

# SPECIFICATION CONTROL DRAWING

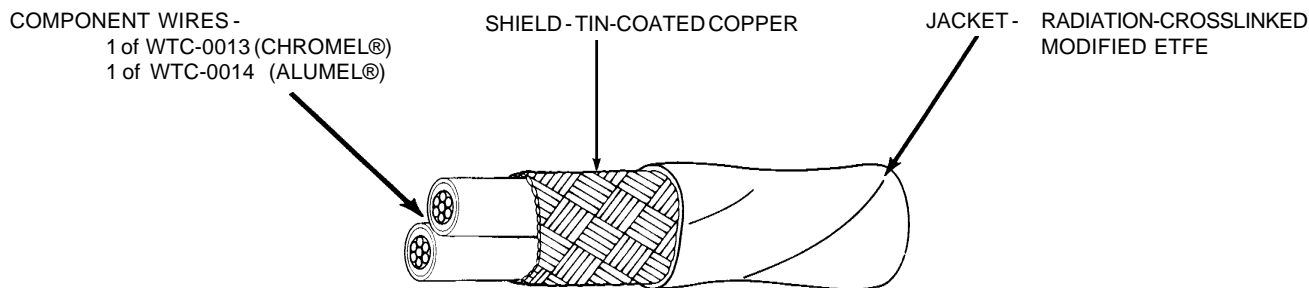
**CTC-0039**

TITLE TWO CONDUCTOR THERMOCOUPLE EXTENSION CABLE, SHIELDED, JACKETED

Date 10-9-04

Revision H

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



CABLE CONSTRUCTION DETAILS							
PART NUMBER <u>1/</u>	CONDUCTOR SIZE (AWG)	SHIELD SIZE (AWG)	JACKET THICKNESS (inch)		OUTSIDE DIAMETER (inch)		MAXIMUM WEIGHT (lbs/1000 ft.)
			MINIMUM	NOMINAL	NOMINAL	MAXIMUM	
CTC-0039-22-*	22	38	.010	.012	.159	.167	16.1
CTC-0039-20-*	20	36	.010	.012	.179	.187	22.9
CTC-0039-18-*	18	36	.010	.012	.201	.211	30.8
CTC-0039-16-*	16	36	.012	.014	.233	.245	44.6

### CABLE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 150°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

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 TEST (Post Environmental):

1000 volts (rms), 60 Hz, 1 minute

PRODUCT IDENTIFICATION: The cable jacket shall be marked in contrasting ink at 6 in. (nominal) intervals between marks as follows: " CTC-0039-\*\*-06090 "

The "\*" in the product identification shall be replaced by the AWG size, color sequence of components, and jacket color. For example, if AWG size is 16 and color code is per MIL-STD-687, the "\*" should be replaced with "16-9/5-9".

#### 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 CHROMEL® shall be shown first.

1/ Example: AWG 16,

Per MIL-STD-687: white and green; white jacket:  
CTC-00395-16-9/5-9

Per ANSI MC 96.1: yellow and red; yellow jacket:  
CTC-0039-16-4/2-4

Per British Standard Code BS:  
brown and blue; red Jacket:  
CTC-0039-16-1/6-2

The combination of the above thermoelements is referred to as type KX per ANSI MC 96.1.

EMF shall be 4.00 mV (minimum), 4.19 mV (maximum) as 100°C with reference junction at 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 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.

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.



**Raychem** Wire & Cable  
501 Oaks Avenue  
Redwood City, CA 94063-3800  
Phone: 1-800-227-8816  
Fax: 1-650-361-6297