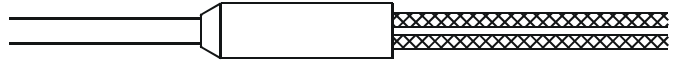


## Cable Heater Lead Styles And Protection Options

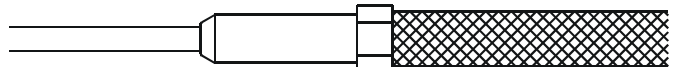
### Style “F” Full Flexible Leads

“F” style flexible leads provide a compact and fully flexible lead exit. Standard lead insulations include Teflon® rated at 500 °F/260 °C and MGT rated at 842 °F/450 °C. Style “F” leads can be bent sharply at the transition fitting without exposing or breaking the conductor and is popular in applications where the lead exit area is restricted. A lead length of 48 inches is standard. When ordering, specify “F” leads, lead insulation and any special lead length.



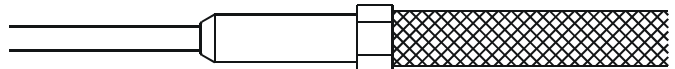
### Style “G” Sleeve Protected Leads

“G” style leads feature flexible leads with a protective fiberglass sleeve rated at 900 °F/482 °C. Standard lead insulations include Teflon® rated at 500 °F/260 °C and MGT rated at 842 °F/450 °C. Style “G” leads are popular in applications where some additional protection is required. A lead length of 48 inches with 45 inches of sleeve is standard. Unless otherwise specified, leads are 3 inches longer than the requested sleeve length. When ordering, specify “G” leads, lead insulation and desired lead and sleeve length.



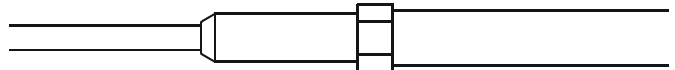
### Style “S” Sleeve Protected Leads

“S” style leads feature flexible leads with a protective silicone fiberglass sleeve rated at 500 °F/260 °C. Inner fiberglass retains integrity to 900 °F/482 °C. Standard lead insulations include Teflon® rated at 500 °F/260 °C and MGT rated at 842 °F/450 °C. Style “S” leads are popular in applications where lead protection is required. A lead length of 48 inches with 45 inches of sleeve is standard. Unless otherwise specified, leads are 3 inches longer than the requested sleeve length. When ordering, specify “S” leads, lead insulation and desired lead and sleeve length.



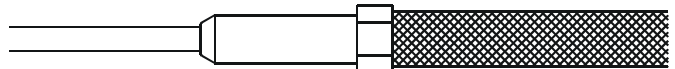
### Style “T” Sleeve Protected Leads

“T” style leads feature flexible leads with a protective moisture resistant sleeve rated at 500 °F/260 °C. Standard lead insulations include Teflon® rated at 500 °F/260 °C and MGT rated at 842 °F/450 °C. Style “T” leads are popular in applications where additional protection and moisture resistance is necessary. A lead length of 48 inches with 45 inches of sleeve is standard. Unless otherwise specified, leads are 3 inches longer than the requested sleeve length. When ordering, specify “T” leads, lead insulation and desired lead and sleeve length.



### Style “B” Braid Protected Leads

“B” style leads feature flexible leads with protective stainless steel overbraid. This lead style provides mechanical protection and abrasion resistance. Standard lead insulations include Teflon® rated at 500 °F/260 °C and MGT rated at 842 °F/450 °C. Style “B” leads are popular in applications where lead protection is necessary. A lead length of 48 inches with 45 inches of braid is standard. Unless otherwise specified, leads are 3 inches longer than the braid length. When ordering, specify “B” leads, lead insulation and desired lead and braid length.



### Style “A” Armor Protected Leads

“A” style leads feature flexible leads with protective stainless steel armor. This lead style protects leads from both physical abuse and mechanical damage from exposure to viscous materials. Standard lead insulation includes Teflon® rated at 500 °F/260 °C and MGT rated at 842 °F/450 °C. Style “A” leads are popular in applications where external wiring is required and mechanical protection is necessary. A lead length of 48 inches with 45 inches of armor is standard. Unless otherwise specified, leads are 3 inches longer than the armor length. When ordering, specify “A” leads, lead insulation and desired lead and armor length.



## Cable Heater Transition Configurations

Standard cable heater configurations feature Duratherm's high performance, molded thermoset transition. These new transitions feature an integral molded on metal sleeve which provides the durability and heat resistance required for all cable heater applications while reducing cable heater cost. High performance thermoset resin fully encapsulates the critical cable and lead connection area. This transition construction provides excellent mechanical protection and dramatically improves moisture resistance.

These high temperature metal sleeved molded transitions are available with resin rated at 800° F. (427° C.) continuous and can be supplied molded with a 900° F. (482° C.) rated thermoset material when required.

These molded transitions offer premium performance in a low cost approach to cable heater lead termination.

Features of the new molded transition include the following:

1. Lower cost – Molding operation eliminates many manual operations required for potted style transitions.
2. Superior seal – Total encapsulation of cable to lead connection provides excellent resistance to moisture. The seal protects the element from contamination during operation and eliminates moisture absorption during storage.
3. Heat resistant – Standard resin materials offer continuous operating temperatures of 800° and 900° F.
4. High strength – Molded transition with the integral metal sleeve is extremely resistant to breakage, provides high pull strengths and is well suited for all cable heater applications.
5. Versatile – Molded cable heater transitions provide a rugged, high performance lead exit system accommodating fiberglass sleeve, wire braid and armor lead protection. Options include molded in fiberglass sleeve and wire braid protection. Existing molds include provisions for all combinations of power leads, thermocouples and ground leads. Our in-house tooling and molding capabilities allows us to offer custom termination systems when required.

Duratherm's optional brazed on metal transitions are also available. This all metal transition is brazed directly onto the cable extension for maximum strength. The transition features a choice of epoxy or cement potted lead connections and can be further sealed with silicone potting when required. Transitions can also be produced with a vent on the cable side to facilitate molding thermoset resin into the transition.

Cable heater transitions are also offered in a variety of standard and custom diameters, lengths and configurations.

These brazed on transitions offer excellent performance in a high strength cable heater lead termination.

Features of the new molded transition include the following:

1. Maximum strength – Brazed on heavy wall transition provides maximum strength for applications where the transition assembly will be subjected to severe abuse.
2. Heat resistant – Standard high temperature epoxy potting materials are rated at 500°. High temperature electrical grade cements are rated at 900° F. continuous operating temperature. Silicone potted end seal is rated at 600° F. continuous. The transition can also be produced by molding 800° F. (427° C.) or 900° F. (482° C.) rated thermoset resin into the transition.
3. Maximum strength – Brazed on heavy wall transition provides maximum strength for applications where the transition assembly will be subjected to severe abuse.
4. Versatile – Transitions can be supplied in both standard and custom dimensional sizes and can be supplied with specialty machined transition configurations if required. Our in-house machining capabilities allow us to provide fast delivery on custom transition and lead systems when required. Brazed on and potted cable heater transitions provide a rugged, high performance lead exit system accommodating fiberglass sleeve, wire braid and armor lead protection. The brazed on transition can be utilized on all combinations of power leads, thermocouples and ground leads.

