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## Seat Belt FPC Contact

The performance of applicable product is guaranteed only when processed by proper application tooling and condition described in this specification and/or AMP recognized ones.

No product is guaranteed when processed with the other tool or condition

### 1. Scope

This specification covers the requirements for crimping of Seat Belt Contact.

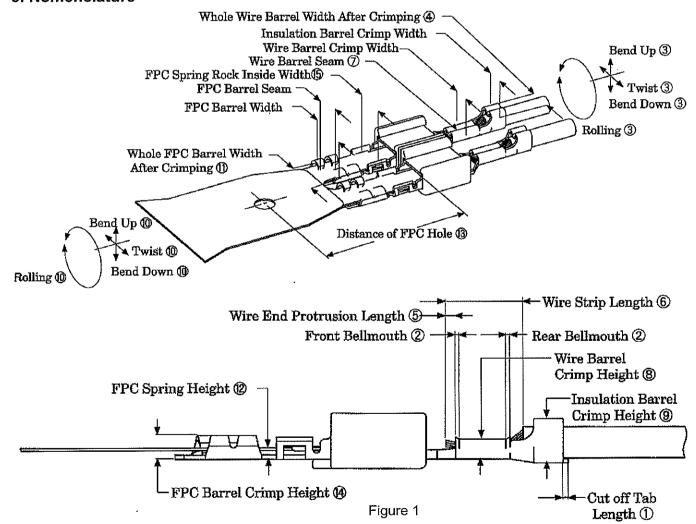
### 2. Applicable Part Number

| Part number * | Part Name             | Finish     |  |  |
|---------------|-----------------------|------------|--|--|
| 353842        | SEAT BELT FPC CONTACT | Tin Plated |  |  |

NOTE

\* Note: Parts number is consisted from listed base number and 1 digit numeric prefix and suffix with dash. Refer to catalog or customer drawing for specific part numbers for each base number. When prefix is zero, zero and dash are omitted.

#### 3. Nomenclature



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# 4. Wire Crimping Conditions

| Applic | Applicab cator Crimp                      | le Contacts                      | Contact<br>353842  | Remarks  |
|--------|---|----------------------------------|--|----------|
| 1      | Cut-off Tab Le                            | ength                            | 0.5mm Max.   | Fig.1-①  |
| 2      | Dollmouth                                 | Front                            | 0.2mm Max.   | Fig. 4 @ |
|        | Bellmouth                                 | Rear                             | 0.2∼0.5mm Max.   | Fig.1-②  |
|        | Deformation after The Crimping            | Bend                             | -1°/+2°  |          |
| 3      |   | Twist                            | ±4° Max.   | Fig.1-③  |
|        |   | Rolling                          | ±10° Max.  |          |
| 4      | Whole Wire Barrel Width after<br>Crimping |                                  | 2mm Max.   | Fig.1-4  |
| 5      | Wire End Protrusion                       | Vire End Protrusion Length 0~1mm |  | Fig.1-5  |
| 6      | 6 Wire Insulation Stripping Length        |                                  | 4∼4.5mm  | Fig.1-6  |
| 7      |   |                                  | Seam must be closed.(A slight gap is allowed on condition that no strand looses out of the seam) | Fig.1-⑦  |
| 8      | Wire Barrel Crimp Height                  |                                  | Wire Barrel Crimp Height See Para.6, Wire Crimping Data.   |          |
| 9      | Insulation Barrel Cr                      | imp Height                       | See Para.6, Wire Crimping Data.  | Fig.1-9  |

## 5. FPC Crimping Conditions

| Applicable Contacts Applicator Crimp |  |         | Contact<br>353842              | Remarks   |
|--------------------------------------|--|---------|--------------------------------|-----------|
|                                      | Deformation after<br>Crimping                        | Bend    | -1°/+2°                        |           |
| 1                                    |  | Twist   | ±4° Max.                       | Fig.1-10  |
|                                      |  | Rolling | ±10° Max.                      |           |
| 2                                    | Whole FPC Barrel Width after Crimping <sup>(1)</sup> |         | 3.8mm Max. <sup>(2)</sup>      | Fig.1-(1) |
| 3                                    | FPC Spring Height <sup>(1)</sup>                     |         | 0.7mm±0.1                      | Fig.1-12  |
| 4                                    | Distance Between Contact and FPC Sensor Hole         |         | 15mm±0.2                       | Fig.1-13  |
| 5                                    | FPC Barrel Crimp Height                              |         | See Para.7, FPC Crimping Data. | Fig.1-14  |
| 6                                    | FPC Spring Rock Inside Width                         |         | 2.5mm +0.05<br>-0.2            | Fig.1-15  |

NOTE (1) Must be measured by vernier or micrometer.

(2) Reference dimension.

### 6. Wire Crimping Data

| Contact<br>Part | Wire Size<br>(Nominal) | Classific- | Applicator<br>Part | Wire          | Barrel Cr<br>(mm) | imp          | Insu          | lation Barre<br>(mm) | I Crimp      | Crimp<br>Tensile                       |
|-----------------|------------------------|------------|--------------------|---------------|-------------------|--------------|---------------|----------------------|--------------|--|
| Number          | (mm²)                  | ation      | Number             | Width<br>(mm) | Height<br>(mm)    | Disk<br>Ltr. | Width<br>(mm) | Height (mm)          | Disk<br>Ltr. | Strength (N)Min.                       |
|                 | 0.3                    | AVSS       | 937257-2           | 1.78<br>"F"   | 0.94              | С            | 1.78          | Refer to             | Refer to     | 59                                     |
| 353842          | 0.5                    | /CAVS      |                    |               | 78 1.03           | В            |               |                      |              |  |
| 353642          | 0.5f                   | AVSSB      | 93/25/-2           |               | "F"               | 1.03         | Р             | "F"                  | Section 8    | Section 8                              |
|                 | 0.5f                   | HFSS       |                    |               | 1.00              | В            |               |                      |              | ************************************** |

- NOTE (1) Wire Barrel Crimp Height to be within ±0.05mm.
  - (2) Crimp Tensile Strength includes the wire grip of insulation barrel crimp.
  - (3) The width dimensions of wire barrel and insulation barrel are given by the width of wire and insulation crimper for reference.

### 7. FPC Crimping Data

| Contact<br>Part<br>Number | FPC Conductor<br>Thickness<br>(μm) | FPC Barrel<br>Crimp<br>Height(mm) | FPC Barrel<br>Crimp Height<br>(mm) | Crimp Tensile<br>Strength(N) |
|---------------------------|------------------------------------|-----------------------------------|------------------------------------|------------------------------|
|                           | 95                                 |                                   | 1.08                               | 15 Min                       |
| 353842                    | 118                                | 409764-□                          | 1.13                               | 15 Min                       |
|                           | 175                                |                                   | 1.19                               | 15 Min                       |

NOTE (1) Wire Barrel Crimp Height to be within ±0.05mm.

- (2) In case of measurement of FPC Barrel Crimp Height, four tops of the barrel should be measured at the same time by general micrometer which has flat surface on both sides of measurement tips.
- (3) Please contact AMP when FPC Conductor Thickness does not meet above condition.

### 8. Insulation Barrel Crimping Data

| Contact | Wire Size        | A    | /SS         | HFSS   |             |  |
|---------|------------------|------|-------------|--------|-------------|--|
| Part    | (Nominal) Height |      | Disk Ltr.   | Height | Disk Ltr.   |  |
| Number  | (mm²)            | (mm) | (Reference) | (mm)   | (Reference) |  |
|         | 0.3              | 2.29 | 3           |        |             |  |
| 353842  | 0.5              | 2.37 | 3           |        |             |  |
|         | 0.5f             | 2.37 | 3           | 2.29   | 3           |  |

NOTE (1) Insulation Barrel Crimp Height to be within ±0.1mm.

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9. Applicable Wires

| Wire Size(Nominal) | Number<br>/Diameter<br>(mm) | Calculated<br>Cross | Insulation Diameter (mm) |      |       |      |      |      |
|--------------------|-----------------------------|---------------------|--------------------------|------|-------|------|------|------|
| (mm²)              | of Conductor<br>(mm)        | sectional (mm²)     | AVSS/CAVS                |      | AVSSB |      | HFSS |      |
|                    |                             |                     | STD.                     | Max. | STD.  | Max. | STD. | Max. |
| 0.3                | 7/0.26                      | 0.37                | 1.4                      | 1.5  |       |      |      |      |
| 0.5                | 7/0.32                      | 0.56                | 1.6                      | 1.7  |       |      |      |      |
| 0.5f               | 20/0.18                     | 0.51                | 400-84A                  |      | 1.7   | 1.8  |      |      |
| 0.5f               | 19/0.185                    | 0.5107              |                          |      |       |      | 1.5  | 1.7  |

NOTE (1) Please follow the instruction sheet or specification of each application connector because that is often different from that of the application connectors.

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