

SPECIFICATION CONTROL DRAWING

44AM1731

TITLE

THREE CONDUCTOR, SHIELDED, JACKETED, NORMAL WEIGHT, AIRFRAME

Date

1-31-91

Revision

C

This specification sheet forms a part of the latest issue of Raychem Specification 44 and MIL-C-27500 as applicable

COMPONENT WIRES - 44A0711

SHIELD - TIN-COATED COPPER

JACKET - RADIATION-CROSSLINKED,
MODIFIED PVF₂

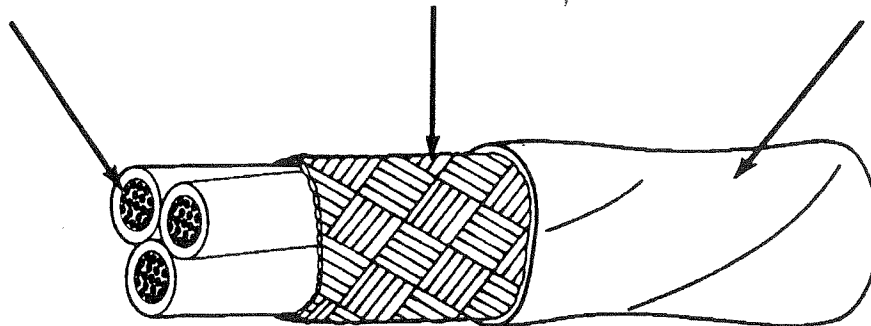


TABLE I. CABLE CONSTRUCTION DETAILS

PART NUMBER	CONDUCTOR SIZE (AWG)	SHIELD SIZE (AWG)	JACKET THICKNESS (in.)		OUTSIDE DIAMETER (in.)		MAXIMUM WEIGHT (lb/1000 ft)
			MINIMUM	NOMINAL	NOMINAL	MAXIMUM	
44AM1731-24*	24	38	.005	.008	.156	.164	18.8
44AM1731-22*	22	38	.006	.009	.184	.193	25.1
44AM1731-20*	20	38	.006	.009	.203	.214	32.0
44AM1731-18*	18	38	.007	.010	.227	.238	42.2
44AM1731-16*	16	38	.007	.010	.247	.259	50.5
44AM1731-14*	14	38	.007	.010	.285	.300	69.6
44AM1731-12*	12	36	.007	.010	.324	.340	100.
44AM1731-10*	10	36	.007	.010	.389	.408	144.
44AM1731- 8*	8	34	.007	.012	.523	.549	253.

TABLE II. CABLE PERFORMANCE DETAILS

PART NUMBER	BEND TESTING			
	MANDREL DIAMETER (inch) (± 3%)		WEIGHT (lb) (± 3%)	
	IMMERSION AND CROSSLINKED VERIFICATION	COLD BEND	IMMERSION AND CROSSLINKED VERIFICATION	COLD BEND
44AM1731-24*	6.00	6.00	1.50	13.5
44AM1731-22*	6.00	6.00	4.50	13.5
44AM1731-20*	6.00	6.00	6.00	18.0
44AM1731-18*	6.00	6.00	6.00	18.0
44AM1731-16*	6.00	6.00	7.50	22.5
44AM1731-14*	10.0	10.0	7.50	22.5
44AM1731-12*	10.0	10.0	7.50	22.5
44AM1731-10*	18.0	18.0	7.50	22.5
44AM1731- 8*	18.0	18.0	9.00	27.0

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

COLORS AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681.

DIMENSIONS ARE IN INCHES, AND UNLESS OTHERWISE DESIGNATED ARE NOMINAL.

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CABLE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms)

AGING STABILITY: 180 ± 5°C for 96 hours

BLOCKING: 150 ± 3°C for 6 hours

CROSSLINKED VERIFICATION: 200 ± 5°C for 6 hours

DIELECTRIC WITHSTAND: 1500 volts, 60 Hz (rms), 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/in² (minimum)

JACKET FLAWS:

Spark Test, 1.5 kV, 60 Hz (rms), 100% test

Impulse Dielectric Test, 6.0 kV (peak), 100% test

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

SHIELD COVERAGE: 85% (minimum)

THERMAL SHOCK: 180 ± 5°C for 4 hours

VOLTAGE WITHSTAND TEST (POST ENVIRONMENTAL): (After Immersion,

Low Temperature-Cold Bend and Crosslinked Verification) 1000 volts, 60 Hz (rms), 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.

Example: AWG 20, white, blue and orange component wires; white jacket:

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