Has your bespoke MI Cable been manufactured according to your individual specific needs?



ThermCable Germany offers technical solutions and manufactures according to your individual specific needs!





### Characteristics

- Mechanical Stability
- Low Temperatures
- High Temperature Range
- Up to 1200°C
- Malleable and Flexible
- Protection against Radiation
- Tolerance in Vibration Sensitive Environments

# ThermCable Manufactury

According to highest quality standards (IEC 584, ASTM E230-93, BS4937/4, NFC42-321, GOST, KTA 1401).

Our quality MI Cables for Thermocouples and RTDs are used to measure temperature up to 1200°C!

Our quality MI Heating Cables are used in temperature maintenance from 600°C (SS 321) or up to 1000°C (Inconel 600).

### About ThermCable

ThermCable GmbH is one of Europe's leading manufacturers of Mineral Insulated Cables for high Temperature Measurement and Industrial Trace Heating applications. ThermCable, a subsidiary of the ThermGroup Holding GmbH, is a fully German company with its manufacturing facility based in Langenselbold, 25km North-East of Frankfurt am Main.

## Mineral Insulated Heating and Cold Cables

ThermCable Heating Cables are defined by their electrical resistances, resistance to high temperatures. These cables are suitable for heating applications up to a max. temperature of 600°C (SS321) or 1000°C (Inconel 600). Wires can be single or twin

Diameters: 0.5mm - 6.5mm Resistance: 0.16 - 50 Ohm/m Tolerance: +/-10%.

ThermCable Cold Cables are lowresistance sheath cables with large diameters. They are used as extension to heating cables to get thermally-stable lead ends. Wires are made of copper or plated conductor material. Wires can be single or twin

Diameters: 4.9mm - 7.5mm Resistance: 0.33 - 36 Ohm/m

Tolerance: +/-10%

### Mineral Insulated Cables for Thermocouples

ThermCable Thermocouple Cables are also described as mineral - insulated cables. The component conductors consists of one or more pairs of thermocouple wires.

The standard insulation is MgO. Based on customer request, SiO2 or Al2O3 insulation can be used.

Depending on the type of thermocouple or application, wires are assembled with the thermocouple according to DIN IEC 60584 (type K, N, J, T, S, R, B), or DIN 43710 (type L) and the appropriate sheath material.

This can also be individually tailored according to customer's specifications. Temperature range starts at low temperatures up to 1200°C. Diameters: 0.5mm - 8mm

# Mineral Insulated Extension Cables/ RTDs

ThermCable Extension Cables / Resistance Temperature Detectors are comparable to electrical cables. The component conductors is 1-wire or can be up to 8 leads.

These leads can be made of the following materials: Cu, Ni, CuNi or Stainless Steel. Standard insulation is MgO. According to demand, SiO2 or Al2O3 can be used. Contrary to sheath thermocouple cables, these cables are used as extender for resistance thermometers.

Temperature range depending on conductor and sheath material starts at low temperatures up to 1000°C.

Diameters: 0.5mm - 8mm

### Mineral Insulated Signal Cables

ThermCables Signal Cables are also described as signal transmission cables. These cables are used in many high-tech applications such as: Aerospace, Nuclear, Medical Vacuum Technology, Power Plants, Cryogenics.

Manufactured by us according to your defined specifications.

- ... By their application specific design: Coaxial, Triaxial; one or more conductors
- ... With different types of wires: Stainless Steel, Copper, Inconel or Nickel
- ... Single or multiple sheaths with different materials and mineral insulations (MgO, Al2O3, SiO2)

#### Sheath Wires

**ThermCable Sheathed Wires** consist of the following components: core and one or more platings.

Sheathed wires are manufactured according to your defined specifications. A possible combination may consist of copper-zirconium as core and VA as plating.

Areas of application are in sensor technology, laboratory, etc.

## Mineral Insulated Double Wall Tubes

ThermCable Double Wall Tubes consist of an inner tube, insulation and

consist of an inner tube, insulation and an outer tube.

Manufactury is done according to your defined specifications. A possible combination may consist of Inconel 600, MgO and Inconel 600.

Areas of application include sensor technology, laboratory, etc.
On request, triple wall tubes are also possible.

For further information please do not hesitate to contact us:

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