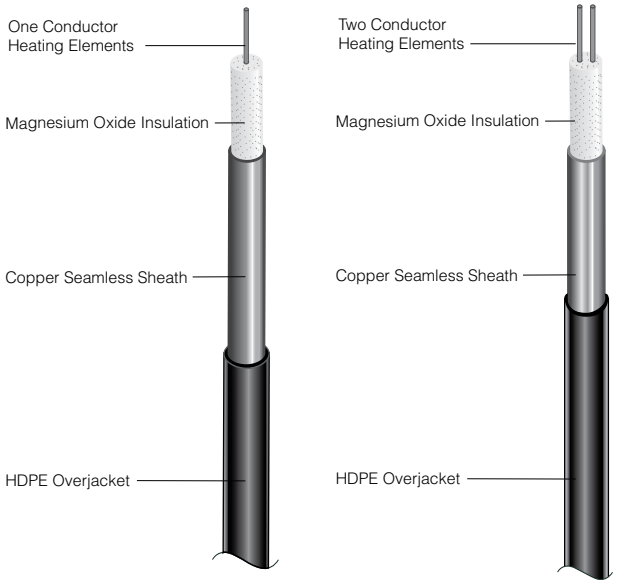
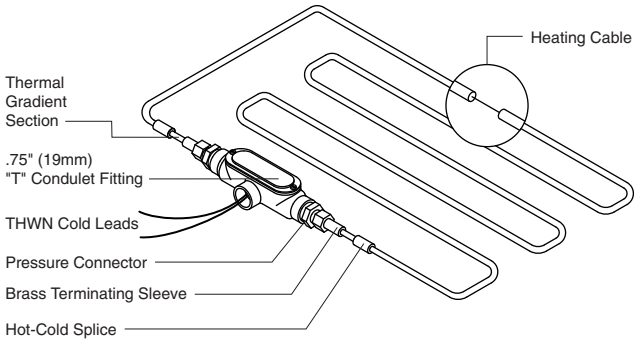
DELTA-THERM

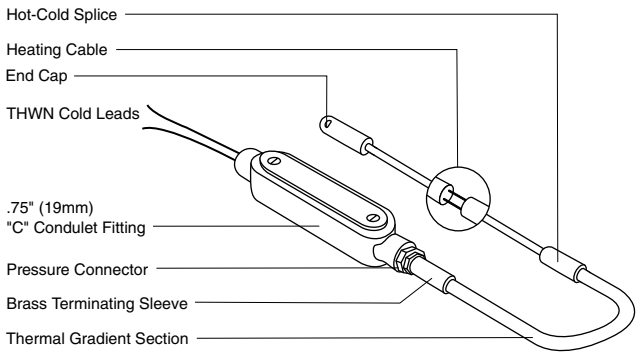
MINERAL INSULATED (MI) RADIANT HEATING CABLE ASSEMBLY

One Conductor And Two Conductor





Detail 1. One Conductor Cable Assembly



Detail 2. Two Conductor Cable Assembly

DESCRIPTION
Mineral insulated (MI) cable consists of one or two conductor heating elements embedded in highly compressed magnesium oxide covered by a copper sheath. Application requirements determine resistance size and sheath material.

TERMINATION CONSTRUCTION
Each Delta-Therm MI cable assembly is fully terminated and moisture proof. The end termination consists of a 2.5' (76cm) thermal gradient section connected to 20' (6m) THWN cold leads. The cold leads are crimped and soldered to the thermal gradient section, insulated with a high-dielectric, high-temperature tape, and epoxy potted in a rigid brass sleeve. The thermal gradient section is silver soldered to the heating element and protected by a rigid brass sleeve packed with magnesium oxide.

COLD LEADS
The 19-strand THWN wire connects to an electrical circuit. Standard cold lead length is 20' (6m). Leads can be ordered at any length.

NUMEROUS VOLTAGES
Delta-Therm can design MI radiant heating cable assemblies for any voltage up to 600 volts.

FLEXIBLE
MI cable is annealed (annealing tempers metal and removes brittleness) and easy to form and install. Irregular areas and obstacles are easily accommodated.

FLOOR MATERIALS
MI cable can be installed under most common flooring materials.

HDPE JACKETING
Extruded, high-density polyethylene jacketing adds physical strength and protects against corrosives and abrasions.

FIRE RESISTANT
MI cable construction will not contribute to or cause an electrical fire.

NO DEGRADATION
Delta-Therm MI cable is made of inorganic materials. Degradation of MI cable is negligible when compared to cables made of organic materials such as plastic.

DELTA-THERM Corporation, P.O. Box 345, Wauconda IL, 60084 (847) 526-2407 Fax (847) 526-4456 **(800) 526-7887**

COMPREHENSIVE FACTORY TESTING
Each cable undergoes hi-pot, megger, and resistance tests both before and after overnight immersion in water.

LOW INSTALLATION COSTS
MI cable arrives ready to install. Since terminations are done at the factory, electricians can expedite the installation, helping to reduce overall installation costs.

Recommended Watts Per Lineal Foot And Cable Spacing

Area	Watts	Centers
Floor Warming In. (mm)	6	6" - 8" centers (152 - 203)

(do not exceed 7.5 watts per lineal foot)

Material Temperature Limits

HDPE Overjacket °F (°C)	194° (90°)
Copper °F (°C)	392° (200°)

Cold Lead Size

Amps	Wire Size
0-16	12 AWG
16-24	10 AWG
24-45	8 AWG
45-65	6 AWG

BASE KIT (supplied with each MI cable assembly)

- Thermal Gradient Section
- Cold Leads
- Pressure Connectors
- "T" Or "C" Condulet With Gasket And Cover
- Delta Dry (Water Repellent Powder)
- Duct Seal
- Installation Instructions

Base Kit Accessories

Heater Assembly Only
Additional 19-Strand Cold Lead
Base Kit
Splice Kit
Unilet Kit
Additional Thermal Gradient

Controls

F15A	Electronic Floor Warming Thermostat

Panels

DT-XXPXXX	Enclosed Contactor
GFPE-X-X	Power Control Panel w/GFPE
LNR-X	Low Noise Relay Panel
Custom Control/Monitor/Alarm Panels	

Accessories

T-SSS	Stainless Steel Strapping
NEC Plaque	Embedded Heating System's Marker

INVENTORY AND SHIPPING
Delta-Therm maintains an inventory of both bare and jacketed mineral insulated cable. Orders of material in stock can usually be shipped within two weeks.

TO ORDER:

Prefix
(F - Radiant Heating Or Floor Warming)

Number Of Conductors

Ohms/Ft. (m)

Length Per Hot Section

Volts

Amps

kW

Watts Per Lineal Foot
(refer to design guide)

Suffix H, B, Or SS
(if desired)

AWG
(refer to chart)

Cold Length
(length needed to reach junction box NOTE: Voltage drop not to exceed 3%)

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