

# SPECIFICATION CONTROL DRAWING

**44A414X**

TITLE

FOUR CONDUCTOR CABLE, JACKETED, LIGHTWEIGHT, GENERAL PURPOSE

Date

06-03-04

Revision

F

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

COMPONENT WIRES - 44A011X

JACKET - RADIATION-CROSSLINKED,  
MODIFIED PVF<sub>2</sub>

TABLE I. CABLE CONSTRUCTION DETAILS

PART NUMBER 1/	CONDUCTOR SIZE (AWG)	JACKET THICKNESS (in.)		OUTSIDE DIAMETER (in.)		MAXIMUM WEIGHT (lb/1000 ft)
		MINIMUM	NOMINAL	NOMINAL	MAXIMUM	
44A414X-26-*	26	.006	.008	.098	.110	7.9
44A414X-24-*	24	.006	.008	.113	.132	10.7
44A414X-22-*	22	.006	.008	.130	.153	15.2
44A414X-20-*	20	.006	.008	.149	.176	21.7
44A414X-18-*	18	.007	.009	.175	.207	32.2
44A414X-16-*	16	.007	.009	.192	.216	40.0
44A414X-14-*	14	.007	.009	.233	.276	59.9
44A414X-12-*	12	.008	.010	.281	.333	90.5

TABLE II. CABLE PERFORMANCE DETAILS

PART NUMBER 1/	BEND TESTING			
	MANDREL DIAMETER (inch) (± 3%)		WEIGHT (lb) (± 3%)	
	ACCELERATED AGING IMMERSION AND LIFE CYCLE	COLD BEND	ACCELERATED AGING IMMERSION AND LIFE CYCLE	COLD BEND
44A414X-26-*	3.00	3.00	.500	3.00
44A414X-24-*	3.00	3.00	.750	3.00
44A414X-22-*	6.00	6.00	.750	6.00
44A414X-20-*	6.00	6.00	.750	6.00
44A414X-18-*	6.00	6.00	1.00	6.00
44A414X-16-*	6.00	6.00	1.00	6.00
44A414X-14-*	6.00	6.00	2.00	18.0
44A414X-12-*	10.0	10.0	2.00	18.0

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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**WIRE RATINGS AND ADDITIONAL REQUIREMENTS**

TEMPERATURE RATING: 150°C;

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

ACCELERATED AGING: 225 ± 2°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.

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)

LIFE CYCLE: 200 ± 3°C for 168 hours

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

**PART NUMBER**

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

- 1 tin-coated copper
- 2 silver-coated copper
- 3 nickel-coated copper
- 4 silver-coated high strength copper alloy (AWG's 26 - 16 only)
- 6 nickel-coated high strength copper alloy (AWG's 26 - 20 only)

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. Colors shown do not necessarily reflect the sequence of manufacturing.

1/ Example: 20 Awg, tin-coated copper wires, black, brown, red and orange  
component wires; white jacket: 44A4141-20-0/1/2/3-9

1/ See footer section on page 1