

SPECIFICATION CONTROL DRAWING

44A181X

TITLE ONE CONDUCTOR CABLE, SHIELDED,
JACKETED, MEDIUM WEIGHT, AIRFRAME, 600 VOLT

Date 7-16-99

Revision G

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

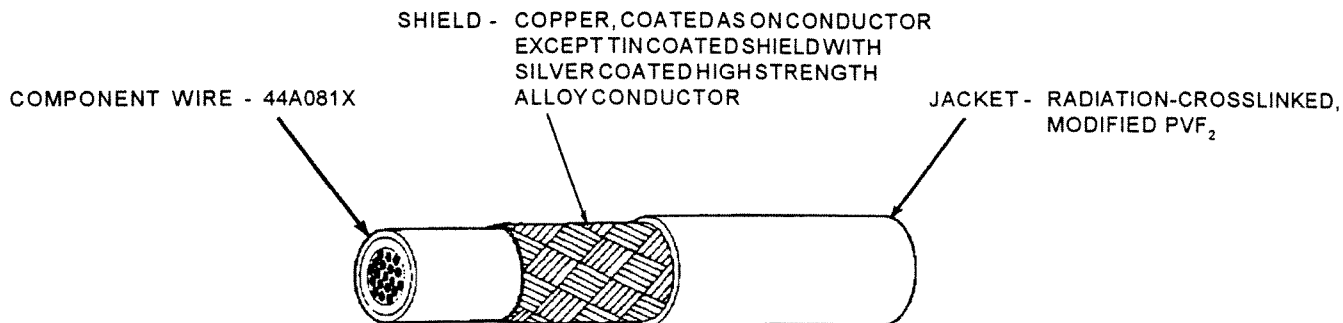


TABLE I. CABLE CONSTRUCTION DETAILS

PART NUMBER	CONDUCTOR SIZE (AWG)	SHIELD SIZE (AWG)	JACKET THICKNESS (in.)		OUTSIDE DIAMETER (in.)		MAXIMUM WEIGHT (lb/1000 ft)
			MINIMUM	NOMINAL	NOMINAL	MAXIMUM	
44A181X-24-*	24	38	.006	.008	.089	.094	7.9
44A181X-22-*	22	36	.006	.008	.101	.107	10.4
44A181X-20-*	20	36	.006	.008	.109	.115	12.9
44A181X-18-*	18	36	.006	.008	.119	.125	16.2
44A181X-16-*	16	36	.006	.008	.128	.134	18.9
44A181X-14-*	14	36	.006	.008	.147	.153	26.0
44A181X-12-*	12	36	.006	.008	.165	.172	35.2
44A181X-10-*	10	36	.007	.009	.196	.201	51.5
44A181X- 8-*	8	36	.007	.009	.253	.266	83.7
44A181X- 6-*	6	36	.007	.010	.305	.320	126.
44A181X- 4-*	4	36	.007	.010	.361	.379	185.

TABLE II. CABLE PERFORMANCE DETAILS

PART NUMBER	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
44A181X-24-*	3.00	3.00	.188	4.50
44A181X-22-*	3.00	3.00	.250	4.50
44A181X-20-*	3.00	3.00	.250	6.00
44A181X-18-*	3.00	3.00	.250	6.00
44A181X-16-*	6.00	6.00	.375	7.50
44A181X-14-*	6.00	6.00	.375	7.50
44A181X-12-*	6.00	6.00	.375	7.50
44A181X-10-*	6.00	6.00	.500	7.50
44A181X- 8-*	10.0	10.0	1.50	9.00
44A181X- 6-*	10.0	10.0	1.50	15.0
44A181X- 4-*	10.0	10.0	1.50	15.0

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.

Raychem

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CABLE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms)

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/in² (minimum)

JACKET FLAWS:

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

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

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 designators as follow:

- 1 tin coated copper
- 2 silver coated copper
- 3 nickel coated copper (AWG 24 - 12 only)
- 4 silver coated high strength copper alloy (AWG 26 - 20 only)
- 6 nickel coated high strength copper alloy (AWG 26 - 20 only)

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

Example: AWG 24, tin-coated copper, white component wire;
white jacket: 44A1811-24-9-9