SPECIFICATION CONTROL DRAWING

SCD **55LF0114**

Title: WIRE, RADIATION-CROSSLINKED, MODIFIED ETFE-INSULATED, ULTRA LOW FLUORIDE, LIGHTWEIGHT, GENERAL PURPOSE, 600 VOLT

Date: 10-16-18

Revision: E

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

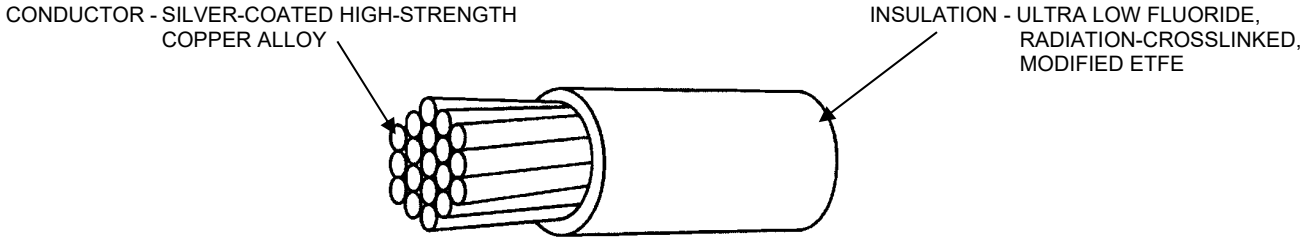


TABLE I. CONSTRUCTION DETAILS

PART NUMBER 1/	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	DIAMETER OF STRANDED CONDUCTOR (inch)		FINISHED WIRE		
			MINIMUM	MAXIMUM	MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft.)	DIAMETER (inch)	MAXIMUM WEIGHT (lbs/1000 ft.)
55LF0114-30-*	30	7 x 38	.011	.012	117.4	.024 ± .002	.66
55LF0114-28-*	28	7 x 36	.014	.015	74.4	.027 ± .002	.91
55LF0114-26-*	26	19 x 38	.018	.020	44.8	.032 ± .002	1.4
55LF0114-24-*	24	19 x 36	.023	.024	28.4	.037 ± .002	2.0
55LF0114-22-*	22	19 x 34	.029	.031	17.5	.043 ± .002	2.9
55LF0114-20-*	20	19 x 32	.037	.039	10.7	.050 ± .002	4.4
55LF0114-18-*	18	19 x 30	.046	.050	6.8	.060 ± .002	6.5
55LF0114-16-*	16	19 x 29	.052	.057	5.3	.068 ± .002	8.3

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
55LF0114-30-*	.250	.375	.125	.500
55LF0114-28-*	.250	.375	.125	.500
55LF0114-26-*	.375	.500	.125	.500
55LF0114-24-*	.375	.500	.250	1.00
55LF0114-22-*	.500	.750	.375	1.00
55LF0114-20-*	.500	.750	.500	1.00
55LF0114-18-*	.500	1.00	.500	1.00
55LF0114-16-*	.750	1.00	.750	1.00

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/ COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681, EXCEPT LIGHT COLORS SHALL BE DESIGNATED WITH AN "L" AFTER THE COLOR CODE (0L, 1L, 2L, etc.). OTHER CODES AND SUFFIXES MAY BE ADDED TO THE PART NUMBER, AS NECESSARY, TO CAPTURE ANY ADDITIONAL REQUIREMENTS IMPOSED BY THE PURCHASE ORDER.

Raychem, TE Connectivity, and TE Connectivity (logo) are trademarks.

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.

Raychem Wire & Cable
501 Oakside Avenue
Redwood City, CA 94063-3800
Phone: 1-800-522-6752
Fax: 1-650-361-6297

© 2007-2018 TE Connectivity Ltd. family of companies. All Rights Reserved.

Downloaded from Arrow.com.

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: Per MIL-STD-681, except light colors (xL) shall meet Munsell color limits for UV laser markable wire in SAE AS22759. White preferred.
CONCENTRICITY: 70% (minimum)
FLAMMABILITY: Procedure 1,
3 seconds (maximum), 3 inches (maximum); no flaming of facial tissue
FLUORIDE EXTRACTION: 70 ± 2°C for 168 hours, 20 ppm (maximum)
HUMIDITY RESISTANCE: Insulation Resistance, 5000 megohms for 1000 ft. (minimum)
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^2 (minimum)
INSULATION FLAWS:
Spark Test, 5.7 kV (rms) at 3 kHz
Impulse Dielectric Test, 8.0 kV (peak)
INSULATION RESISTANCE: 5000 megohms for 1000 ft. (minimum)
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 inches
SMOKE TEST: 250 ± 5°C, no visible smoke
SOLDERABILITY (Quality Conformance, AWG 30-20 only):
Per MIL-STD-202, Method 208, except without steam aging
SURFACE RESISTANCE: 500 meghoms-in. (minimum), both readings
THERMAL SHOCK RESISTANCE: 200 ± 3°C, 0.060 in. (maximum)
UV LASER MARKING (Test per SAE AS22759, Quality Conformance, AWG 30-20 only):
70% (minimum average) for white (9) and light (-xL) insulation colors only
VOLTAGE WITHSTAND (Post Environmental): 2500 volts (rms), 60 Hz
WRAP TEST: 313 ± 3°C for 2 hours

1/ PART NUMBER:
The "*" in the part numbers in Tables I and II shall be replaced by a color code designator.
Example: AWG 22, white: 55LF0114-22-9
AWG 22, light green: 55LF0114-22-5L
AWG 22, white with a black stripe: 55LF0114-22-90

1/ See footer section on page 1

Downloaded from Arrow.com.