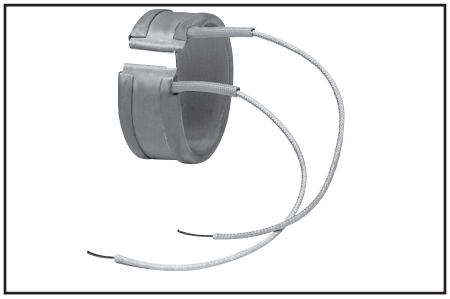
Mica Band Heaters

- **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.

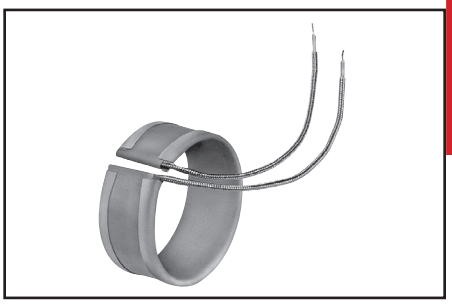


Fig. 3 – Single conductor metal braid over lead wire. Offers most practical solution to abrasion problem. 12" braid with 14" overall length leads are standard.

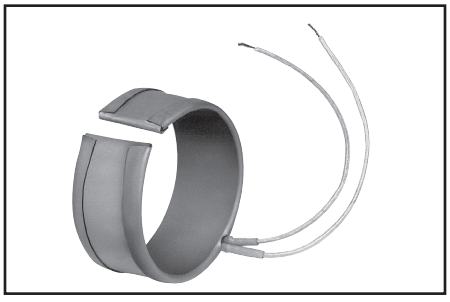


Fig. 4 – Standard lead wires exiting 180° from gap.

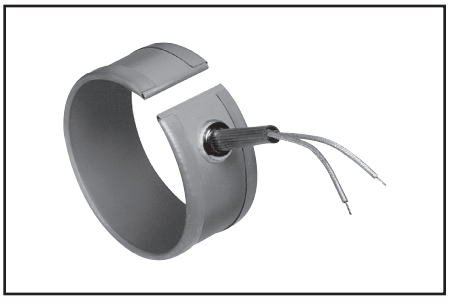


Fig. 5 – Leads exit at right angle to sheath 5⁄8" from gap. 12" lead wire in 3" long sleeving is standard. Specify alternate position.

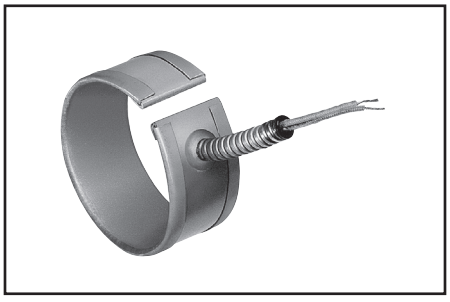


Fig. 6 – Flexible armor cable is the best solution to lead abrasion problems. 12" armor with 14" overall length leads are standard. Specify alternate position.

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

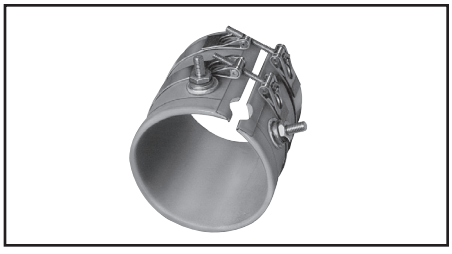


Fig. 15 – Probe holes and cut-outs — specify location in degrees from center of gap and size or provide drawing. Often a larger gap (standard gap is 1⁄4" - 1") will serve the same purpose.

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

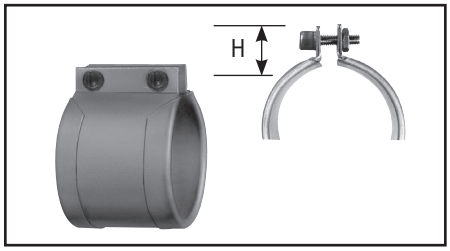


Fig. 8 Mounting Flange — a secondary means for mounting where a built-in method is preferred. With 5⁄16" Socket Head bolt. Consult factory for lead wire exit when used with Type A leads.

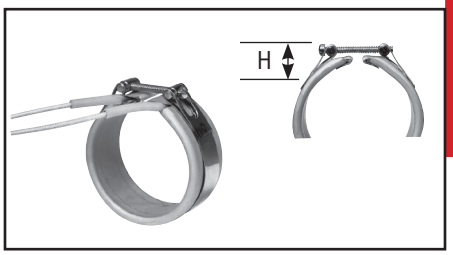


Fig. 9 Strap — made from a low expansion alloy to tighten around the whole circumference of the heater. 5/16 socket head bolts included.

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.

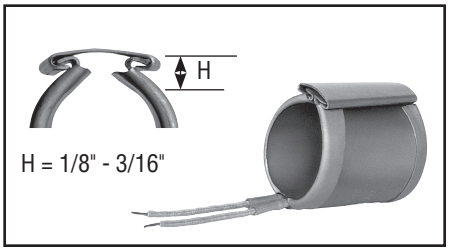


Fig. 11 Wedge Mount — for applications where an extremely low profile is required or where access is limited. Available with Type A, Figure 1 - 6 leads.

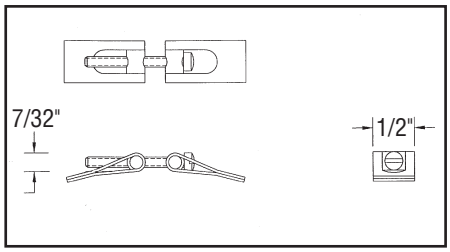


Fig. 18 Low Profile – Barrel Nut Assembly Welded to Sheath with 6-32 Screw.

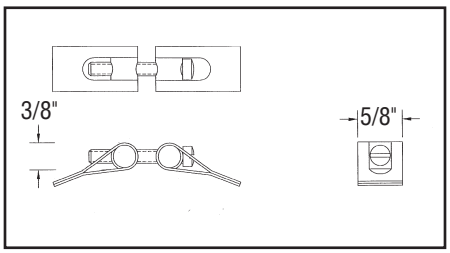


Fig. 19 Standard Profile – Barrel Nut Assembly Welded to Sheath with 10-32 Screw.

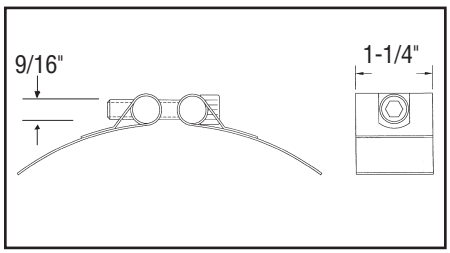


Fig. 20 Wide Barrel — 1-1⁄4" Wide Barrel Assembly Welded to Sheath with 5⁄16-18 Socket Head Screw

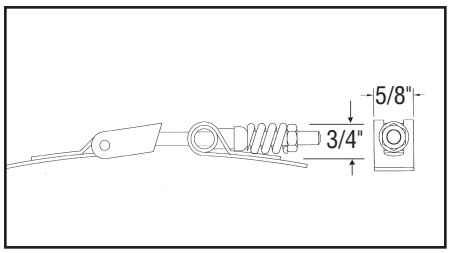


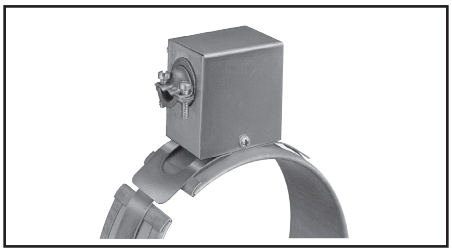
Fig. 21 Quick Release – Assembly with Spring Loaded Screw – Assembly Welded to Sheath with 1⁄4-20 screw

Mica Band Heaters *(cont'd.)*

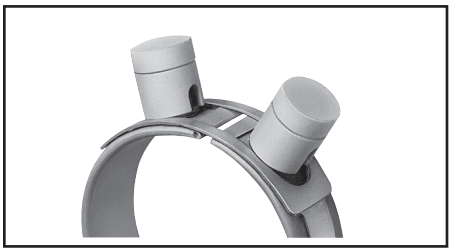
Additional Variations

- 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 x1 1/2" 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

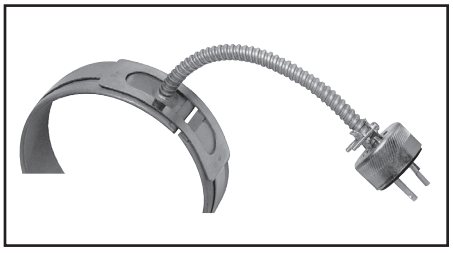


Fig. 7P – Plug can be attached to any lead configuration.

European Style High Temperature Plug (250 Volt Maximum)

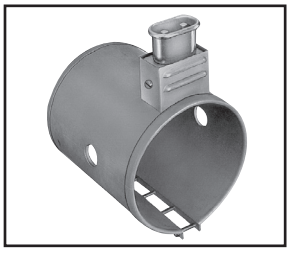


Fig. 110 – Dimensions (In.)
3-1/2" H x 15/16" L x 2-15/16" W

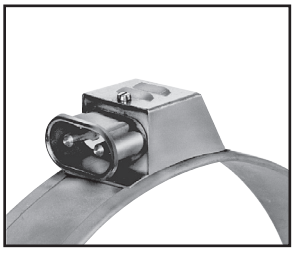


Fig. 115 – Dimensions (In.)
1-3/8" H x 3-7/16" L x 1-7/8" W

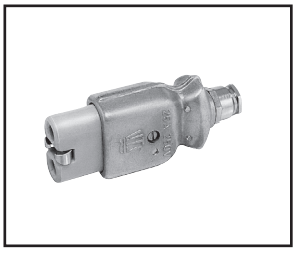
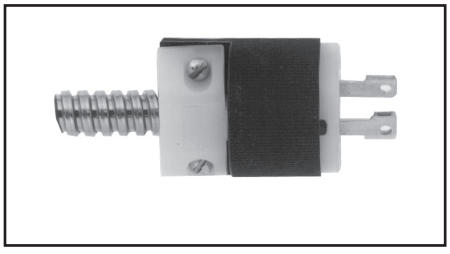


Fig. GQ8 – Receptacle

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