SPECIFICATION CONTROL DRAWING

55A0812

TITLE	Date	Revision
WIRE, RADIATION-CROSSLINKED, MODIFIED ETFE-INSULATED, NORMAL WEIGHT, GENERAL PURPOSE, 600 VOLT	25APR11	U1

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

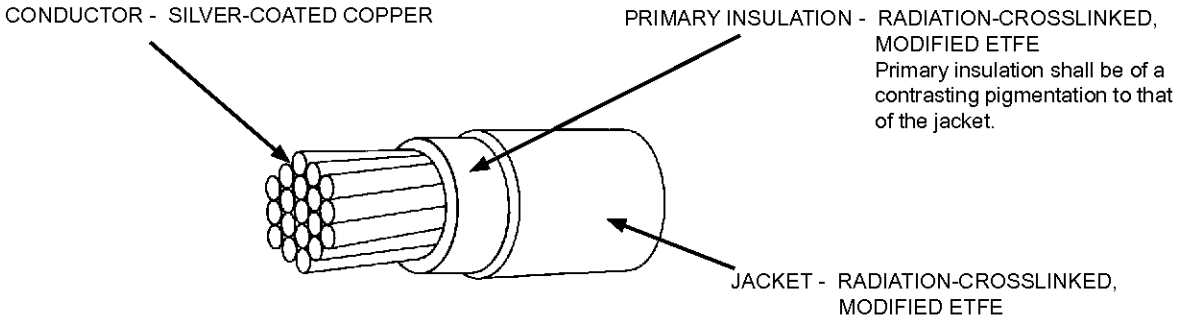


TABLE I. CONSTRUCTION DETAILS

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 (lbs/1000 ft.)
55A0812-26-*	26	19 x 38	.018	.019	38.4	.040 ± .002	1.7
55A0812-24-*	24	19 x 36	.023	.025	24.3	.045 ± .002	2.3
55A0812-22-*	22	19 x 34	.029	.031	15.1	.050 ± .002	3.2
55A0812-20-*	20	19 x 32	.037	.039	9.19	.058 ± .002	4.7
55A0812-18-*	18	19 x 30	.046	.048	5.79	.070 ± .003	7.2
55A0812-16-*	16	19 x 29	.052	.054	4.52	.077 ± .003	9.0
55A0812-14-*	14	19 x 27	.065	.068	2.88	.094 ± .003	13.8
55A0812-12-*	12	37 x 28	.084	.087	1.90	.111 ± .003	20.5
55A0812-10-*	10	37 x 26	.106	.112	1.19	.134 ± .004	32.4
55A0812- 8-*	8	133 x 29	.158	.169	.658	.195 ± .008	61.9
55A0812- 6-*	6	133 x 27	.198	.213	.418	.241 ± .010	94.5
55A0812- 4-*	4	133 x 25	.250	.268	.264	.310 ± .010	158.
55A0812- 2-*	2	665 x 30	.320	.340	.170	.408 ± .012	249.
55A0812- 1-*	1	817 x 30	.360	.380	.139	.470 ± .012	329.
55A0812- 0-*	0	1045 x 30	.395	.425	.108	.510 ± .016	404.
55A0812-00-*	00	1330 x 30	.440	.475	.085	.570 ± .016	500.
55A0812-000-*	000	1665 x 30	.500	.540	.068	.610 ± .016	594.
55A0812-0000-*	0000	2109 x 30	.565	.605	.054	.675 ± .022	746.

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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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.

TE Connectivity

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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
55A0812-26-*	.375	1.00	.500	3.00
55A0812-24-*	.500	1.00	.750	3.00
55A0812-22-*	.500	1.00	1.00	3.00
55A0812-20-*	.500	1.00	1.50	4.00
55A0812-18-*	.750	1.50	2.00	4.00
55A0812-16-*	1.00	1.50	2.00	5.00
55A0812-14-*	1.00	2.00	3.00	5.00
55A0812-12-*	1.50	2.00	3.00	5.00
55A0812-10-*	2.00	3.00	3.00	5.00
55A0812- 8-*	3.00	4.00	4,00	6.00
55A0812- 6-*	4.00	5.00	4.00	10.0
55A0812- 4-*	5.00	6.00	4.00	10.0
55A0812- 2-*	6.00	8.00	6.00	15.0
55A0812- 1-*	8.00	10.0	6.00	15.0
55A0812- 0-*	8.00	10.0	6.00	15.0
55A0812-00-*	10.0	12.0	8.00	20.0
55A0812-000-*	10.0	12.0	8.00	20.0
55A0812-0000-*	10.0	12.0	8.00	20.0

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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), AWG 26 - 10
3000 megohms for 1000 ft. (minimum), AWG 8 - 0000
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:
Tensile strength, 5000 lbf/in² (minimum) for primary insulation
5000 lbf/in² (minimum) for total insulation (primary insulation and jacket)
Elongation, 125% (minimum) for primary insulation, AWG 26 - 10 only
75% (minimum) for total insulation (primary insulation and jacket)
INSULATION FLAWS:
Primary Insulation,
Spark Test, 1.5 kV (rms) at 60 Hz
4.2 kV (rms) at 3 kHz
Impulse DielectricTest, 6.0 kV (peak)
Finished Wire,
Spark Test, 5.7 kV (rms) at 3 kHz
Impulse Dielectric Test, 8.0 kV (peak)
INSULATION RESISTANCE:
5000 megohms for 1000 ft. (minimum), AWG 26 - 10
3000 megohms for 1000 ft. (minimum), AWG 8 - 0000
INSULATION THICKNESS: 0.003 in. (minimum) for primary insulation
0.004 in. (minimum) for outer jacket
0.009 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
SOLDERABILITY: Per MIL-STD-202, Method 208, except without steam aging (for 10 AWG and smaller only).
SURFACE RESISTANCE: 500 megohms-in. (minimum), both readings
THERMAL SHOCK RESISTANCE: 200 ± 3°C,
0.060 in. (maximum), AWG 26 - 12
0.100 in. (maximum), AWG 10 - 8
0.125 in. (maximum), AWG 6 - 0000
VOLTAGE WITHSTAND TEST (Post Environmental): 2500 volts (rms), 60 Hz
WICKING: 2.25 in. (maximum)
WRAP TEST: 313 ± 3°C for 2 hours

PART NUMBER:
The "*" in the part numbers on pages 1 and 2 shall be replaced by a color code designator.
1/ Example: AWG 22, white; 55A0812-22-9
AWG 22, white with a blcak stripe; 55A0812-22-90

1/ See footer section on page 1

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