

**FASTIN-FASTON\* Connectors, .110", .250", .312" & .375" srs.  
TAB & RECEPTACLE CONTACTS**

**1. SCOPE**

This specification covers the requirements for application of .110", .250", .312" and .375" series FASTIN-FASTON\* Tab & Receptacle contacts. 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 4.

**1.1 Reference Specification**

For applicable performance requirements, see AMP Product Specification 108-20020.

**2. NOMENCLATURE**

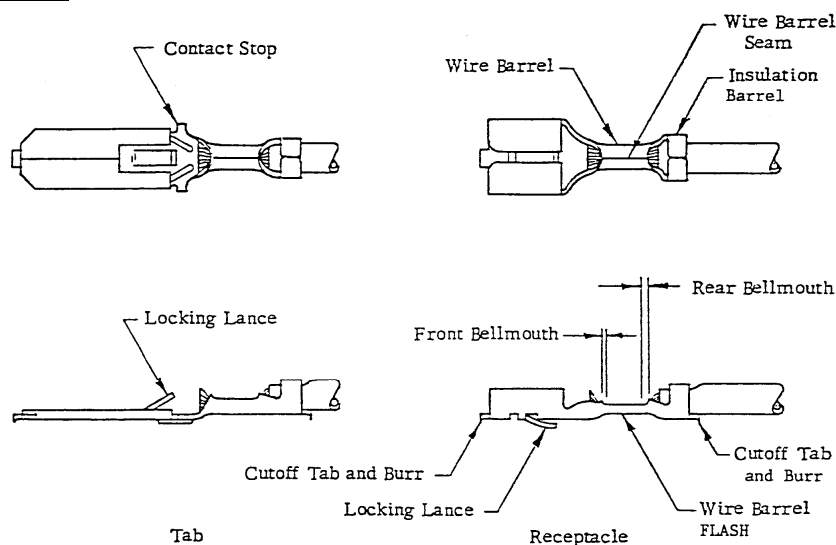


Figure 1

**3. CRIMP AND DIMENSIONAL REQUIREMENTS**

**3.1 Wire Preparation**

A- **Strip Length:** Insulation shall be stripped as indicated in Figure 4.

B- **Workmanship:** Reasonable care shall be taken not to nick, scrape or cut any strands during the stripping operation.

**3.2 Carrier Cutoff Tab and Burr.**

A- **Cutoff Tab:** Cutoff tab shall not exceed .015.

B- **Burr:** Burr on cutoff shall not exceed .005.

|            |                  |      |             |      |             |
|------------|------------------|------|-------------|------|-------------|
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rev letter

rev. record

DR

Date

CHK

Date

DR.

H. YAALI

DATE

30 AUGUST 2001

APVD

C. TARTARI

DATE

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**LOC I**

### 3.3 Barrel Crimp.

- A- **Crimp Dimensions and Type:** Crimp height, width and type shall be as shown in Figure 4.
- B- **Wire Barrel Flash:** Shall not exceed .005.
- C- **Wire Barrel Seam:** Shall be completely closed and there shall be no evidence of loose wire strands or wire strands visible in the seam.
- D- **Bellmouth:**
  - (1) Rear bellmouth length shall be .010-.030.
  - (2) Front bellmouth length shall be .005-.025.
- E- **Conductor location:**
  - (1) End of the wire shall be flush with the front end of the wire barrel or extend .030 maximum after crimping.
  - (2) Both insulation and conductor shall be visible between the insulation barrel and wire barrel. Care shall be taken not to allow insulation to be crimped in the wire barrel.

### 3.4 Insulation Barrel Crimp.

- A- **Crimp Dimensions and Type:** Crimp width and type shall be as shown in Figure 4.
- B- **Workmanship:** Reasonable care shall be taken not to cut or break the insulation during the crimping operation.

### 3.5 Locking Lance.

Locking lance shall not be deformed and shall meet requirements of product drawing after crimping.

### 3.6 Contact Stop.

Contact stop shall not be deformed and shall meet requirements of product drawing after crimping.

### 3.7 Alignment.

#### A- Straightness:

- (1) The contact, including the cutoff tab and burr shall not be bent above or below the datum line more than the amount shown in Figure 2.

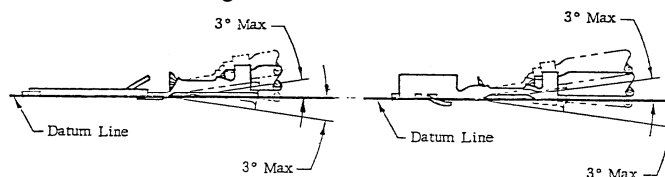


Figure 2

- (2) The side to side bending of the contact shall not exceed the limits specified in Figure 3.

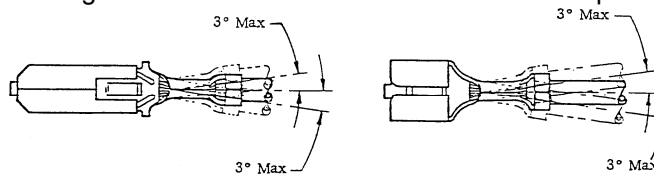


Figure 3

- B- **Twist or Roll:** There shall be no twist or roll in crimped portion that will impair usage of the contact.
- C- **Assembly.** The following list of do's and don'ts are to be followed when assembling contacts into housing cavities.
  - (1) **do's:**
    - a) Do insert contacts fully.
    - b) Do check for proper insertion by pulling back lightly.
    - c) Do ensure proper handling of contacts to eliminate lance deformation.
  - (2) **Don'ts:**
    - a) Don't insert contact into housing at an angle.
    - b) Don't rock connectors while mating.
    - c) Don't tie harness closer than 1.50 inches to back of housing.
    - d) Don't dress wires sharply to one side of housing.

AUTOMATIC MACHINE WIRE CRIMP DIMENSIONS

| S<br>E<br>R<br>I<br>E<br>S | L<br>O<br>G | PART N°                            |      | WIRES |             | INSULATION<br>DIA. | STRIP<br>LENGHT<br>APPROX. | WIRE BARREL<br>CRIMP |        |                  | INSULATION<br>BARREL<br>CRIMP |                  |
|----------------------------|-------------|------------------------------------|------|-------|-------------|--------------------|----------------------------|----------------------|--------|------------------|-------------------------------|------------------|
|                            |             | TAB                                | REC. | N°    | SIZE<br>mm2 |                    |                            | WIDTH                | HEIGHT | T<br>Y<br>P<br>E | WIDTH                         | T<br>Y<br>P<br>E |
| .110"                      |             | 188352<br>160743<br>160762         |      | 1     | 0.50        | .090-.120          | .180                       | .090                 | .058   | F                | .130                          | F                |
|                            |             |                                    |      | 1     | 20 (AWG)    |                    |                            |                      | .058   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.75        |                    |                            |                      | .060   |                  |                               |                  |
|                            |             |                                    |      | 1     | 18 (AWG)    |                    |                            |                      | .062   |                  |                               |                  |
|                            |             |                                    |      | 1     | 1.00        |                    |                            |                      | .062   |                  |                               |                  |
|                            |             |                                    |      | 1     | 16 (AWG)    |                    |                            |                      | .069   |                  |                               |                  |
|                            |             |                                    |      | 1     | 1.50        |                    |                            |                      | .069   |                  |                               |                  |
|                            |             |                                    |      | 1     | 1.50        |                    |                            |                      | .069   |                  |                               |                  |
| .110"                      |             | 160887                             |      | 1     | 0.50        | .055-.090          | .177                       | .080                 | .056   | F                | .110                          | O<br>V           |
|                            |             |                                    |      | 1     | 0.70        |                    |                            |                      | .059   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.75        |                    |                            |                      | .060   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.85        |                    |                            |                      | .061   |                  |                               |                  |
|                            |             |                                    |      | 1     | 1.00        |                    |                            |                      | .063   |                  |                               |                  |
|                            |             |                                    |      | 1     | 1.50        |                    |                            |                      | .067   |                  |                               |                  |
| .110"                      |             | 160926                             |      | 1     | 2.00        | .083-.122          | .180                       | .110                 | .072   | F                | .140                          | O<br>V           |
|                            |             |                                    |      | 1     | 2.50        |                    |                            |                      | .078   |                  |                               |                  |
|                            |             |                                    |      | 1     | 2.50        |                    |                            |                      | .078   |                  |                               |                  |
| .110"                      |             | 160888                             |      | 1     | 1.00        | .075-.090          | .180                       | .090                 | .061   | F                | .110                          | O<br>V           |
|                            |             |                                    |      | 1     | 1.25        |                    |                            |                      | .065   |                  |                               |                  |
|                            |             |                                    |      | 1     | 1.35        |                    |                            |                      | .066   |                  |                               |                  |
|                            |             |                                    |      | 1     | 1.50        |                    |                            |                      | .068   |                  |                               |                  |
|                            |             |                                    |      | 1     | 1.50        |                    |                            |                      | .068   |                  |                               |                  |
| .110"                      |             | 160366                             |      | 1     | 0.20        | .040-.080          | .158                       | .062                 | .032   | F                | .080                          | F                |
|                            |             |                                    |      | 1     | 24 (AWG)    |                    |                            |                      | .032   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.30        |                    |                            |                      | .035   |                  |                               |                  |
|                            |             |                                    |      | 1     | 22 (AWG)    |                    |                            |                      | .035   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.40        |                    |                            |                      | .037   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.50        |                    |                            |                      | .039   |                  |                               |                  |
|                            |             |                                    |      | 1     | 20 (AWG)    |                    |                            |                      | .039   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.50        |                    |                            |                      | .041   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.70        |                    |                            |                      | .045   |                  |                               |                  |
| .110"                      |             | 160864                             |      | 1     | 0.75        | .055-.090          | .158                       | .070                 | .046   | F                | .100                          | O<br>V           |
|                            |             |                                    |      | 1     | 0.85        |                    |                            |                      | .047   |                  |                               |                  |
|                            |             |                                    |      | 1     | 1.00        |                    |                            |                      | .050   |                  |                               |                  |
|                            |             |                                    |      | 1     | 26 (AWG)    |                    |                            |                      | .038   |                  |                               |                  |
|                            |             |                                    |      | 1     | 24 (AWG)    |                    |                            |                      | .039   |                  |                               |                  |
| .110"                      |             | 160776                             |      | 1     | 22 (AWG)    | -                  | -                          | .070                 | .042   | F                | -                             | -                |
|                            |             |                                    |      | 1     | 24 (AWG)    |                    |                            |                      | .039   |                  |                               |                  |
|                            |             |                                    |      | 1     | 22 (AWG)    |                    |                            |                      | .042   |                  |                               |                  |
| .110"                      |             | 160923                             |      | 1     | 0.20        | .040-.063          | .180                       | .070                 | .043   | F                | .090                          | F                |
|                            |             |                                    |      | 1     | 0.25        |                    |                            |                      | .044   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.35        |                    |                            |                      | .046   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.50        |                    |                            |                      | .049   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.50        |                    |                            |                      | .049   |                  |                               |                  |
| .250"                      | 785314      | 280096                             |      | 1     | 0.35        | .090-.130          | .218                       | .080                 | .053   | F                | .130                          | F                |
|                            |             |                                    |      | 1     | 0.50        |                    |                            |                      | .055   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.75        |                    |                            |                      | .057   |                  |                               |                  |
| .250"                      | 785316      | 280095                             |      | 1     | 0.35        | .090-.130          | .218                       | .080                 | .046   | F                | .130                          | F                |
|                            |             |                                    |      | 1     | 0.50        |                    |                            |                      | .049   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.75        |                    |                            |                      | .051   |                  |                               |                  |
| .250"                      | 785129      | 282178                             |      | 1     | 0.35        | .057-.075          | .218                       | .080                 | .046   | F                | .120                          | F                |
|                            |             |                                    |      | 1     | 0.50        |                    |                            |                      | .049   |                  |                               |                  |
|                            |             |                                    |      | 1     | 0.75        |                    |                            |                      | .051   |                  |                               |                  |
| .250"                      | 687839      | 42098<br>42460<br>280081<br>280425 |      | 1     | 0.75        | .120-.160          | .218                       | .110                 | .057   | F                | .160                          | F                |
|                            |             |                                    |      | 1     | 1.00        |                    |                            |                      | .060   |                  |                               |                  |
|                            |             |                                    |      | 1     | 1.50        |                    |                            |                      | .065   |                  |                               |                  |
|                            |             |                                    |      | 1+1   | 0.75+0.75   |                    |                            |                      | .065   |                  |                               |                  |
|                            |             |                                    |      | 1     | 2.50        |                    |                            |                      | .075   |                  |                               |                  |
|                            |             |                                    |      | 1     | 2.50        |                    |                            |                      | .075   |                  |                               |                  |

AUTOMATIC MACHINE WIRE CRIMP DIMENSIONS  
(continuation)

| S<br>E<br>R<br>I<br>E<br>S | L<br>O<br>G        | PART N°          |                                                         | WIRES |             | INSULATION<br>DIA. | STRIP<br>LENGHT<br>APPROX. | WIRE BARREL<br>CRIMP |        |                  | INSULATION<br>BARREL<br>CRIMP |                  |
|----------------------------|--------------------|------------------|---------------------------------------------------------|-------|-------------|--------------------|----------------------------|----------------------|--------|------------------|-------------------------------|------------------|
|                            |                    | TAB              | REC.                                                    | N°    | SIZE<br>mm2 |                    |                            | WIDTH                | HEIGHT | T<br>Y<br>P<br>E | WIDTH                         | T<br>Y<br>P<br>E |
| .250"                      | 785320             |                  | 42100<br>280098<br>280923<br>180375<br>284340<br>293212 | 1     | 0.75        | .120-.160          | .218                       | .100                 | .049   | F                | .180                          | F                |
|                            |                    |                  |                                                         | 1     | 1.0         |                    |                            |                      | .052   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 1.5         |                    |                            |                      | .056   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 2.5         |                    |                            |                      | .064   |                  |                               |                  |
|                            |                    |                  |                                                         | -     | -           |                    |                            |                      | -      |                  |                               |                  |
|                            |                    |                  |                                                         | -     | -           |                    |                            |                      | -      |                  |                               |                  |
|                            |                    |                  |                                                         | -     | -           |                    |                            |                      | -      |                  |                               |                  |
| .250"                      | 785127             |                  | 282171<br>282176<br>282177                              | 1     | 1.0         | .075-.118          | .218                       | .100                 | .052   | F                | .140                          | F                |
|                            |                    |                  |                                                         | 1     | 1.5         |                    |                            |                      | .056   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 2.0         |                    |                            |                      | .060   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 2.5         |                    |                            |                      | .064   |                  |                               |                  |
| .250"                      | 677705             | 180352<br>280080 |                                                         | 1+1   | 1.5+1.5     | .135-.200          | .240                       | .160                 | .072   | F                | .210                          | F                |
|                            |                    |                  |                                                         | 1     | 4.0         |                    |                            |                      | .077   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 5.0         |                    |                            |                      | .085   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 6.0         |                    |                            |                      | .092   |                  |                               |                  |
| .250"                      | 466675             |                  | 180560<br>180351                                        | 1+1   | 1.5+1.5     | .135-.200          | .240                       | .160                 | .072   | F                | .210                          | F                |
|                            |                    |                  |                                                         | 1     | 4.0         |                    |                            |                      | .077   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 5.0         |                    |                            |                      | .085   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 6.0         |                    |                            |                      | .092   |                  |                               |                  |
| .250"                      | 7-1529168-1        |                  | 180351                                                  | 1+1   | 1.5+1.5     | .135-.200          | .240                       | .160                 | .072   | F                | .210                          | F                |
|                            |                    |                  |                                                         |       | 4.0         |                    |                            |                      | .077   |                  |                               |                  |
|                            |                    |                  |                                                         |       | 2.5+1.5     |                    |                            |                      | .077   |                  |                               |                  |
|                            |                    |                  |                                                         |       | 5.0         |                    |                            |                      | .085   |                  |                               |                  |
|                            |                    |                  |                                                         |       | 2.5+2.5     |                    |                            |                      | .085   |                  |                               |                  |
|                            |                    |                  |                                                         |       | [10AWG]     |                    |                            |                      | .087   |                  |                               |                  |
|                            |                    |                  |                                                         |       | 6.0         |                    |                            |                      | .092   |                  |                               |                  |
|                            |                    |                  |                                                         |       |             |                    |                            |                      |        |                  |                               |                  |
| .250"                      | 785126             | 282170           |                                                         | 1     | 1.0         | .075-.118          | .216                       | .110                 | .060   | F                | .155                          | F                |
|                            |                    |                  |                                                         | 1     | 1.5         |                    |                            |                      | .065   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 2.0         |                    |                            |                      | .070   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 2.5         |                    |                            |                      | .075   |                  |                               |                  |
|                            |                    |                  |                                                         |       |             |                    |                            |                      |        |                  |                               |                  |
| .250"                      | 785135             | 282186           |                                                         | 1     | 0.35        | .057-.075          | .216                       | .080                 | .053   | F                | .120                          | F                |
|                            |                    |                  |                                                         | 1     | 0.50        |                    |                            |                      | .055   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 0.75        |                    |                            |                      | .057   |                  |                               |                  |
| .250"                      |                    | 160645<br>160691 |                                                         | 1     | 0.30(22AWG) | .085-.125          | .218                       | .090                 | .045   | F                | .140                          | F                |
|                            |                    |                  |                                                         | 1     | 0.50(20AWG) |                    |                            |                      | .048   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 0.75(18AWG) |                    |                            |                      | .052   |                  |                               |                  |
| .312"                      |                    |                  | 160920                                                  | 1     | 3.00        | .130-.177          | .255                       | .130                 | .085   | F                | .210                          | F                |
|                            |                    |                  |                                                         | 1     | 3.50        |                    |                            |                      | .089   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 4.00        |                    |                            |                      | .093   |                  |                               |                  |
| .312"                      |                    |                  | 160557                                                  | 1     | 0.50        | .090-.130          |                            | .090                 | .056   | F                | .130                          | F                |
|                            |                    |                  |                                                         | 1     | 0.75        |                    |                            |                      | .058   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 1.00        |                    |                            |                      | .060   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 1.50        |                    |                            |                      | .062   |                  |                               |                  |
| .375"                      |                    | 280075           |                                                         | 1+1   | 0.75+2.50   | .150-.200          | .270                       | .160                 | .106   | F                | .250                          | F                |
|                            |                    |                  |                                                         | 1     | 4.00        |                    |                            |                      | .118   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 6.00        |                    |                            |                      | .126   |                  |                               |                  |
| .375"                      | 785489             |                  | 280077<br>280756                                        | 1     | 3.00        | .118-.200          | .270                       | .160                 | .110   | F                | .250                          | F                |
|                            |                    |                  |                                                         | 1     | 4.00        |                    |                            |                      | .118   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 6.00        |                    |                            |                      | .126   |                  |                               |                  |
| .375"                      | 1529063<br>1339559 |                  | 280756                                                  | 1     | 4.00        | .118-.200          | .270                       | .160                 | .102   | F                | .250                          | F                |
|                            |                    |                  |                                                         | 1     | 6.00        |                    |                            |                      | .110   |                  |                               |                  |
| .375"                      | 1529095            |                  | 280756                                                  | 1     | 4.00        | .118-.200          | .270                       | .180                 | .095   | F                | .250                          | F                |
|                            |                    |                  |                                                         | 1     | 5.00        |                    |                            |                      | .102   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 6.00        |                    |                            |                      | .109   |                  |                               |                  |
| .375"                      | 783282             | 280074           |                                                         | 1     | 6.00        | .200-.275          | .280                       | .180                 | .127   | F                | .300                          | F                |
|                            |                    |                  |                                                         | 1     | 10.0        |                    |                            |                      | .143   |                  |                               |                  |
| .375"                      | 782678             |                  | 280755<br>281089<br>280076<br>281091                    | 1     | 6.00        | .200-.275          | .280                       | .180                 | .127   | F                | .300                          | F                |
|                            |                    |                  |                                                         | 1+1   | 6.00+2.50   |                    |                            |                      | .138   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 10.0        |                    |                            |                      | .143   |                  |                               |                  |
|                            |                    |                  |                                                         |       |             |                    |                            |                      |        |                  |                               |                  |
| .375"                      | 1529136            |                  | 280755<br>280076<br>281091                              | 1     | 6.00        | .200-.275          | .260                       | .180                 | .127   | F                | .300                          | F                |
|                            |                    |                  |                                                         | 1     | 8.00        |                    |                            |                      | .135   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 8.50        |                    |                            |                      | .138   |                  |                               |                  |
|                            |                    |                  |                                                         | 1     | 10.0        |                    |                            |                      | .143   |                  |                               |                  |