

Rev.A

# SPECIAL RECEPTACLE CLUSTER CTC., for .090" dia. Pin; P/N 284633-1

## 1. SCOPE

This specification covers the requirements for application of SPECIAL Receptacle CLUSTER contacts designed for .090" diameter pins. These requirements are applicable to automatic machine crimping tools. For specific wire and insulation ranges relative to the products covered in this specification see Figure 8.

## 2. REFERANCE MATERIAL

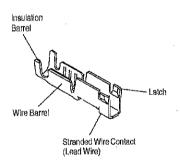
#### 2.1 Drawing.

Tyco Electronics AMP Customer drawing for part number is available from the service network. The information contained in Customer Drawing takes priority if there is a conflict with the specification or with any other technical documentation supplied by Tyco Electronics AMP Italia.

## 2.2 Specification.

For applicable performance requirements, see AMP Product specification listed in Figure 8.

## 3. PRODUCT FEATURES.



Receptacle terminal to be used on Cluster Block .090" dia. Reverse version only. P/N 284406-1

Figure 1

#### 4. CRIMP AND DIMENSIONAL REQUIREMENTS.

#### 4.1 Wire

- **A. Size:** Stranded wire contact designs to cover 18 through 16 AWG wire size and an insulation diameter range of 1.5-2.6 mm.
- B. Strip length: Insulation shall be stripped as indicated in Figure 6.
- **C. Workmanship:** Reasonable care shall be taken not to nick, scrape or cut any strands during the stripping operation.

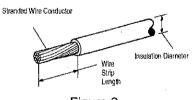


Figure 2

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#### 4.2 Crimped contact.

#### 4.2.1 Carrier Cutoff Tab and Burr

- **A. Cutoff Tab:** Cutoff tab must be visible at both ends of the contact but they must not extend beyond the limits specified in Figure 3.
- **B. Burr on cutoff:** Burrs resulting from the shearing of the cutoffs must not exceed the burr allowance shown in Figure 3.
- **C. Crimped configuration:** The wire barrel must be crimped so that the tips of the wire barrel will turn inward and capture all wire strands. The insulation barrel will be crimped so that the tips of the insulation barrel will but against each other and grip the insulation firmly without cutting into it to form an insulation support. See Figure 4.

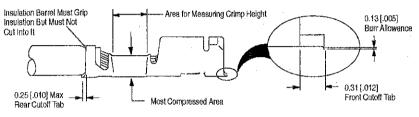


Figure 3

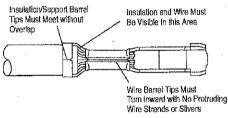
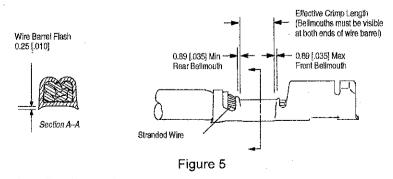


Figure 4

#### 4.2.2 Wire Barrel Crimp.

- **A. Crimp Dimensions and Type:** The crimp applied to the wire portion of the contact is the most compressed area and is the most critical in assuring optimum performance. The applied crimp height, width and type must be within the range specified for the contact wire size range. See Figure 8.
- **B. Wire barrel flash:** Flash that may appear on either side of the crimped contact shall not exceed the maximum limit specified in Figure 5.
- **C. Wire barrel seam:** The wire barrel seam shall be completely closed with no portion of the conductors protruding from the seam. See Figure 6.
- **D. Bellmouth:** The front and rear bellmouths caused by extrusion of the contact metal during the crimping process shall be within the limits provided in Figure 5.
- **E. Conductor location:** The conductor of the wire must be flush or within the protrusion limit specified from the front of the wire barrel. Both insulation and conductor should be visible in the transition area between the insulation barrel and wire barrel. No insulation should be in the wire barrel. See Figure 6.



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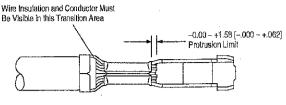


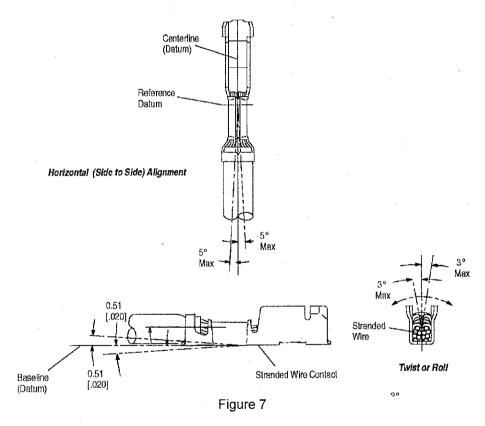
Figure 6

## 4.2.3 Insulation Barrel Crimp.

- A. Crimp Dimensions and Type: Crimp width and type shall be as shown in Figure 8.
- **B. Workmanship:** Reasonable care shall be taken not to cut or break the insulation during the crimping operation.

# 4.2.4 Alignment.

- **A. Vertical & Horizontal Straightness:** Crimped contacts must be straight and aligned within the tolerance shown in Figure 7.
- **B.** Twist or Roll: The Twist or Roll of the crimped portion of the contact in relation to the uncrimped portion of the contact may not exceed the limits shown in Figure 7.



#### **AUTOMATIC MACHINE WIRE CRIMP DIMENSIONS**

						WIRE BARREL CRIMP			INSUL. BARREL CRIMP		
AMP P/N	LOG	AMP PRODUCT SPEC.	WIRE SIZE (AWG)	INSULATION DIA. mm	STRIP LENGHT APPROX. mm	WIDTH REF. mm	HEIGHT +/-0.03 mm	T Y P E	WIDTH REF. mm	HEIGHT REF. mm	Y P E
284633	-	108-20033	18 16	1.5-2.6	4.8	2.79	1.50 1.65	F	3.56	-	F

Figure 8

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