

# SPECIFICATION CONTROL DRAWING

44A9748

|                                                                                        |                                                              |      |          |          |   |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------|------|----------|----------|---|
| TITLE                                                                                  | ONE CONDUCTOR CABLE, FLAT BRAID SHIELDED, JACKETED, 600 VOLT | Date | 12-18-07 | Revision | B |
| This specification sheet forms a part of the latest issue of Raychem Specification 44. |                                                              |      |          |          |   |

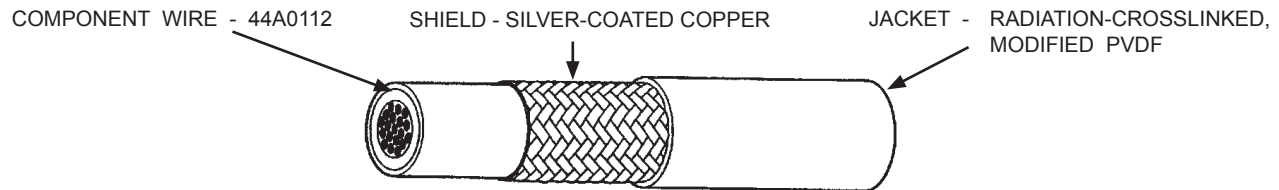


TABLE I. CABLE CONSTRUCTION DETAILS

| PART NUMBER<br>1/ | CONDUCTOR<br>SIZE<br>(AWG) | SHIELD STRAND<br>THICKNESS<br>(± .0004 inch) | JACKET THICKNESS<br>(in.) |         | OUTSIDE DIAMETER<br>(in.) |         | MAXIMUM<br>WEIGHT<br>(lbs/1000 ft.) |
|-------------------|----------------------------|----------------------------------------------|---------------------------|---------|---------------------------|---------|-------------------------------------|
|                   |                            |                                              | MINIMUM                   | NOMINAL | NOMINAL                   | MAXIMUM |                                     |
| 44A9748-26-*      | 26                         | .0015                                        | .006                      | .008    | .057                      | .062    | 3.6                                 |
| 44A9748-24-*      | 24                         | .0015                                        | .006                      | .008    | .063                      | .068    | 4.6                                 |
| 44A9748-22-*      | 22                         | .0015                                        | .006                      | .008    | .070                      | .076    | 6.0                                 |
| 44A9748-20-*      | 20                         | .0015                                        | .006                      | .008    | .078                      | .084    | 7.9                                 |
| 44A9748-18-*      | 18                         | .0015                                        | .006                      | .008    | .088                      | .095    | 10.8                                |
| 44A9748-16-*      | 16                         | .0015                                        | .006                      | .008    | .095                      | .103    | 13.1                                |
| 44A9748-14-*      | 14                         | .0015                                        | .006                      | .008    | .112                      | .122    | 18.9                                |
| 44A9748-12-*      | 12                         | .0015                                        | .006                      | .008    | .131                      | .142    | 27.7                                |

TABLE II. CABLE PERFORMANCE DETAILS

| PART NUMBER<br>1/ | BEND TESTING                                   |              |                                                |              |
|-------------------|------------------------------------------------|--------------|------------------------------------------------|--------------|
|                   | MANDREL DIAMETER<br>(inch) (±3%)               |              | WEIGHT<br>(lb) (±3%)                           |              |
|                   | LIFE CYCLE, IMMERSION<br>AND ACCELERATED AGING | COLD<br>BEND | LIFE CYCLE, IMMERSION<br>AND ACCELERATED AGING | COLD<br>BEND |
| 44A9748-26-*      | 3.00                                           | 3.00         | .125                                           | .750         |
| 44A9748-24-*      | 3.00                                           | 3.00         | .188                                           | .750         |
| 44A9748-22-*      | 3.00                                           | 3.00         | .188                                           | 1.50         |
| 44A9748-20-*      | 3.00                                           | 3.00         | .188                                           | 1.50         |
| 44A9748-18-*      | 3.00                                           | 3.00         | .250                                           | 1.50         |
| 44A9748-16-*      | 3.00                                           | 3.00         | .250                                           | 1.50         |
| 44A9748-14-*      | 3.00                                           | 3.00         | .500                                           | 4.50         |
| 44A9748-12-*      | 6.00                                           | 6.00         | .500                                           | 4.50         |

NOTE: Nominal values are for information only.  
Nominal values are not requirements.

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.

|             |                                                                                                                                                                    |  |                                                                                                                           |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------|
| Page 1 of 2 | The TE logo, Tyco Electronics and Raychem are trademarks.                                                                                                          |  | Raychem Wire & Cable<br>501 Oakside Avenue<br>Redwood City, CA 94063-3800<br>Phone: 1-800-227-8816<br>Fax: 1-650-361-6297 |
|             | DIMENSIONS ARE IN INCHES, AND UNLESS OTHERWISE DESIGNATED ARE NOMINAL                                                                                              |  |                                                                                                                           |
|             | THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.<br>REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BID. |  |                                                                                                                           |

|                                                                                   |                                      |             |               |                           |
|-----------------------------------------------------------------------------------|--------------------------------------|-------------|---------------|---------------------------|
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|-----------------------------------------------------------------------------------|--------------------------------------|-------------|---------------|---------------------------|

## CABLE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

ACCELERATED AGING: 300 ± 3°C for 6 hours

BLOCKING: 150 ± 3°C for 6 hours

DIELECTRIC WITHSTAND: 2500 volts (rms), 60 Hz, 1 minute

FLAMMABILITY: 30 seconds (maximum); 3 in. (maximum); no flaming of facial tissue

IMMERSION: Diameter increase 5% (maximum), no cracking, no dielectric breakdown

JACKET COLOR: White preferred

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 kV (rms)

Impulse Dielectric Test, 6.0 kV (peak)

LIFE CYCLE: 200 ± 3°C for 168 hours

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

SHIELD COVERAGE: 90% (minimum)

VOLTAGE WITHSTAND TEST (Post Environmental): 1000 volts (rms), 60 Hz, 1 minute

PART NUMBER:

The "\*\*\*" in the part numbers on page 1 shall be replaced by color code designators with a dash separating the component wire color from the jacket color.

1/ Example: AWG 20, black component wire; white jacket: 44A9748-20-0-9

1/ See footer section on page 1

# Mouser Electronics

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[44A9748-24-9-9CS3185](#)