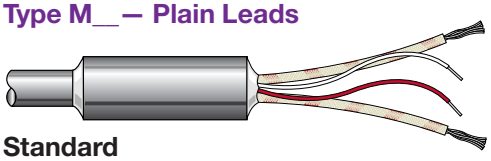
Potting Adapter Lead Terminations

- The heating element wire to lead wire transition is done within the potting adapter. Potting adapter sizes are 5/16" O.D. × 1-1/2" long for heater cable diameters 0.188" and smaller and 1/2" × 1-1/2" long for diameters above 0.188". Other diameters and lengths are available, depending on design parameters.
- When the 1/2" × 1-1/2" long potting adapter is used for high temperature applications, a special heat sink collar is also used to help keep the transition from overheating.
- All transitions use 1150°F (621°C) braze joint between the heating element wire and the flexible lead wire.
- Normally the lead wire construction is a fiberglass braided insulation rated to 482°F (250°C). For high temperature applications an MGT (mica, fiberglass, Teflon® impregnation) insulation rated to 842°F (450°C) is used. All thermocouple leads use a fiberglass insulation rated to 900°F (482°C). Lead wires are selected to meet the amperage and temperature requirements of each specific heater.

Type M__— Plain Leads



Standard
M1 — High temperature cement potting with TGGT (Teflon® tape, fiberglass, Teflon® treated fiberglass overbraid) insulated lead wire for 482°F (250°C) and silicone sealed is standard.

Optional
M2 — High temperature epoxy potting rated 450°F (232°C) with PTFE Teflon® lead wire for a better moisture seal.

Optional
M3 — High temperature cement potting with MGT (mica tape, Teflon® treated fiberglass overbraid) insulated lead wire for 842°F (450°C) and silicone sealed.

Note: Temperature at potting adapter should not exceed the specified limits.

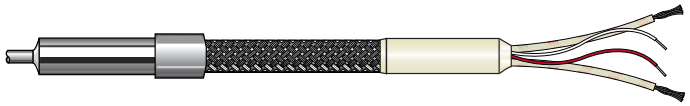
Lead Wire Abrasion Protection Terminations

Type A__— Stainless Steel Armor Cable

Type A1 — Rated to 482°F (250°C) – TGGT Fiberglass Wire
Type A2 — Rated to 450°F (232°C) – Teflon® Wire
Type A3 — Rated to 842°F (450°C) – MGT Fiberglass Wire

Flexible SS armor cable protects the leads against abrasion and contamination. Special plugs can be attached to heater leads and thermocouple leads.

Type B__— Stainless Steel Overbraid



Type B1 — Rated to 482°F (250°C) – TGGT Fiberglass Wire
Type B2 — Rated to 450°F (232°C) – Teflon® Wire
Type B3 — Rated to 842°F (450°C) – MGT Fiberglass Wire

SS overbraid protects the leads against abrasion and allows more aggressive bending, which is not possible with armor cable. Special plugs can be attached to heater and thermocouple leads.

Type C__— Galvanized Armor Cable

Type C1 — Rated to 482°F (250°C) – TGGT Fiberglass Wire
Type C2 — Rated to 450°F (232°C) – Teflon® Wire
Type C3 — Rated to 842°F (450°C) – MGT Fiberglass Wire

Flexible galvanized armor cable protects the leads against abrasion and contamination. Special plugs can be attached to heater leads and thermocouple leads.

Type S__— Fiberglass Sleeve

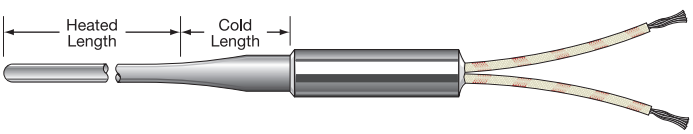
Type S1 — Rated to 482°F (250°C) – TGGT Fiberglass Wire
Type S2 — Rated to 450°F (232°C) – Teflon® Wire
Type S3 — Rated to 842°F (450°C) – MGT Fiberglass Wire

Fiberglass sleeve protects the leads against abrasion and allows more flexibility of lead wires. Special plugs can be attached to heater and thermocouple leads.

Optional Heater Cable Cold End

The availability of Tempco-Pak heaters with optional cold heater cable end depends on the electrical ratings and materials used for each heater design. Consult Tempco for the availability of these options.

Type ND— Neck Down



Type NW— Built-in Cold Wire