

# SPECIFICATION CONTROL DRAWING

**CTC-0018**

Title

TWO CONDUCTOR THERMOCOUPLE EXTENSION CABLE,  
SHIELDED, JACKETED

Date

10-11-03

Revision

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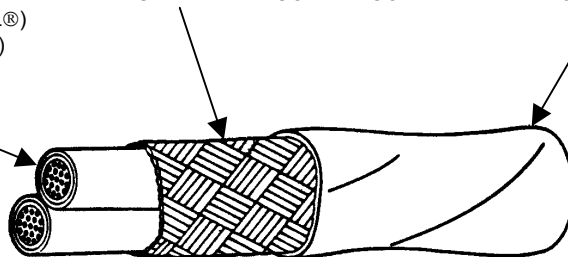
This specification sheet forms a part of the latest issue of Raychem Specification 55A.

COMPONENT WIRES -

1 of 55A8001-AWG (CHROMEL®)

1 of 55A8000-AWG (ALUMEL®)

SHIELD - TIN-COATED COPPER

JACKET - RADIATION-CROSSLINKED  
MODIFIED ETFE

## CABLE CONSTRUCTION DETAILS

| PART NUMBER<br>1/ | CONDUCTOR<br>SIZE<br>(AWG) | SHIELD<br>SIZE<br>(AWG) | JACKET THICKNESS<br>(in.) |         | OUTSIDE DIAMETER<br>(in.) |         | NOMINAL<br>WEIGHT<br>(lb/1000 ft) |
|-------------------|----------------------------|-------------------------|---------------------------|---------|---------------------------|---------|-----------------------------------|
|                   |                            |                         | MINIMUM                   | NOMINAL | NOMINAL                   | MAXIMUM |                                   |
| CTC-0018-24-*     | 24                         | 38                      | .006                      | .008    | .123                      | .129    | 11.0                              |
| CTC-0018-22-*     | 22                         | 38                      | .006                      | .008    | .135                      | .142    | 13.6                              |
| CTC-0018-20-*     | 20                         | 38                      | .006                      | .008    | .151                      | .159    | 17.7                              |
| CTC-0018-18-*     | 18                         | 38                      | .006                      | .008    | .173                      | .182    | 23.6                              |
| CTC-0018-16-*     | 16                         | 38                      | .006                      | .008    | .189                      | .198    | 28.8                              |

## 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 inches (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 TEST (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-0018-16-9/5-9Per ANSI MC96.1: yellow and red; yellow jacket:  
CTC-0018-16-4/2-4Per British Standard Code BS:  
brown and blue; red jacket:  
CTC-0018-16-1/6-2

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

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<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

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