## SPECIFICATION CONTROL DRAWING

SCD 82A0112

WIRE, RADIATION-CROSSLINKED, MODIFIED FLEXIBLE ETFE-INSULATED, LIGHTWEIGHT, GENERAL PURPOSE, 600 VOLT Date 04-12-21 Revision R

MODIFIED FLEXIBLE ETFE

This specification sheet forms a part of the latest issue of Raychem Specification 80.

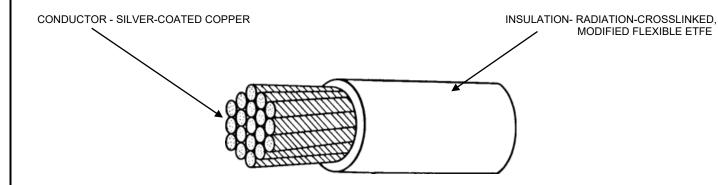


		TABLE I. C	ONSTRU	CTION DET	AILS		
						FINISHED WIRE	
PART NUMBER  1/	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	STRA COND	TER OF ANDED UCTOR n.)	MAXIMUM RESISTANCE AT 20° C (ohms/1000 ft.)	DIAMETER (inch)	MAXIMUM WEIGHT (lb/1000 ft)
			MINIMUM	MAXIMUM	(0)		( ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '
82A0112-28-*	28	42 x 44	.013	.017	75.5	.029 ± .003	1.2
82A0112-26-*	26	63 x 44	.017	.021	46.9	$.033 \pm .003$	1.4
82A0112-24-*	24	105 x 44	.023	.027	28.2	.037 ± .003	2.1
82A0112-22-*	22	154 x 44	.029	.033	19.2	.043 ± .003	2.9
82A0112-20-*	20	154 x 42	.037	.043	11.7	.053 ± .004	4.2
82A0112-18-*	18	259 x 42	.047	.053	7.14	.064 ± .004	6.7
82A0112-16-*	16	259 x 40	.061	.067	4.62	.079 ± .004	10.2
82A0112-14-*	14	665 x 42	.078	.086	2.96	.099 ± .005	16.5
82A0112-12-*	12	665 x 40	.096	.106	1.89	.121 ± .006	24.8
82A0112-10-*	10	665 x 38	.126	.140	1.12	.157 ± .009	42.2
82A0112- 8-*	8	665 x 36	.157	.173	.714	.195 ± .010	66.3
82A0112- 6-*	6	1045 x 36	.192	.208	.490	.236 ± .011	102.
82A0112- 4-*	4	1665 x 36	.265	.285	.326	.318 ± .013	168.
82A0112- 2-*	2	1665 x 34	.325	.345	.204	.385 ± .014	253.
82A0112- 0-*	0	2660 x 34	.435	.465	.133	.516 ± .020	405.

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 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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Title



## **SPECIFICATION CONTROL DRAWING**

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	TABLE II. PERFORMANCE D	ETAILS			
	BEND TESTING				
PART NUMBER <u>1</u> /	MANDREL DIAMETER (inch) (± 3%)	WEIGHT (lb) (± 3%)			
	CROSSLINKING PROOF TEST	CROSSLINKING PROOF TEST			
82A0112-28-*	.250	.125			
82A0112-26-*	.375	.125			
82A0112-24-*	.375	.250			
82A0112-22-*	.500	.375			
82A0112-20-*	.500	.500			
82A0112-18-*	.500	.500			
82A0112-16-*	.750	.750			
82A0112-14-*	1.00	1.00			
82A0112-12-*	1.50	1.50			
82A0112-10-*	2.00	1.50			
82A0112- 8-*	3.00	2.00			
82A0112- 6-*	3.00	2.00			
82A0112- 4-*	4.00	2.50			
82A0112- 2-*	6.00	3.00			
82A0112- 0-*	8.00	4.00			

## WIRE RATINS AND ADDITIONAL REQUIRMENTS

TEMPERATURE RATING: 150°C

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

COLOR: White preferred

CONCENTRICITY: 70% (minimum)

CROSSLINKING PROOF TEST: 300 ± 3°C,

30 minutes for AWG 28 - 14, 1 hour for AWG 12 - 0

IDENTIFICATION AND COLOR STRIPING DURABILITY:

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

INSULATION ELONGATION AND TENSILE STRENGTH:

AWG 28-26, Elongation, 75% (minimum)

Tensile Strength, 3000 lbf/in<sup>2</sup> (minimum)

AWG 24-10, Elongation, 75% (minimum)

Tensile Strength, 3500 lbf/in² (minimum)

AWG 8-0, Elongation 125% (minimum)

Tensile Strength, 3000 lbf/in2 (minimum)

**INSULATION FLAWS:** 

Spark Test: 1.5 kV (rms) at 3 kHz Impulse Dielectric Test, 6.0 kV (peak) **INSULATION THICKNESS:** 

AWG 28-16, .004 in. (minimum)

AWG 14-10 .006 in. (minimum)

AWG 8-0 .012 in. (minimum)

SECANT MODULUS: (Test per ÁSTM D882)

AWG 28-10, 5.0 x 10<sup>4</sup> lbf/in<sup>2</sup> (maximum), AWG 8-0, 4.0 x 10<sup>4</sup> lbf/in<sup>2</sup> (maximum),

2% strain, 2 inch jaw separation, 0.2 inch/minute,

SHRINKAGE: 150 ± 3°C for 6 hours,

AWG 28-10, 0.13 inch (maximum) in 12 inches

AWG 8-0, 0.25 inch (maximum) in 12 inches

VOLTAGE WITHSTAND (Post Environmental):

2500 volts (rms), 60 Hz

1/ PART NUMBER:

The "\*" in the part numbers in Tables I and II shall be replaced by

color code designators.

Example: AWG 22, white: 82A0112-22-9

AWG 22, white with black stripe: 82A0112-22-90