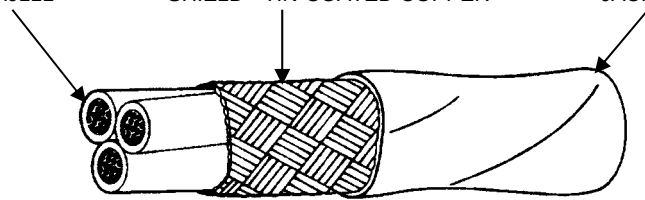


| SPECIFICATION CONTROL DRAWING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                    |                         |                            |         | SCD                                                                                                                                                                                                                        |         | 82A1131       |                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------|-------------------------------------|
| Title<br>THREE CONDUCTOR CABLE, SHIELDED, JACKETED,<br>GENERAL PURPOSE, FLEXIBLE, 600 VOLT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                    |                         |                            |         | Date<br>6-1-16                                                                                                                                                                                                             |         | Revision<br>C |                                     |
| This specification sheet forms a part of the latest issue of Raychem Specification 80.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                    |                         |                            |         |                                                                                                                                                                                                                            |         |               |                                     |
| <div>COMPONENT WIRES - 82A0111</div> <div>SHIELD - TIN-COATED COPPER</div> <div>JACKET - RADIATION-CROSSLINKED,<br/>MODIFIED FLEXIBLE ETFE</div>                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                    |                         |                            |         |                                                                                                                                                                                                                            |         |               |                                     |
| CABLE CONSTRUCTION DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                    |                         |                            |         |                                                                                                                                                                                                                            |         |               | MAXIMUM<br>WEIGHT<br>(lbs/1000 ft.) |
| PART NUMBER<br><u>1/</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CONDUCTOR<br>SIZE<br>(AWG)                                                                                                                                         | SHIELD<br>SIZE<br>(AWG) | JACKET THICKNESS<br>(inch) |         | OUTSIDE DIAMETER<br>(inch)                                                                                                                                                                                                 |         |               |                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                    |                         | MINIMUM                    | NOMINAL | NOMINAL                                                                                                                                                                                                                    | MAXIMUM |               |                                     |
| 82A1131-28-*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 28                                                                                                                                                                 | 38                      | .006                       | .008    | .096                                                                                                                                                                                                                       | .101    | 8.5           |                                     |
| 82A1131-26-*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 26                                                                                                                                                                 | 38                      | .006                       | .009    | .106                                                                                                                                                                                                                       | .112    | 10.6          |                                     |
| 82A1131-24-*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 24                                                                                                                                                                 | 38                      | .006                       | .009    | .115                                                                                                                                                                                                                       | .121    | 13.4          |                                     |
| 82A1131-22-*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 22                                                                                                                                                                 | 38                      | .006                       | .009    | .128                                                                                                                                                                                                                       | .134    | 16.8          |                                     |
| 82A1131-20-*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 20                                                                                                                                                                 | 38                      | .007                       | .010    | .151                                                                                                                                                                                                                       | .159    | 22.8          |                                     |
| 82A1131-18-*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 18                                                                                                                                                                 | 38                      | .008                       | .011    | .177                                                                                                                                                                                                                       | .186    | 32.8          |                                     |
| 82A1131-16-*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 16                                                                                                                                                                 | 38                      | .009                       | .013    | .214                                                                                                                                                                                                                       | .224    | 47.3          |                                     |
| 82A1131-14-*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 14                                                                                                                                                                 | 38                      | .010                       | .014    | .259                                                                                                                                                                                                                       | .272    | 71.1          |                                     |
| 82A1131-12-*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12                                                                                                                                                                 | 38                      | .011                       | .016    | .310                                                                                                                                                                                                                       | .326    | 103.          |                                     |
| 82A1131-10-*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10                                                                                                                                                                 | 36                      | .013                       | .019    | .398                                                                                                                                                                                                                       | .418    | 171.          |                                     |
| 82A1131-8-*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 8                                                                                                                                                                  | 36                      | .016                       | .023    | .488                                                                                                                                                                                                                       | .513    | 260.          |                                     |
| 82A1131-6-*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6                                                                                                                                                                  | 34                      | .018                       | .026    | .588                                                                                                                                                                                                                       | .617    | 395.          |                                     |
| 82A1131-4-*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4                                                                                                                                                                  | 34                      | .024                       | .034    | .781                                                                                                                                                                                                                       | .820    | 645.          |                                     |
| CABLE RATINGS AND ADDITIONAL REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                    |                         |                            |         |                                                                                                                                                                                                                            |         |               |                                     |
| TEMPERATURE RATING: 150°C<br>Maximum continuous conductor temperature<br>VOLTAGE RATING: 600 volts (rms) at sea level<br>CROSSLINKING PROOF TEST: 300 ± 3°C for 7 hours<br>DIELECTRIC WITHSTAND: 1500 volts (rms), 60 Hz<br>JACKET COLOR: White preferred<br>JACKET ELONGATION AND TENSILE STRENGTH:<br>Elongation, 100% (minimum)<br>Tensile Strength, 3000 lbf/in <sup>2</sup> (minimum)<br>JACKET FLAWS:<br>Spark Test, 1500 volts (rms)<br>Impulse Dielectric Test, 6.0 kV (peak)<br>SECANT MODULUS (Test per ASTM D 882):<br>4.0 x 10 <sup>4</sup> lbf/in <sup>2</sup> (maximum),<br>2% strain, 2 inch jaw separation, 0.2 inch/minute |                                                                                                                                                                    |                         |                            |         | SHIELD COVERAGE: 85% (minimum)<br>VOLTAGE WITHSTAND (Post Environmental):<br>1000 volts (rms), 60 Hz, 1 minute                                                                                                             |         |               |                                     |
| <u>1/</u> PART NUMBER:<br>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. Colors shown do not necessarily reflect the sequence of manufacturing.<br>Example: AWG 20, orange, blue, and white component wires; white jacket: 82A1131-20-3/6/9-9                                                                                                                                                                                                                                       |                                                                                                                                                                    |                         |                            |         |                                                                                                                                                                                                                            |         |               |                                     |
| 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.<br>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.                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                    |                         |                            |         |                                                                                                                                                                                                                            |         |               |                                     |
| <u>1/</u> 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 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Raychem, TE Connectivity, TE connectivity (logo), and TE (logo) are trademarks.                                                                                    |                         |                            |         |  <b>Raychem Wire &amp; Cable</b><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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