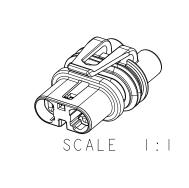
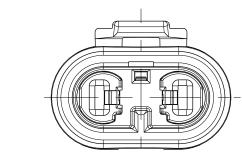
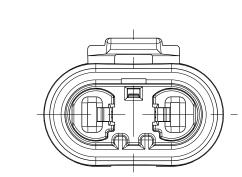
| COMPONENTS LIST |  |  |                      |              |              |                    |                |  |  |  |
|-----------------|--|--|----------------------|--------------|--------------|--------------------|----------------|--|--|--|
| CONNECTOR       | CONFIGURATION  | NHTSA DEFINITION<br>(FOR REFERENCE ONLY)                                 | CEI 60061-1 STANDARD | PART NUMBERS |              |                    |                |  |  |  |
| PART NUMBER     |  |  | (FOR REFERENCE ONLY) | #I TPA       | #I TPA COLOR | #2 HOUSING (BLACK) | #3 SEAL (BLUE) |  |  |  |
| F412210         | HIR2 (9012)<br>HB4 (9006)<br>HB4A (9006XS)                 | NHTSA-1998-3397-0003<br>NHTSA-1998-3397-0013<br>NHTSA-1998-3397-0001     | 7004-32-2            | F612210      | DARK GRAY    |                    |                |  |  |  |
| F908310         | HB3 (9005) HB3A (9005XS) HIRI (9011) HI2 (9055) HIO (9145) | NHTSA-1998-3397-0012<br>NHTSA-1998-3397-0001<br>NHTSA-1998-3397-0002<br> | 7004-31-2            | F257210      | LT GRAY      | F512210            | 240M041        |  |  |  |

| APPLICABLE COMPONENTS             |                        |                          |              |                               |              |                                     |                                      |              |  |
|-----------------------------------|------------------------|--------------------------|--------------|-------------------------------|--------------|-------------------------------------|--------------------------------------|--------------|--|
| ITEM DESCRIPTION                  | PLATING<br>OR<br>COLOR | FORD COMP<br>PART NUMBER | SUPPLIER     | FCI / SUPPLIER<br>PART NUMBER | GRIP<br>CODE | W   R E<br>S   Z E                  | WIRE INSULATION<br>DIAMETER<br>RANGE | MATERIAL     |  |
| APEX 2.8 FEMALE TERMINAL          | SILVER                 | -                        | FCI          | F820310                       | 4            | 4 AWG<br>  1.50-2.50mm <sup>2</sup> | 2.20mm-3.00mm                        | COPPER ALLOY |  |
| 2.80mm SYSTEM CABLE SEAL<br>ROUND | BLUE                   | 8U5T-14603-NA            | FCI<br>(QSR) | F 5 7 6 0 0 0                 | -            | 14 AWG<br>1.50-2.0mm <sup>2</sup>   | 2.20mm-2.80mm                        | SILICONE     |  |
| 2.80mm SYSTEM CABLE SEAL<br>ROUND | YELLOW                 | BU5T-10C930-HA           | FCI          | 60994034                      | -            | 2.5mm <sup>2</sup>                  | 2.70mm-3.00mm                        | SILICONE     |  |

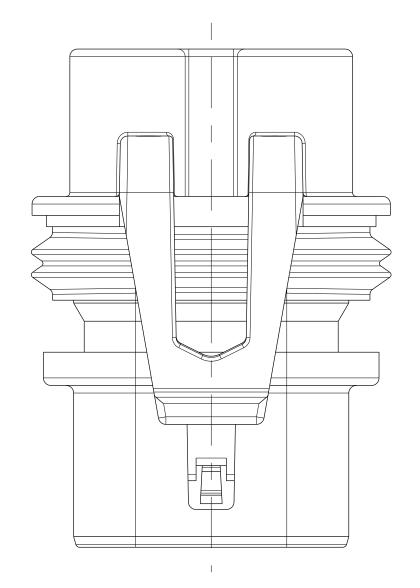


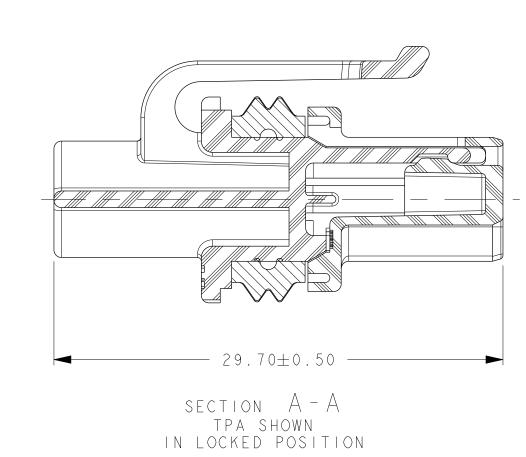


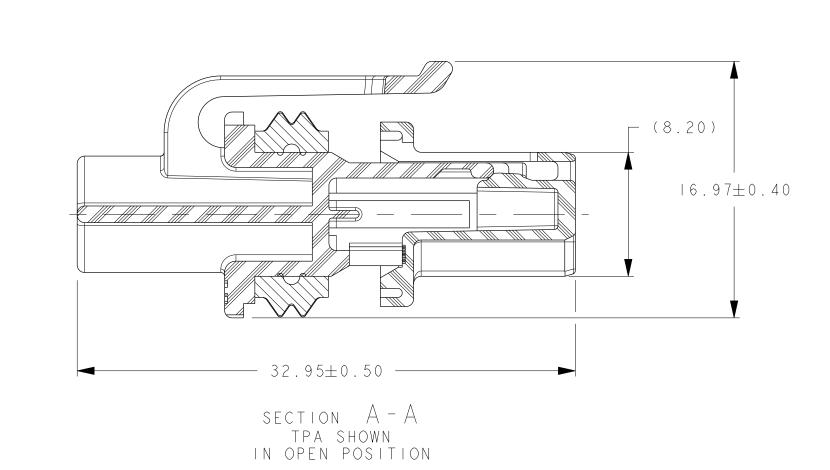


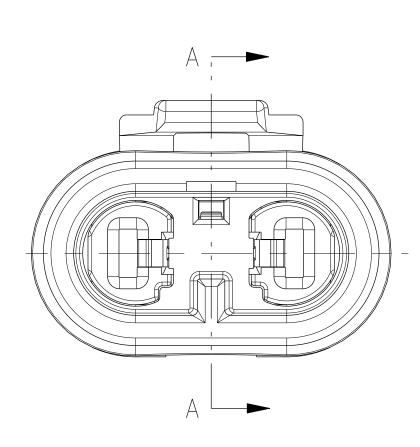
CONFIGURATION F412210 (HIR2) SCALE 2:1 CONFIGURATION F908310 (HB3) SCALE 2:1

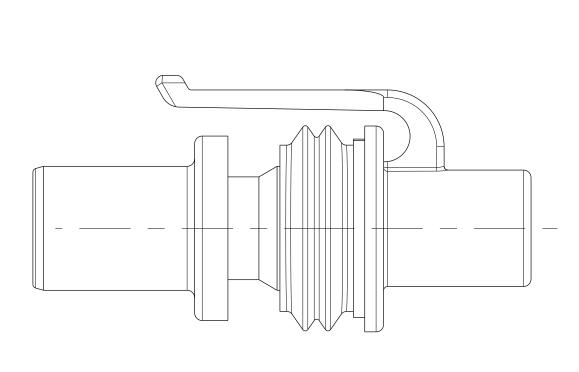
POLARIZATION OPTIONS

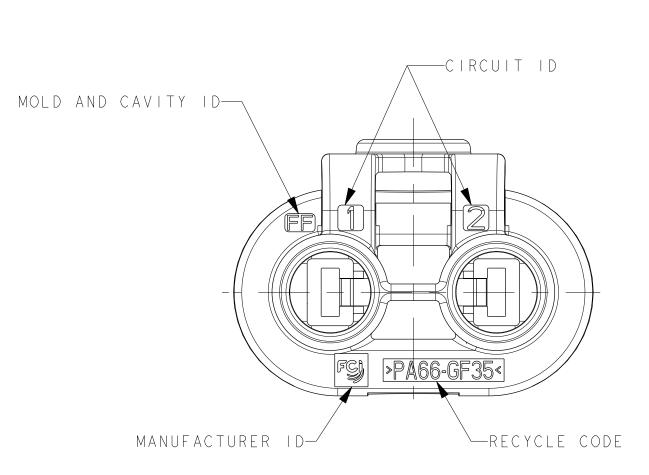


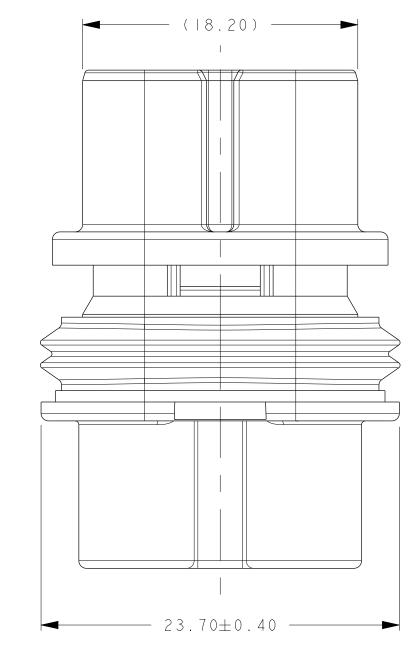












## NOTES UNLESS OTHERWISE SPECIFIED:

- I. BULB HEATING EFFECT IN LIGHTING APPLICATIONS MUST BE CONSIDERED BY THE SPECIFYING PARTY AS TO APPROPIATE WIRE, CABLE SEAL, AND TERMINAL SELECTION AND FOR EACH LIGHTING SYSTEM'S VALIDATION TESTING. USE OF LARGEST CONDUCTOR WIRE WITH 150°C RATING IS STRONGLY RECOMMENDED IN ALL BULB OR OTHER SELF-HEATING APPLICATIONS.
- 2. TEST METHOD PER: GMW3191 VI / S3 / T4 (150°c) MATED WITH SILVER PLATED TERMINAL PHILIPS HIR2 BULB PN# 928207417922 (GM PN# 13587719) UNPOWERED (BULB HEATING EFFECT NOT INCLUDED) WITH THE FOLLOWING EXCEPTIONS:

   GMW3191 4.29 SUBMERSION: @185°C

   GMW3191 4.21 THERMAL AGING: CONNECTOR @150°C, BULB ENVELOPE @100°C, 2000 HOURS, 9012/HIR2 BULB POWERED @13.0VDC SEAL TESTING TO: USCAR-2 REV 5 SEQ W 125°C (PRESSURE/VACUUM STAND ALONE)
- 3. CONNECTOR TO BE USED WITH THE FOLLOWING RANGE OF WIRE SIZES AND TYPES:

   WIRE SIZES: I.50mm<sup>2</sup> 2.50mm<sup>2</sup> AND I4 AWG

   OUTSIDE DIAMETER: 2.20MM MIN O.D. TO 3.00MM MAX O.D.

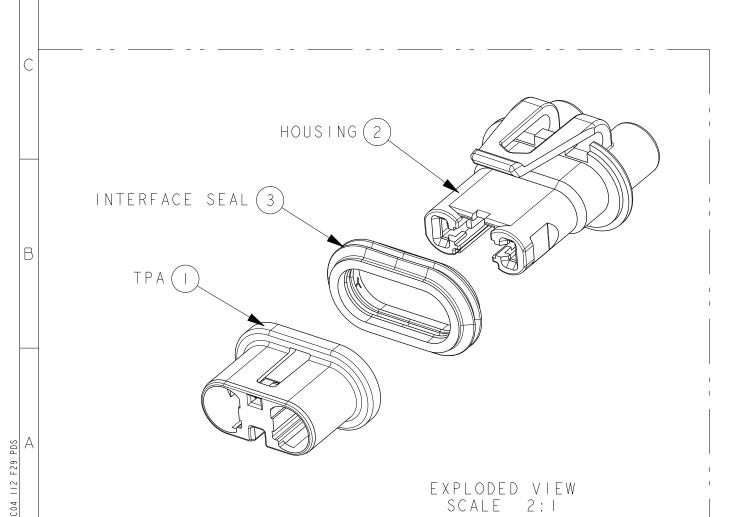
   TYPE/STANDARD: MS-9502, ES-AU5T-IA348-AA Class 4, ISO6722 Class D

   TEMP RATING: I50°C MINIMUM

  CONTACT FCI ENGINEERING REGARDING USE OF OTHER WIRE SIZES OR TYPES. SEE NOTE #I.
- 4. SEE FCI DRAWING CI5004-CUST FOR TERMINAL CRIMPING REQUIREMENTS.

  5. CONNECTOR IS MATE COMPATIBLE WITH BULBS/INTERFACES WHICH CONFORM TO THE STANDARDS SHOWN IN THE CHART.
- 6. ANNUAL QUALITY REQUIREMENTS: IT IS PERMISSIBLE TO PERFORM CONTINUOUS CONFORMANCE PER FCI SPECIFICATION AQA-001 INSTEAD OF ANNUAL LAYOUT AND ANNUAL PV REQUIREMENTS OF QS-9000 SECTION 2 AND SAE/USCAR-2.

|                       | NOTES                | NOTE    | #2 REV  | ISED   |           |              |           |  |        |             |                             |                |
|-----------------------|----------------------|---------|---|--|-----------|--------------|-----------|--|--------|-------------|-----------------------------|----------------|
| ECN-12-01208          | -                    | WAS     | AI SIZE FORMAT                                      |  |           |              |           |  |        |             |                             |                |
|                       | CHART                | ADDE    | D CONFIGU   | JRATIC   | ON AND NE | HTA DEFIN    | ITION NUI | MBERS TO   | COMPO  | NENTS LIST  |                             |                |
| ECN-NO.               | ZONE                 |         | CHANGE DESCRIPTION                                  |  |           |              |           |  |        |             |                             |                |
| PRODUCT SPEC.         | THE DIMENTAL MEETING |         |   |  |           |              |           |  |        |             |                             | RIETARY        |
| -                     |                      | -       | disclosed to any third par<br>of FCL.FCL April⊚1999 |  |           |              |           | his drawing may not be copied, reproduced or<br>rty without the expressed written permission |        |             |                             |                |
| TOLERANCES            | ±0.1_=               | ±2°     | MATERIAL :  | CEE  | TABLE     | SURFACE FINI | SH        |  |        | <b>70</b>   | <b>\$</b>                   | CAD SYSTEM     |
| COUNTERPART Nr.       |                      |         |   | JLL  | IADEL     |              | -         |  |        | <b>FC</b> J | 3RD ANGLE                   | pro/eng.       |
|                       | =                    |         | COLOUR :  | SEE  | TABLE     |              | -         |  |        |             | DIMENSION IN<br>MILLIMETERS | DWG SIZE       |
| DO NOT MEASURE        | DRAWING              |         | TOOL NO.  |  |           | ECO Loc.     | Code AN   |  |        |             | MILLIMETERS                 | Α0             |
| DATI                  | E NAM                | ΙE      | TITLE   |  |           |              |           | DRAWING N  | IUMBER |             | REV.                        | APPROVAL LEVEL |
| CREATED BY 2012/0     | 4/25 Frank           | ( HOLUB | 2W Female Connector                                 |  |           |              |           |  | PCCO   | 783031      | D                           | -              |
| BY 2012/0             | 9/20 Robert E        |         | PROJECT   |  |           |              |           | STATE  |        |             | 050                         | SHEET          |
| CHECKED<br>BY 2012/0  | 9/20 Mat             | t MAJOR | HIR2/HB3 BULB CONNECTOR                             |  |           |              |           | SERIAL RELEASED PART NUMBER REV.   |        |             |                             |                |
| APPROVED<br>BY 2012/0 |                      | ( HOLUB | ESR NO CAT. NO.                                     |  |           |              | =         |  |        |             |                             | of<br>         |
| FILE NAME             |                      |         |   | DOCUMENT UNDER PDS CONTROL NO MODIFICATION ALLOWED C |           |              |           | See Table - SCALE A  |        |             |                             |                |
| 4                     |                      |         |   | 3  |           |              | Ĺ         | 2  |        |             |                             |                |



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