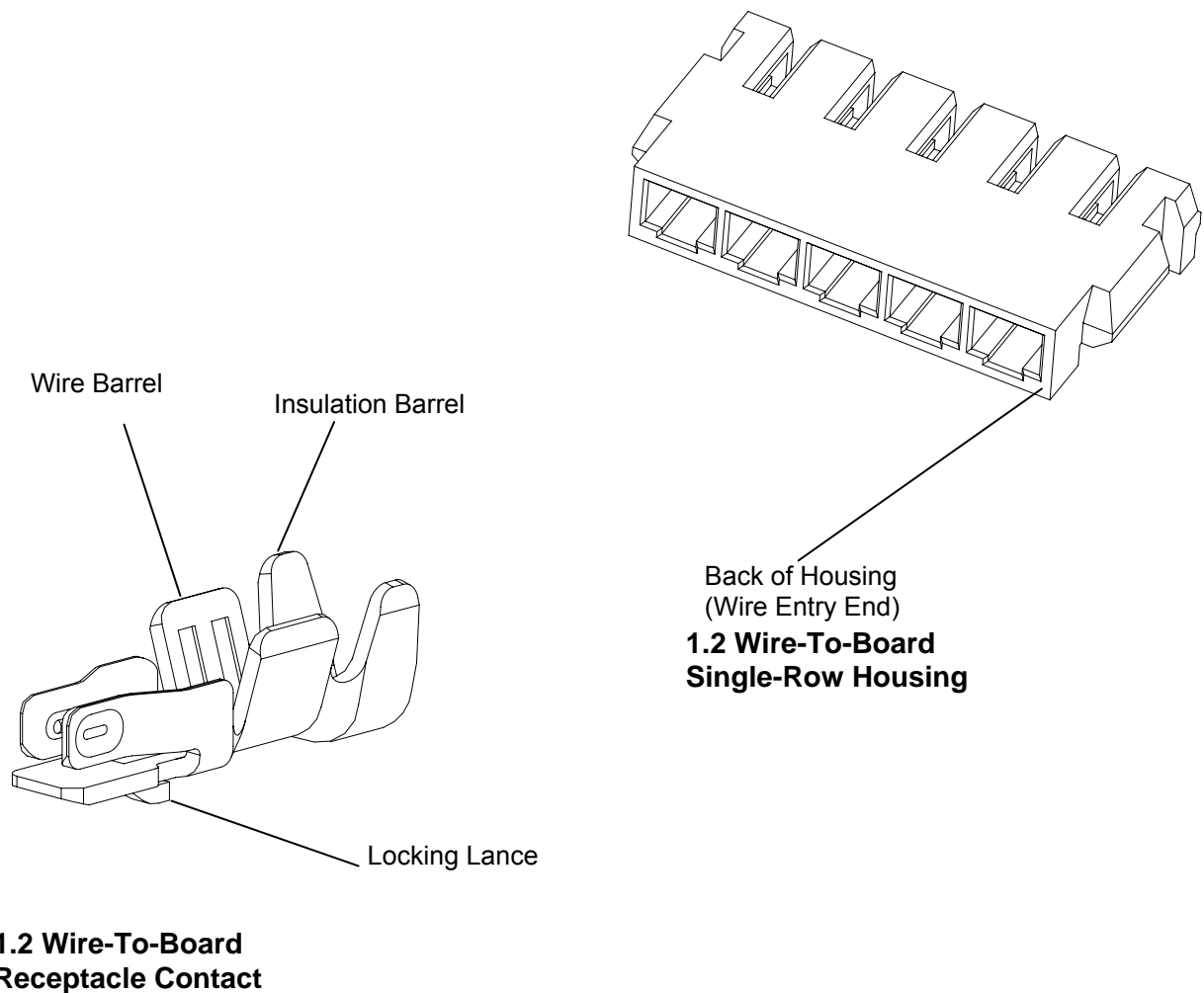


**1. INTRODUCTION**

This specification covers the 1.2 Wire-To-Board and Receptacle Contacts and Housings. These crimp snap-in receptacle contacts with insulation support will accept a wire size range of 28 AWG or 30 AWG and mate with 1.2 Wire-To-Board headers.

Housing configurations is single-row on 1.2 mm centerlines from 2 up to 6 positions. This type of contact is used with 1.2 Wire-To-Board connector housings.

When corresponding with Tyco Electronics Personnel, use the terminology provided in this specification to facilitate your inquiries for information. Basic terms and features of this product are provided in Figure 1.



**Figure 1**

## 2. REFERENCE MATERIAL

### 2.1. Revision Summary

This paragraph is reserved for a revision summary covering the most recent additions and changes made to this specification which include the following:

- Updated document to corporate requirements

### 2.2. Customer Assistance

Reference Base Part Number 1909782-X & 1909784-1 and Product Code K093 are representative numbers of the Miscellaneous Wire to Board product line. Use of these numbers will identify the product line and expedite your inquiries through a Tyco Electronics service network established to help you obtain product and tooling information. Such information can be obtained through a local Tyco Electronics Representative.

### 2.3. Drawings

Customer Drawings for specific products are available from the responsible Tyco Electronics Engineering Department via the service network. The information contained in the Customer Drawing takes priority if there is a conflict with this specification or any other technical documentation supplied by Tyco Electronics.

### 2.4. Specifications

Product Specifications 108–57767 (for connectors & headers), provides product performance requirements and test result information.

## 3. REQUIREMENTS

### 3.1. Storage

#### A. Ultraviolet Light

Prolonged exposure to ultraviolet light may deteriorate the chemical composition used in the housing material.

#### B. Reel Storage

When using reeled contacts, store coil wound reels horizontally and traverse wound reels vertically.

#### C. Shelf Life

Each connector is packaged and shipped in an individual antistatic tube container or tape and reel. To prevent damage to the housings and contact solder tines, the connectors should remain in the container until ready for installation. Also, to prevent possible storage contamination and ensure maximum solderability, the connectors should be used on a first in, first out basis.

#### D. Chemical Exposure

Do not store contacts near any of the following chemicals as they may cause stress corrosion.

|          |            |          |            |          |                  |
|----------|------------|----------|------------|----------|------------------|
| Alkalies | Ammonia    | Citrates | Phosphates | Citrates | Sulfur Compounds |
| Amines   | Carbonates | Nitrites | Sulfides   | Nitrites | Tartrates        |

**NOTE** Where the above environmental conditions exist, phosphor-bronze contacts are recommended instead of brass if available.

3.2. Wire

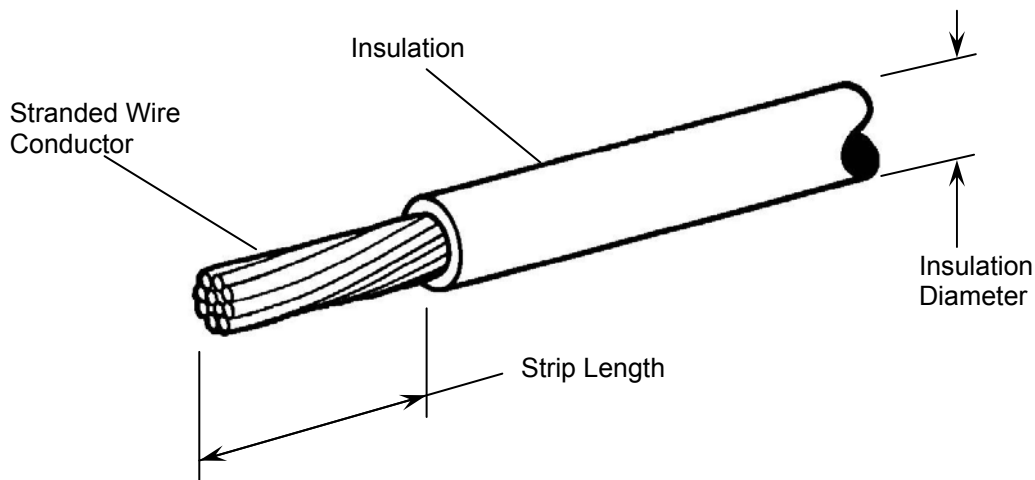
A. Wire Selection

The contacts will accept stranded wires ranging in size from 28 to 30 AWG. Wire insulation diameter shall have minimum and maximum dimensions according to the wire sizes indicated in Figure 2. Reasonable care shall be taken during the stripping operation to ensure the conductor is not nicked, scraped, or cut.

**NOTE** Contacts accept stranded wire only. Not intended for solid wire.

B. Wire Preparation

The wire strip length shall be according to the wire sizes as indicated in Figure 2.



WIRE CRIMP DIMENSIONS

| WIRE       |                           | WIRE BARREL  |              | INSULATION BARREL CRIMP WIDTH |
|------------|---------------------------|--------------|--------------|-------------------------------|
| SIZE (AWG) | INSULATION DIAMETER RANGE | CRIMP HEIGHT | CRIMP WIDTH  |                               |
| 28         | 0.55 to 0.65              | 0.43 to 0.45 | 0.83 to 0.85 | 0.9 to 1.0                    |
| 30         | 0.55 to 0.65              | 0.38 to 0.41 | 0.83 to 0.85 | 0.9 to 1.0                    |

Figure 2

3.3. Crimped Contact Requirements

Locate the contact to be crimped in the appropriate tooling according to the instructions packaged with that tooling. Detailed instruction covering the placement of contacts in the tooling and the use of such tooling is packaged with each tool.

**NOTE** Wire insulation shall NOT be cut or broken during the crimping operation, nor shall the insulation be crimped into the contact wire barrel. Reasonable care should be taken by tooling operators to provide undamaged wire terminations.

**A. Wire Barrel Crimp**

The crimp applied to the wire portion of the contact is the most compressed area and is most critical in ensuring optimum electrical and mechanical performance of the crimped contact. The contact wire barrel crimp height must be within the dimension provided in Figure 2.

**B. Effective Crimp Length**

For optimum crimp effectiveness, the crimp must be within the area shown in Figure 3 and must meet the crimp dimensions provided in Figure 2. Effective crimp length shall be defined as that portion of the wire barrel, excluding bellmouth(s), fully formed by the crimping tool.

**C. Bellmouths**

Front and rear bellmouths shall be evident and conform to the dimensions given in Figure 3.

**D. Cutoff Tabs**

The cutoff tab shall be cut to the dimensions shown in Figure 3.

**E. Burrs**

The cutoff burr shall not exceed the dimensions shown in Figure 3.

**F. Wire Barrel Flash**

The wire barrel flash shall not exceed the dimensions shown in Figure 3, Section X–X.

**G. Insulation barrel Crimp**

The insulation barrel shall grip the insulation firmly without cutting into it. Care must be taken to prevent cutting, nicking, or scraping of the insulation. Insulation crimp shall comply to width and height provided in Figure 2.

**H. Wire Location**

The wire conductor and insulation must be visible in the transition area between the wire and insulation barrels as shown in Figure 3.

**I. Conductor Extension**

The conductor may extend beyond the wire barrel to the maximum shown in Figure 3.

**J. Wire Barrel Seam**

The wire barrel seam must be closed with no evidence of loose wire strands visible in the seam as shown in Figure 3.

**K. Twist and Roll**

There shall be no twist, roll, deformation or other damage to the mating portion of the crimped contact that will impair usage of the contact. See Figure 4.

**L. Straightness**

The force applied during crimping may cause some bending between the crimped wire barrel and the mating portion of the contact. Such deformation is acceptable within the following limits, as shown in Figures 5 and 6.

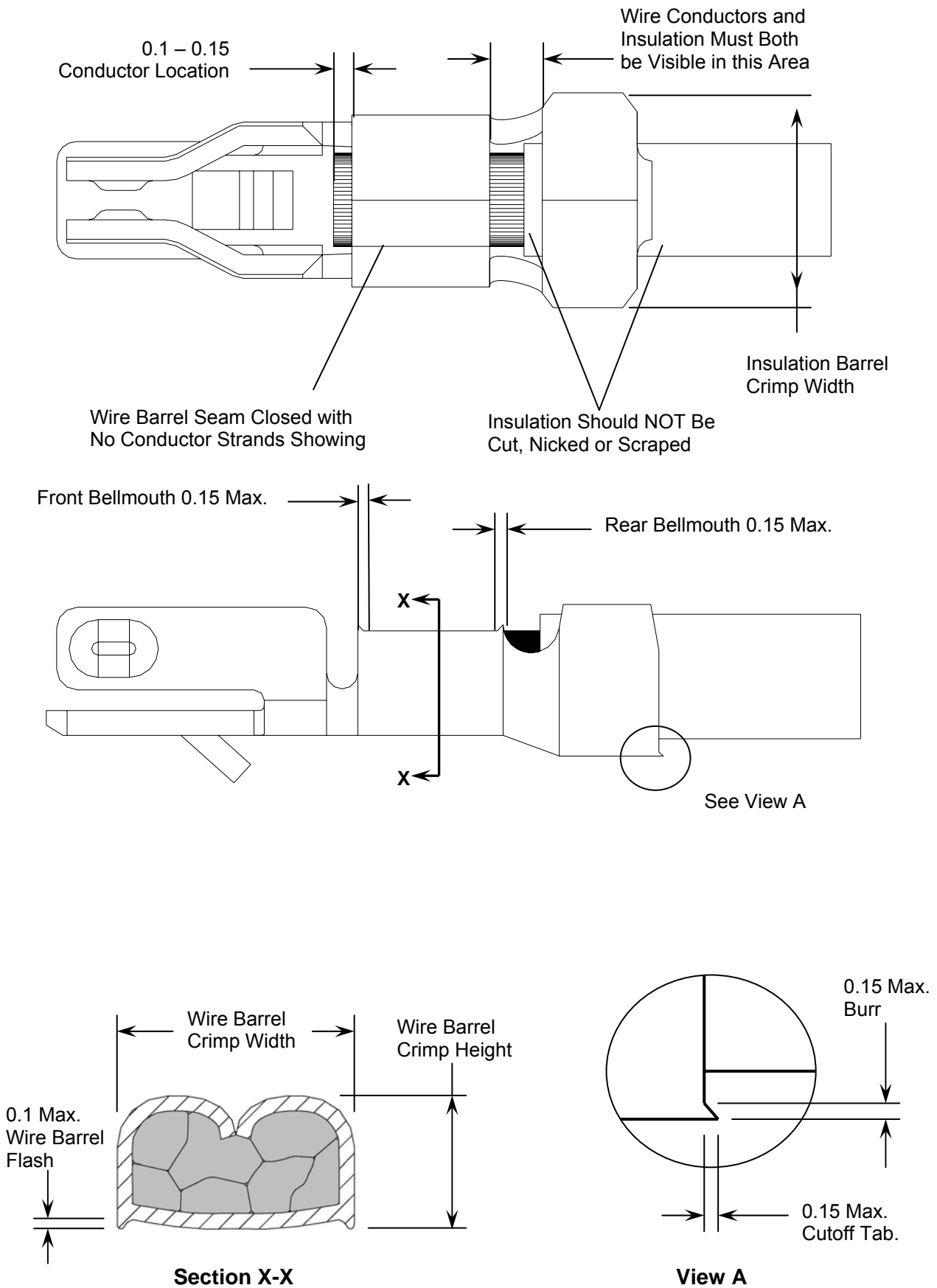


Figure 3

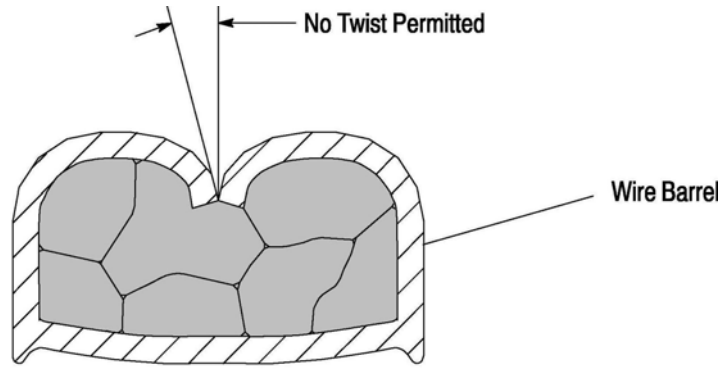


Figure 4

1. Up and Down

The Crimped contact, including cutoff tab and burr, shall not be bent above or below the datum line more than the amount shown in Figure 5.

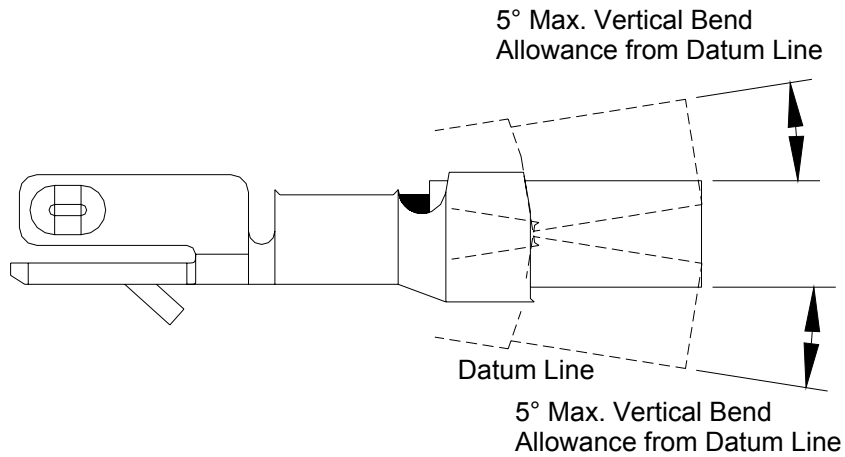


Figure 5

2. Side to Side

The side-to-side bending of the contact may not exceed the limits provided in Figure 6.

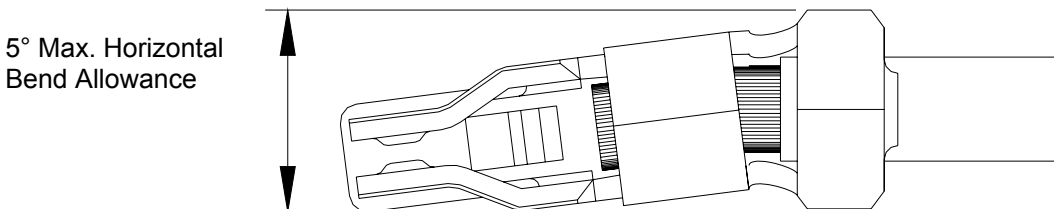


Figure 6

**NOTE** Periodic inspections must be made to ensure crimped contact formation is consistent as referenced.