

Twisted MI cable against magnetic interferences

Thermocouple & Transmission cables for sensors in harsh environment and high magnetic interferences

Sensors manufacturer are looking for extension cables offering:

The lowest perturbation on sensor's signal

A life time superior to the life time of the sensor itself.

If cable/sensor are exposed to adverse conditions like heat, fire, pressure, radiation or electro **magnetic interferences**, cabling solutions using organic compound do not offer sufficient life time nor maintain screening performance of measurement chain.

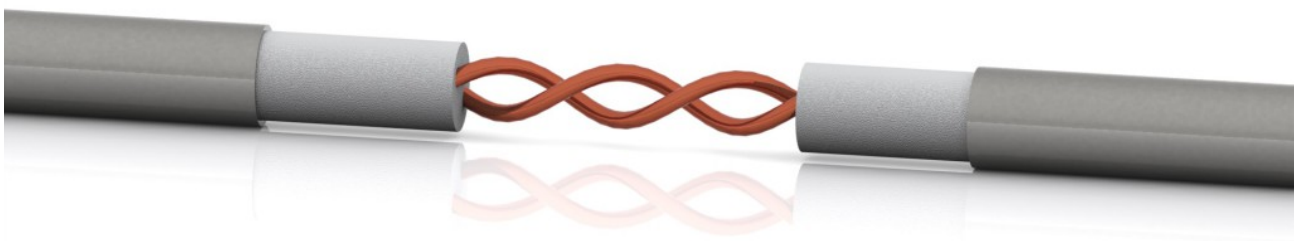
Turbines, large scientific instrument, fusion reactor, induction motors

Our [nuclear experience](#) initiated in the 50's was the opportunity for a continuous improvement of the manufacturing technics of the Mineral Insulated cable.

As an answer to growing demand for cables insensitive to **magnetic interferences**, THERMOCOAX has developed a unique process to guarantee a steady twist of the cable conductors enhancing the EMC noise rejection characteristics.

A constant pitch of the twist of conductor pair cancel the induced currents and balance capacitances to ground..

The stainless steel sheath and –if required- additional layer of soft iron- provides a superior EMC screening than other cable systems.



TWISTCOAX®

- Cable design tailored to meet customer's demand
- Built on specification
- Single pair or multiple pairs
- No impact on outer sheath metallurgy
- No organic compound: no thermal or radiation ageing
- Cost effective process compared to others technologies

Advantage of the twisted pair in high magnetic environment:

- successive half-twists (pitch 2,5 cm / 1 inch) reduce magnetic noise by a factor higher than 100 compared to straight type
- Balanced capacitances to ground