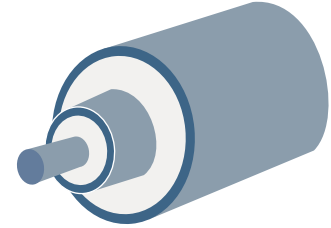


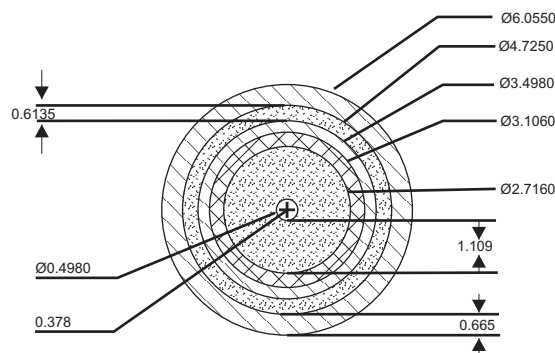
## TRIAXIAL CABLE

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  $3 \times 10^{-9}$  amps per meter. The overall cable dimensions can be specified for each application.



Tri-Axial Cable

### Drawing of 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.

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 <sup>12</sup> Ω at 1000 VDC
Insulation Resistance at Room Temperature between Inner Sheath and Outer Sheath	> 10 <sup>12</sup> Ω at 100 VDC