

# MINERAL INSULATED HEATER CABLES

Mineral insulated heating cables are series type heating cables and consist of one or two conductors embedded in a highly dielectric magnesium oxide insulation surrounded by a metal sheath. High nickel content Alloy 825 is renowned for its use as sheath material in high temperature applications, and corrosive environments. This alloy has superb resistance to pitting, chloride stress, and acid and alkali corrosion. Stainless steel can also be used as sheath. Highly compacted Magnesium Oxide provides insulation of the resistance wire for voltages up to 600V. Completely sealed sheath protects the MgO from moisture & contamination. MI heating cables are series-type heating cables and appropriate for temperatures up to 1022°F (550°C) and exposure temperatures up to 1200°F (650°C). At lower temperatures, watt densities of up to 50 W/Ft can be designed. It provides superior strength in dynamic cut-through, crush, and corrosion tests and provides rugged and reliable heat tracing for a variety of demanding applications. MI heating cable sets are supplied factory terminated and ready to install. They include a heating section and a non heating cold lead section. They are supplied in fixed lengths, so determining and ordering the correct cable length is critical. The cold lead cable is

connected to a junction box, which in turn is connected to the power supply.

MI heating cable is the ideal choice when an application's temperature and power output requirements exceed the capabilities of self-regulating and power-limiting heating cables.

Advantages of MI heater cables are:

- High power output due to perfect thermal conductivity of the metallic sheath.
- Reduced size due to the high dielectric strength of the magnesium oxide while maintaining good thermal conductivity.
- Easy installation due its reduced size and annealed state of outer sheath.
- High flexibility during the design phase, due to the wide range of available resistances.
- Factory assembled cable sets ready for installation
- Fully annealed sheath allows field bending
- Corrosion resistant sheath

**TEMPSENS INSTRUMENTS (I) PVT. LTD.**

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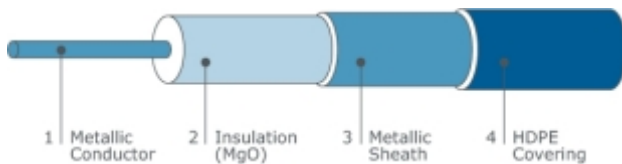
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## OPTIONS

Sheath Material	Alloy 825, Stainless Steel
Watt Density	Up to 50 W/in <sup>2</sup>
Process Temperature	1100°F
Exposure Temperature	1400°F
Maximum Voltage	600 V



## APPLICATIONS

- **Refining crude distillation** : Hydro-cracking, Coking, Gas condensate prevention
- **Chemical and Petrochemical** : Synthetic fiber polymer, paints and resins, Nylon
- **Power Generation** : High pressure feed-water, blow-down lines, instrument lines

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