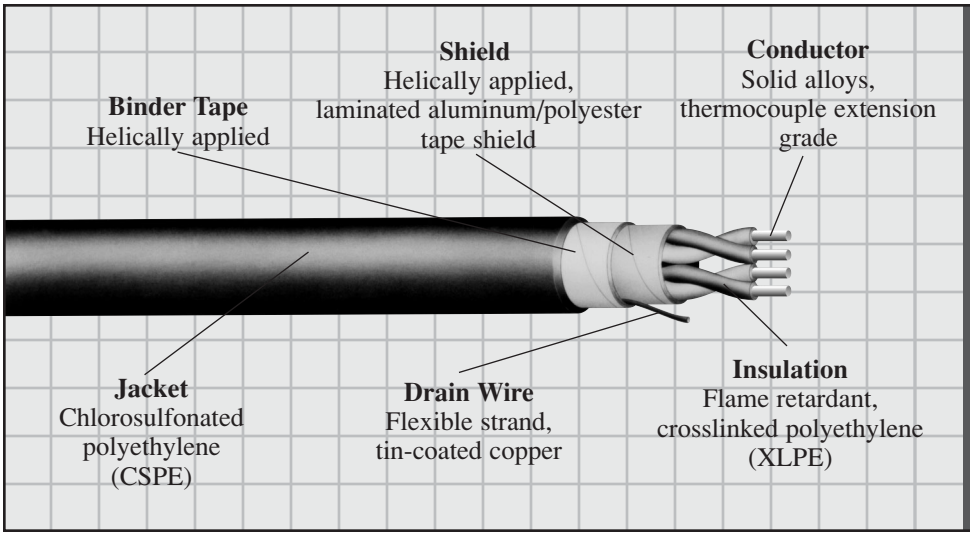


Firewall® III

Thermocouple Extension Cable

Multi-Unshielded Pairs
With Overall Shield

(XLPE/CSPE)
(90°C*, 600 Volt
Class 1E Nuclear
NEC TypeTC
UL Listed

Spec. RSS-3-021

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. *Designed for use on circuits where shielding from external electrostatic interface is required but shielding between pairs is not critical.*

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 electrical 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
- Cable passes ICEA 210,000 BTU/hr vertical tray flame test (Standard T-29-520)
- 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
- ANSI standard MC 96.1
- Quality assurance program in accordance with 10 CFR 50 Appendix B
- Cable components are in compliance with the maximum leachable lead level required by the EPA in 40 CFR, Part 261

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

Cabling:
Required number of pairs cabled together

Circuit Identification:
Individual pair single conductors color coded to ANSI requirements by means of pigmented insulation with printed pair numbers on both singles for pair identification

Fillers:
(When required)

Shield System:
Helically applied aluminum/polyester laminated tape shield in continuous contact with a flexible strand, tin-coated copper drain wire

Binder Tape:
Helically applied

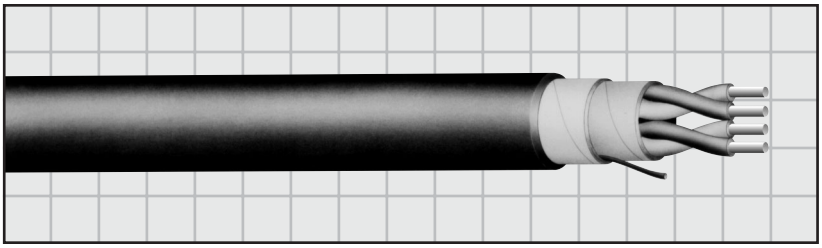
Jacket:
Heavy-duty chlorosulfonated polyethylene (colors to ANSI standard by type)

* 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

Multi-Unshielded Pairs
With Overall Shield
(XLPE/CSPE)
90°C, 600 Volt
Class 1E Nuclear
NEC Type TC UL Listed

Spec. RSS-3-021



16 AWG Solid

Product Code*	Number of Pairs	Conductor Type*	Insulation Thickness (Inch)	Insulation Thickness (mm)	Insulated Conductor Diameter (Inch)	Drain Wire Size/ Stranding	Jacket Thickness (Mils)	Nominal Overall Diameter (Inch)	Nominal Overall Diameter (mm)	Approximate Net Weight (Lbs/M')
I67-3467	2	JX	.025	.64	.10	18 AWG (16/s)	45	.47	11.94	135
I67-3471	3	JX	.025	.64	.10	18 AWG (16/s)	45	.50	12.70	165
I67-3475	4	JX	.025	.64	.10	18 AWG (16/s)	60	.58	14.73	210
I67-3479	5	JX	.025	.64	.10	18 AWG (16/s)	60	.63	16.00	250
I67-3483	7	JX	.025	.64	.10	18 AWG (16/s)	60	.68	17.27	275
I67-3487	9	JX	.025	.64	.10	18 AWG (16/s)	60	.79	20.07	345
I67-3491	12	JX	.025	.64	.10	18 AWG (16/s)	80	.92	23.37	475
I67-3495	15	JX	.025	.64	.10	18 AWG (16/s)	80	1.02	25.91	550
I67-3499	19	JX	.025	.64	.10	18 AWG (16/s)	80	1.07	27.18	640
I67-3503	37	JX	.025	.64	.10	18 AWG (16/s)	80	1.42	36.07	1125

18 AWG Solid

I67-3427	2	JX	.025	.64	.09	20 AWG (10/s)	45	.43	10.92	105
I67-3431	3	JX	.025	.64	.09	20 AWG (10/s)	45	.46	11.68	130
I67-3435	4	JX	.025	.64	.09	20 AWG (10/s)	45	.50	12.70	150
I67-3439	5	JX	.025	.64	.09	20 AWG (10/s)	60	.57	14.48	200
I67-3443	7	JX	.025	.64	.09	20 AWG (10/s)	60	.62	15.75	215
I67-3447	9	JX	.025	.64	.09	20 AWG (10/s)	60	.72	18.29	265
I67-3451	12	JX	.025	.64	.09	20 AWG (10/s)	60	.80	20.32	335
I67-3455	15	JX	.025	.64	.09	20 AWG (10/s)	80	.93	23.62	425
I67-3459	19	JX	.025	.64	.09	20 AWG (10/s)	80	.97	24.64	485
I67-3463	37	JX	.025	.64	.09	20 AWG (10/s)	80	1.29	32.77	840

* **Product Code Sequence**: Codes for other alloy combinations can be obtained by applying the following numbering sequence:

Type	Product Code
EX	Add “1” to above “JX” code
KX	Add “2” to above “JX” code
TX	Add “3” to above “JX” code

Example: I67-3468 = 2 PAIR 16 AWG Type “EX”