

# SPECIFICATION CONTROL DRAWING

**44A9037**TITLE TWO CONDUCTOR CABLE, DOUBLE SHIELDED, DOUBLE JACKETED,  
GENERAL PURPOSE, 600 VOLT

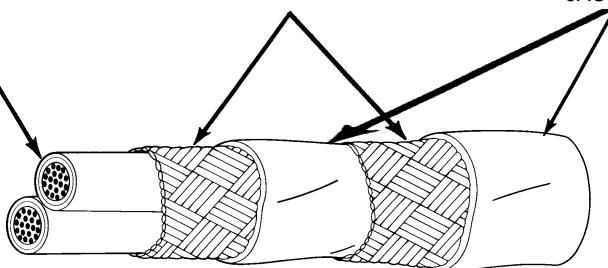
Date 1-5-05

Revision H

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

COMPONENT WIRES - 44A0111

SHIELDS - TIN-COATED COPPER

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

## CABLE CONSTRUCTION DETAILS

PART NUMBER 1/	CONDUCTOR SIZE (AWG)	SHIELD SIZE (AWG) (each)	INNER JACKET THICKNESS (in.)		OUTER JACKET THICKNESS (in.)		OUTSIDE DIAMETER (in.)		MAXIMUM WEIGHT (lbs/1000 ft.)
			MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	NOMINAL	MAXIMUM	
44A9037-24-*	24	38	.004	.008	.005	.010	.142	.149	18.8
44A9037-22-*	22	38	.004	.008	.005	.010	.156	.164	22.7
44A9037-20-*	20	38	.004	.008	.006	.012	.174	.183	28.5
44A9037-18-*	18	38	.004	.008	.006	.012	.194	.204	35.9
44A9037-16-*	16	38	.005	.009	.006	.012	.210	.220	42.0

## CABLE RATINGS AND ADDITIONAL REQUIREMENTS

### TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

BLOCKING: 150 ± 3°C for 6 hours

CROSSLINK VERIFICATION: 200 ± 5°C for 6 hours

### DIELECTRIC WITHSTAND:

1500 volts (rms), 60 Hz, conductor to conductor and shield

500 volts (rms), 60 Hz, shield to shield,

15 seconds (minimum), 30 seconds (maximum)

FLAMMABILITY: 30 Seconds (maximum),

3 in. (maximum) no flaming of facial tissue

JACKET COLOR: White preferred

JACKET CONCENTRICITY: 70% (minimum) (each)

JACKET ELONGATION AND TENSILE STRENGTH:

Elongation, 200% (minimum) (each)

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

### JACKET FLAWS:

Spark Test, 1.5 kV (rms)

Impulse Dielectric Test, 6.0 kV (peak)

LOW TEMPERATURE-COLD BEND: -55 ± 5°C for 4 hours

SHIELD COVERAGE: 85% (minimum) (each)

VOLTAGE WITHSTAND TEST (Post Environmental):

1000 volts (rms), 60 Hz, 1 minute

### PART NUMBER:

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

1/ Example: AWG 20, black and brown component wires; white inner jacket, and white outer jacket;  
44A9037-20-0/1-9-9

This cable shall meet all constructional requirements of M27500 (AWGML2V58).

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.