

# SPECIFICATION CONTROL DRAWING

SCD

**FLDW+1321**

Title

TWO CONDUCTOR CABLE, SHIELDED, JACKETED, 600 VOLT

Date

7-20-20

Revision

E

The complete requirements for procuring the cable described herein shall consist of this document and the issue in effect of Raychem Specification 44 and UL Subject 758, Style 20889, File E303150 and carries UL labels to this effect.

COMPONENT WIRES - FLDW+0311

SHIELD - TIN-COATED COPPER

JACKET - RADIATION-CROSSLINKED, MODIFIED PVDF

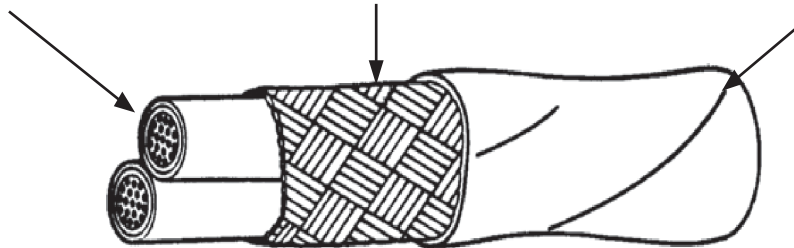


TABLE I. CABLE CONSTRUCTION DETAILS

| PART NUMBER<br>1/ | CONDUCTOR<br>SIZE<br>(AWG) | SHIELD<br>SIZE<br>(AWG) | JACKET THICKNESS<br>(in.) |         | OUTSIDE DIAMETER<br>(in.) |         | TARGET<br>WEIGHT<br>(lbs/1000 ft.) |
|-------------------|----------------------------|-------------------------|---------------------------|---------|---------------------------|---------|------------------------------------|
|                   |                            |                         | MINIMUM                   | NOMINAL | NOMINAL                   | MAXIMUM |                                    |
| FLDWC1321-26-*    | 26                         | 36                      | .008                      | .010    | .121                      | .127    | 10.6                               |
| FLDWC1321-24-*    | 24                         | 36                      | .008                      | .010    | .133                      | .140    | 13.1                               |
| FLDWC1321-22-*    | 22                         | 36                      | .008                      | .010    | .149                      | .156    | 16.5                               |
| FLDWC1321-20-*    | 20                         | 36                      | .008                      | .010    | .165                      | .173    | 20.9                               |
| FLDWC1321-18-*    | 18                         | 36                      | .008                      | .010    | .187                      | .196    | 27.7                               |
| FLDWC1321-16-*    | 16                         | 36                      | .008                      | .010    | .203                      | .213    | 33.1                               |
| FLDWC1321-14-*    | 14                         | 36                      | .008                      | .010    | .237                      | .249    | 45.5                               |
| FLDWC1321-12-*    | 12                         | 36                      | .008                      | .010    | .285                      | .299    | 68.7                               |
| FLDWD1321-12-*    | 12                         | 36                      | .008                      | .010    | .275                      | .289    | 63.1                               |
| FLDWD1321-10-*    | 10                         | 36                      | .008                      | .010    | .333                      | .350    | 94.5                               |
| FLDWE1321- 8-*    | 8                          | 36                      | .010                      | .012    | .457                      | .480    | 158.                               |

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice.

TE Connectivity 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.

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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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| TABLE II. CABLE PERFORMANCE DETAILS |                                  |           |                      |           |
|-------------------------------------|----------------------------------|-----------|----------------------|-----------|
| PART NUMBER<br><u>1/</u>            | BEND TESTING                     |           |                      |           |
|                                     | MANDREL DIAMETER<br>(inch) (±3%) |           | WEIGHT (lb)<br>(±3%) |           |
|                                     | ACCELERATED AGING                | COLD BEND | ACCELERATED AGING    | COLD BEND |
| FLDWC1321-26-*                      | 3.00                             | 3.00      | .375                 | 1.50      |
| FLDWC1321-24-*                      | 6.00                             | 6.00      | .375                 | 1.50      |
| FLDWC1321-22-*                      | 6.00                             | 6.00      | .375                 | 3.00      |
| FLDWC1321-20-*                      | 6.00                             | 6.00      | .500                 | 3.00      |
| FLDWC1321-18-*                      | 6.00                             | 6.00      | .500                 | 3.00      |
| FLDWC1321-16-*                      | 6.00                             | 6.00      | 1.00                 | 3.00      |
| FLDWC1321-14-*                      | 6.00                             | 6.00      | 1.00                 | 9.00      |
| FLDWC1321-12-*                      | 10.0                             | 10.0      | 1.50                 | 9.00      |
| FLDWD1321-12-*                      | 10.0                             | 10.0      | 1.50                 | 9.00      |
| FLDWD1321-10-*                      | 10.0                             | 10.0      | 2.00                 | 9.00      |
| FLDWE1321-8-*                       | 18.0                             | 18.0      | 2.00                 | 15.0      |

CABLE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 125°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

ACCELERATED AGING: 300 ± 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

INSULATION ELONGATION AND TENSILE STRENGTH: Test per WCD 3106

Primary Insulation,

Elongation, 150% (minimum)

Tensile Strength, 2500 lbf/in<sup>2</sup> (minimum)

JACKET COLOR: White preferred

JACKET CONCENTRICITY: 70% (minimum)

JACKET ELONGATION AND TENSILE STRENGTH:

Elongation, 200% (minimum)

Tensile Strength, 4500 lbf/in<sup>2</sup> (minimum)

JACKET FLAWS:

Spark Test, 1.5 kV (rms)

Impulse Dielectric Test, 6.0 kV (peak)

JACKET WALL THICKNESS: Measure per WCD 3106

Minimum: Per Table I

Minimum Average: 0.008 inch

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

SHIELD COVERAGE: 85% (minimum)

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

1/ PART NUMBER:

The "+" in the part number in the upper right hand corner of pages 1 and 2 shall be replaced with a letter designator to define conductor stranding (see part numbers in table).

C = 19 Strands D = 37 Strands E = Rope Lay

The "\*" in the part numbers on Tables I and II 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.

Example: AWG 16, 19 strands, black and brown component wires; white jacket: FLDWC1321-16-0/1-9

1/ See footer section on page 1