

# SPECIFICATION CONTROL DRAWING

55A7113

TITLE	WIRE, RADIATION-CROSSLINKED, MODIFIED ETFE-INSULATED, NORMAL WEIGHT, 600 VOLT	Date	6-10-11	Revision	R
This specification sheet forms a part of the latest issue of Raychem Specification 55PC.					

CONDUCTOR - BARE COPPER

INSULATION - RADIATION-CROSSLINKED,  
MODIFIED ETFE



TABLE I. CONSTRUCTION DETAILS

PART NUMBER 1/	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	DIAMETER OF STRADED CONDUCTOR (in.)		FINISHED WIRE		
			MINIMUM	MAXIMUM	MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft)	DIAMETER (in.)	MAXIMUM WEIGHT (lbs/1000 ft.)
55A7113-22-*	22	7 x 30	.029	.030	16.0	.050 ± .003	3.2
55A7113-20-*	20	7 x 28	.037	.038	10.0	.058 ± .003	4.8
55A7113-18-*	18	19 x 30	.045	.048	6.58	.066 ± .003	6.7
55A7113-16-*	16	19 x 29	.052	.057	4.61	.075 ± .003	9.3
55A7113-14-*	14	19 x 27	.071	.075	2.96	.092 ± .003	14.5
55A7113-12-*	12	37 x 28	.088	.092	1.73	.110 ± .003	23.7
55A7113-10-*	10	37 x 25	.111	.115	1.15	.133 ± .004	36.5

TABLE II. PERFORMANCE DETAILS

PART NUMBER 1/	BEND TESTING	
	MANDREL DIAMETER (inch) (± 3%)	WEIGHT (lb) (± 3%)
	CROSSLINK VERIFICATION	CROSSLINK VERIFICATION
55A7113-22-*	.500	2.00
55A7113-20-*	.500	3.00
55A7113-18-*	.750	4.00
55A7113-16-*	1.00	4.00
55A7113-14-*	1.00	6.00
55A7113-12-*	1.50	6.00
55A7113-10-*	2.00	6.00

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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**WIRE RATINGS AND ADDITIONAL REQUIREMENTS**

TEMPERATURE RATING: 200°C at 3000 hours (minimum)

VOLTAGE RATING: 600 volts (rms) at sea level

COLOR: White preferred

CROSSLINK VERIFICATION: 300 ± 3°C for 1 hour

IDENTIFICATION AND COLOR STRIPING DURABILITY:

125 cycles (250 strokes) (minimum), 500 g weight

INSULATION ELONGATION AND TENSILE STRENGTH:

Elongation, 50% (minimum)

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

INSULATION FLAWS:

Spark Test, 3.0 kV (rms)

Impulse Dielectric Test, 8.0 kV (peak)

INSULATION THICKNESS: .008 in. (minimum), .010 in. (nominal)

SHRINKAGE: 230 ± 3°C for 1 hour, 0.125 in. (maximum) in 12 inches

VOLTAGE WITHSTAND (Post Environmental): 2500 volts (rms)

**PART NUMBER:**

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

1/ Example: AWG 16, white, 55A7113-16-9

AWG 16, white with a black stripe: 55A7113-16-90

1/ See footer section on page 1