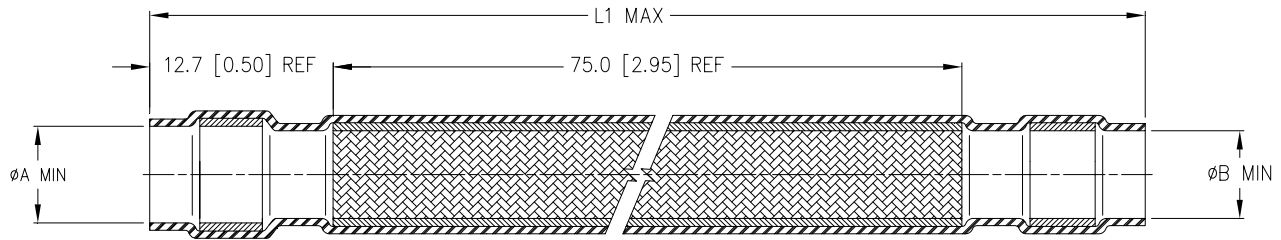
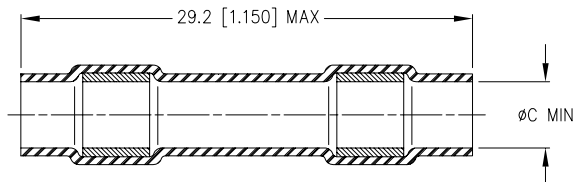


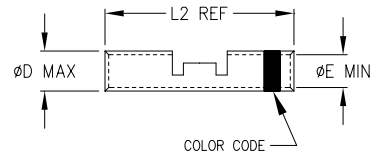
## SPECIFICATION CONTROL DRAWING



1) SOLDERSHIELD: Qty./kit: 1



2) SEALING SLEEVE, Qty./kit: 2



3) CRIMP, Qty./kit: 2

| Product Name | SolderShield     |                |                 | Sealing Sleeve | Crimp           |                 |                 |            |
|--------------|------------------|----------------|-----------------|----------------|-----------------|-----------------|-----------------|------------|
|              | L1 max           | ØA min         | ØB min          | ØC min         | L2 ref          | ØD max          | ØE min          | Color Code |
| D-150-0330   | 108.0<br>[4.250] | 9.0<br>[0.355] | 10.5<br>[0.413] | 4.3<br>[0.170] | 14.6<br>[0.575] | 2.69<br>[0.106] | 1.63<br>[0.064] | Blue       |
| D-150-0331   | 106.0<br>[4.175] | 6.0<br>[0.236] | 7.5<br>[0.295]  | 2.8<br>[0.110] | 12.7<br>[0.500] | 2.03<br>[0.080] | 1.14<br>[0.045] | Red        |
| D-150-0333   | 106.0<br>[4.175] | 5.0<br>[0.197] | 6.5<br>[0.256]  | 2.8<br>[0.110] | 12.7<br>[0.500] | 2.03<br>[0.080] | 1.14<br>[0.045] | Red        |

### MATERIALS

1. SOLDERSHIELD: Qty/kit: 1

INSULATION SLEEVE: Heat-shrinkable, transparent blue, radiation cross-linked modified polyvinylidene fluoride.

SHIELD: Solder impregnated, flux coated, tin-plated copper braid.

SOLDER: TYPE Sn63 per ANSI / J-STD-006.

FLUX: TYPE ROM1 per ANSI / J-STD-004.

SEALING RINGS: Thermally stabilized thermoplastic.

2. SEALING SLEEVE: Qty/kit: 2

INSULATION SLEEVE: Heat-shrinkable, transparent blue, radiation cross-linked modified polyvinylidene fluoride.

SEALING RINGS: Immersion resistant thermoplastic.

3. CRIMP: Tin-plated copper. Color Code: See Table. Qty/kit: 2

BASE METAL: Copper Alloy 10100 or 10200 per ASTM B75.

PLATING: Tin-plated per ASTM B545.

### APPLICATION

1. These kits are used to provide an environment resistant 2-to-1 or 1-to-1 in-line splice in 22, 24 or 26AWG twisted shielded pair cables having tin or silver-plated primary conductors and tin or silver-plated shields, and having an insulation rated for at least 135°C.

2. Temperature range: -55°C to +150°C.

|  |  |  |  |   |  |  |  |
|--|--|--|--|---|--|--|--|
| <b>tyco</b><br>Electronics   |  | Tyco Electronics Corporation<br>300 Constitution Drive,<br>Menlo Park, CA. 94025, U.S.A. |  | <i>Raychem</i>  |  | TITLE:<br>SHIELDED CABLE SPLICE KIT<br>TIN-PLATED SHIELD AND CRIMP |  |
| Unless otherwise specified dimensions are in millimeters.<br>[Inches dimensions are shown in brackets] |  |  |  | DOCUMENT NO:<br><b>D-150-0330/-0331/-0333</b>   |  |  |  |
| TOLERANCES:<br>0.00 N/A<br>0.0 N/A<br>0 N/A  |  | ANGLES: N/A<br>ROUGHNESS IN<br>MICRON  |  | Tyco Electronics reserves the right to amend<br>this drawing at any time. Users should<br>evaluate the suitability of the product for their<br>application. |  |  |  |
| PREPARED BY:<br>mforonda   |  | DCR NUMBER:<br>D060208   |  | REPLACES:<br>D060090  |  | REV.:<br><b>B</b>  |  |
|  |  |  |  | CAGE CODE :<br>06090  |  | DATE:<br>2-Aug-06  |  |
|  |  |  |  | SCALE:<br>---   |  | SIZE:<br>A   |  |
|  |  |  |  |   |  | SHEET:<br>1 of 3   |  |

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# SPECIFICATION CONTROL DRAWING

## INSTALLATION PROCEDURE

### 1. Splice Kit selection:

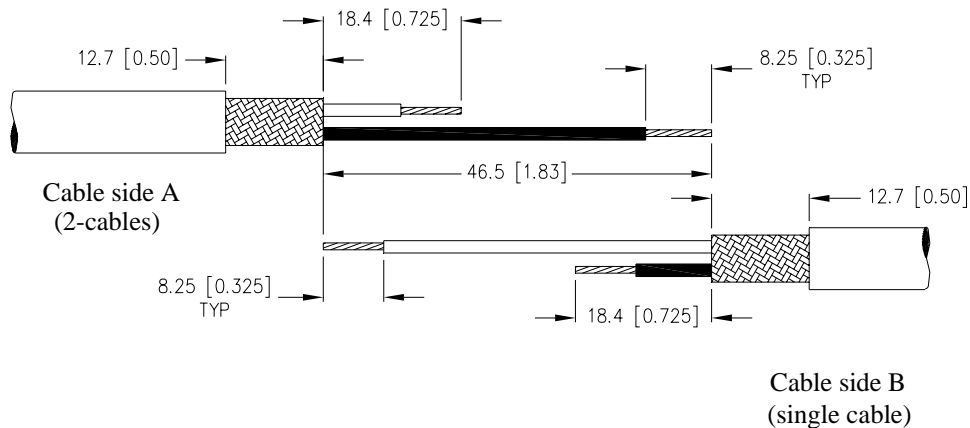
| Product Name | 1-to-1 Cable Splicing |                   |               |               | 2-to-1 Cable Splicing |                   |                   |               |
|--------------|-----------------------|-------------------|---------------|---------------|-----------------------|-------------------|-------------------|---------------|
|              | Maximum Cable OD      | Minimum Shield OD | Conductor CMA | Conductor AWG | Maximum Cable OD      | Minimum Shield OD | Conductor CMA (*) | Conductor AWG |
| D-150-0330   | 9.0 [0.355]           | 4.8 [0.190]       | 779 - 2,680   | -             | 5.25 [0.206]          | 2.69 [0.106]      | 779 - 1,510       | 22            |
| D-150-0331   | 6.0 [0.236]           | 3.5 [0.137]       | 304 - 1,510   | 22-24         | 3.75 [0.147]          | 2.03 [0.080]      | 304 - 950         | 24            |
| D-150-0333   | 5.0 [0.197]           | 2.5 [0.098]       | 304 - 1,510   | 24-26         | 3.25 [0.128]          | 2.03 [0.080]      | 304 - 950         | 26            |

(\*) Total CMA (two conductors) must fall between these values.

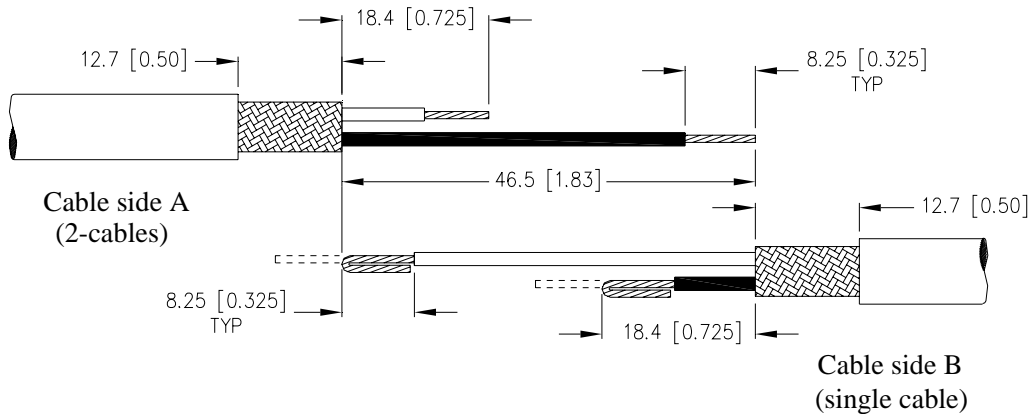
### 2. Cable preparation. See figures below.

Tolerances: All lengths  $\pm 0.50$  [0.020]

The short primary on cable side A is to be connected to the long primary on cable side B.



D-150-0330 2-to-1 cable splicing - single cable conductors (Cable side B) must be folded back to increase CMA and meet the minimum required.



### 3. Application Equipment

- a) AD-1377 crimp tool or equivalent.
- b) Steinel HL1802E Heat Gun with a SolderSleeve reflector (Setting of 11 - 12)

Unless otherwise specified dimensions are in millimeters. [Inches dimensions are shown in brackets]

|  |                               |                   |                          |                         |
|--|-------------------------------|-------------------|--------------------------|-------------------------|
| DOCUMENT NO.:<br><b>D-150-0330/-0331/-0333</b> | DCR NUMBER:<br><b>D060208</b> | REV.:<br><b>B</b> | DATE:<br><b>1-Aug-06</b> | SHEET:<br><b>2 of 3</b> |
|--|-------------------------------|-------------------|--------------------------|-------------------------|

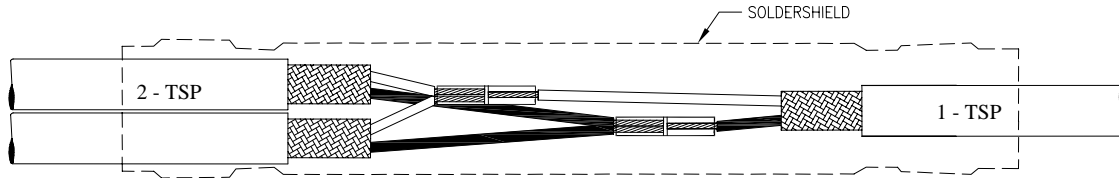
# SPECIFICATION CONTROL DRAWING

## 4. Assembly Procedure

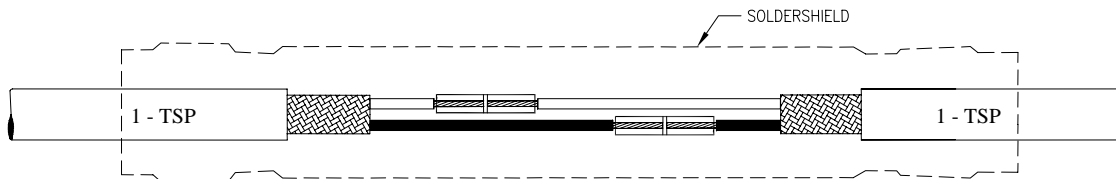
### WARNING

Follow installation instructions carefully. Use adequate ventilation and avoid charring or burning during installation. Charring or burning the product will produce fumes that may cause eye, skin, nose and throat irritation. Consult Material Safety Data Sheets **RAY5104** for further information.

#### 2-to-1 Cable Splice:



#### 1-to-1 Cable Splice:



Note: The heating tool and the assembly become hot during the installation. To prevent burns, allow tool and the assembly to cool down before handling.

- a) Place smaller ID side of the SolderShield splice into the single cable of the assembly.
- b) Primary Conductor Splice:
  - 1) Place a sealing sleeve onto the longer lead of each cable.
  - 2) Crimp primaries into opposite ends of the crimp splices using a calibrated Raychem AD-1377 crimp tool or equivalent.
  - 3) Center the sealing sleeves over the splices.
  - 4) Apply heat to the center of the sleeve until it recovers, and then heat ends until sealing rings melt and flow along wires.
- c) Inspection:
  - 1) Conductors must be visible at point where they enter the crimp barrel.
  - 2) Both indentations of a crimp must be on the crimp barrel.
  - 3) Sealing sleeve inserts must have flowed along wire insulation.
  - 4) Sleeve must not have discolored to the degree that the crimp barrel cannot be inspected.
  - 5) Sleeve must not be cut or split.
- d) Shield Splice:
  - 1) Center the SolderShield splice over the crimped splice and the exposed cable shields.
  2. Heat center of sleeve until the solder melts and the shield and tubing recover.
  - 3) Move the heat toward one end of the SolderShield slowly enough to keep the sleeve recovering as you move along.
  - 4) Apply heat for an additional 5 to 10 seconds to the final 12.5 mm (half-inch) of the sleeve shield to ensure sufficient heat transfer to the cable shield to make a good joint.
  - 5) Apply heat to end of sleeve until rings melt and flow along cable jacket.
  - 6) Repeat for other end of sleeve.

Unless otherwise specified dimensions are in millimeters. [Inches dimensions are shown in brackets]

|                               |             |       |          |        |
|-------------------------------|-------------|-------|----------|--------|
| DOCUMENT NO.:                 | DCR NUMBER: | REV.: | DATE:    | SHEET: |
| <b>D-150-0330/-0331/-0333</b> | D060208     | B     | 1-Aug-06 | 3 of 3 |