

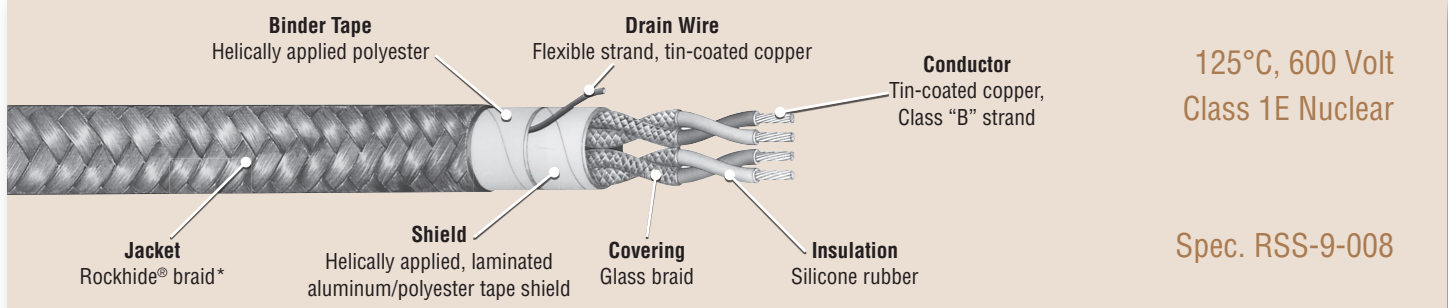
Firewall® SR

Instrumentation Cable

Multi-Unshielded Pairs With Overall Shield (Silicone Rubber)

RSCC Nuclear Cable

www.rsccnuclearcable.com



Features

- Nuclear qualified with a minimum 40-year thermal life expectancy at 125°C
- Radiation resistant (up to 200 megarads)
- Flame retardant
- Extremely flexible for installation ease
- Excellent circuit integrity during flame conditions
- Full traceability
- Easy strippability for termination ease
- Tin-coated copper conductors for improved terminations, corrosion resistance and temperature endurance
- 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 Standard S-19-81
- Class 1E qualified in accordance with IEEE-383 1974 and IEEE-323 (Rockbestos Report QR-8802)
- 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 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:** Annealed, tin-coated copper, Class "B" strand (ASTM B-8 & B-33)
- **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:** One leg of each pair is white. Up to 5 pairs, second legs are black, red, green, orange, or blue. Over 5 pairs, legs are white and black with printed pair number on each leg of each pair.
- **Fillers:** (Where 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 polyester
- **Overall Covering:** Rockhide® braid* with high temperature finish

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

Scope

Firewall® SR Instrumentation 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.*



Marmon Engineered Wire & Cable LLC
A Berkshire Hathaway Company

Firewall® SR Instrumentation Cable

Multi-Unshielded Pairs With Overall Shield
(Silicone Rubber)



125°C, 600 Volt
Class 1E Nuclear

Spec. RSS-9-008

16 AWG, 7 Strand

Product Code	Number of Pairs	Insulation Thickness (inch)	Insulation Thickness (mm)	Individual Braid Thickness (Mils)	Single Conductor Diameter (inch)	Drain Wire Size/Stranding	Overall Braid Thickness (Mils)	Nominal Overall Diameter (inch)	Nominal Overall Diameter (mm)	Approximate Net Weight (Lbs/M')
I48-3351	2	.030	.76	7.5	.14	18 AWG (16/s)	40	.56	14.22	105
I48-3352	3	.030	.76	7.5	.14	18 AWG (16/s)	40	.60	15.24	135
I48-3353	4	.030	.76	7.5	.14	18 AWG (16/s)	40	.69	17.53	180
I48-3354	5	.030	.76	7.5	.14	18 AWG (16/s)	40	.75	19.05	220
I48-3355	7	.030	.76	7.5	.14	18 AWG (16/s)	40	.82	20.83	290
I48-3356	9	.030	.76	7.5	.14	18 AWG (16/s)	40	.97	24.64	370
I48-3357	12	.030	.76	7.5	.14	18 AWG (16/s)	40	1.10	27.94	460
I48-3358	15	.030	.76	7.5	.14	18 AWG (16/s)	40	1.23	31.24	575
I48-3359	19	.030	.76	7.5	.14	18 AWG (16/s)	40	1.30	33.02	705
I48-3360	37	.030	.76	7.5	.14	18 AWG (16/s)	40	1.77	44.96	1280

18 AWG, 7 Strand

Product Code	Number of Pairs	Insulation Thickness (inch)	Insulation Thickness (mm)	Individual Braid Thickness (Mils)	Single Conductor Diameter (inch)	Drain Wire Size/Stranding	Overall Braid Thickness (Mils)	Nominal Overall Diameter (inch)	Nominal Overall Diameter (mm)	Approximate Net Weight (Lbs/M')
I48-3361	2	.030	.76	7.5	.13	20 AWG (10/s)	40	.52	13.21	85
I48-3362	3	.030	.76	7.5	.13	20 AWG (10/s)	40	.56	14.22	110
I48-3363	4	.030	.76	7.5	.13	20 AWG (10/s)	40	.63	16.00	140
I48-3364	5	.030	.76	7.5	.13	20 AWG (10/s)	40	.69	17.53	175
I48-3365	7	.030	.76	7.5	.13	20 AWG (10/s)	40	.76	19.30	225
I48-3366	9	.030	.76	7.5	.13	20 AWG (10/s)	40	.89	22.61	290
I48-3367	12	.030	.76	7.5	.13	20 AWG (10/s)	40	1.01	25.63	355
I48-3368	15	.030	.76	7.5	.13	20 AWG (10/s)	40	1.13	28.78	445
I48-3369	19	.030	.76	7.5	.13	20 AWG (10/s)	40	1.19	30.23	540
I48-3370	37	.030	.76	7.5	.13	20 AWG (10/s)	40	1.63	41.40	1025



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