

### **MATERIALS**

- 1. INSULATION SLEEVE: Heat-shrinkable, transparent clear, modified polytetrafluorethylene with meltable liner.
- 2. JUMPER BRAID: Nickel-plated copper alloy.
- 3. & 4. SOLDERSLEEVE: Radiation cross-linked modified polyvinylidene fluoride sleeve. Qty: 2.
  - SOLDER PREFORM WITH FLUX:
    - SOLDER: TYPE Sn96 per ANSI-J-STD-006.
    - FLUX: TYPE ROM1 per ANSI-J-STD-004.
  - MELTABLE RINGS: Thermally stabilized thermoplastic. Color Item 3: Red/Blue; Color Item 4: Grey
- 5. INSULATION SLEEVE: Heat-shrinkable, transparent clear, modified polytetrafluorethylene with meltable liner. Qty: 2
- 6. CRIMP SPLICE: Nickel-plated copper alloy. Yellow color code. Qty: 2
  - BASE METAL: Copper Alloy 101 or 102
  - PLATING: Ductile Nickel per SAE-AMS-QQ-N-290.
- 7. SEALING INSERTS: Meltable liner. Qty: 2.

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<b>tyco</b> Electronics	Tyco Electronics Corporation 300 Constitution Drive, Menlo Park, CA. 94025, U.S.A.		Raychem	TITLE: SHIELDED TWISTED PAIR CABLE 2 TO 1 SPLICE, ENGINE HARNESS 200deg. C		
Unless otherwise spe [Inches dimensions a		DOCUMENT NO.: D-150-0253				
TOLERANCES: 0.00 N/A 0.0 N/A 0 N/A	ANGLES: N/A ROUGHNESS IN MICRON	Tyco Electronics reserves the right to amend this drawing at any time. Users should evaluate the suitability of the product for their application.		REV.: A	DATE: 21-Nov-06	
DRAWN BY: P.TALLY	CAGE CODE: 06090	REPLACES: D030299	DCR NUMBER: D060392	SCALE: NTS	SIZE: A	SHEET: 1 of 2

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# SPECIFICATION CONTROL DRAWING

## **APPLICATION**

1. This kit is used to provide an environmentally protected 2 to 1 splice in shielded cables.

#### Cable usage parameters:

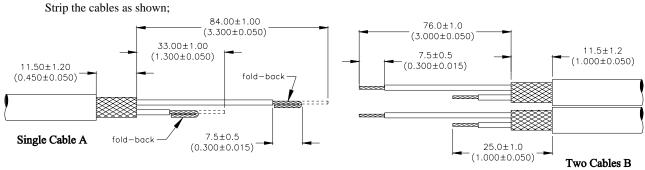
Cable must have two size 20 or 18 nickel-plated primaries, nickel plated shield and PTFE jacket.

2. Temperature range: -55°C to +200°C.

#### **INSTALLATION PROCEDURE**

*WARNING*: 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.

#### 1. Cable preparation.



- 2. Assemble components onto cables.
  - 2-1. Place one sealing insert (7) onto cable (A) and one onto one of the cables (B).
  - 2-2. Place the sleeve (1) onto cable (A).
  - 2-3. Place both SolderSleeve (3 & 4) onto cable (A), larger sleeve should be loaded first. Load sleeves small end first.
  - 2-4. Cut off the fused ends of the jumper braid (2) and place it onto cable (A).
  - 2-5. Install a crimp barrel (6) onto the conductor of the short primary of cable (A), and one onto both conductors of the short primaries of the side (B) cable. Use a calibrated Raychem AD-1377 crimp tool.
  - 2-6. Place one sleeve(5) onto the long primary of cable (A) and one over both long primaries of cable (B).
  - 2-7. Crimp matching primaries together.
- *WARNING*: The heating tool and the assembly become hot during the installation of the Sleeves. To prevent burns, allow tool and the assembly to cool down before handling.
  - 2-8. Center the sleeves (5) over the crimp splices and heat starting from the center, until the liner melts and the sleeves recover. When sleeve first starts to recover there will be longitudinal lines in the meltable liner, continue heating until these lines disappear.
  - 2-9. Position the jumper braid (2) so that the trailing end just clears the jacket of cable (A). Twist this end down onto the cable shield.
  - 2-10. Position the smaller SolderSleeve so that the edge of the solder preform is 2.5mm (0.100 inch) passed the cable jacket. Place the assembly in heater so that the solder preform is centered in the reflector. Apply heat until the solder melts and flows into the shield. Allow solder to resolidify before handling.
  - 2-11. Pull jumper braid (2) tightly across the splice and twist it down onto the cables (B). Cut off any braid that overlaps the cable jackets. Repeat step 10.
  - 2-12. Position the sealing inserts (7) adjacent to the end of the SolderSleeve terminations.
  - 2-13. Center the sleeve (1) over the assembly. Sleeve should overlap the sealing inserts (7) at each end. Heat this sleeve, starting in the center, until the inner liner melts and the sleeve recovers. When sleeve first starts to recover there will be longitudinal lines in the meltable liner, continue heating until these lines disappear. Apply heat at ends of the sleeve long enough to melt the sealing inserts.

Unless otherwise specified dimensions are in millimeters. (Inches dimensions are shown in brackets)

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