

# SPECIFICATION CONTROL DRAWING

**55A0211**

TITLE	RADIATION-CROSSLINKED, MODIFIED, ETFE-INSULATED, TIN-COATED COPPER, MEDIUM WEIGHT	Date	6-21-04	Revision	H
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This specification sheet forms a part of the latest issue of Raychem Specification 55A

CONDUCTOR - TIN-COATED COPPER

INSULATOR - RADIATION-CROSSLINKED, MODIFIED ETFE

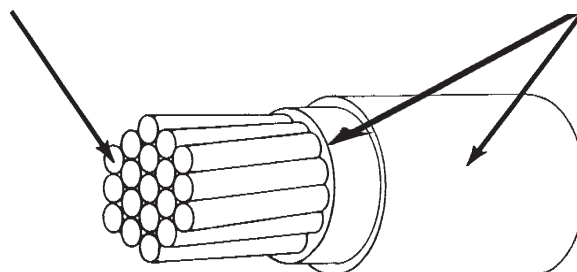


TABLE I. CONSTRUCTION DETAILS

PART NUMBER 1/	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	DIAMETER OF STRANDED CONDUCTOR (in.)		FINISHED WIRE		
			MINIMUM	MAXIMUM	MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft)	DIAMETER (in.)	MAXIMUM WEIGHT (lb/1000 ft)
55A0211-26-*	26	19 x 38	.018	.020	41.3	.034 ± .002	1.5
55A0211-24-*	24	19 x 36	.023	.025	26.2	.039 ± .002	2.1
55A0211-22-*	22	19 x 34	.029	.031	16.2	.045 ± .002	3.0
55A0211-20-*	20	19 x 32	.037	.039	9.88	.053 ± .003	4.6
55A0211-18-*	18	19 x 30	.046	.049	6.23	.063 ± .003	6.8
55A0211-16-*	16	19 x 29	.052	.055	4.81	.071 ± .003	8.7
55A0211-14-*	14	19 x 27	.065	.069	3.06	.088 ± .004	13.4
55A0211-12-*	12	37 x 28	.084	.089	2.02	.106 ± .004	20.2
55A0211-10-*	10	37 x 26	.106	.113	1.26	.131 ± .006	32.0
55A0211- 8-*	8	133 x 29	.158	.166	.701	.190 ± .008	58.0
55A0211- 6-*	6	133 x 27	.198	.205	.445	.238 ± .010	92.0

TABLE II. PERFORMANCE DETAILS

PART NUMBER 1/	BEND TESTING			
	MANDREL DIAMETER (inch) (± 3%)		WEIGHT (lb) (± 3%)	
	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND
55A0211-26-*	.375	1.00	.125	1.50
55A0211-24-*	.375	1.00	.250	2.00
55A0211-22-*	.500	1.00	.375	2.00
55A0211-20-*	.500	1.00	.500	2.00
55A0211-18-*	.500	1.50	.500	2.00
55A0211-16-*	.750	1.50	.750	3.00
55A0211-14-*	1.00	2.00	1.00	4.00
55A0211-12-*	1.50	2.00	1.50	4.00
55A0211-10-*	2.00	3.00	1.50	4.00
55A0211- 8-*	3.00	4.00	2.00	5.00
55A0211- 6-*	4.00	5.00	2.00	6.00

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice. Tyco Electronics also reserves the right to make changes in materials or processing, which do not affect compliance with any specification, without notification to Buyer.

1/ COLORS AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681. OTHER CODES AND SUFFIXES MAY BE ADDED TO THE PART NUMBER, AS NECESSARY, TO CAPTURE ANY ADDITIONAL REQUIREMENTS IMPOSED BY THE PURCHASE ORDER.

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## WIRE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 150°C,

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

ACCELERATED AGING: 300 ± 3°C for 7 hours

BLOCKING: 200 ± 3°C for 24 hours

COLOR: white preferred

CONCENTRICITY: 70% (minimum)

FLAMMABILITY: Procedure 1, 3 seconds (maximum); 3 in. (maximum); no flaming of facial tissue.

HUMIDITY RESISTANCE: Insulation Resistance,

5000 megohms for 1000 ft. (minimum) for AWG 26-10,

3000 megohms for 1000 ft. (minimum) for AWG 8-6

IDENTIFICATION AND COLOR STRIPING DURABILITY: 125 cycles (250 strokes) (minimum), 500 g weight

INSULATION ELONGATION AND TENSILE STRENGTH:

Total Insulation,

Tensile strength, 5000 lbf/in<sup>2</sup> (minimum)

Elongation, 50% (minimum) for total insulation

INSULATION FLAWS:

Primary Insulation,

Spark test, 1.5 kV (rms)

Impulse Dielectric Test, 6.0 kV (peak)

Finished Wire,

Spark Test, 3.0 kV (rms)

Impulse Dielectric Test, 8.0 kV (peak)

INSULATION RESISTANCE:

5000 megohms for 1000 ft (minimum), for AWG 26 - 10

3000 megohms for 1000 ft. (minimum) for AWG 8-6

INSULATION THICKNESS: 0.006 in. (minimum), (total insulation)

LIFE CYCLE: 200 ± 3°C for 500 hours

LOW TEMPERATURE-COLD BEND: -65 ± 3°C for 4 hours

SHRINKAGE: 200 ± 3°C, for 6 hours, 0.125 in. (maximum) in 12 in.

SMOKE TEST: 200 ± 2°C. No visible smoke

SURFACE RESISTANCE: 500 Megohms-in. (minimum), both readings

THERMAL SHOCK RESISTANCE:

AWG 26-12, 150 ± 3°C, 0.060 in. (maximum)

AWG 10- 8, 150 ± 3°C, 0.100 in. (maximum)

AWG 6, 150 ± 3°C, 0.125 in. (maximum)

VOLTAGE WITHSTAND (Post Environmental): 2500 volts (rms), 60 Hz

PART NUMBER:

The "\*" in the part numbers on page 1 shall be replaced by a color code designator.

1/ Example: AWG 22, white: 55A0211-22-9

AWG 22, white with black stripe: 55A0211-22-90

1/ See footer section on page 1

# Mouser Electronics

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