Firewall® III
Thermocouple Extension Cable
Single Pair Shielded (XLPE/CSPE)

Scope
Firewall® III Thermocouple Extension Cable is a totally thermoset construction specifically designed for applications in power generation plants, substations and other similar locations. It is intended for use in harsh and demanding environments, including Class 1E Nuclear applications. It may be installed in trays, ducts, conduits or in direct burial applications to perform a variety of signaling and related functions.

Features
• Thermoset insulation and jacket for enhanced thermal stability
• Specially formulated insulation for superior long term water resistance
• Extremely flame retardant
• Nuclear qualified with a minimum 40-year thermal life expectancy at 90°C
• Radiation resistant (up to 200 megarads)
• Full traceability
• Excellent mechanical properties
• All singles pass a wet dielectric (tank) test prior to cabling to verify insulation integrity
• All jackets have printed sequential footage markers for improved inventory control
• Easy strippability for installation ease

Performance Standards
• UL listed Type TC for cable tray installations (UL 1277)
• Insulation in accordance with ICEA Standard S-66-524 and UL approved for 90°C applications in both wet & dry locations
• Jackets in accordance with ICEA Standard S-19-81 for heavy-duty chlorosulfonated polyethylene (CSPE)
• Class 1E qualified in accordance with IEEE-383 1974 and IEEE-323 (Rockbestos Reports QR-5804 or QR-5805)
• Cable passes IEEE-383 1974 70,000 BTU/hr vertical tray flame test as modified by NRC Reg. Guide 1.131
• Single conductors pass the vertical flame tests specified in IEEE-383 1974 para. 2.5.6 (ICEA S-19-81 Section 6.19.6) and UL VW-1

Construction
Conductor: Solid alloys per ANSI MC 96.1 (Extension Grade, standard limits of error)
Insulation: Proprietary heat, moisture and radiation resistant flame retardant crosslinked polyethylene
Pair Assembly: Two insulated conductors twisted with a flexible strand, tin-coated copper drain wire, a helically applied aluminum/ polyester laminated tape shield
Circuit Identification: Individual conductors color coded to ANSI requirements by means of pigmented insulation
Jacket: Heavy-duty chlorosulfonated polyethylene (colors to ANSI standard by type)

* Rated 90°C for normal operation in wet and dry locations, 130°C for emergency overload conditions, and 250°C for short circuit conditions.
**Firewall® III**  
Thermocouple Extension Cable

Single Shielded Pair – 16 AWG Solid

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Conductor Type</th>
<th>Insulation Thickness (inch)</th>
<th>Insulated Conductor Diameter (inch)</th>
<th>Drain Wire Size/Stranding</th>
<th>Jacket Thickness (Mils)</th>
<th>Nominal Overall Diameter (inch)</th>
<th>Approximate Net Weight (Lbs/10')</th>
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