

**Power Lock 75 Series Contacts**
**NOTE**


All numerical values are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters [and inches]. Unless otherwise specified, dimensions have a tolerance of  $\pm 0.13$  [ $\pm 0.005$ ] and angles have a tolerance of  $\pm 2^\circ$ . Figures and illustrations are for identification only and are not drawn to scale.

**1. INTRODUCTION**

This application specification covers the requirements for the application of the Power Lock 75 Series Contacts. These requirements are applicable to hand tools or automatic machine crimping tools. For wire sizes relative to the products covered in this specification, see Figure 2.

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.

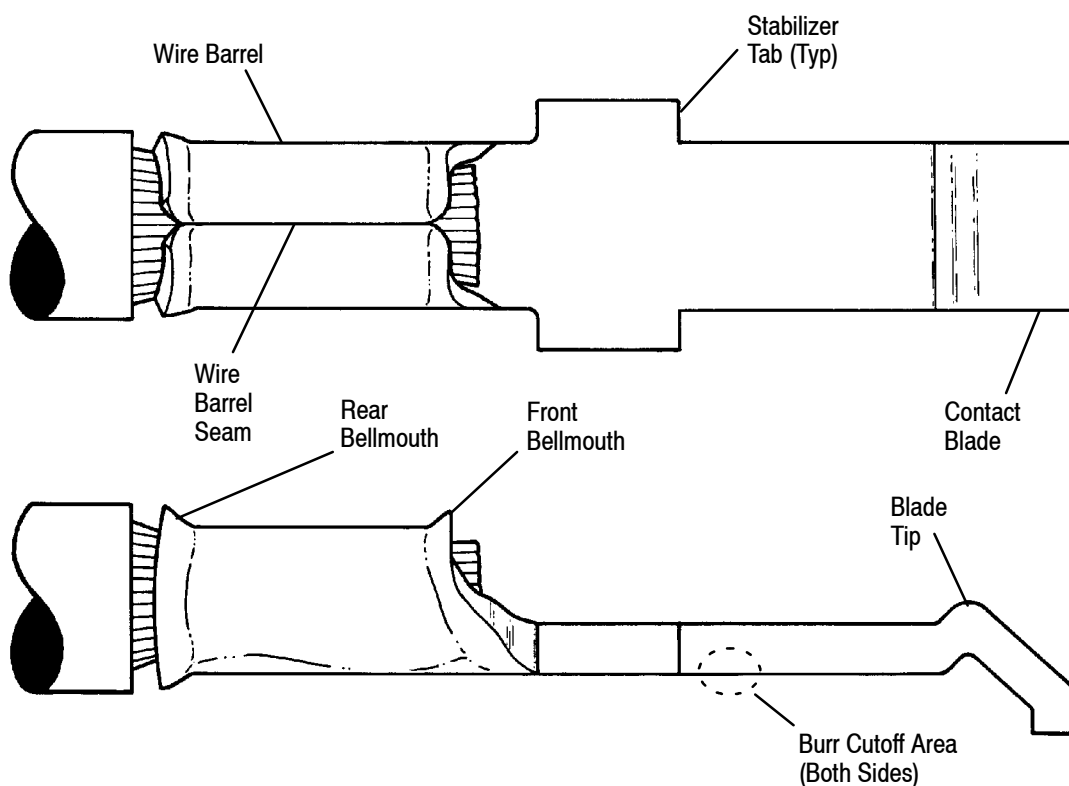


Figure 1

**2. REFERENCE MATERIAL**
**2.1. Revision Summary**

- Updated document to corporate requirements
- New logo and format
- Added new Paragraph 2.1 and renumbered
- Added new Paragraph 3.1 and renumbered
- Added new Section 4, QUALIFICATIONS and renumbered

## 2.2. Customer Assistance

Reference Product Base Part Numbers 53880, and Product Code 3402 are representative numbers of Power Lock 75 Series Contacts. Use of these numbers will identify the product line and expedite your inquiries through a service network established to help you obtain product and tooling information. Such information can be obtained through a local Tyco Electronics Representative or, after purchase, by calling the Tooling Assistance Center or the Product Information numbers at the bottom of page 1.

## 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 Drawings takes priority if there is a conflict with this specification or with any other technical documentation supplied by Tyco Electronics.

## 2.4. Instructional Material

For termination of loose piece contacts, refer to Instruction Sheet 408-2681 packaged with Hand Tool 68321-1. For termination of strip form contacts, refer to Customer Manual 409-2661 packaged with Terminating Machine 68296-1.

## 3. REQUIREMENTS

### 3.1. Safety

Do not stack component packages so high that the shipping containers can buckle or deform.

### 3.2. Wire Preparation

#### A. Strip Length

Insulation shall be stripped as indicated in Figure 2.

#### B. Workmanship

Reasonable care shall be taken not to nick, scrape, or cut any strands during the stripping operation.

WIRE		CRIMP	
SIZE (AWG)	STRIP LENGTH	HEIGHT $\pm 0.10$ [ $\pm .004$ ]	TYPE
10	7.92-9.52 [.312-.375]	3.71 [.146]	F
8		4.09 [.161]	
6		4.72 [.186]	

Figure 2

### 3.3. Inspection

#### A. Cutoff Burr

Burr Cutoff shall not exceed 0.25 mm [.010 in.].

#### B. Wire Barrel Crimp

Crimp height and type shall be as shown in Figure 2.

#### C. Wire Barrel Seam

For 8 and 10 gauge wire, the wire barrel seam shall be completely closed and there shall be no evidence of loose wire strands or wire strands in the seam.

For 6 gauge wire, the wire barrel seam can be open 1.19 mm [.047 in.] maximum, however, there shall be no evidence of loose wire strands. Visible wire strands are permissible if aforementioned condition is met.

### D. Conductor Location

1. End of the wire shall be flush with the front end of the wire barrel or extend 1.52 mm [.060 in.] maximum after crimping.
2. Care shall be taken not to allow insulation to be crimped in the wire barrel.

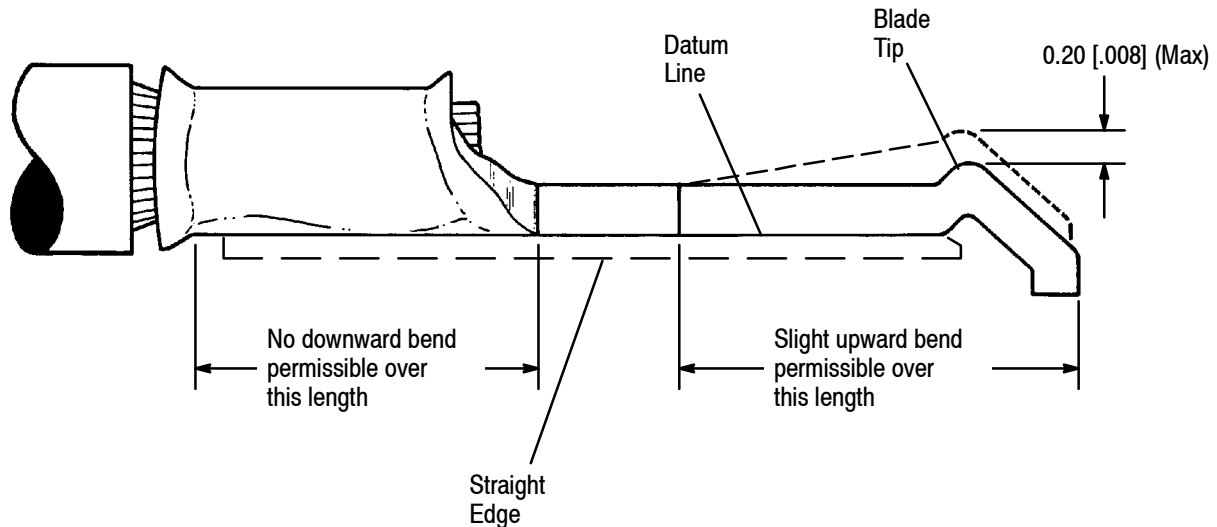


Figure 3

### E. Alignment

1. Contact blade tip shall not be above datum line more than the amount shown in Figure 3. No downward bend permissible.
2. No downward bend of wire barrel permissible.

### F. Straightness

1. Place a straight edge under the contact blade and wire barrel as indicated in Figure 3.
2. Check that the blade tip has not deflected more than 0.20 mm [.008 in.].

### G. Bellmouth

1. A rear bellmouth will appear at the rear of the wire barrel.
2. No front bellmouth is preferable, but a slight one is acceptable.

### H. Twist and Roll

There shall be no twist or roll in crimped portion that will impair the usage of the contact.

## 4. QUALIFICATIONS

Power Lock 75 Series Contacts are not required to be agency approved.

## 5. TOOLING

Pre-production, low quantities, and repair can be done with Hand Tool 68321-1. Higher quantity production rates can be done with Terminating Machine 68296-1.

6. VISUAL AID

Figure 4 shows a typical application of a Power Lock 75 Series Contact . This illustration should be used by production personnel to ensure a correctly applied product. Applications which DO NOT appear correct should be inspected using the information in the preceding pages of this specification and in the instructional material shipped with the product or tooling.

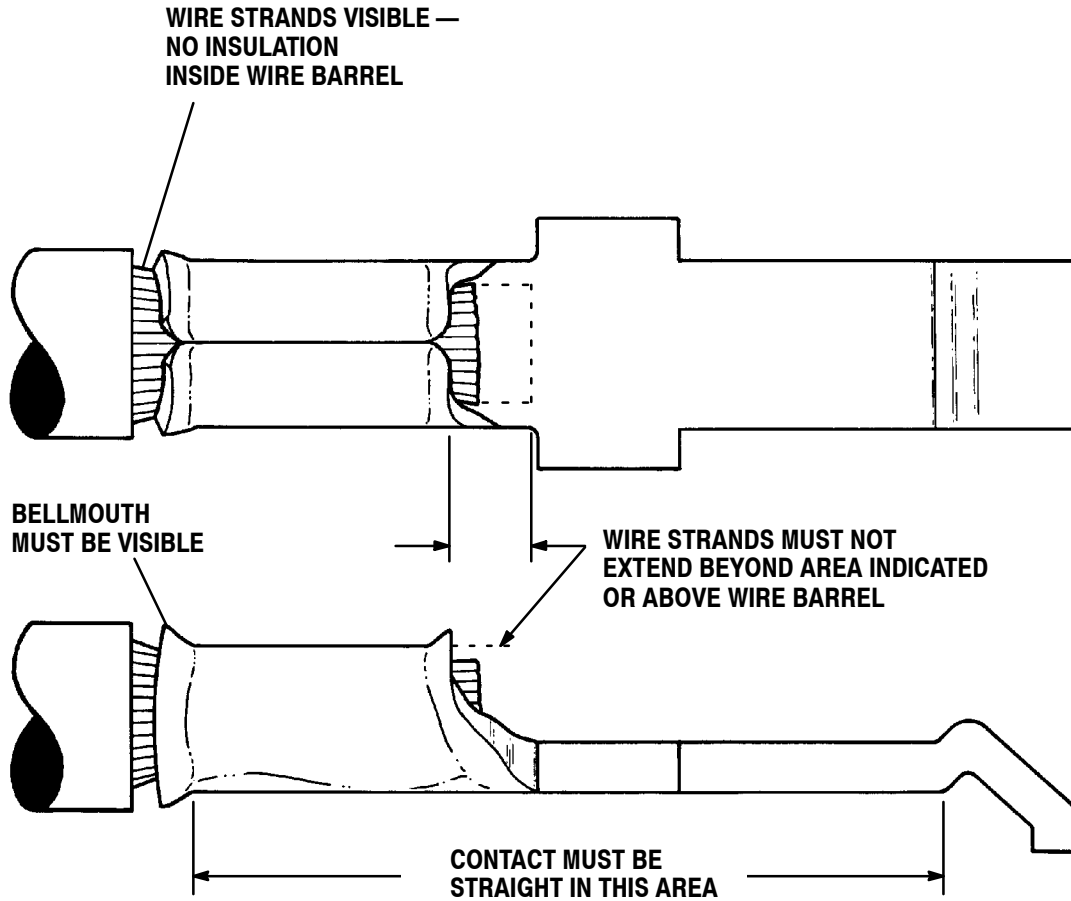


FIGURE 4. VISUAL AID