Mica Band Heaters

- Thin, Efficient Heater
- Up to 800°F Max. Sheath Temperature
- MB-1, MB-2

Description

A mica core produces a thin, efficient heater. Heat from the precisely wound resistance element is quickly transferred to the working surface for fast heat-up and response. Mica provides excellent dielectric strength and heat transfer capability for long heater life. The mica core is encased in a continuous corrosion resistant sheath and formed. All full mica band heaters are designed with closed ends to protect against contamination. Maximum sheath temperature is 800°F.

Type A – Usual design for nozzle heating applications. 12” leads are standard.

Fig. 3 – Single conductor metal braid over lead wire. Offers most practical solution to abrasion problem. 12” braid with 14” overall length leads are standard.

Fig. 4 – Standard lead wires exiting 180° from gap.

Fig. 5 – Leads exit at right angle to sheath 5⁄8” from gap. 12” lead wire in 3” long sleeving is standard. Specify alternate position.

Fig. 6 – Flexible armor cable is the best solution to lead abrasion problems. 12” armor with 14” overall length leads are standard. Specify alternate position.

Fig. 7 – Double conductor metal braid exiting from edge 180° from gap.

Fig. 16 – Double conductor metal braid over lead wires at same position as Fig. 5. 12” braid with 14” overall length leads are standard. Specify alternate position.
Mica Band Heaters (cont’d.)

**Screw Terminals**

- **Fig. T1** – 10-24 Thread requires 15/16” clearance from cylinder.
- **Fig. T2** – Standard position over 21/2” wide. 10-24 Thread.
- **Fig. T3** – Standard with terminal box. 10-24 Thread.
- **Fig. B1** – 10-24 thread requires 1/2” clearance from cylinder.

**Special Features**

- **Fig. 12 Hinged Half-Band** — convenient where two piece heaters are required. Shown with mounting flange and T3 screw terminals. Available with any termination or mounting arrangement.
- **Fig. 14 Half Band** — eases installation in difficult situations. Shown with T1 Terminals and by-pass straps. Available with any termination or mounting arrangement.
- **Fig. 15** – Probe holes and cut-outs — specify location in degrees from center of gap and size or provide drawing. Often a larger gap (standard gap is 1/4” – 1”) will serve the same purpose.
- **Fig. 17** — Splitcase — Allows heater to be opened one time for mounting. Available with any termination or mounting arrangement.
Mica Band Heaters (cont’d.)

Mounting Configurations

**Fig. 8 Mounting Flange** — a secondary means for mounting where a built-in method is preferred. With 5/16" Socket Head bolt. Consult factory for lead wire exit when used with Type A leads.

**Fig. 9 Strap** — made from a low expansion alloy to tighten around the whole circumference of the heater. 5/16" socket head bolts included.

Low Profile: H = 1/4", 1/2" wide (Supplied on 3" I.D. and less). Standard Profile: H = 3/8", 5/8" wide (supplied on 31/8" I.D. and larger). Also available with hose clamp or punch lock strap.

**Fig. 10 By-Pass Strap** — Supplied on less than 2" wide with terminals or Figures 5, 6 or 16.

**Fig. 11 Wedge Mount** — for applications where an extremely low profile is required or where access is limited. Available with Type A, Figure 1 - 6 leads.

**Fig. 18 Low Profile** — Barrel Nut Assembly Welded to Sheath with 6-32 Screw.

**Fig. 19 Standard Profile** — Barrel Nut Assembly Welded to Sheath with 10-32 Screw.

**Fig. 20 Wide Barrel** — 1-1/4" Wide Barrel Assembly Welded to Sheath with 5/16-18 Socket Head Screw

**Fig. 21 Quick Release** — Assembly with Spring Loaded Screw — Assembly Welded to Sheath with 1/4-20 screw
Mica Band Heaters (cont’d.)

Additional Variations

- Three terminal or lead, dual voltage, three phase or ground
- Appliance pin terminals
- Full length fiberglass sleeving
- Rectangular or segment band heaters – provide drawing
- Outside diameter design for internally heating cylinder
- Stainless steel or Monel sheath for use in corrosive atmosphere
- Metric Sizes

Terminal Protection

Terminal Box Cover – 2” H x 11/2” W x 2” L. Also available in a 2-1/4” H x 21/16” W x 4-1/2” L terminal box for larger clearance to terminals.

Ceramic Terminal Cover – 7/8” high x 3/4” O.D. for 10-24 thread.

Plugs

Fig. 7P – Plug can be attached to any lead configuration.

European Style High Temperature Plug (250 Volt Maximum)

Fig. 110 – Dimensions (In.)
3-1/2” H x 15/16” L x 2-15/16” W

Fig. 115 – Dimensions (In.)
1-3/8” H x 3-7/16” L x 1-7/8” W

Fig. GQ8 – Receptacle

Plug Terminations

U.L. Listed Plugs are available attached to heater by cord, cable or leads. Matching receptacles are also available.

Manufacturer | Number | Chromalox PCN | NEMA Ref.
--- | --- | --- | ---
Leviton | 515PA | PC4326-27 | 5-15P
Eagle | 2866 | PC4326-281 | 6-15P
Arrowhart | 4771 | PC4326-50 | L7-15R
Leviton | 5444 | PC4326-29 | 5-20P
Hubbell | 2311 | PC4326-25 | L5-20P
Eagle | 2364 | PC4326-26E | L6-20P