

SPECIFICATION CONTROL DRAWING

44A7620TITLE TWO CONDUCTOR THERMOCOUPLE EXTENSION CABLE,
SHIELDED, JACKETED

Date 12-04-01

Revision Q

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

COMPONENT WIRES -
1 of WTC-0013 (CHROMEL®)
1 of WTC-0014 (ALUMEL®)

SHIELD - TIN-COATED COPPER

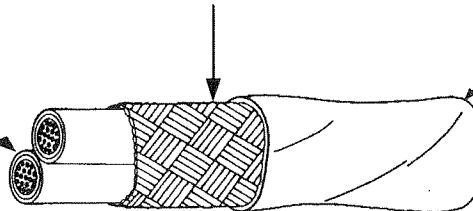
JACKET - RADIATION-CROSSLINKED
MODIFIED PVF₂

TABLE I. CABLE CONSTRUCTION DETAILS

PART NUMBER	CONDUCTOR SIZE (AWG)	SHIELD SIZE (AWG)	JACKET THICKNESS (inch)		OUTSIDE DIAMETER (inch)		MAXIMUM WEIGHT (lbs/1000 ft.)
			MINIMUM	NOMINAL	NOMINAL	MAXIMUM	
44A7620-24-*	24	38	.010	.012	.145	.152	14.8
44A7620-22-*	22	38	.010	.012	.159	.167	18.2
44A7620-20-*	20	36	.010	.012	.179	.187	24.7
44A7620-16-*	16	36	.012	.014	.233	.245	45.2

TABLE II. CABLE PERFORMANCE DETAILS

PART NUMBER	BEND TESTING			
	MANDREL DIAMETER (inch) (±3%)		WEIGHT (lb) (± 3%)	
	ACCELERATED AGING, AND LOW TEMPERATURE COLD-BEND		ACCELERATED AGING, AND LOW TEMPERATURE COLD-BEND	
44A7620-24-*	3.75	3.75	.375	3.00
44A7620-22-*	3.75	3.75	.375	3.00
44A7620-20-*	4.00	4.00	.375	3.00
44A7620-16-*	5.00	5.00	.500	3.00

CABLE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

ACCELERATED AGING: 300 ± 3°C for 6 hours

DIELECTRIC WITHSTAND: 1500 volts (rms), 60 Hz, 1 minute

FLAMMABILITY: 30 seconds (maximum); 3 in. (maximum)
no flaming of facial tissue

JACKET CONCENTRICITY: 70% (minimum)

JACKET ELONGATION AND TENSILE STRENGTH:

Elongation, 200% (minimum)

Tensile Strength, 4000 lbf/in² (minimum)

JACKET FLAWS:

Spark Test, 1.5 volts (rms), 100% test

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

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

SHIELD COVERAGE: 85% (minimum)

VOLTAGE WITHSTAND TEST (POST ENVIRONMENTAL):

1000 volts (rms), 60 Hz, 1 minute

PRODUCT IDENTIFICATION: The cable jacket shall be marked in black ink at 6 in. (nominal) intervals between marks as follows: " 44A7620-AWG - 06090 "

PART NUMBER: The "*" in the part numbers above 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. The color CHROMEL® shall be shown first.

Example: AWG 20,

Per MIL-STD-687: white and green; white jacket:

44A7620-20-9/5-9.

Per ANS MC96.1: yellow and red; yellow jacket:

44A7620-20-4/2-4

Per British Standard Code BS:

brown and blue; red jacket:

44A7620-20-1/6-2.

EMF shall be 4.00 mV (minimum), 4.19 mV (maximum), at 100°C with reference junction corrected to 0°C per ANSI MC96.1, and shall be performed on every length of cable.

The combination of the above thermoelements is referred to as type KX per ANSI MC96.1.

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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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