts a stringent internal Quality Control System. Every heater is tested for resistance and dielectric. All our electric heaters are compliance certified or have international approvals from CSA, CUL, or CE certified.

Applications

- Wet conditions
- Outdoor environment
- Nozzle tip (ground wire)



- Specifications
- » Sheath temperature: up to 800°F (427°C)
- » Nominal watt density: 20-35 watts/sq. in.
- Maximum watt density: depends on size of heater and operating temperature
- Maximum voltage 240VAC (consult factory for higher voltages)
- » Resistance tolerance: +/- 5%
- » Wattage tolerance: +/- 5%

Construction

- » 1-piece construction
- » Exterior material; 304 2b stainless steel
- » Interior material: Nickel Chromium wire and silicone bonded mica
- » Edges welded and fully sealed
- » Brass cap and sheet metal silver brazed and fully sealed
- » Right angle brass cap can be rotated to 90°, 180°, 270° or 360°
- » Steel inserts spot welded at ends to secure position

- » Cross section option of 0.125" or 0.187"
- » Option to seal lead wire with rubber shrink tube or Teflon sleeve
- » Standard gap: 0.375" (if different please specify)
- » Min. diameter: 1.5"
- » Max. diameter: 96"
- » Min. width: 1.5"
- » Max. width: 3"
- » Thickness: 0.205" +/- 0.003"

(Consult factory for sizes other than those mentioned above)



Electrical Connections

- » High temperature lead wire, 550°C (1022°F) with protective;
 - fiberglass sleeve (SL),
 - stainless steel over braid (SS)
 - > armored cable (AC)
- » Ground wire complete with Teflon sleeve or shrink tube

Types of leads



Fiberglass sleeve (SL), single or double conductor



Armored cable (AC)



Stainless Steel over braid (SS)



Ground wire complete



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Terminal Housing

» Brass cap for heaters with different angle lead exits

Lead direction



Exiting straight out, positioned 180° from gap



Exiting at a right angle, positioned 180° from gap



Exiting straight up, positioned 180° from gap

Brass cap angle



Exiting at a 45° angle upwards, positioned 180° from gap



Exiting at a 45° angle lateral, positioned 180° from gap



Exiting at a 45° angle lateral, positioned 180° from gap

Holes

- » Mounting holes (consult Trivolt)
- » Notches (consult Trivolt)
- » Square cut-out (consult Trivolt)
- » Adaptors and fittings



Mounting holes



Notches



Adaptors and fittings

Clamping Methods

- » Full strap
- » Barrel nut construction
- » Mounting tab



Barrel nut construction



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Mounting tab

