

# SPECIFICATION CONTROL DRAWING

**CTC-0015**

TITLE TWO CONDUCTOR THERMOCOUPLE EXTENSION CABLE, SHIELDED, JACKETED

Date 9-21-12

Revision G

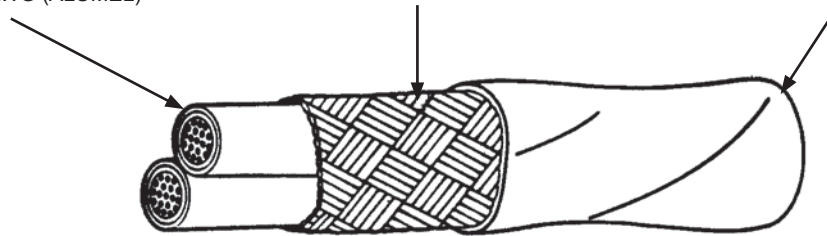
This specification sheet forms a part of the latest issue of Raychem Specification 55A.

**COMPONENT WIRES -**

- 1 of 55A8001-AWG (CHROMEL)
- 1 of 55A8000-AWG (ALUMEL)

SHIELD - NICKEL-COATED COPPER

JACKET - RADIATION-CROSSLINKED, MODIFIED ETFE



### CABLE CONSTRUCTION DETAILS

PART NUMBER 1/	CONDUCTOR SIZE (AWG)	SHIELD SIZE (AWG)	JACKET THICKNESS (inches)		OUTSIDE DIAMETER (inches)		MAXIMUM WEIGHT (lbs/1000 ft.)
			MINIMUM	NOMINAL	NOMINAL	MAXIMUM	
CTC-0015-30-*	30	38	.006	.008	.097	.102	7.1
CTC-0015-24-*	24	38	.006	.008	.123	.129	11.8
CTC-0015-22-*	22	38	.006	.008	.135	.142	15.3
CTC-0015-20-*	20	38	.006	.008	.151	.159	19.8
CTC-0015-18-*	18	38	.006	.008	.173	.182	26.5
CTC-0015-16-*	16	38	.006	.008	.189	.198	31.6

### CABLE RATINGS AND ADDITIONAL REQUIREMENTS

**TEMPERATURE RATING: 200°C**

Maximum continuous conductor temperature

**ACCELERATED AGING: 300 ± 3°C for 7 hours**

**DIELECTRIC WITHSTAND: 1500 volts (rms), 60 Hz**

**FLAMMABILITY: Procedure 1,3 seconds (maximum);**

3 in. (maximum); no flaming of facial tissue

**JACKET ELONGATION AND TENSILE STRENGTH:**

Elongation, 50% (minimum)

Tensile Strength, 5000 lbf/in<sup>2</sup> (minimum)

**JACKET FLAWS:**

Spark Test, 1000 volts (rms)

Impulse Dielectric Test, 6.0 kV (peak)

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

**SHIELD COVERAGE: 85% (minimum)**

**VOLTAGE WITHSTAND (Post Environmental):**

1000 volts (rms), 60 Hz, 1 minute

**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 of the CHROMEL shall be shown first.

1/ Example: AWG 16,

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

CTC-0015-16-9/5-9

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

CTC-0015-16-4/2-4

Per British Standard Code BS:

brown and blue; red jacket:

CTC-0015-16-1/6-2

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

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 finished cable.

CHROMEL and ALUMEL are federally registered trademarks of Hoskins Manufacturing Company. Alternative conductors, exhibiting the same performance characteristics, may be substituted for one or both of the CHROMEL and ALUMEL conductors.

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice.  
Tyco Electronics Corporation 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.

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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.



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