

SPECIFICATION CONTROL DRAWING

CTC-0012

Title

TWO CONDUCTOR THERMOCOUPLE EXTENSION CABLE,
JACKETED

Date

10-13-03

Revision

D

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®)

JACKET - RADIATION-CROSSLINKED
MODIFIED ETFE

CABLE CONSTRUCTION DETAILS

| PART NUMBER 1/ | CONDUCTOR SIZE (AWG) | JACKET THICKNESS (in.) | | OUTSIDE DIAMETER (in.) | | MAXIMUM WEIGHT (lb/1000 ft) |
|-------------------|----------------------------|---------------------------|---------|---------------------------|---------|-----------------------------------|
| | | MINIMUM | NOMINAL | NOMINAL | MAXIMUM | |
| CTC-0012-24 | 24 | .006 | .008 | .106 | .111 | 7.3 |
| CTC-0012-22 | 22 | .006 | .008 | .118 | .124 | 10.2 |
| CTC-0012-20 | 20 | .006 | .008 | .134 | .141 | 14.1 |
| CTC-0012-18 | 18 | .006 | .008 | .156 | .164 | 19.8 |
| CTC-0012-16 | 16 | .006 | .008 | .172 | .181 | 24.3 |

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 inches (maximum);

no flaming of facial tissue

JACKET ELONGATION AND TENSILE STRENGTH:

Elongation, 50% (minimum)

Tensile Strength, 5000 lbf/in² (minimum)

LOOP RESISTANCE:

AWG 20 - .586 ohms/ft (nominal)

18 - .365 ohms/ft (nominal)

16 - .288 ohms/ft (nominal)

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

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 20,

Per MIL-STD-687: white and green; white jacket:
CTC-0012-20-9/5-9

Per ANSI MC96.1: yellow and red; yellow jacket:
CTC-0012-20-4/2-4

Per British Standard Code BS:
brown and blue; red jacket:
CTC-0012-20-1/6-2

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.

Replaces 55A6020

*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.

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[CTC-0012-20-9/5-9](#)