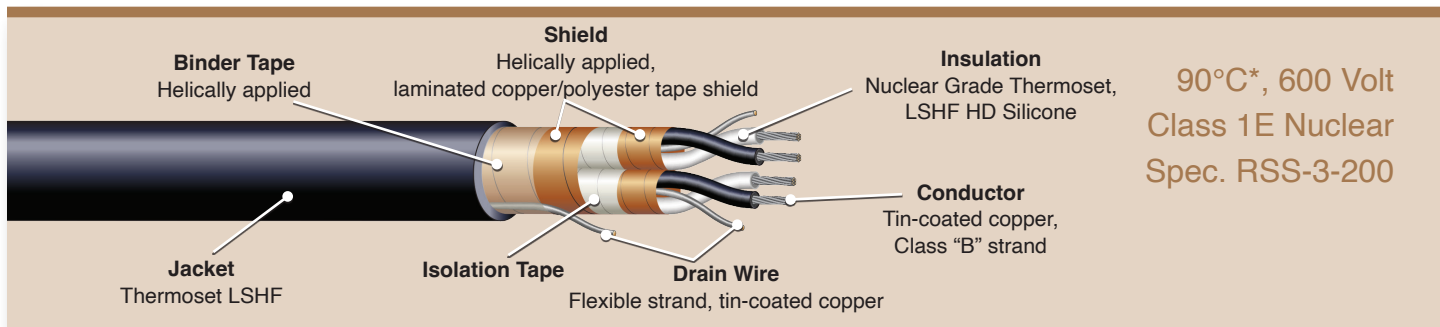


Firewall® LSHF

Safety Class Instrumentation Cable

Mutli-Shielded Pairs with Overall Shield (HD-SR/LSHF)



90°C*, 600 Volt
Class 1E Nuclear
Spec. RSS-3-200

Features

- Complete Low Smoke Halogen Free (LSHF) Insulation and Jacket
- Thermoset insulation and jacket for enhanced thermal stability
- Extremely flame retardant
- Nuclear qualified with a minimum 60-year thermal life expectancy at 90°C
- Radiation resistant (up to 90 megarads)
- Full traceability
- Excellent mechanical properties including flexible insulation and jacket materials
- Tin-coated copper conductors for improved terminations and corrosion resistance
- All insulated conductors 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
- Shield to shield isolation system provided and verified by electrical testing

Scope

RSCC's Firewall® LSHF instrumentation cable is a completely thermoset construction specifically designed for low smoke halogen free applications in utility generating plants and substations. 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 critical circuits where complete isolation is required between pairs and from external interference.

Performance Standards

- Insulation in accordance with ICEA S-95-658 and S-73-532
- Jacket is in accordance with ICEA T-33-655 for Low Smoke Halogen Free Polymetric Jackets
- Class 1E qualified in accordance with IEEE 383-2003. (RSCC Report QR-1704)
- Cable passes IEEE-1202 vertical tray flame test with Low Smoke per UL 1685
- Insulated conductors pass UL VW-1 flame test
- Quality assurance program in accordance with 10 CFR 50 Appendix B

Construction

Conductor: Annealed, tin-coated copper, Class "B" strand (ASTM B8 & B33)

Insulation: Proprietary thermoset, heat, moisture, ozone, and radiation resistant flame retardant High Durometer (HD) Silicone

Pair Assembly: Two insulated conductors twisted with a flexible strand tin-coated copper drain wire, a helically applied copper/polyester laminated tape shield, and an isolation tape

Cabling: Required number of pairs cabled together

Circuit Identification: One black and one white insulated conductor in each pair with printed pair numbers on both singles for pair identification

Fillers: As applicable

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

Binder Tape: Helically applied

Jacket: Colorable LSHF thermoset polyolefin

* Rated 90°C for normal operation in wet and dry locations, 130°C for emergency overload conditions, and 250°C for short circuit conditions.



Made in the USA



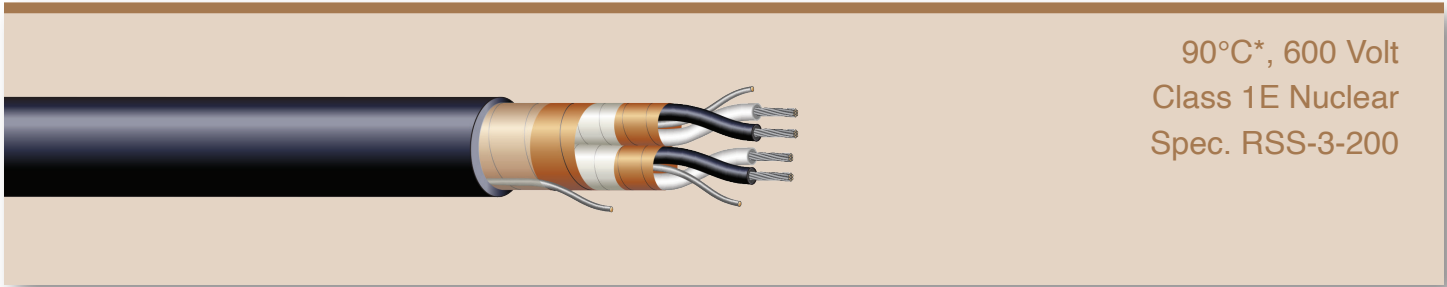
Marmon Electrical
A Berkshire Hathaway Company

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Multi-Shielded Pairs With Overall Shield



90°C*, 600 Volt
Class 1E Nuclear
Spec. RSS-3-200

16 AWG, 7 Strand

Product Code	Number of Pairs	Insulation Thickness		Insulated Conductor Diameter	Drain Wire Size/ Stranding	Jacket Thickness	Nominal Overall Diameter		Approximate Net Weight
		(inch)	(mm)	(inch)		(Mils)	(inch)	(mm)	(Lbs/M')
I92-0015	1	.030	.76	.12	18 AWG (16/s)	45	.34	8.66	80
I92-0025	2	.030	.76	.12	18 AWG (16/s)	60	.58	14.73	200
I92-0035	3	.030	.76	.12	18 AWG (16/s)	60	.62	15.75	240
I92-0045	4	.030	.76	.12	18 AWG (16/s)	60	.68	17.27	290
I92-0055	5	.030	.76	.12	18 AWG (16/s)	60	.74	18.80	350
I92-0075	7	.030	.76	.12	18 AWG (16/s)	60	.81	20.57	415
I92-0095	9	.030	.76	.12	18 AWG (16/s)	80	.99	25.15	575
I92-0125	12	.030	.76	.12	18 AWG (16/s)	80	1.11	28.19	705
I92-0155	15	.030	.76	.12	18 AWG (16/s)	80	1.23	31.24	835
I92-0195	19	.030	.76	.12	18 AWG (16/s)	80	1.29	32.77	965
I92-0375	37	.030	.76	.12	18 AWG (16/s)	80	1.80	45.72	1860

14 AWG, 7 Strand

Product Code	Number of Pairs	Insulation Thickness		Insulated Conductor Diameter	Drain Wire Size/ Stranding	Jacket Thickness	Nominal Overall Diameter		Approximate Net Weight
		(inch)	(mm)	(inch)		(Mils)	(inch)	(mm)	(Lbs/M')
I91-0015	1	.030	.76	.14	16 AWG (26/s)	45	.37	9.40	150
I91-0025	2	.030	.76	.14	16 AWG (26/s)	60	.64	16.26	250
I91-0035	3	.030	.76	.14	16 AWG (26/s)	60	.68	17.27	310
I91-0045	4	.030	.76	.14	16 AWG (26/s)	60	.74	17.80	375
I91-0055	5	.030	.76	.14	16 AWG (26/s)	60	.81	20.57	455
I91-0075	7	.030	.76	.14	16 AWG (26/s)	60	.93	23.62	585
I91-0095	9	.030	.76	.14	16 AWG (26/s)	60	1.10	27.94	760
I91-0125	12	.030	.76	.14	16 AWG (26/s)	80	1.22	30.99	930
I91-0155	15	.030	.76	.14	16 AWG (26/s)	80	1.35	34.29	1100
I91-0195	19	.030	.76	.14	16 AWG (26/s)	80	1.43	36.32	1290
I91-0375	37	.030	.76	.14	16 AWG (26/s)	80	1.99	50.55	2485

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