

# SPECIFICATION CONTROL DRAWING

## 44A116X

TITLE SIX CONDUCTOR CABLE, RADIATION-CROSSLINKED, POLYALKENE-INSULATED, SHIELDED, JACKETED, LIGHTWEIGHT, GENERAL PURPOSE, 600 VOLT

Date 02-29-04

Revision E

This specification sheet forms a part of the latest issue of Raychem Specification 44

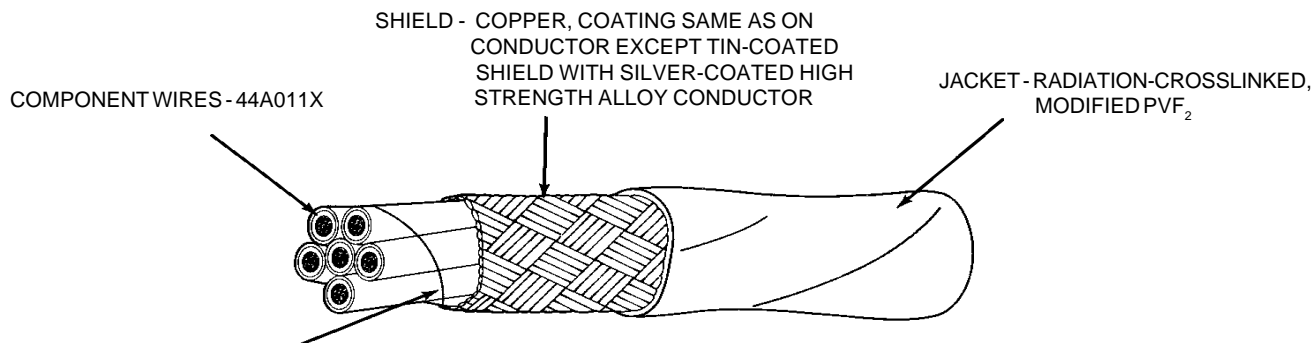


TABLE I. CABLE CONSTRUCTION DETAILS

PART NUMBER 1/	CONDUCTOR SIZE (AWG)	SHIELD SIZE (AWG)	JACKET THICKNESS (in.)		OUTSIDE DIAMETER (in.)		MAXIMUM WEIGHT (lb/1000ft)
			MINIMUM	NOMINAL	NOMINAL	MAXIMUM	
44A116X-26-*	26	36	.006	.008	.140	.146	19.4
44A116X-24-*	24	36	.006	.008	.158	.165	25.0
44A116X-22-*	22	36	.007	.009	.181	.188	33.1
44A116X-20-*	20	36	.007	.009	.205	.213	45.9
44A116X-18-*	18	36	.007	.009	.235	.243	63.6
44A116X-16-*	16	36	.007	.009	.256	.266	78.0
44A116X-14-*	14	36	.008	.010	.309	.325	116.
44A116X-12-*	12	36	.008	.010	.366	.384	171.

TABLE II. CABLE 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
44A116X-26-*	6.00	6.00	.750	4.50
44A116X-24-*	6.00	6.00	1.25	4.50
44A116X-22-*	6.00	6.00	1.25	9.00
44A116X-20-*	6.00	6.00	1.25	9.00
44A116X-18-*	6.00	6.00	1.50	9.00
44A116X-16-*	10.0	10.0	1.50	9.00
44A116X-14-*	10.0	10.0	3.00	27.0
44A116X-12-*	18.0	18.0	3.00	27.0

NOTE: Nominal values are for information only.  
Nominal values are not requirements.

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. HOWEVER, DUE TO LENGTH LIMITATIONS OF THE RAYCHEM PART NUMBER, AN ALTERNATIVE COLOR CODE MAY REPLACE MIL-STD-681 COLOR CODE DESIGNATORS. (EXAMPLE: "901/902..." MAY BE REPLACED BY "Axxx".) OTHER CODES AND SUFFIXES MAY BE ADDED TO THE PART NUMBER, AS NECESSARY, TO CAPTURE ANY ADDITIONAL REQUIREMENTS IMPOSED BY THE PURCHASE ORDER.

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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CABLE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

ACCELERATED AGING: 300 ± 3°C for 6 hours

BLOCKING: 150 ± 3°C for 6 hours

DIELECTRIC WITHSTAND: 2500 volts (rms), 60 Hz, 1 minute

FLAMMABILITY: 30 seconds (maximum); 3 in. (maximum); no flaming of facial tissue

IMMERSION: Diameter increase 5% (maximum); no cracking, no dielectric breakdown

JACKET COLOR: White preferred

JACKET CONCENTRICITY: 70% (minimum)

JACKET ELONGATION AND TENSILE STRENGTH:

Elongation, 200% (minimum)

Tensile Strength, 4000 lbf/in<sup>2</sup> (minimum)

JACKET FLAWS:

Spark Test, 1.5 kV (rms)

Impulse Dielectric Test, 6.0 kV (peak)

LIFE CYCLE: 200 ± 3°C for 168 hours

LOW TEMPERATURE-COLD BEND: -65 ± 2°C for 4 hours

SHIELD COVERAGE: 85% (minimum)

VOLTAGE WITHSTAND TEST (Post Environmental):

1000 volts (rms), 60 Hz, 1 minute

PART NUMBER:

The "X" in the part numbers on page 1 shall be replaced by the applicable conductor material designator as follows:

- 1 tin-coated copper
- 2 silver-coated copper
- 3 nickel-coated copper
- 4 silver-coated high strength copper alloy
- 6 nickel-coated high strength copper alloy

The "\*" in the part numbers on page 1 shall be replaced by color code designators with a slash separating the component wire colors and a dash separating the component wire colors from the jacket color.

Components are not necessarily shown in sequence of manufacturing.

1/ Example: AWG 20, tin-coated copper wires; black, brown, red, orange, yellow and green component wires; white jacket: 44A1161-20-0/1/2/3/4/5-9

1/ see footer section on page 1