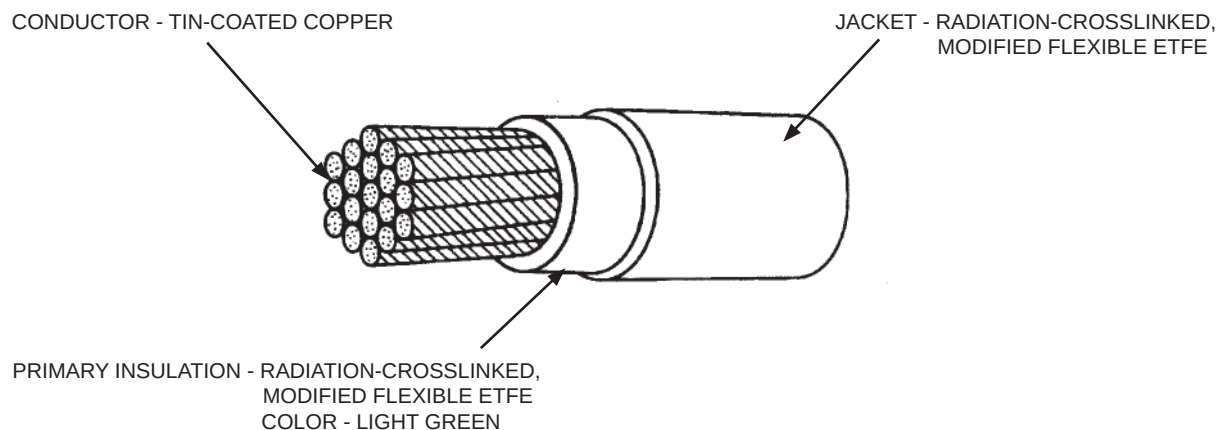


|                                                                                        |                                                                                                            |                 |               |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------|---------------|
| SPECIFICATION CONTROL DRAWING                                                          |                                                                                                            | 82A0811         |               |
| TITLE                                                                                  | WIRE, RADIATION-CROSSLINKED, MODIFIED FLEXIBLE ETFE-INSULATED,<br>NORMAL WEIGHT, GENERAL PURPOSE, 600 VOLT | Date<br>11-5-13 | Revision<br>F |
| This specification sheet forms a part of the latest issue of Raychem Specification 80. |                                                                                                            |                 |               |



| TABLE I. CONSTRUCTION DETAILS |                       |                                          |                                                |         |                                                     |                    |                                     |
|-------------------------------|-----------------------|------------------------------------------|------------------------------------------------|---------|-----------------------------------------------------|--------------------|-------------------------------------|
| PART NUMBER<br>1/             | WIRE<br>SIZE<br>(AWG) | CONDUCTOR<br>STRANDING<br>(number x AWG) | DIAMETER OF<br>STRANDED<br>CONDUCTOR<br>(inch) |         | FINISHED WIRE                                       |                    |                                     |
|                               |                       |                                          | MINIMUM                                        | MAXIMUM | MAXIMUM<br>RESISTANCE<br>AT 20°C<br>(ohms/1000 ft.) | DIAMETER<br>(inch) | MAXIMUM<br>WEIGHT<br>(lbs/1000 ft.) |
| 82A0811-24-*                  | 24                    | 105 x 44                                 | .023                                           | .027    | 28.2                                                | .044 ± .003        | 2.5                                 |
| 82A0811-22-*                  | 22                    | 154 x 44                                 | .029                                           | .033    | 19.2                                                | .054 ± .003        | 3.7                                 |
| 82A0811-20-*                  | 20                    | 154 x 42                                 | .037                                           | .043    | 11.7                                                | .064 ± .004        | 5.2                                 |
| 82A0811-18-*                  | 18                    | 259 x 42                                 | .047                                           | .053    | 7.14                                                | .076 ± .004        | 8.0                                 |
| 82A0811-16-*                  | 16                    | 259 x 40                                 | .061                                           | .067    | 4.53                                                | .092 ± .005        | 11.9                                |
| 82A0811-14-*                  | 14                    | 665 x 42                                 | .078                                           | .086    | 2.96                                                | .116 ± .005        | 19.3                                |
| 82A0811-12-*                  | 12                    | 665 x 40                                 | .096                                           | .106    | 1.89                                                | .137 ± .006        | 27.9                                |
| 82A0811-10-*                  | 10                    | 665 x 38                                 | .126                                           | .140    | 1.12                                                | .187 ± .008        | 50.0                                |
| 82A0811-8-*                   | 8                     | 665 x 36                                 | .157                                           | .173    | .714                                                | .230 ± .008        | 77.3                                |
| 82A0811-6-*                   | 6                     | 1045 x 36                                | .192                                           | .208    | .490                                                | .277 ± .010        | 118.                                |
| 82A0811-4-*                   | 4                     | 1665 x 36                                | .265                                           | .285    | .326                                                | .359 ± .010        | 189.                                |
| 82A0811-2-*                   | 2                     | 1665 x 34                                | .325                                           | .345    | .204                                                | .433 ± .016        | 282.                                |
| 82A0811-1-*                   | 1                     | 2109 x 34                                | .370                                           | .400    | .163                                                | .488 ± .016        | 348.                                |
| 82A0811-0-*                   | 0                     | 2660 x 34                                | .435                                           | .465    | .133                                                | .558 ± .016        | 442.                                |
| 82A0811-00-*                  | 00                    | 3325 x 34                                | .485                                           | .515    | .102                                                | .612 ± .016        | 544.                                |
| 82A0811-000-*                 | 000                   | 4123 x 34                                | .540                                           | .575    | .087                                                | .678 ± .016        | 668.                                |
| 82A0811-0000-*                | 0000                  | 5320 x 34                                | .615                                           | .655    | .066                                                | .771 ± .022        | 863.                                |

|                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                    |  |                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. |                                                                                                                                                                    |  |                                                                                                                                                                                                                 |
| 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.                                                                                                 |                                                                                                                                                                    |  |                                                                                                                                                                                                                 |
| Page 1 of 2                                                                                                                                                                                                                                                                                                                 | Raychem, TE Connectivity, TE connectivity (logo), and TE (logo) 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. |  |                                                                                                                                                                                                                 |



# SPECIFICATION CONTROL DRAWING

**82A0811**

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Revision

F

TABLE II. PERFORMANCE DETAILS

| PART NUMBER<br><u>1/</u> | BEND TESTING                      |                         |
|--------------------------|-----------------------------------|-------------------------|
|                          | MANDREL DIAMETER<br>(inch) (± 3%) | WEIGHT<br>(lbs) (± 3%)  |
|                          | CROSSLINKING PROOF TEST           | CROSSLINKING PROOF TEST |
| 82A0811-24-*             | .500                              | .750                    |
| 82A0811-22-*             | .500                              | 1.00                    |
| 82A0811-20-*             | .500                              | 1.50                    |
| 82A0811-18-*             | .750                              | 2.00                    |
| 82A0811-16-*             | 1.00                              | 2.00                    |
| 82A0811-14-*             | 1.00                              | 3.00                    |
| 82A0811-12-*             | 1.50                              | 3.00                    |
| 82A0811-10-*             | 2.00                              | 3.00                    |
| 82A0811-8-*              | 3.00                              | 4.00                    |
| 82A0811-6-*              | 4.00                              | 4.00                    |
| 82A0811-4-*              | 5.00                              | 4.00                    |
| 82A0811-2-*              | 6.00                              | 6.00                    |
| 82A0811-1-*              | 8.00                              | 6.00                    |
| 82A0811-0-*              | 8.00                              | 6.00                    |
| 82A0811-00-*             | 10.0                              | 8.00                    |
| 82A0811-000-*            | 10.0                              | 8.00                    |
| 82A0811-0000-*           | 10.0                              | 8.00                    |

## WIRE RATINGS AND ADDITIONAL REQUIREMENTS

### TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

CONCENTRICITY: 70% (minimum)

CROSSLINKING PROOF TEST: 300 ± 3°C for 7 hours

IDENTIFICATION AND COLOR STRIPING DURABILITY:

125 cycles (250 strokes) (minimum), 500 g weight

INSULATION ELONGATION AND TENSILE STRENGTH:

AWG 24-10: Elongation, 75% (minimum)

Tensile Strength, 3500 lbf/in<sup>2</sup> (minimum)

AWG 8-0000: Elongation, 125% (minimum)

Tensile Strength, 3000 lbf/in<sup>2</sup> (minimum)

INSULATION FLAWS:

Primary Insulation,

Spark Test, 1.5 kV (rms) at 3 kHz

Impulse Dielectric Test, 6.0 kV (peak)

Finished Wire,

Spark Test, 3.0 kV (rms) at 3 kHz

Impulse Dielectric Test, 8.0 kV (peak)

### INSULATION THICKNESS:

AWG 24-18: .004 in. (minimum) for primary insulation

.004 in. (minimum) for outer jacket

AWG 16-10: .005 in. (minimum) for primary insulation

.005 in. (minimum) for outer jacket

AWG 8-4: .008 in. (minimum) for primary insulation

.012 in. (minimum) for outer jacket

AWG 2-0000: .010 in. (minimum) for primary insulation

.015 in. (minimum) for outer jacket

JACKET COLOR: White preferred

SECANT MODULUS (Test per ASTM D 882):

AWG 24-10: 5.0 x 10<sup>4</sup> lbf/in<sup>2</sup> (maximum)AWG 8-0000: 4.0 x 10<sup>4</sup> lbf/in<sup>2</sup> (maximum)

2% strain, 2 inch jaw separation, 0.2 inch/minute

SHRINKAGE: 150 ± 3°C for 6 hours,

AWG 24-10: 0.13 in. (maximum) in 12 inches

AWG 8-0000: 0.25 in. (maximum) in 12 inches

VOLTAGE WITHSTAND (Post Environmental): 2500 volts (rms), 60 Hz

### 1/ PART NUMBER:

The "\*" in the part numbers on pages 1 and 2 shall be replaced by a color code designator.

Example: AWG 12, white: 82A0811-12-9

AWG 12, white with a black stripe: 82A0811-12-90

1/ See footer section on page 1



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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