

# SPECIFICATION CONTROL DRAWING

44A7620

TITLE 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.

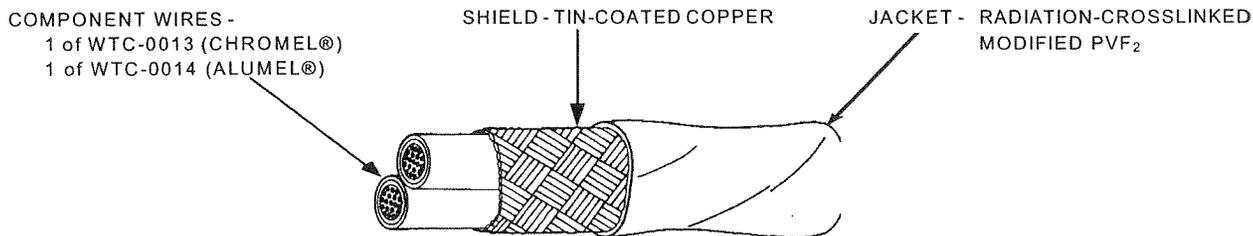


TABLE I. CABLE CONSTRUCTION DETAILS

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	COLD BEND	ACCELERATED AGING, AND LOW TEMPERATURE COLD-BEND	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/in<sup>2</sup> (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 ANSI 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.

**Raychem**

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