

## 1. Products:

### DuraSeal Splice:

DS-XX-XX	D-406-XXXX
DS-MIXT-XX	

### DuraSeal Terminal:

DB-X-XX	DP-X-XX	B-106-XX
DF-X-XX	DR-X-XX	DS-MIXT-XX

## 2. Application Equipment:

- Crimping tool: AD-1522

- Hot air gun:

Heat Gun	Reflector	Setting
HL1910E	PR-25 or PR-25D and HL1802E-ADAPT	6 on dial <sup>(1)</sup>
HL2010E		700°F on LCD <sup>(1)</sup>
CV-1981	PR-25D	7 <sup>(1)</sup>

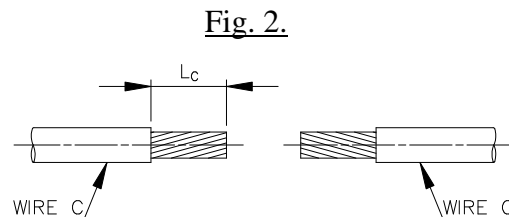
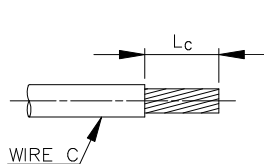
## 3. Wire Preparation:

- Strip the stranded wire as shown.

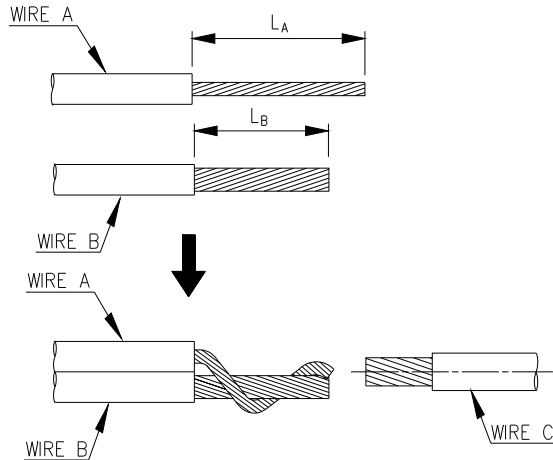
Configuration		Product						
		Red		Blue		Yellow		
		Wire Range 22-18 AWG	Strip Length L (±0.5)	Wire Range 16-14 AWG	Strip Length L (±0.5)	Wire Range 12-10 AWG	Strip Length L (±0.5)	
Terminal		0.5 < Sc < 1.0	L <sub>C</sub> = 7.0	1.5 < Sc < 2.5	L <sub>C</sub> = 7.0	3.0 < Sc < 6.0	L <sub>C</sub> = 7.0	see Fig. 1
Splice 1 to 1		0.5 < Sc < 1.0	L <sub>C</sub> = 8.0	1.5 < Sc < 2.5	L <sub>C</sub> = 8.0	3.0 < Sc < 6.0	L <sub>C</sub> = 8.5	see Fig. 2
Splice 2 to 1	∅A < ∅B	1.5 < ∅A+∅B < 3.7 and 1.5 < ∅C < 3.7 and 0.5 < S <sub>A</sub> +S <sub>B</sub> < 1.0 and 0.5 < S <sub>C</sub> < 1.0	L <sub>A</sub> = 10 L <sub>B</sub> = 8.0	2.0 < ∅A+∅B < 4.3 and 2.0 < ∅C < 4.3 and 1.5 < S <sub>A</sub> +S <sub>B</sub> < 2.5 and 1.5 < S <sub>C</sub> < 2.5	L <sub>A</sub> = 10 L <sub>B</sub> = 8.0	3.0 < ∅A+∅B < 6.4 and 3.0 < ∅C < 6.4 and 3.0 < S <sub>A</sub> +S <sub>B</sub> < 6.0 and 3.0 < S <sub>C</sub> < 6.0	L <sub>A</sub> = 11 L <sub>B</sub> = 8.5	see Fig. 3
	∅A = ∅B	1.5 < ∅A+∅B < 3.7 and 1.5 < ∅C < 3.7 and 0.5 < S <sub>A</sub> +S <sub>B</sub> < 1.0 and 0.5 < S <sub>C</sub> < 1.0	L <sub>A</sub> = 10 L <sub>B</sub> = 10	2.0 < ∅A+∅B < 4.3 and 2.0 < ∅C < 4.3 and 1.5 < S <sub>A</sub> +S <sub>B</sub> < 2.5 and 1.5 < S <sub>C</sub> < 2.5	L <sub>A</sub> = 10 L <sub>B</sub> = 10	3.0 < ∅A+∅B < 6.4 and 3.0 < ∅C < 6.4 and 3.0 < S <sub>A</sub> +S <sub>B</sub> < 6.0 and 3.0 < S <sub>C</sub> < 6.0	L <sub>A</sub> = 11 L <sub>B</sub> = 11	see Fig. 4

∅A = diameter (mm) of the insulation of wire A.

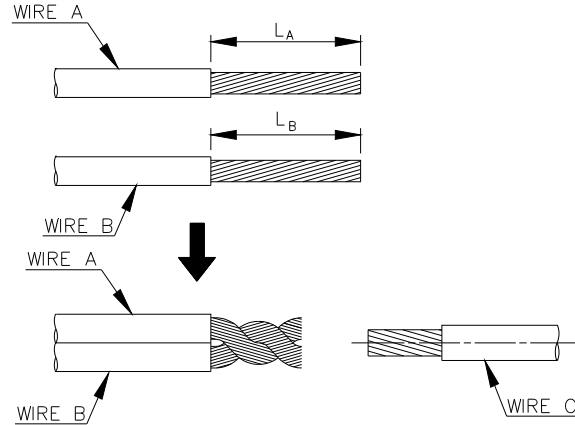
Sc = cross section area (mm<sup>2</sup>) of wire C.



**Fig. 3.**



**Fig. 4.**



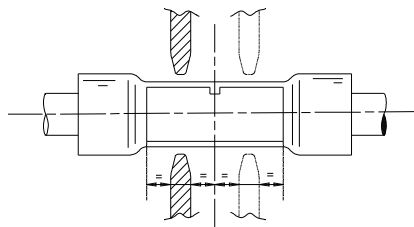
### **WARNING**

- *IR tools are not recommended for use with black wire or cable insulations, and must not be used for Tyco Electronics/Raychem 99T uncross-linked wires.*
- *Hot Air guns shall be set to a temperature as low as 300 deg C (570 deg F) to avoid thermal damage on uncross-linked wires, such as Tyco Electronics/Raychem 99T.*
- *Tyco Electronics recommends controlling temperature of application equipment such as hot air guns regularly.*

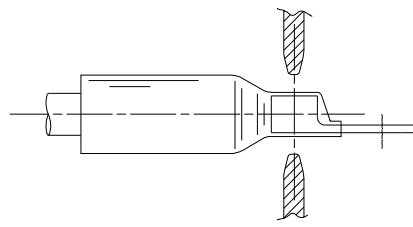
#### **4. Installation Procedure:**

- Select the correct DuraSeal crimp.
- Match its color with the color of the cavity of the crimp tool.
- Get the jaws in touch with the tubing.

#### DuraSeal Splice



#### DuraSeal Terminal



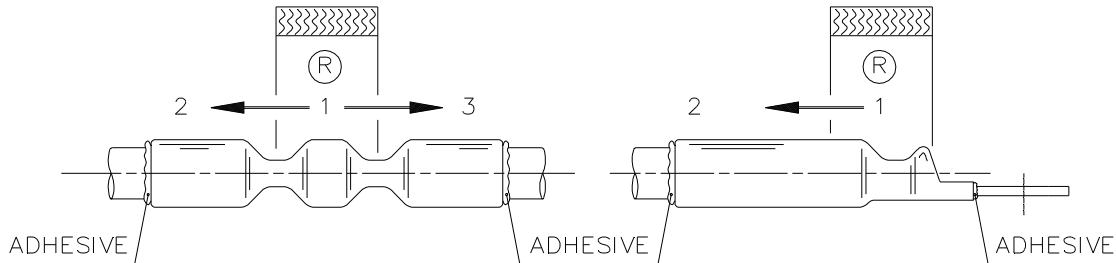
- Insert the stripped wire until it butts inside the DuraSeal crimp.
- Crimp the wire in place.
- Repeat the operation symmetrically for the DuraSeal splice.
- Allow the hot air gun to warm up.
- Position the DuraSeal crimp in the reflector (R).
- Apply heat to shrink the sleeve until the adhesive melt and flow around the extremities of sleeve.

## Devices Installation Procedure

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

### DuraSeal Splice

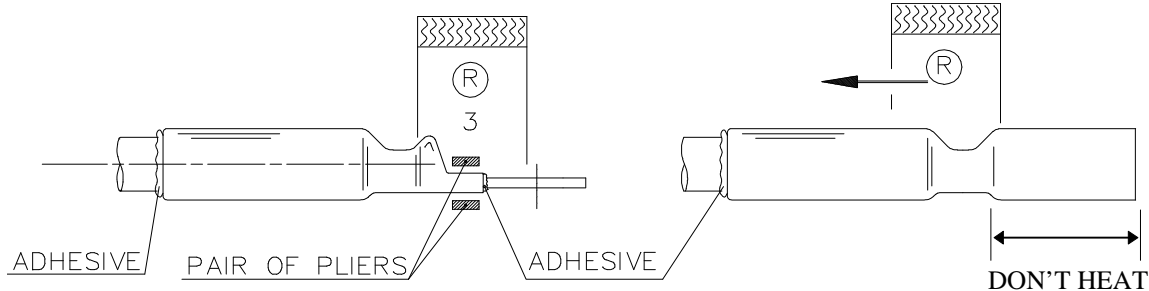
### DuraSeal Terminal



**Note:** For DuraSeal terminals, in order to achieve maximum sealing (except for DuraSeal push-on) heat the terminal at 3 and press the flat part with a pair of pliers until the assembly cools.

### Ring Terminal

### Push-on Terminal



**Note:** Do not heat the terminal for the push-on terminal.

Do not bend the splice or the terminal assemblies until then have completely cooled.

## 5. **Inspection of Assembly:**

### Check:

- Wire insulation is positioned inside the DuraSeal sleeve.
- Adhesive has flowed to form a fillet around the ends of the sleeve.
- Sleeve is completely shrunk on to the wire insulation.
- Sleeve is not cut, split or discolored.
- Wire insulation has no signs of mechanical damage or overheating.

Acceptable termination



<sup>1</sup> These values are for reference only and may change based on other variables (i.e. reflector type, sleeve's relative distance to the reflector, etc.)

DISCLAIMER

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