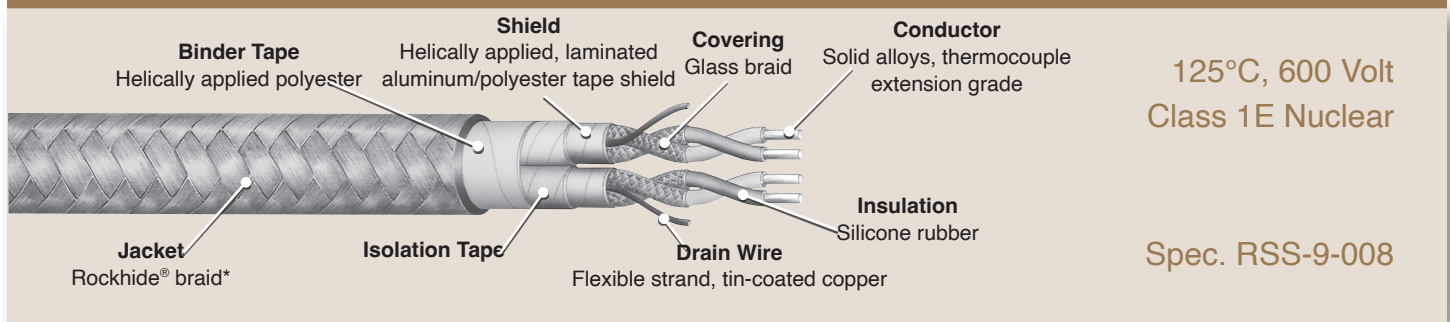


Firewall® SR

Thermocouple Extension Cable

Multi-Shielded Pairs Without 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
- Shield to shield isolation system provided and verified by electrical testing
- 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 with a flexible strand, tin-coated copper drain wire, a helically applied aluminum/polyester laminated tape shield and an isolation tape

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

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 over individual pairs is required but additional overall shielding is not critical.*



Made in the USA

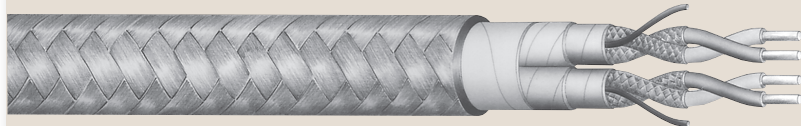


Marmon Electrical
A Berkshire Hathaway Company

Firewall® SR

Thermocouple Extension Cable

Multi-Shielded Pairs Without 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')
I68-3267	2	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	.58	14.73	110
I68-3271	3	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	.61	15.49	145
I68-3275	4	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	.68	17.27	190
I68-3279	5	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	.75	19.05	235
I68-3283	7	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	.82	20.83	305
I68-3287	9	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	.97	24.64	410
I68-3291	12	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	1.10	27.94	490
I68-3295	15	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	1.24	31.50	620
I68-3299	19	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	1.31	33.27	765
I68-3303	37	JX	.030	.76	7.5	.13	18 AWG (16/s)	40	1.89	48.01	1480

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')
I68-3227	2	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	.54	13.72	85
I68-3231	3	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	.57	14.48	115
I68-3235	4	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	.63	16.00	145
I68-3239	5	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	.69	17.53	180
I68-3243	7	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	.76	19.30	235
I68-3247	9	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	.90	22.86	305
I68-3251	12	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	1.02	25.91	375
I68-3255	15	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	1.15	29.21	475
I68-3259	19	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	1.21	30.73	585
I68-3263	37	JX	.030	.76	7.5	.12	20 AWG (10/s)	40	1.67	42.42	1115

* **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: I68-3268 = 2 PAIR 16 AWG Type "EX"

**Special designs available upon request



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