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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

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## **SPECIFICATION CONTROL DRAWING**

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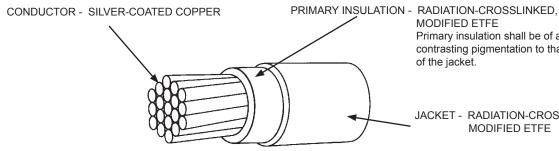
WIRE, RADIATION-CROSSLINKED, MODIFIED ETFE-INSULATED, MEDIUM WEIGHT, GENERAL PURPOSE, 600 VOLT

Date 10-21-11 Revision

С

55A0212

This specification sheet forms a part of the latest issue of Raychem Specification 55A.



MODIFIED ETFE Primary insulation shall be of a contrasting pigmentation to that of the jacket.

JACKET - 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					
					MAXIMUM RESISTANCE AT 20°C	DIAMETER (in.)	MAXIMUM WEIGHT			
			MINIMUM	MAXIMUM	(ohms/1000 ft.)	` ′	(lbs/1000 ft.)			
55A0212-26-*	26	19 x 38	.018	.019	38.4	.034 ± .002	1.5			
55A0212-24-*	24	19 x 36	.023	.025	24.3	.039 ± .002	2.1			
55A0212-22-*	22	19 x 34	.029	.031	15.1	.045 ± .002	3.1			
55A0212-20-*	20	19 x 32	.037	.039	9.19	.053 ± .003	4.6			
55A0212-18-*	18	19 x 30	.046	.048	5.79	.063 ± .003	7.0			
55A0212-16-*	16	19 x 29	.052	.054	4.52	.071 ± .003	8.9			
55A0212-14-*	14	19 x 27	.065	.068	2.88	.088 ± .004	13.7			
55A0212-12-*	12	37 x 28	.084	.087	1.90	.106 ± .004	20.7			
55A0212-10-*	10	37 x 26	.106	.112	1.19	.131 ± .006	32.5			

TABLE II. PERFORMANCE DETAILS								
	BEND TESTING							
PART NUMBER	MANDREL DIAM (inch) (± 3%		WEIGHT (lb) (± 3%)					
1/	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND				
55A0212-26-*	.375	1.00	.125	1.50				
55A0212-24-*	.375	1.00	.250	2.00				
55A0212-22-*	.500	1.00	.375	2.00				
55A0212-20-*	.500	1.00	.500	2.00				
55A0212-18-*	.500	1.50	.500	2.00				
55A0212-16-*	.750	1.50	.750	3.00				
55A0212-14-*	1.00	2.00	1.00	4.00				
55A0212-12-*	1.50	2.00	1.50	4.00				
55A0212-10-*	2.00	3.00	1.50	4.00				

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice. Tyco Electronics Corporation 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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DIMENSIONS ARE IN INCHES, AND UNLESS OTHERWISE DESIGNATED ARE NOMINAL.

THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BID.



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## SPECIFICATION CONTROL DRAWING

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Revision C

55A0212

SCD Number

### WIRE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 200°C

Maximum continuous conductor temperature VOLTAGE RATING: 600 volts (rms) at sea level

ACCELERATED AGING (CROSSLINKING PROOF): 300 ± 3°C for 7 hours

BLOCKING: 230 ± 3°C for 24 hours

COLOR: White preferred

CONCENTRICITY: 70% (minimum)

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

HUMIDITY RESISTANCE: Insulation Resistance, 5000 megohms for 1000 ft. (minimum)

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

IMMERSION: Diameter increase 5% (maximum); no cracking, no dielectric breakdown

INSULATION ELONGATION AND TENSILE STRENGTH:

Total Insulation (primary insulation and jacket)

Elongation, 50% (minimum)

Tensile Strength, 5000 lbf/in2 (minimum)

**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) INSULATION THICKNESS: 0.006 in. (minimum) for total insulation

LIFE CYCLE: 230 ± 3°C for 500 hours

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

SHRINKAGE: 230 ± 3°C for 6 hours, 0.125 in. (maximum) in 12 inches

SMOKE TEST: 250 ± 5°C, no visible smoke

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

THERMAL SHOCK RESISTANCE: 200 ± 3°C,

0.060 in. (maximum) for AWG 26 - 12

0.100 in. (maximum) for AWG 10

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; 55A0212-22-9

AWG 22, white with a black stripe; 55A0212-22-90

1/ See footer section on page 1