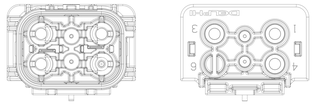
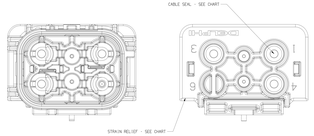
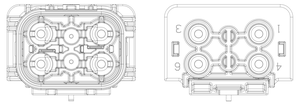


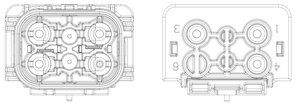
TYPE 102
SAME AS TYPE 101
EXCEPT AS SHOWN



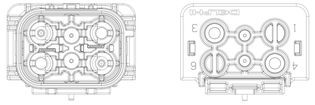

TYPE 105
SAME AS TYPE 102
EXCEPT AS SHOWN



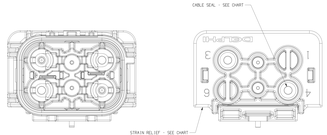
TYPE 108
SAME AS TYPE 101
EXCEPT AS SHOWN



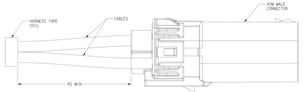
TYPE 109
SAME AS TYPE 101
EXCEPT AS SHOWN



TYPE 103
SAME AS TYPE 101
EXCEPT AS SHOWN



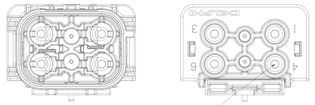

TYPE 106
SAME AS TYPE 103
EXCEPT AS SHOWN



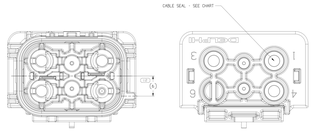

ADDITIONAL HARNESS INFORMATION
AUXILIARY RIGHT VIEW
SCALE 3:1

NOTES

1. THIS INFORMATION APPLIES TO EVERY CONNECTOR TYPE AND VALIDATED CABLE SPECS.

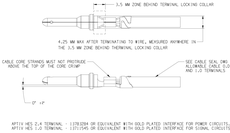



TYPE 104
SAME AS TYPE 101
EXCEPT AS SHOWN



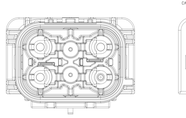

TYPE 107
SAME AS TYPE 101
EXCEPT AS SHOWN

## 2.4 & 1.0 TERMINAL & WIRE APPLICATION REQUIREMENTS

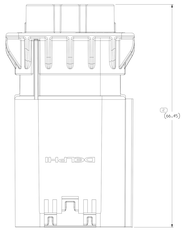



APTIV HES 2.4 TERMINAL - 1.078284 OR EQUIVALENT WITH GOLD PLATED INTERFACE FOR POWER CIRCUITS.
APTIV HES 1.0 TERMINAL - 1.0112081 OR EQUIVALENT WITH GOLD PLATED INTERFACE FOR SIGNAL CIRCUITS.

1. VOTA CONTINUOUS CURRENT APPLICATIONS REQUIRE 5.0 - 6.0 $mm^2$ COPPER CONDUCTORS ON THE 2.4 TERMINALS.
2. GOLD PLATED TERMINAL INTERFACES ARE REQUIRED TO MEET USCAR-2 CONNECTOR ELECTRICAL CRITERIA.
3. TERMINAL TEMPERATURE RISE OVER AMBIENT IS LIMITED TO 50°C AT MAXIMUM CONTINUOUS CURRENT.
   TERMINAL TEMPERATURE RISE OVER AMBIENT IS LIMITED TO 40°C AT MAXIMUM CONTINUOUS CURRENT.
   TERMINAL TEMPERATURE (AMBIENT + RISE) IS LIMITED AT MAXIMUM CONTINUOUS CURRENT AND MAXIMUM AMBIENT.
4. ELECTRIC VEHICLE CHARGING APPLICATIONS REQUIRE WIRE TO TERMINAL INTERFACE RESISTANCE ≤0.2 mOhms.
   - SOLDERED CRIMPS ARE RECOMMENDED.




TYPE 110
SAME AS TYPE 107
EXCEPT AS SHOWN





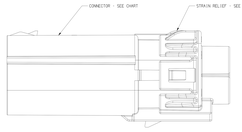


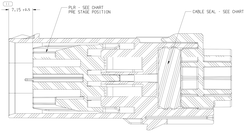






TYPE 101



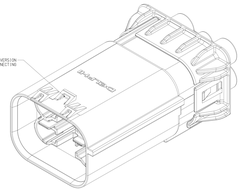

SECTION A-A

| PART NO. | REV | N/P | TYPE | CONNECTOR | PLR | STRAIN RELIEF | CABLE SEAL | BLOCKED CAVITY | MATING CONN. ASM |
|---|---|---|---|---|---|---|---|---|---|
| P04700A | 01 | N | 101 | 1.5A+.25F | 8011742 | 8005868 | 8005874 | 4 | POSITIVE |
| P04704A | 01 | N | 101 | 1.0B+.25F | 8011742 | 8114009 | 8005874 | 0,1,2,3 | 2927127A, 2927132A |
| P04721A | 01 | N | 101 | 1.0B+.25F | 8011742 | 2927173 | 8005874 | 2,4,5 | 2927201A, 2927206 |
| 1.0-04721 | 01 | N | 101 | 1.0B+.25F | 8011742 | 8005868 | 8005874 | 2,4,5 | 2927201A, 2927206 |
| 1.0-04741 | 01 | N | 101 | 1.0B+.25F | 8011742 | 8005868 | 8005874 | 1,4,5 | 1.0-04741, 2927206 |
| 1.0-04748 | 01 | N | 101 | 1.0B+.25F | 8011742 | 8005868 | 8005874 | 1,4,5 | 1.0-04748, 2927206 |
| 1.0-04749 | 01 | N | 101 | 1.0B+.25F | 8011742 | 8005868 | 8005874 | NONE | 1.0-04749, 2927206 |
| 1.0-04947 | 01 | N | 101 | 1.0B+.25F | 8011742 | 8005868 | 8011738 | 1,4,5 | 1.0-04947, 2927206 |
| 1.0-04948 | 01 | N | 101 | 1.0B+.25F | 8011742 | 8005868 | 8011738 | NONE | 1.0-04948, 2927206 |
| 1.0-04949 | 01 | N | 101 | 1.0B+.25F | 8011742 | 8005868 | 8011738 | 1,4,5 | 1.0-04949, 2927206 |

| SYMBOL DEFINITION | | |
|---|---|---|
| A DIMENSION WITHOUT AN INSPECTION REPORT SYMBOL DOES NOT REQUIRE INSPECTION. IT MAY BE CONTROLLED ON THE INDIVIDUAL COMPONENT DRAWING. | TOTAL NO OF INSPECTIONS REQUIRED | 16 |
| | NO MISSING SYMBOLS NUMBER | 12 |

| REV | ZONE | REVISION HISTORY | ECN | BY | DATE |
|---|---|---|---|---|---|
| A | | ALL PARTS - RELEASED | 4741.16 | MCB | APR'14 |
| B | | ALL PARTS - ADDED CREEPAGE INFORMATION & UPDATED CONNECTOR DRAWING | 4771.15 | MATTHEW | MAY'15 |
| C | | ALL PARTS - REVISED TEMPERATURE CLASS AT VALIDATION INFORMATION NOTES | 4.9.0.1 | DOUGLAS | MAY'16 |
| D | | 1.0A+.25F - ADDED CABLE SEAL DIMENSIONS, DIT & AND CABLE SEAL WIRE DIMENSION CHART | 4.9.0.1 | DOUGLAS | MAY'16 |
| E | | 1.0A+.25F - STRAIN RELIEF WAS 2.0B0F0B0 AND CONNECTOR WAS 2.0B0F0B0 - CORRECTED | 4.9.0.7 | MATTHEW | MAY'16 |
| F | | 1.0A+.25F - UPDATED PART AVAILIBILITY | 4.9.0.10 | JAMES | JUL'16 |
| G | | ALL PARTS - ADDED "HARNESS INFORMATION" VIEW | 4.9.0.15 | JAMES | JUL'16 |
| H | | 2927127 - RELEASED | 44.1 | PRESTON | DEC'16 |
| J | | 2.5A+.5F - RELEASED | 4.9.0.19 | DESTOCKER | DEC'16 |
| K | | 2.5A+.5F - UPDATED PART AVAILIBILITY | 44.1.4.2 | JAMES | AUG'18 |
| L | | 1.0A+.25F - CABLE SEAL NO. 1.8U1F.B1 | 4.9.0.29 | JAMES | AUG'18 |
| M | | 2927127 - CABLE SEAL NO. 1.8U1F.B1 2927132 & 2.5A+.5F - UPDATED "MATING CONN ASM" COLUMN | | | |
| N | | 2927124 - RELEASED | 1.5.1.0.1 | JAMES | AUG'18 |

NO TOOL REQUIRED FOR DISCONNECTING




NOTES

1. UNLESS OTHERWISE SPECIFIED AND/OR INDICATED:
   DIMENSIONS ARE TO FACE OF LOCK DOWNS WEE AUTOMATICALLY ENVAGED BY COMPUTER FOR INSPECTION
   ALL DIMENSIONS ARE NOMINAL AND APPLY AT 20°C AMBIENT
   OTHER DIMENSIONS NOT SHOWN BUT REQUIRED FOR TOOL BUILD, SEE WITH MODEL FOR PRECISE TOOL PATH DATA.
2. THIS PRODUCT IS NOT CATEGORIZED AS AN APPURANCE ITEM, MINOR COSMETIC DEFECTS, SUCH AS SCRATCHES, DENTS, BLEMISHES, COLOUR BLEMISHES, ARE ACCEPTABLE, AND DO NOT AFFECT THE SUITABILITY, FITT, FORM, OR FUNCTION OF THE PART ARE PERMISSIBLE PER EWP.8.1.0.5.01.01.EN.
3. CONNECTOR ASSEMBLIES ARE VALIDATED TO SAE/USCAR-17 REV.01 - AUD.'08 VIBRATION CLASS I, SEALING CLASS 5.5, VIBRATION CLASS V1, AND MATING CYCLES M1.
4. CONNECTOR ASSEMBLY TYPES 101, 103, 105, AND 108 MEET SAE/USCAR-25 REV.01 - SEPT.'08 ASSEMBLY FORCE CLASS 3 CRITERIA OF 70N MAX.
5. HARNESS MANUFACTURER IS RESPONSIBLE FOR VALIDATING THE CONNECTION AS APPLIED ON THEIR PART TO THE REQUIREMENTS OF SPECIFIC APPLICATIONS.
6. FOR APPLICATION DATA SEE THE INDIVIDUAL APPLICATION DRAWINGS.
7. SEALING VERIFICATION AND WAVERAND REQUIRED PER ICS-A-705.
8. CONNECTOR SEALING PROVIDES THE FOLLOWING MINIMUM CREEPAGE DISTANCES WHEN MATED AND ASSEMBLED PER SCHEMAN WITH POLLUTION SEVERITY 2 (W.T.):
   CAVITIES 1 TO 4 OR 1 TO 6 - 18.2 mm
   CAVITIES 1 TO 5 OR 2 TO 6 - 21.74 mm
   CAVITIES 1 TO 6 - 25.29 mm
9. SEALING CODE K - DESIGN #11 MEET REQUIREMENTS OF SAE/USCAR-2 CONNECTOR SYSTEM ENVIRONMENTAL TEST FLOWCHART (PRESSURE/VACUUM AND SUBMERSION).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PART DRAWING

| | | |
|---|---|---|
| DRAWN | M. ZUVERS | 2016-11-16 |
| CHECKED | A. ALEJANDRO | 2016-11-16 |
| APPROVED | A. ALEJANDRO | 2016-11-16 |

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| SIZE | DRAWING NO. |
| A | 33130452 |
| SCALE | SHEET 1 OF 1 |
| 1:1 | |

APTIV

TITLE: HSM CONN. W 1.0 SLD

33130452

33130452