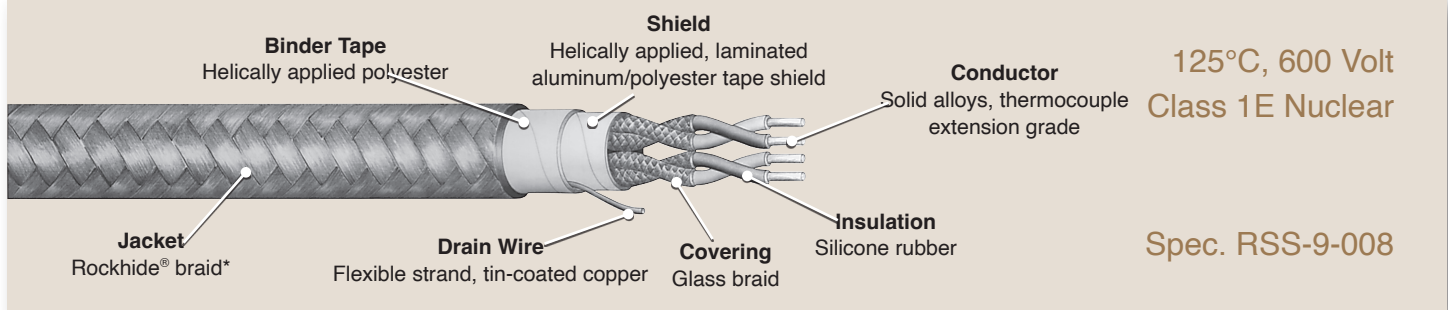


Firewall® SR

Thermocouple Extension Cable

Multi-Unshielded Pairs With Overall Shield (Silicone Rubber)



Features

- Nuclear qualified with a minimum 40-year thermal life expectancy at 125°C
- Radiation resistant (up to 200 megarads)
- Extremely flame retardant
- Extremely flexible for installation ease
- Excellent circuit integrity during flame conditions
- Full traceability
- Easy strippability for termination ease
- All singles pass a wet dielectric (tank) test prior to braid covering to verify electrical integrity
- All cables have printed sequential footage markers for improved inventory control

Performance Standards

- Silicone rubber insulation in accordance with ICEA S-19-81
- Class 1E qualified in accordance with IEEE 383-1974 and IEEE 323-1974 (RSCC Report QR-8802)
- Cable passes IEEE 383-1974 70,000 BTU/hr vertical tray flame test as modified by NRC Reg. Guide 1.131
- ANSI standard MC 96.1
- Cable passes ICEA T-29-520 210,000 BTU/hr vertical tray flame test
- Single conductors pass the vertical flame test specified in IEEE 383-1974 para. 2.5.6 (ICEA S-19-81 Section 6.19.6)
- Quality Assurance program in accordance with 10 CFR 50 Appendix B

Construction

Conductor: Solid alloys per ANSI MC 96.1 (Extension Grade, standard limits of error)

Insulation: Proprietary heat, moisture and radiation resistant silicone rubber

Covering: Glass braid with high temperature finish

Pair Assembly: Two insulated and braided conductors twisted

Cabling: Required number of pairs cabled together

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

Fillers: As applicable

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 polyester

Overall Covering: Rockhide® braid* with high temperature finish (colors to ANSI standards by type)

* Rockhide® is a proprietary blend of aramid and other high temperature synthetic fibers

**Special designs available upon request.

Scope

Firewall® SR Thermocouple Extension Cable is a silicone rubber insulated construction specifically designed for high temperature applications within nuclear generating facilities. It is intended for use in harsh and demanding environments where temperature extremes preclude the use of standard cables. It may be installed in trays, ducts, conduits or in confined spaces such as equipment housings. *Designed for use on circuits where shielding from external electrostatic interference is required but shielding between pairs is not critical.*



Made in the USA



Marmon Electrical
A Berkshire Hathaway Company

Firewall® SR

Thermocouple Extension Cable

Multi-Unshielded Pairs With Overall Shield (Silicone Rubber)



125°C, 600 Volt
Class 1E Nuclear

Spec. RSS-9-008

16 AWG Solid

Product Code*	Number of Pairs	Conductor Type*	Insulation Thickness (inch) (mm)		Individual Conductor Diameter (inch)	Single Conductor Diameter (inch)	Drain Wire Size/Stranding	Overall Braid Thickness (Mils)	Nominal Overall Diameter (inch) (mm)		Approximate Net Weight (Lbs/M')
I68-3187	2	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	.54	13.72	95
I68-3191	3	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	.57	14.48	125
I68-3195	4	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	.65	16.51	165
I68-3199	5	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	.71	18.03	200
I68-3203	7	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	.78	19.81	255
I68-3207	9	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	.92	23.37	335
I68-3211	12	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	1.04	26.42	410
I68-3215	15	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	1.16	28.46	515
I68-3219	19	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	1.23	31.24	630
I68-3223	37	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	1.67	42.42	1190

18 AWG Solid

Product Code*	Number of Pairs	Conductor Type*	Insulation Thickness (inch) (mm)		Individual Conductor Diameter (inch)	Single Conductor Diameter (inch)	Drain Wire Size/Stranding	Overall Braid Thickness (Mils)	Nominal Overall Diameter (inch) (mm)		Approximate Net Weight (Lbs/M')
I68-3147	2	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	.50	12.70	75
I68-3151	3	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	.53	13.46	100
I68-3155	4	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	.60	15.24	130
I68-3159	5	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	.66	16.76	160
I68-3163	7	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	.72	18.29	200
I68-3167	9	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	.85	21.59	260
I68-3171	12	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	.96	24.38	315
I68-3175	15	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	1.07	27.18	400
I68-3179	19	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	1.13	28.70	485
I68-3183	37	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	1.54	39.12	915

* **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: I68-3188 = 2 PAIR 16 AWG Type "EX"

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