



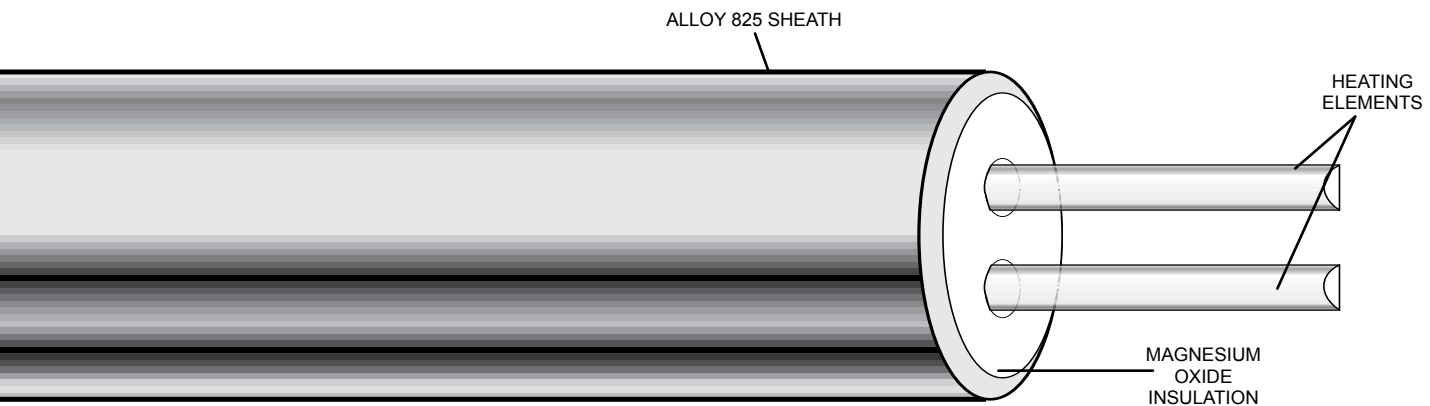
## Custom Fabricated Mineral Insulated Heating Cable Specification/Application Guide

### PRINCIPLE OF OPERATION

When voltage is applied to the cable, current flows through the series conductor and generates heat. Power output per unit length varies with the applied voltage and circuit resistance. MI Trace cables are

available with a wide selection of conductor resistances. Based on voltage and required cable length, a specific conductor is selected with a cable resistance that provides the desired power output.

### CONSTRUCTION DETAILS



### DESCRIPTION

Mineral insulated heating cable is a metal sheathed cable that uses metallic conductors as the heating elements. The conductors are electrically insulated from the metal sheath by mineral-magnesium oxide (MgO). Mineral insulated cable is a series resistance heater that generates heat when electrical current passes through the heating elements.

MI Trace is available in single conductor (SMI) or dual conductor (DMI) construction, which provides design flexibility. Factory sealed, cold lead connections

(splices) are provided as part of the cable construction to facilitate connection to the power supply.

Outer sheath construction is Alloy 825, a high temperature corrosion resistant alloy with superior flexibility. Two cable diameters are available: The "K" cable diameter is 0.1875" ( $\frac{3}{16}$ ") and the "B" cable diameter is 0.3125" ( $\frac{5}{16}$ "). A unique manufacturing process provides for a thin wall construction which improves flexibility and ease of installation. This process also allows the use of high performance alloy conductors for high temperature applications.

## APPLICATIONS

MI Trace cable is a high performance, industrial grade heating cable used for applications requiring:

- exposure to high temperature
- high maintain temperature
- high power output
- rugged cable construction
- constant power output over entire heater length
- extended heater life
- immunity to stress corrosion
- voltages up to 600V

MI Trace cable is custom designed and fabricated for

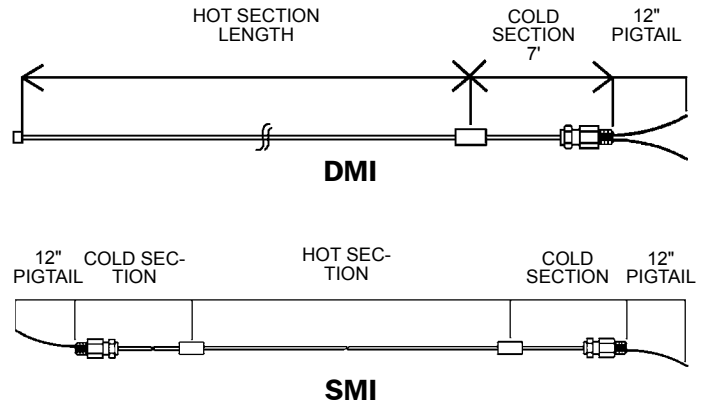
specific applications such as:

- pipe freeze protection
- pipe temperature maintenance
- roof/gutter/drain deicing
- snow melting
- floor warming
- undertank heating (cryogenic tanks)
- frost heave protection
- door rail deicing

Call Easy Heat for custom design of your application.

## CABLE RATINGS

Cable Type	K		B
Sheath Material	Alloy 825		
Cable Diameter (inches)	0.1875	0.3125	
Number of Conductors	1		2
Maximum Volts	600	300	600
Maximum Exposure °F	1100		
Maximum Power w/ft.	88		
Weight lb.ft	.07	.18	
Std. Cold Lead Ft.	7.0		



## HEATER DESIGN

### MINERAL INSULATED HEATING CABLE

Easy Heat can assist you to select the appropriate heating cable for your application. Please have the following information available when you call us:

### FREEZE PROTECTION/TEMPERATURE MAINTENANCE

- Pipe
  - length
  - routing (tees, dead ends, etc.)
  - material
  - diameter
  - contents
- Insulation
  - type
  - thickness
- Power Supply
  - voltage
  - location relative to pipe routing
- Ambient Conditions
  - minimum temperature expected
  - required/desired maintenance temperature
  - location classification, if hazardous

### SNOWMELTING/FLOOR WARMING

- Target Area Dimension
- Paving (asphalt, concrete, pavers, etc.)
- Location of expansion joints
- Voltage characteristics
- Control requirements

### ROOF DEICING

- Length of roof edge
- Length of overhang
- Number and length of downspouts
- Number of roof valleys
- Type of roof
- Dormer perimeter
- Power supply available

### RADIANT HEATING

- Building heat loss
- Floor area
- Building use
- Off peak hours
- Power supply available

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