

# SPECIFICATION CONTROL DRAWING

**44AM1181**

TITLE EIGHT CONDUCTOR CABLE, SHIELDED, JACKETED, GENERAL PURPOSE, 600 VOLT

Date 11-23-05

Revision A

This specification sheet forms a part of the latest issue of Raychem Specification 44 and NEMA WC 27500 as applicable.

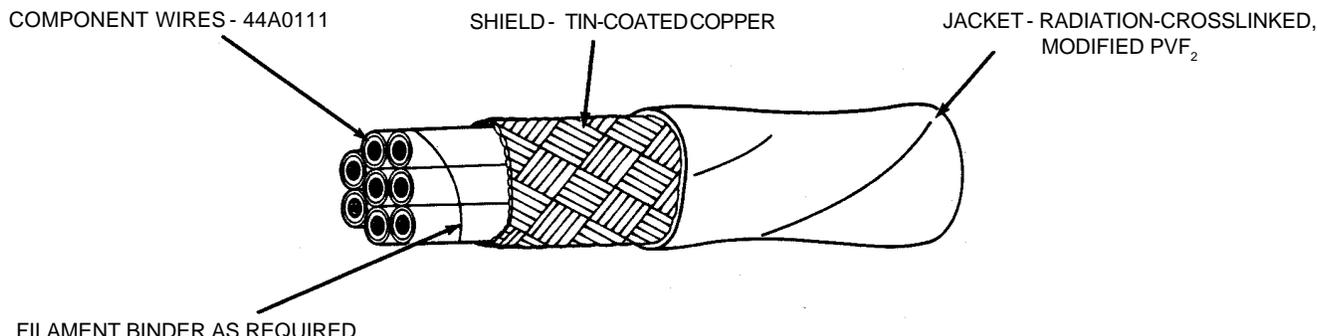


TABLE I. CABLE CONSTRUCTION DETAILS

PART NUMBER 1/	CONDUCTOR SIZE (AWG)	SHIELD SIZE (AWG)	JACKET THICKNESS (in.)		OUTSIDE DIAMETER (in.)		MAXIMUM WEIGHT (lbs/1000 ft.)
			MINIMUM	MAXIMUM	NOMINAL	MAXIMUM	
44AM1181-26-*	26	38	.005	.010	.144	.163	20.7
44AM1181-24-*	24	38	.006	.012	.163	.186	27.0
44AM1181-22-*	22	38	.006	.012	.188	.214	37.4
44AM1181-20-*	20	38	.007	.014	.214	.245	51.7
44AM1181-18-*	18	38	.007	.014	.248	.282	73.7
44AM1181-16-*	16	38	.007	.014	.271	.311	90.2
44AM1181-14-*	14	36	.007	.014	.330	.375	136.

TABLE II. CABLE PERFORMANCE DETAILS

PART NUMBER 1/	BEND TESTING			
	MANDREL DIAMETER (inch) (± 3%)		WEIGHT (lb) (± 3%)	
	IMMERSION AND CROSSLINKED VERIFICATION	COLD BEND	IMMERSION AND CROSSLINKED VERIFICATION	COLD BEND
44AM1181-26-*	6.00	6.00	1.00	6.00
44AM1181-24-*	6.00	6.00	1.50	6.00
44AM1181-22-*	6.00	6.00	1.50	12.0
44AM1181-20-*	6.00	6.00	1.50	12.0
44AM1181-18-*	6.00	6.00	2.00	12.0
44AM1181-16-*	10.0	10.0	2.00	12.0
44AM1181-14-*	10.0	10.0	4.00	36.0

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.



**Raychem** Wire & Cable  
501 Oakside Avenue  
Redwood City, CA 94063-3800  
Phone: 1-800-227-8816  
Fax: 1-650-361-6297

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

CROSSLINKED VERIFICATION: 200 ± 5°C for 6 hours

DIELECTRIC WITHSTAND: 1500 volts (rms), 60 Hz, 15 seconds (minimum), 30 seconds (maximum)

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)

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

SHIELD COVERAGE: 85% (minimum)

VOLTAGE WITHSTAND TEST (POST ENVIRONMENTAL): 1000 volts (rms), 60 Hz, 1 minute

PART NUMBER:

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: AWG 24, black, brown, red, orange, yellow, green, blue and purple component wires;  
white jacket: 44AM1181-24-0/1/2/3/4/5/6/7-9

1/ See footer section on page 1.