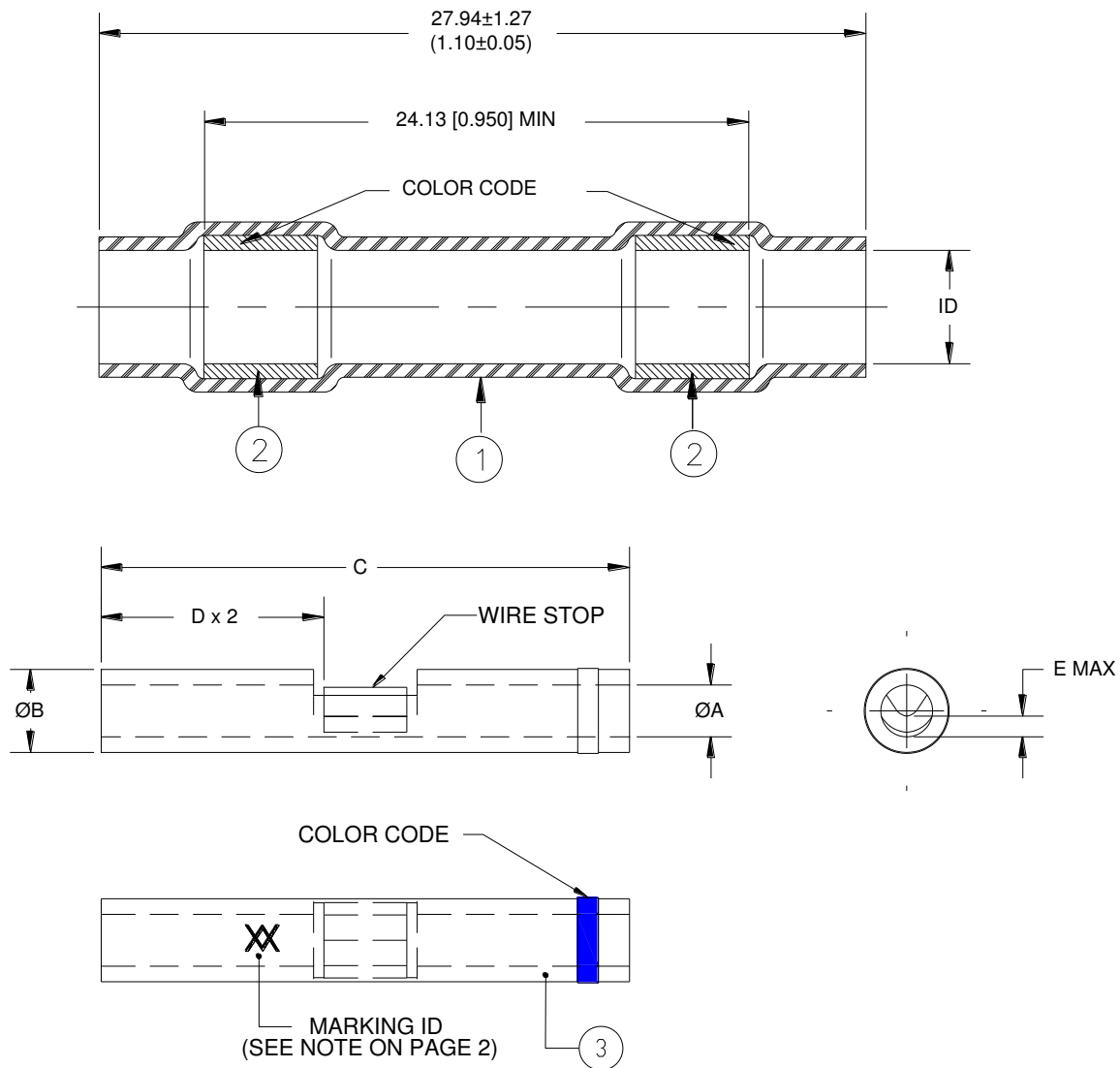


## CUSTOMER DRAWING



\* I.D.: a) As received; b) After unrestricted recovery thru melttable insert.

### **MATERIALS**

1. INSULATION SLEEVE: Heat-shrinkable, transparent blue, radiation cross-linked modified polyvinylidene fluoride.
2. SEALING RINGS: Immersion resistant thermoplastic. Color: one clear, one color coded (see table below).
3. CRIMP SPLICER:

Base Metal: Copper alloy 101 or 102 per ASTM B-75.

Plating: Tin, per ASTM B545.

Stamp marking XX approximately as shown on the back of inspection window.

Color code: See table I.

|                                                                                                        |                                           |                                                                                                                                                             |                                                                 |  |                              |                  |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|--|------------------------------|------------------|
|  TE Connectivity    |                                           |                                                                                                                                                             | TITLE:<br><b>SEALED IN-LINE CRIMP SPLICE,<br/>SAE AS81824/1</b> |  |                              |                  |
| Unless otherwise specified dimensions are in millimeters.<br>[Inches dimensions are shown in brackets] |                                           | Raychem<br>Devices                                                                                                                                          | DOCUMENT NO.:<br><b>D-436-36/-37/-38</b>                        |  |                              |                  |
| TOLERANCES:<br>0.00 N/A<br>0.0 N/A<br>0 N/A                                                            | ANGLES: N/A<br><br>ROUGHNESS<br>IN MICRON | Tyco Electronics reserves the right to<br>amend this drawing at any time. Users<br>should evaluate the suitability of the<br>product for their application. | REV:<br><br>F                                                   |  | DATE:<br><br>August 19, 2016 |                  |
| PREPARED BY:<br>TNGUYEN                                                                                | CAGE CODE:<br>06090                       | ECO NUMBER:<br>ECO-16-012043                                                                                                                                | SCALE:<br><br>NTS                                               |  | SIZE:<br>A                   | SHEET:<br>1 of 3 |

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# CUSTOMER DRAWING

## TABLE I - DIMENSIONS

| Part Name | I.D.*<br>a min<br>b max             | Crimp Splicer                       |                                     |                                       |                                     |                 |            |                  |
|-----------|-------------------------------------|-------------------------------------|-------------------------------------|---------------------------------------|-------------------------------------|-----------------|------------|------------------|
|           |                                     | øA                                  | øB                                  | C                                     | D                                   | E max           | Color Code | Wgt. Lbs/Mpc max |
| D-436-36  | <u>2.16 (0.085)</u><br>0.64 (0.025) | <u>1.27 (0.050)</u><br>1.14 (0.045) | <u>2.03 (0.080)</u><br>1.91 (0.075) | <u>12.95 (0.510)</u><br>12.45 (0.490) | <u>6.22 (0.245)</u><br>5.72 (0.225) | 0.38<br>(0.015) | Red        | 1.02             |
| D-436-37  | <u>2.79 (0.110)</u><br>0.64 (0.025) | <u>1.75 (0.069)</u><br>1.63 (0.064) | <u>2.70 (0.106)</u><br>2.57 (0.101) | <u>14.86 (0.585)</u><br>14.35 (0.565) | <u>7.11 (0.280)</u><br>6.60 (0.260) | 0.51<br>(0.020) | Blue       | 1.61             |
| D-436-38  | <u>4.32 (0.170)</u><br>0.64 (0.025) | <u>2.60 (0.102)</u><br>2.46 (0.097) | <u>3.89 (0.153)</u><br>3.73 (0.147) | <u>14.86 (0.585)</u><br>14.35 (0.565) | <u>7.11 (0.280)</u><br>6.60 (0.260) | 1.27<br>(0.050) | Yellow     | 2.72             |

\* I.D: a- As received; b- After unrestricted recovery thru meltable insert.

## TABLE II – RECOMMENDED WIRE RANGE BASED ON CONDUCTOR CMA (mm<sup>2</sup>) (REFERENCE)

| PART NUMBER | MIL SPEC EQUIVALENT SIZE | SINGLE WIRE | MULTIPLE WIRE RANGE CMA (mm <sup>2</sup> ) | MULTIPLE WIRE TOTAL OD (OD <sub>1</sub> + OD <sub>2</sub> ) MAX |
|-------------|--------------------------|-------------|--------------------------------------------|-----------------------------------------------------------------|
| D-436-36    | M81824/1-1               | 26-24-22-20 | 304 - 1510 (0.15 - 0.75)                   | 0.085 (2.16)                                                    |
| D-436-37    | M81824/1-2               | 20-18-16    | 1058 - 2680 (0.53 – 1.34)                  | 0.110 (2.79)                                                    |
| D-436-38    | M81824/1-3               | 16-14-12    | 2375 – 6755 (1.19 – 3.37)                  | 0.170 (4.32)                                                    |

## TABLE III – STANDARD CONDUCTOR CMA (REFERENCE)

| CONDUCTOR CONFIGURATION | SIZE   |        |        |        |        |        |        |        |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
|                         | 26     | 24     | 22     | 20     | 18     | 16     | 14     | 12     |
| STRANDS                 | 19     | 19     | 19     | 19     | 19     | 19     | 19     | 37     |
| CMA                     | 304    | 475    | 754    | 1216   | 1900   | 2426   | 3831   | 5874   |
| (MM <sup>2</sup> )      | (0.15) | (0.24) | (0.38) | (0.61) | (0.95) | (1.21) | (1.92) | (2.94) |

### APPLICATION

- These parts are designed to provide immersion resistant in-line splices, maximum of two wires per side of crimp and falling within the diameter range specified in this customer drawing, and having insulations rated for 135°C.
- Parts will meet all requirements of SAE AS81824/1 when installed as outlined below. Assembly is not required for acceptance testing inspection.
- Acceptance sampling shall be in accordance with Paragraph 4.6.1 of AS81824™.
- Packing and packaging shall be in accordance with Sections 5, Level C, of AS81824™.
- This document takes precedence over documents reference herein.

- ™ – AS81824 is a trademark of SAE

|                                                                                                        |                                           |                                                                                                                                                    |                                                                 |                              |                      |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------|----------------------|
|  TE Connectivity    |                                           |                                                                                                                                                    | TITLE:<br><b>SEALED IN-LINE CRIMP SPLICE,<br/>SAE AS81824/1</b> |                              |                      |
| Unless otherwise specified dimensions are in millimeters.<br>[Inches dimensions are shown in brackets] |                                           | Raychem Devices                                                                                                                                    | DOCUMENT NO.:<br><b>D-436-36/-37/-38</b>                        |                              |                      |
| TOLERANCES:<br>0.00 N/A<br>0.0 N/A<br>0 N/A                                                            | ANGLES: N/A<br><br>ROUGHNESS<br>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:<br><br>F                                                   | DATE:<br><br>August 19, 2016 |                      |
| PREPARED BY:<br>TNGUYEN                                                                                | CAGE CODE:<br>06090                       |                                                                                                                                                    | SCALE:<br><br>NTS                                               | SIZE:<br><br>A               | SHEET:<br><br>2 of 3 |

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## CUSTOMER DRAWING

### ASSEMBLY PROCEDURE:

1. Strip wires 5/16" to 11/32".
2. Insert one or two wires on one side of the crimp barrel and crimp using a Raychem AD-1377 crimp tool.  
Repeat on the opposite side of the crimp.
3. Center sealing sleeve over the splice.
4. Slide sealing sleeve over both wires on one side of the crimp if two wires will be use.
5. Apply heat, using an approved heat source, first to one of the inserts and then the other. Heat should be applied until insert melts and flows axially along the wire.

|                                                                                                            |                                           |                                                                                                                                                             |                                                                 |                              |                      |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------|----------------------|
|  <b>TE</b> Connectivity |                                           |                                                                                                                                                             | TITLE:<br><b>SEALED IN-LINE CRIMP SPLICE,<br/>SAE AS81824/1</b> |                              |                      |
| Unless otherwise specified dimensions are in millimeters.<br>[Inches dimensions are shown in brackets]     |                                           |                                                                                                                                                             | Raychem<br>Devices                                              |                              |                      |
| DOCUMENT NO.:<br><b>D-436-36/-37/-38</b>                                                                   |                                           |                                                                                                                                                             |                                                                 |                              |                      |
| TOLERANCES:<br>0.00 N/A<br>0.0 N/A<br>0 N/A                                                                | ANGLES: N/A<br><br>ROUGHNESS<br>IN MICRON | Tyco Electronics reserves the right to<br>amend this drawing at any time. Users<br>should evaluate the suitability of the<br>product for their application. | REV:<br><br>F                                                   | DATE:<br><br>August 19, 2016 |                      |
| PREPARED BY:<br>TNGUYEN                                                                                    | CAGE CODE:<br>06090                       | ECO NUMBER:<br>ECO-14-012043                                                                                                                                | SCALE:<br><br>NTS                                               | SIZE:<br><br>A               | SHEET:<br><br>3 of 3 |

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