





▶ TRIAXIAL CABLE

Thermo Electric Corporation

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Mineral Insulated Triaxial cable is a coaxial cable with a supplementary sheath by which the cable is insulated from ground and suitable for a wide range of signal applications. The Triaxial cables achieve good high frequency screening and are suitable for a wide range of signal applications.





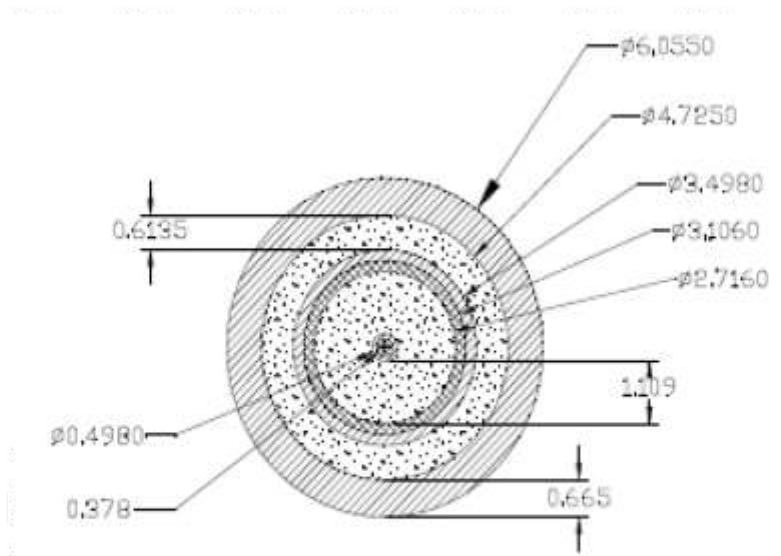
Introduction:

Tri-Axial Cable is a mineral insulated coaxial cable. **Tri-Axial Mineral Insulated (MI) cables are typically used within the reactor core.** Tri Axial Cable operates in high neutron flux fields and at temperatures of up to 700 °C whilst maintaining a high insulation resistance. At their typical operating temperature of 550 °C, the insulation is better than 3×10^{-9} amps per meter. The overall cable dimensions can be specified for each application.



Fig: Tri-Axial Cable

Drawing of Tri-Axial Cable



Application of Tri-Axial Cable

- Tri-Axial Cable offer varied screening properties for different applications.
- Tri-Axial cables are intended for transmission of high frequency signals.



Advantages of Tri-Axial Cable:

- Tri-Axial cables have good high frequency screening.
- Tri-Axial Cable is suitable for wide range of signal application.
- Tri-Axial cable has very high insulation resistance to minimize signal loss.

Specifications

Conductor	Copper Zirconium alloy with SS316 Cladded
Outer Sheath:	SS316L
Inner Sheath:	Copper Zirconium alloy with SS316 Cladded
Insulation Material:	High Purity Magnesium Oxide (MgO > 99.4 %)
Outer Sheath diameter:	6.0 mm
Inner Sheath Diameter:	3.48 mm
Conductor Diameter:	0.50 mm
Insulation Resistance at Room Temperature between Central Conductor and Inner Sheath	> 10 ¹² Ω at 1000 VDC
Insulation Resistance at Room Temperature between Inner Sheath and Outer Sheath	> 10 ¹² Ω at 100 VDC

Thermo Electric Corporation Instrument has 40 years of experience in manufacturing of temperature sensors. To enhance our customer's success we provide high quality products and services for "Temperature solution", tailored to their needs, and deliver to meet their schedule.