VISUAL INSPECTION OF CRIMPED TERMINALS

Examples

- Insulation Under Conductor Crimp
- Short or No Conductor Brush
- Insulation Too Short
- Conductor Brush Not Visible
- Pierced Insulation

Measurement of Crimp Height

1. Complete tool set-up procedure.
2. Crimp a minimum of 5 samples.
3. Place the flat blade of the crimp micrometer across the center of the dual radii of the conductor crimp. Do not take measurement near the conductor bellmouth.
4. Rotate the micrometer dial until the point contacts the bottom most radial surface. If using a caliper, be certain not to measure the extrusion points of the crimp.
5. Record crimp height readings. A minimum of 5 crimp height readings are necessary to confirm each set-up. A minimum of 30 readings are necessary to determine capability.
6. Check crimp height every 250 to 500 parts throughout the run.

Improper Wire Preparation

- Irregular Insulation Cut
- Cut Strands
- Pulled Strands
- Inconsistent Strip Length

Examples

- Conductor Brush Not Visible
- Conductor Brush Too Long
- Insulation Under Conductor Crimp
- No Bellmouth
- Excessive Cut-off Tab

Optimal Crimp

- Insulation Crimp
- Insulation Position
- Insulation Crimp Height
- Extrusions
- Terminal Cross Section

Crimp Height Testing

1. Complete tool set-up procedure.
2. Crimp a minimum of 5 samples.
3. Place the flat blade of the crimp micrometer across the center of the dual radii of the conductor crimp. Do not take measurement near the conductor bellmouth.
4. Rotate the micrometer dial until the point contacts the bottom most radial surface. If using a caliper, be certain not to measure the extrusion points of the crimp.
5. Record crimp height readings. A minimum of 5 crimp height readings are necessary to confirm each set-up. A minimum of 30 readings are necessary to determine capability.
6. Check crimp height every 250 to 500 parts throughout the run.

Visit our website at: www.molex.com
Crimp Types

**Closed Barrel Terminals**

- Accept
- Reject

**Open Barrel Terminals**

- Accept
- Reject

**Crimp Types**

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**Tensile Strength in Pounds**

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**Technical Wire Information**

- CMA = (D of one strand x D of one strand) x Number of Strands
- MIL - One mil equals 0.001 inches
- 0.001 = 1 mil
- .003 x 30 mils = 90 mils
- .125 x 125 mils = 15,625 mils

**Butt Splices**

- 10 to 18 AWG

**Visual Inspection of Crimped Terminals**

- Terminology, i.e., .032 in. = 32 thousandths or 32 mils.
- Change diameter from inches to mils, then multiply the diameter in mils by itself.

**Computation of CMA**

- D = Diameter in mils
- Round Solid Conductor: Change diameter from inches to mils, then multiply the diameter in mils by itself.
- stranded conductor: Find CMA of a single strand and multiply the result by the total number of strands.