## SPECIFICATION CONTROL DRAWING TITLE

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

28MAR11

Date

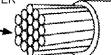
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Revision R1

55A0112

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

CONDUCTOR - SILVER-COATED COPPER



INSULATION -	RADIATION-CROSSLINKED,
	MODIFIED ETFE

	WIRE SIZE (AWG)	SIZE STRANDING	DIAMETER OF STRANDED CONDUCTOR (in.)		FINISHED WIRE		
					MAXIMUM RESISTANCE AT 20°C	DIAMETER (in.)	MAXIMUM WEIGHT
			MINIMUM	MAXIMUM	(ohms/1000 ft)		(lbs/1000 ft.)
55A0112-30-*	30	7 x 38	.011	.012	100.7	.024 ± .002	.66
55A0112-28-*	28	7 x 36	.014	.015	63.8	.027 ± .002	.91
55A0112-26-*	26	19 x 38	.018	.019	38.4	.032 ± .002	1.4
55A0112-24-*	24	19 x 36	.023	.025	24.3	.037 ± .002	2.0
55A0112-22-*	22	19 x 34	.029	.030	15.1	.043 ± .002	2.8
55A0112-20-*	20	19 x 32	.037	.039	9.19	.050 ± .002	4.3
55A0112-18-*	18	19 x 30	.046	.048	5.79	.060 ± .002	6.5
55A0112-16-*	16	19 x 29	.052	.054	4.52	.068 ± .002	8.3
55A0112-14-*	14	19 x 27	.065	.068	2.88	.085 ± .003	13.0
55A0112-12-*	12	37 x 28	.084	.087	1.90	.103 ± .003	19.7
55A0112-10-*	10	37 x 26	.106	.112	1.19	.128 ± .006	32.3
55A0112- 8-*	8	133 x 29	.158	.169	.658	.188 ± .008	60.5

TABLE II. PERFORMANCE DETAILS							
		BEND TESTING					
PART NUMBER 1/	MANDREL DIAMETE (inch) (± 3%)	R	WEIGHT (lb) (± 3%)				
	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND			
55A0112-30-*	.250	.375	.125	.500			
55A0112-28-*	.250	.375	.125	.500			
55A0112-26-*	.375	.500	.125	.500			
55A0112-24-*	.375	.500	.250	1.00			
55A0112-22-*	.500	.750	.375	1.00			
55A0112-20-*	.500	.750	.500	1.00			
55A0112-18-*	.500	1.00	.500	1.00			
55A0112-16-*	.750	1.00	.750	1.00			
55A0112-14-*	1.00	1.50	1.00	3.00			
55A0112-12-*	1.50	2.00	1.50	3.00			
55A0112-10-*	2.00	3.00	1.50	3.00			
55A0112- 8-*	3.00	4.00	4.00	6.00			

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice. TE CONNECTIVITY 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 ADDED TO THE PART NUMBER. AS NECESSARY, TO CAPTURE ANY ADDITIONAL REQUIREMENTS IMPO				
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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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DIMENSIONS ARE IN INCHES, AND UNLESS OTHERWISE DESIGNATED ARE NOMINAL

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: Procedure1, 3 seconds (maximum); 3 in. (maximum); no flaming of facial tissue HUMIDITY RESISTANCE: Insulation Resistance, 5000 megohms for 1000 ft. (minimum) for AWG 30 - 10 3000 megohms for 1000 ft. (minimum) for AWG 8 IDENTIFICATION, COLOR STRIPING AND BAND DURABILITY: 125 cycles (250 strokes) (minimum), 500 g weight IMMERSION: Diameter increase 5% (maximum); no cracking, no dielectric breakdown INSULATION ELONGATION AND TENSILE STRENGTH: Elongation, 75% (minimum) Tensile Strength, 5000 lbf/in<sup>2</sup> (minimum) **INSULATION FLAWS:** Spark Test, 5.7 kV (rms) at 3 kHz Impulse DielectricTest, 8.0 kV (peak) INSULATION RESISTANCE: 5000 megohms for 1000 ft. (minimum) fro AWG 30 - 10 3000 megohms for 1000 ft. (minimum) fro AWG 8 INSULATION THICKNESS: 0.005 in. (minimum) 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 in. SOLDERABILITY: Per MIL-STD-202, Method 208, without steam aging, N/A for AWG 10 and 8 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 30 - 12 0.100 in. (maximum) for AWG 10 - 8 VOLTAGE WITHSTAND TEST (Post Environmental): 2500 volts (rms), 60 Hz WRAP TEST: 313 ± 3°C for 2 hours

## PART NUMBER:

The "\*" in the part numbers on page 1 shall be replaced by a color code designator. 1/ Example: AWG 22, white: 55A0112-22-9

AWG 22, white with black stripe: 55A0112-22-90

1/ See footer section on page 1

## **Mouser Electronics**

Authorized Distributor

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TE Connectivity: 55A0112-22-9