

# SPECIFICATION CONTROL DRAWING

44A9605

|                                                                                        |                                                                                                       |      |         |          |   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------|---------|----------|---|
| TITLE                                                                                  | WIRE, RADIATION-CROSSLINKED, POLYALKENE-INSULATED, LIGHTWEIGHT, GENERAL PURPOSE, WATERTIGHT, 600 VOLT | Date | 9-23-13 | Revision | J |
| This specification sheet forms a part of the latest issue of Raychem Specification 44. |                                                                                                       |      |         |          |   |

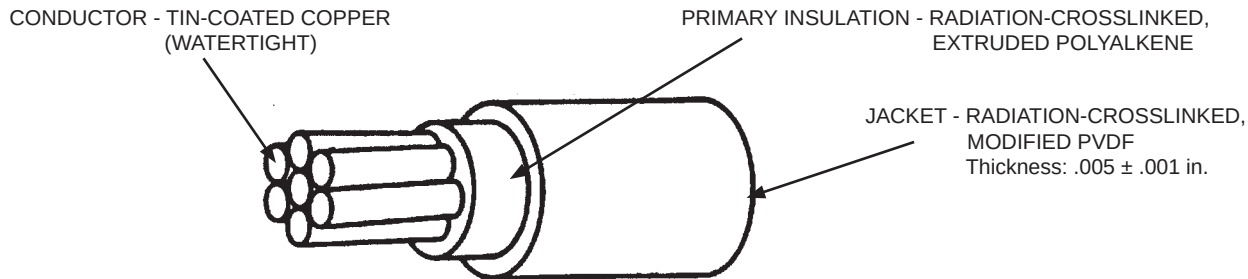


TABLE I. CONSTRUCTION DETAILS

| PART NUMBER<br>1/ | WIRE SIZE (AWG) | CONDUCTOR STRANDING (number x AWG) (number x SEOD) | NOMINAL DIAMETER OF STRANDED CONDUCTOR (inch) | FINISHED WIRE                             |                 |                               |
|-------------------|-----------------|----------------------------------------------------|-----------------------------------------------|-------------------------------------------|-----------------|-------------------------------|
|                   |                 |                                                    |                                               | MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft) | DIAMETER (inch) | MAXIMUM WEIGHT (lbs/1000 ft.) |
| 44A9605-20-*      | 20              | 7 x 28                                             | .038                                          | 10.9                                      | .078 ± .003     | 6.2                           |
| 44A9605-18-*      | 18              | 7 x 26                                             | .048                                          | 6.87                                      | .088 ± .003     | 8.8                           |
| 44A9605-16-*      | 16              | 7 x .0192                                          | .058                                          | 4.33                                      | .097 ± .004     | 11.7                          |
| 44A9605-14-*      | 14              | 7 x .0242                                          | .073                                          | 2.78                                      | .115 ± .004     | 17.7                          |

TABLE II. PERFORMANCE DETAILS

| PART NUMBER<br>1/ | BEND TESTING                                 |           |      |                                              |           |
|-------------------|----------------------------------------------|-----------|------|----------------------------------------------|-----------|
|                   | MANDREL DIAMETER (inch) (± 3%)               |           |      | WEIGHT (lb) (± 3%)                           |           |
|                   | IMMERSION, LIFE CYCLE, AND ACCELERATED AGING | COLD BEND | WRAP | IMMERSION, LIFE CYCLE, AND ACCELERATED AGING | COLD BEND |
| 44A9605-20-*      | .750                                         | 2.00      | .250 | .500                                         | 1.00      |
| 44A9605-18-*      | 1.00                                         | 3.00      | .500 | .500                                         | 1.00      |
| 44A9605-16-*      | 1.00                                         | 3.00      | .500 | .500                                         | 1.00      |
| 44A9605-14-*      | 1.50                                         | 4.00      | .500 | .500                                         | 3.00      |

## WIRE RATINGS AND ADDITIONAL REQUIREMENTS

### TEMPERATURE RATING: 135°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

ACCELERATED AGING: 225 ± 2°C for 6 hours

Identification legibility, 225 ± 2°C for 6 hours

### INSULATION RESISTANCE:

5000 megohms for 1000 ft. (minimum)

LOW TEMPERATURE-COLD BEND: -55 ± 2°C for 4 hours

SHRINKAGE: 225 ± 2°C, 0.125 in. (maximum) in 12 inches

### THERMAL SHOCK: Not Applicable

WATERTIGHTNESS: Test per MIL-DTL-24640 with a pressurization time of 5 minutes. No water leakage when tested on a 5-inch length at 2.2 lbf/in<sup>2</sup> and on a 10-inch length at 5.8 lbf/in<sup>2</sup>.

### 1/ PART NUMBER:

The "\*" in the part numbers above shall be replaced by a color code designator.

Example: AWG 18, white: 44A9605-18-9

Except as specified above, this construction shall meet all requirements of Raychem Specification Sheet 44A0311.

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. OTHER CODES AND SUFFIXES MAY BE ADDED TO THE PART NUMBER, AS NECESSARY, TO CAPTURE ANY ADDITIONAL REQUIREMENTS IMPOSED BY THE PURCHASE ORDER.