

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0330013004](#)  
**Status:** **Active**  
**Overview:** [mx150 sealed connector system](#)  
**Description:** MX150™ Female Terminal, Select Gold (Au) Plating, 18-20 AWG, Left Reel Payoff, Small Polarization Rib, Contact Material Thickness 0.30mm (.012")

**Documents:**

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

|                         |   |
|-------------------------|---|
| Product Family          | Crimp Terminals                               |
| Series                  | <a href="#">33001</a>                         |
| Comments                | Left Reel Payoff, Small Polarization Rib      |
| Crimp Quality Equipment | Yes   |
| MolexKits               | Yes   |
| Overview                | <a href="#">mx150 sealed connector system</a> |
| Product Name            | MX150™  |

**Physical**

|                                |                              |
|--------------------------------|------------------------------|
| Gender                         | Female                       |
| Material - Metal               | High Performance Alloy (HPA) |
| Material - Plating Mating      | Unplated                     |
| Material - Plating Termination | Unplated                     |
| Packaging Type                 | Reel                         |
| Plating min: Mating (µin)      | 30.4                         |
| Plating min: Mating (µm)       | 0.76                         |
| Plating min: Termination (µin) | 100                          |
| Plating min: Termination (µm)  | 2.5                          |
| Termination Interface: Style   | Crimp or Compression         |
| Wire Insulation Diameter       | 2.60mm (.102") max.          |
| Wire Size AWG                  | 18, 20                       |
| Wire Size mm²                  | 0.75, 1.00                   |

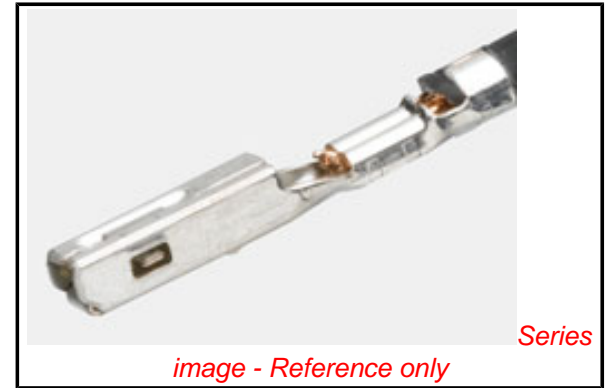
**Electrical**

|                               |      |
|-------------------------------|------|
| Current - Maximum per Contact | 22A  |
| Voltage - Maximum             | 250V |

**Material Info**

**Reference - Drawing Numbers**

|               |              |
|---------------|--------------|
| Sales Drawing | SD-33012-002 |
|---------------|--------------|



**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC**  
**Contains SVHC: No**  
**Halogen-Free Status**

**China RoHS**



**Halogen-Free**

**Need more information on product environmental compliance?**

Email [productcompliance@molex.com](mailto:productcompliance@molex.com)  
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

**Search Parts in this Series**

[33001Series](#)

**Use With**

[33472](#) Dual Row Housing. [33476](#) Hybrid Housing. [33471](#) Single Row Housing

**Application Tooling | FAQ**

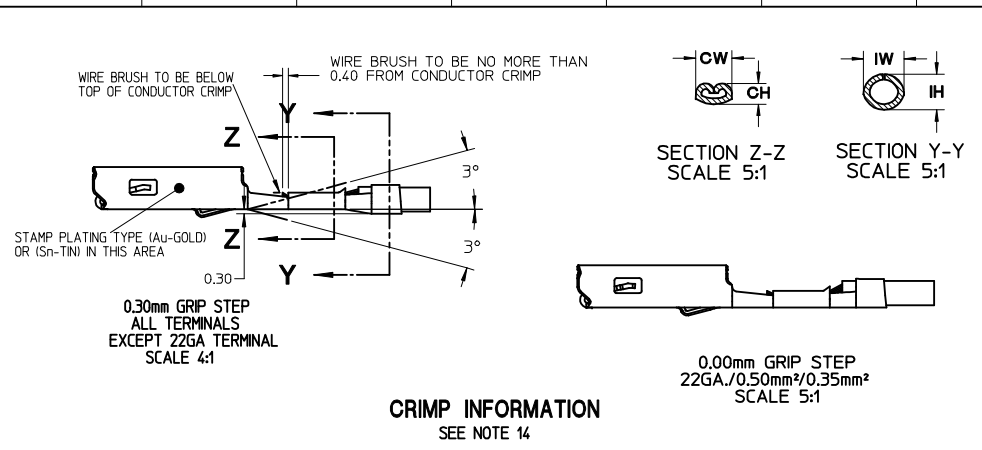
*Tooling specifications and manuals are found by selecting the products below. Crimp Height Specifications are then contained in the Application Tooling Specification document.*

**Global**

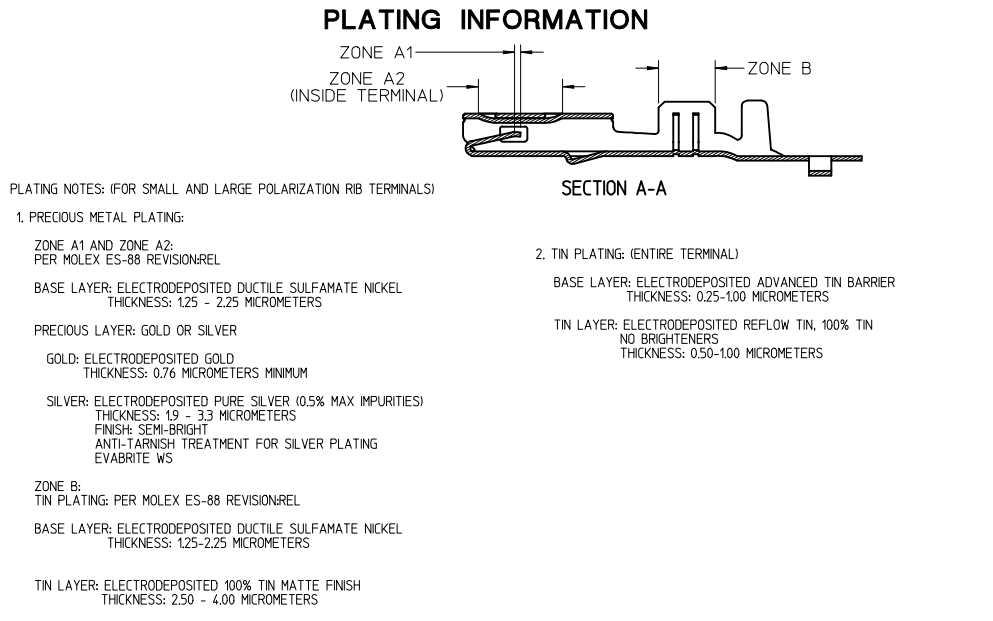
| Description                           | Product #                  |
|---------------------------------------|----------------------------|
| Manual Extraction Tool                | <a href="#">0638131500</a> |
| Hand Crimp Tool, 18-22AWG             | <a href="#">0638116000</a> |
| Hand Crimp Tool, Metric 1.00 and 1.50 | <a href="#">0638116100</a> |
| FineAdjust™ Applicator                | <a href="#">0639000800</a> |

This document was generated on 06/07/2010

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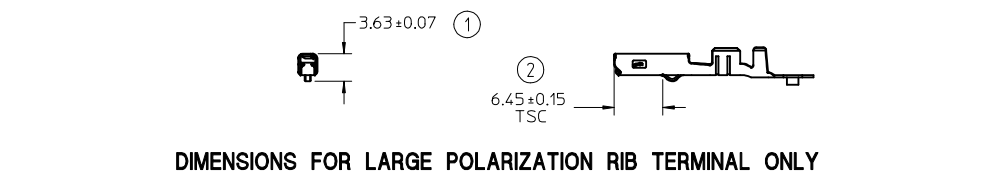
**CRIMP INFORMATION**  
SEE NOTE 14



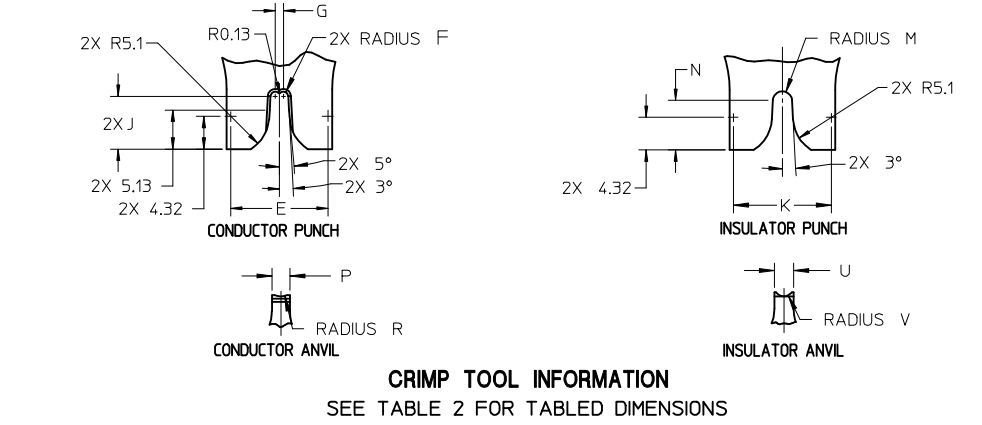
**PLATING INFORMATION**

PLATING NOTES: (FOR SMALL AND LARGE POLARIZATION RIB TERMINALS)

- PRECIOUS METAL PLATING:  
ZONE A1 AND ZONE A2:  
PER MOLEX ES-88 REVISION REL  
BASE LAYER: ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL  
THICKNESS: 125 - 225 MICROMETERS  
PRECIOUS LAYER: GOLD OR SILVER  
GOLD: ELECTRODEPOSITED GOLD  
THICKNESS: 0.76 MICROMETERS MINIMUM  
SILVER: ELECTRODEPOSITED PURE SILVER (0.5% MAX IMPURITIES)  
THICKNESS: 19 - 33 MICROMETERS  
FINISH: SEMI-BRIGHT  
ANTI-TARNISH TREATMENT FOR SILVER PLATING  
EVABRITE WS
  - TIN PLATING: (ENTIRE TERMINAL)  
BASE LAYER: ELECTRODEPOSITED ADVANCED TIN BARRIER  
THICKNESS: 0.25-1.00 MICROMETERS  
TIN LAYER: ELECTRODEPOSITED REFLOW TIN, 100% TIN  
NO BRIGHTENERS  
THICKNESS: 0.50-1.00 MICROMETERS
- ZONE B:  
TIN PLATING: PER MOLEX ES-88 REVISION REL  
BASE LAYER: ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL  
THICKNESS: 125-225 MICROMETERS  
TIN LAYER: ELECTRODEPOSITED 100% TIN MATTE FINISH  
THICKNESS: 2.50 - 4.00 MICROMETERS

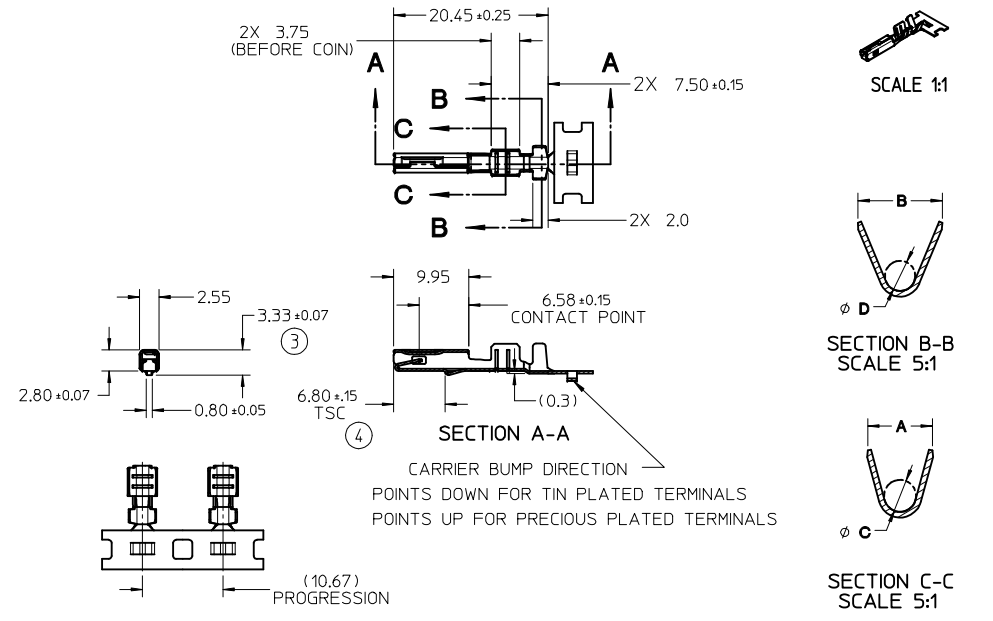


**DIMENSIONS FOR LARGE POLARIZATION RIB TERMINAL ONLY**



**CRIMP TOOL INFORMATION**

SEE TABLE 2 FOR TABLED DIMENSIONS



- NOTES: (UNLESS OTHERWISE SPECIFIED)
- MATING TERMINAL SHOWN ON SD-33000-001
  - MATERIAL: ASTM B422, UNS C19025, HR04  
THICKNESS: 0.30 mm ±0.01  
TEMPER: FULL HARD (REF)  
TENSILE: 496 MIN MPA  
PLATING: SEE PLATING NOTES ABOVE
  - MEETS PERFORMANCE SPECIFICATION FOR CABLE TO TERMINAL ELECTRICAL CRIMPS PER SAE/USCAR-21 (8/2001)
  - MEETS PERFORMANCE STANDARD FOR AUTOMOTIVE ELECTRICAL CONNECTOR SYSTEMS FOR SAE/USCAR-2, REV. 4 (TEMP CLASS 3) (4/2001)
  - MEETS ELECTRICAL CONNECTION SYSTEM DESIGN SPECIFICATION (SDS) REV.11 (5/2002)
  - MEETS FIELD CORRELATED LIFE TEST (FCLT) PER SAE/USCAR-20 (11/2001)
  - MEETS WIRING COMPONENT DESIGN GUIDELINES SAE/USCAR-12 REV 2 (12/2001)
  - TSC ON A DIMENSION TO BE INTERPRETED AS DISTANCE TO A THEORETICAL SHARP CORNER AS IF THE RADIUS WERE NOT PRESENT
  - DRAWING CONFORMS TO AVP-(T401/T406)-001 REVISION A DATED 2/16/99
  - REFERENCE 97B5-14474-AAB FOR LARGE POLARIZATION RIB CAVITY SPECIFICATION
  - INSERTION FORCE (TIN) AVG. FROM PV TESTING =  
3.8N LARGE POLARIZATION RIB  
3.5N SMALL POLARIZATION RIB (REFERENCE)
  - ALL DIMENSIONS EXCEPT ①, ②, ③ & ④ ARE COMMON TO BOTH SMALL AND LARGE POLARIZATION RIB TERMINALS
  - REFERENCE PK-31300-516 FOR REEL DIRECTION
  - REFERENCE CS-33012-002 FOR ADDITIONAL CRIMP INFORMATION

|   |                               |                                       |        |                            |   |                                    |                              |                        |  |
|---|-------------------------------|---------------------------------------|--------|----------------------------|---|------------------------------------|------------------------------|------------------------|--|
| ENTER DESCRIPTION<br>EC NO: JAU2010-0107<br>DRAWN BY: DRWINKFERGUSON<br>CHKD: A. DHIR<br>APPR: B. MOSER<br>2009/08/19<br>2009/08/20 | QUALITY SYMBOLS<br>▽=0<br>▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) |        | DIMENSION STYLE<br>MM ONLY |   | SCALE<br>2:1                       | DESIGN UNITS<br>METRIC       | THIRD ANGLE PROJECTION |  |
|   |                               | mm                                    | INCH   | DRAWN BY<br>L. PULLIAM     | DATE<br>2005/06/21  | TITLE<br>MX150 RECEPTACLE TERMINAL |                              |                        |  |
| B1  | REV                           | 4 PLACES                              | ± .005 | ± .005                     | CHECKED BY<br>A. DHIR   | DATE<br>2005/06/21                 | MOLEX INCORPORATED           |                        |  |
|   |                               | 3 PLACES                              | ± 0.10 | ± 0.10                     | APPROVED BY<br>B. MOSER   | DATE<br>2005/06/22                 |                              |                        |  |
|   |                               | 2 PLACES                              | ± 0.3  | ± 0.3                      | MATERIAL NO.<br>SEE TABLE   |                                    | DOCUMENT NO.<br>SD-33012-002 | SHEET NO.<br>1 OF 5    |  |
|   |                               | 1 PLACE                               | ± 3°   | ± 3°                       | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                                    |                              |                        |  |

TABLE 1 - TERMINAL CRIMP DIM. REFERENCE 9

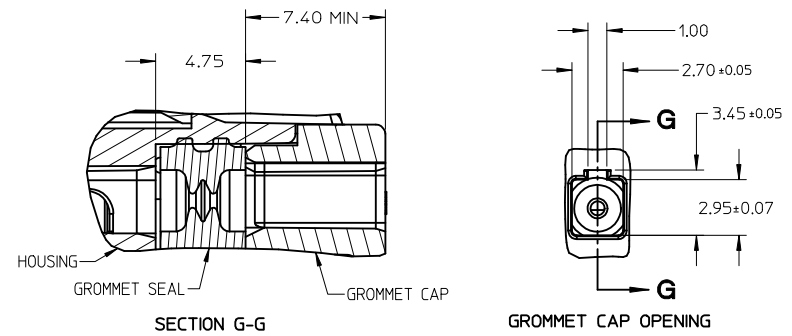
| J           | SMALL POLARIZATION RIB |                | PLATING  | WIRE SIZE (awg)     | WIRE SPECIFICATION | CONDUCTOR CH (SEC Z-Z) ±0.05 mm | CONDUCTOR CW (SEC Z-Z) ±0.10 mm | INSULATOR IH (SEC Y-Y) ±0.10 mm | INSULATOR IW (SEC Y-Y) ±0.10 mm | WIRE PULL FORCE (N) |
|-------------|------------------------|----------------|----------|---------------------|--------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------|
|             | RIGHT PAYOFF           | LEFT PAYOFF    |          |                     |                    |                                 |                                 |                                 |                                 |                     |
| 33012-2001  | 33012-3001             | 7C3T-14474-EA  | TIN      | 14                  | MIL-123A           | 1.65                            | 2.45                            | 2.90                            | 2.75                            | 268                 |
|             |                        |                |          | 16                  | MIL-135A1          | 1.65                            | 2.45                            | 2.70                            | 2.60                            | 268                 |
| 33012-2002  | 33012-3002             | 7C3T-14474-DA  | TIN      | 18                  | MIL-123A           | 1.25                            | 2.15                            | 2.00                            | 2.30                            | 157                 |
|             |                        |                |          | 20                  | SAE J1128 (IGXL)   | 1.25                            | 2.15                            | 2.40                            | 2.60                            | 158                 |
| 33012-2003  | 33012-3003             | 7C3T-14474-CA  | TIN      | 22                  | MIL-123A           | 1.00                            | 1.60                            | 1.85                            | 1.90                            | 88                  |
|             |                        |                |          | 2.00mm <sup>2</sup> | JASO D 611 (AVSSI) | 1.60                            | 2.45                            | 2.90                            | 2.75                            | 231                 |
| 33012-2001  | 33012-3001             | 7C3T-14474-EA  | TIN      | 150mm <sup>2</sup>  | MIL-126A1          | 1.40                            | 2.45                            | 2.60                            | 2.60                            | 257                 |
|             |                        |                |          | 1.00mm <sup>2</sup> | MIL-126A1          | 1.30                            | 2.15                            | 2.00                            | 2.30                            | 211                 |
| 33012-2002  | 33012-3002             | 7C3T-14474-DA  | TIN      | 0.75mm <sup>2</sup> | MIL-126A1          | 1.25                            | 2.15                            | 1.95                            | 2.10                            | 142                 |
|             |                        |                |          | 0.50mm <sup>2</sup> | MIL-126A1          | 1.10                            | 1.60                            | 1.80                            | 1.90                            | 111                 |
| 33012-2003  | 33012-3003             | 7C3T-14474-CA  | TIN      | 0.50mm <sup>2</sup> | JASO D 611 (AVSSI) | 1.10                            | 1.60                            | 1.85                            | 1.90                            | 125                 |
|             |                        |                |          | 0.35mm <sup>2</sup> | WSK-1A348-A2       | 0.95                            | 1.60                            | 1.70                            | 1.90                            | 50                  |
| 33001-2003  | 33001-3003             | 7C3T-14474-HA  | GOLD     | 14                  | MIL-123A           | 1.65                            | 2.45                            | 2.90                            | 2.75                            | 268                 |
|             |                        |                |          | 16                  | MIL-135A1          | 1.65                            | 2.45                            | 2.70                            | 2.60                            | 268                 |
| 33001-2004  | 33001-3004             | 7C3T-14474-GA  | GOLD     | 18                  | MIL-123A           | 1.35                            | 2.45                            | 2.40                            | 2.60                            | 222                 |
|             |                        |                |          | 20                  | MIL-123A           | 1.25                            | 2.15                            | 2.00                            | 2.30                            | 157                 |
| 33001-2005  | 33001-3005             | 7C3T-14474-FA  | GOLD     | 22                  | SAE J1128 (IGXL)   | 1.25                            | 2.15                            | 2.40                            | 2.60                            | 158                 |
|             |                        |                |          | 150mm <sup>2</sup>  | MIL-123A           | 1.15                            | 2.15                            | 1.90                            | 2.10                            | 128                 |
| 33001-2003  | 33001-3003             | 7C3T-14474-HA  | GOLD     | 0.75mm <sup>2</sup> | MIL-123A           | 1.25                            | 2.15                            | 2.00                            | 2.30                            | 157                 |
|             |                        |                |          | 1.00mm <sup>2</sup> | MIL-126A1          | 1.25                            | 2.15                            | 1.95                            | 2.10                            | 142                 |
| 33001-2004  | 33001-3004             | 7C3T-14474-GA  | GOLD     | 0.50mm <sup>2</sup> | MIL-126A1          | 1.30                            | 2.15                            | 2.00                            | 2.30                            | 211                 |
|             |                        |                |          | 0.75mm <sup>2</sup> | MIL-126A1          | 1.25                            | 2.15                            | 1.95                            | 2.10                            | 142                 |
| 33001-2005  | 33001-3005             | 7C3T-14474-FA  | GOLD     | 0.50mm <sup>2</sup> | MIL-126A1          | 1.30                            | 2.15                            | 1.90                            | 1.90                            | 111                 |
|             |                        |                |          | 0.75mm <sup>2</sup> | JASO D 611 (AVSSI) | 1.10                            | 1.60                            | 1.85                            | 1.90                            | 125                 |
| 33001-2005* | 33001-3005*            | 7C3T-14474-FA* | GOLD     | 0.35mm <sup>2</sup> | WSK-1A348-A2       | 0.95                            | 1.60                            | 1.70                            | 1.90                            | 50                  |
|             |                        |                |          | 0.50mm <sup>2</sup> | WSK-1A348-A2       | 0.95                            | 1.60                            | 1.70                            | 1.90                            | 50                  |
| 33001-4001  | 33001-5001             | 7U5T-14474-UA  | SILVER** | 14                  | MIL-123A           | 1.65                            | 2.45                            | 2.90                            | 2.75                            | 268                 |
|             |                        |                |          | 16                  | MIL-135A1          | 1.65                            | 2.45                            | 2.70                            | 2.60                            | 268                 |
| 33001-4002  | 33001-5002             | 7U5T-14474-TA  | SILVER** | 18                  | MIL-123A           | 1.35                            | 2.45                            | 2.40                            | 2.60                            | 222                 |
|             |                        |                |          | 20                  | MIL-123A           | 1.25                            | 2.15                            | 2.00                            | 2.30                            | 157                 |
| 33001-4003  | 33001-5003             | 7U5T-14474-SA  | SILVER** | 22                  | SAE J1128 (IGXL)   | 1.25                            | 2.15                            | 2.40                            | 2.60                            | 158                 |
|             |                        |                |          | 150mm <sup>2</sup>  | MIL-123A           | 1.15                            | 2.15                            | 1.90                            | 2.10                            | 128                 |
| 33001-4001  | 33001-5001             | 7U5T-14474-UA  | SILVER** | 2.00mm <sup>2</sup> | MIL-123A           | 1.25                            | 2.15                            | 2.00                            | 2.30                            | 157                 |
|             |                        |                |          | 1.50mm <sup>2</sup> | JASO D 611 (AVSSI) | 1.60                            | 2.45                            | 2.90                            | 2.75                            | 231                 |
| 33001-4002  | 33001-5002             | 7U5T-14474-TA  | SILVER** | 1.00mm <sup>2</sup> | MIL-126A1          | 1.30                            | 2.15                            | 2.00                            | 2.30                            | 211                 |
|             |                        |                |          | 0.75mm <sup>2</sup> | MIL-126A1          | 1.25                            | 2.15                            | 1.95                            | 2.10                            | 142                 |
| 33001-4003  | 33001-5003             | 7U5T-14474-SA  | SILVER** | 0.50mm <sup>2</sup> | MIL-126A1          | 1.10                            | 1.60                            | 1.80                            | 1.90                            | 111                 |
|             |                        |                |          | 0.35mm <sup>2</sup> | JASO D 611 (AVSSI) | 1.10                            | 1.60                            | 1.85                            | 1.90                            | 125                 |
| 33001-4003* | 33001-5003*            | 7U5T-14474-SA* | SILVER** | 0.75mm <sup>2</sup> | WSK-1A348-A2       | 0.95                            | 1.60                            | 1.70                            | 1.90                            | 50                  |
|             |                        |                |          | 0.35mm <sup>2</sup> | WSK-1A348-A2       | 0.95                            | 1.60                            | 1.70                            | 1.90                            | 50                  |

| LARGE POLARIZATION RIB |             |                |          |                     |              |                    |      |      |      |      |     |
|------------------------|-------------|----------------|----------|---------------------|--------------|--------------------|------|------|------|------|-----|
| RIGHT PAYOFF           | LEFT PAYOFF |                |          |                     |              |                    |      |      |      |      |     |
| 33001-4023             | 33001-5023  | 7U5T-14474-NA  | SILVER** | 0.50mm <sup>2</sup> | MIL-126A1    | JASO D 611 (AVSSI) | 1.10 | 1.60 | 1.80 | 1.90 | 111 |
| 33001-4023*            | 33001-5023* | 7U5T-14474-NA* | SILVER** | 0.35mm <sup>2</sup> | WSK-1A348-A2 |                    | 0.95 | 1.60 | 1.70 | 1.90 | 50  |

<sup>1</sup>HFILON WIRE:  
CORE WIRE: STAINLESS STEEL, SUS #0.14, 7 STRANDS  
SURROUNDING WIRE: NICKEL (NI) PLATED COPPER (CU) #0.14, 30 STRANDS  
INSULATOR: PTFE

\* 0.35mm<sup>2</sup> WIRE MUST NOT BE USED IN MX150 SEALED CONNECTOR SYSTEMS

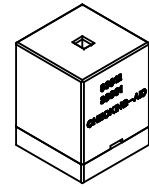
\*\* SILVER PLATED TERMINALS NOT TO BE USED IN CONNECTOR SYSTEMS WITH CIRCUIT COUNTS HIGHER THAN 8 DUE TO HIGHER CONNECTOR MATE/UNMATE FORCE



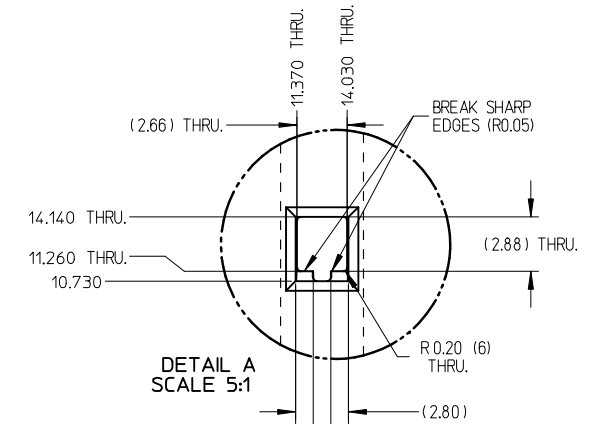
**GROMMET SEAL / CAP CONFIGURATION TO MODIFY LARGE POLARIZATION RIB CAVITY TO ACCEPT SMALL POLARIZATION RIB APPLICATIONS**

|  |                               |  |  |   |   |
|--|-------------------------------|--|--|---|---|
| <b>ENTER DESCRIPTION</b><br>EC NO: UAU2010-0107<br>DRINKWATERGUSON 2009/08/18<br>CHKDA-DHIR 2009/08/19<br>APPR:BMOSER 2009/08/20 | QUALITY SYMBOLS<br>▽=0<br>▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)  | DIMENSION STYLE<br><b>MM ONLY</b>      | SCALE<br>DESIGN UNITS<br>METRIC   | THIRD ANGLE PROJECTION                  |
|  |                               | 4 PLACES ± --- ± ---<br>3 PLACES ± 0.005 ± ---<br>2 PLACES ± 0.10 ± ---<br>1 PLACE ± 0.3 ± ---<br>ANGULAR ± 3° | DRAWN BY DATE<br>L. PULLIAM 2005/06/21 | CHECKED BY DATE<br>A. DHIR 2005/06/21   | APPROVED BY DATE<br>B. MOSER 2005/06/22 |
| B1   | REV                           | MATERIAL NO.<br><b>SEE TABLE</b>   | DOCUMENT NO.<br><b>SD-33012-002</b>    | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |   |

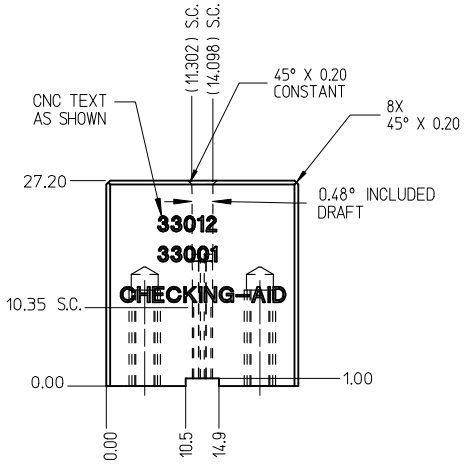
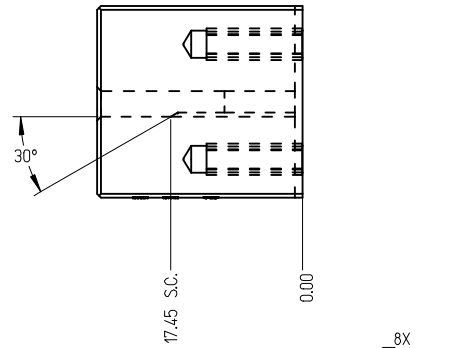
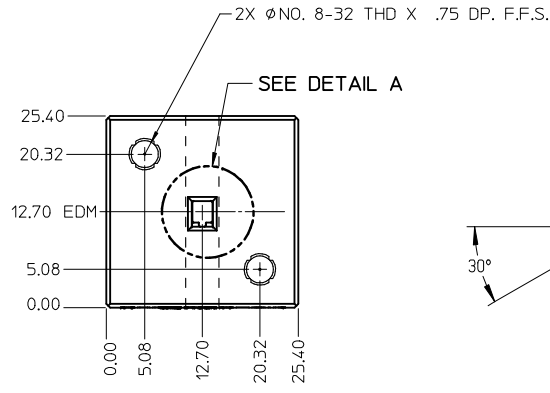
THIS CHECKING - AID IS FOR SMALL POLARIZATION RIB TERMINALS ONLY



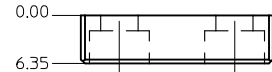
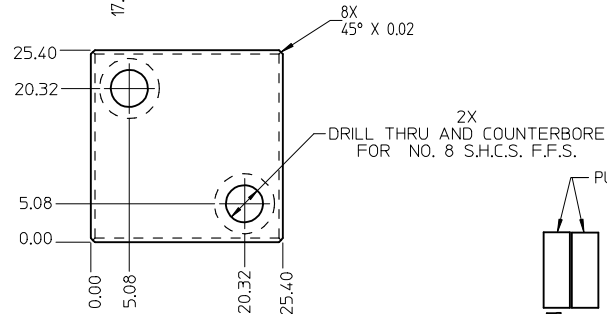
CHECKING - AID ASSEMBLY  
SCALE 1:1



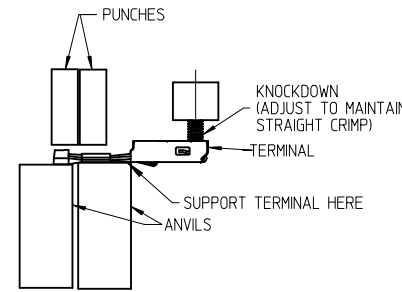
DETAIL A  
SCALE 5:1



CHECKING - AID  
UPPER



CHECKING - AID  
LOWER

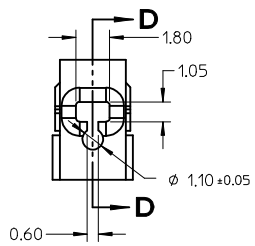
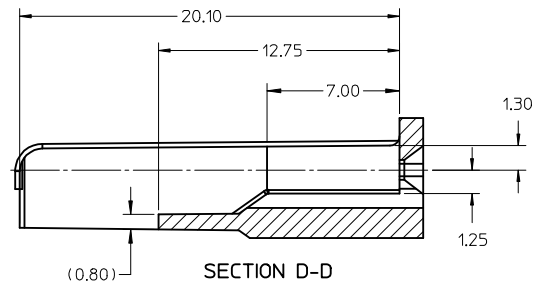
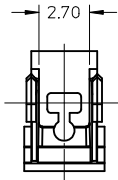


CRIMP REQUIREMENTS:

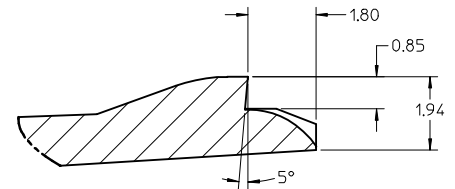
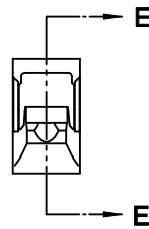
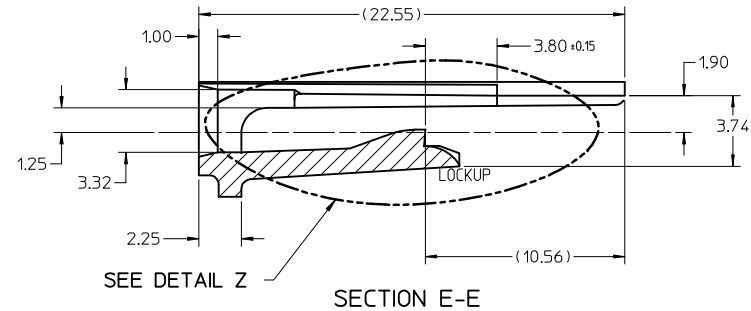
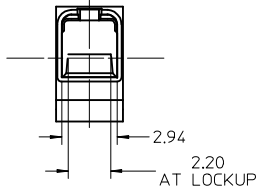
1. CRIMP STRAIGHTNESS MUST BE MAINTAINED  
USE A KNOCKDOWN TOOL LOCATED AS SHOWN  
TERMINAL BOX MUST NOT BE DEFORMED
2. AFTER CRIMPING, THE CRIMPED TERMINAL (AND UP TO 5 mm OF WIRE PAST THE INSULATOR CUTOFF TAB) MUST FIT FREELY INTO THE CHECKING-AID SHOWN ON THIS PAGE
3. FOR OTHER MECHANICAL REQUIREMENTS ON CRIMPED TERMINALS, REFER TO SAE/USCAR-21 (5-13-02) SECTIONS 4.2 (VISUAL INSPECTION), 4.2 (CROSS SECTION ANALYSIS) AND 4.4 (CONDUCTOR CRIMP PULLOUT FORCE)

UPPER & LOWER  
CHECKING-AID  
A2 TOOL STEEL  
HARDEN & GRIND  
ROCKWELL "C" 56-58

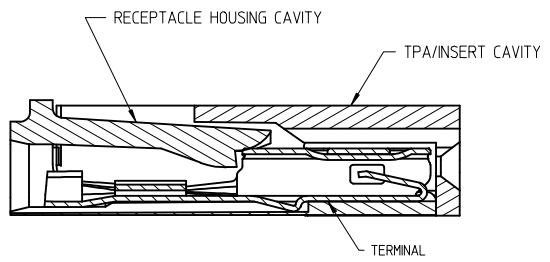
|  |   |   |   |   |                                     |                               |                        |
|--|---|---|---|---|-------------------------------------|-------------------------------|------------------------|
| <b>ENTER DESCRIPTION</b><br>EC NO: UAU2010-0107<br>DRINKFERGUSON 2009/08/18<br>CHKDA:DHIR 2009/08/19<br>APPR:BMOSER 2009/08/20 | <b>QUALITY SYMBOLS</b><br>▽=0<br>▽=0  | <b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>                              |   | <b>DIMENSION STYLE</b><br>MM ONLY         | <b>SCALE</b><br>2:1                 | <b>DESIGN UNITS</b><br>METRIC | THIRD ANGLE PROJECTION |
|  |   | 4 PLACES ± mm ± INCH  | DRAWN BY L. PULLIAM<br>DATE 2005/06/21  | TITLE<br><b>MX150 RECEPTACLE TERMINAL</b> |                                     |                               |                        |
|  |   | 3 PLACES ± 0.005 ± --- ± ---  | CHECKED BY A. DHIR<br>DATE 2005/06/21   | MOLEX INCORPORATED                        |                                     |                               |                        |
|  |   | 2 PLACES ± 0.10 ± --- ± ---<br>1 PLACE ± 0.3 ± --- ± ---<br>ANGULAR ± 3 ° | APPROVED BY B. MOSER<br>DATE 2005/06/22 | MATERIAL NO.<br><b>SEE TABLE</b>          | DOCUMENT NO.<br><b>SD-33012-002</b> | SHEET NO.<br>3 OF 5           |                        |
| <b>REV</b><br>B1   | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |   |   |   |                                     |                               |                        |



- NOTES: UNLESS OTHERWISE SPECIFIED
1. TOLERANCES: LINEAR  $\pm 0.10$   
ANGULAR  $\pm 3^\circ$
  2. ALL DRAFT WITHIN TOLERANCE.
  3. MAX RADII ON ALL CORNERS SHOWN SHARP: 0.10
  4. MAX FLASH PERMISSIBLE: 0.1
  5. EJECTOR PIN MARKS PERMISSIBLE IF FLUSH TO 0.25 BELOW SURFACE.
  6. MATERIAL: HOUSING/FINGER SPECIFICATION ENGINEERED FOR MATERIAL WITH THE FOLLOWING PROPERTIES:  
A. FLEXURAL MODULUS = 4,500 TO 9,400 MPa  
PER ASTM TEST D790  
B. ELONGATION AT YIELD = 2.3% OR BETTER  
PER ASTM TEST D638 TYPE V
  7. CAVITY SPEC FOR USE ONLY WITH MOLEX RECEPTACLE TERMINAL PART NUMBERS SPECIFIED ELSEWHERE ON THIS DRAWING

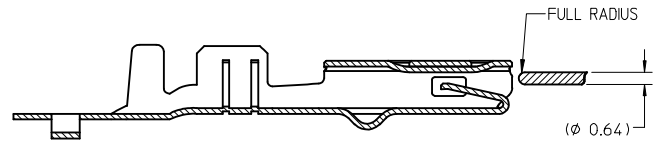
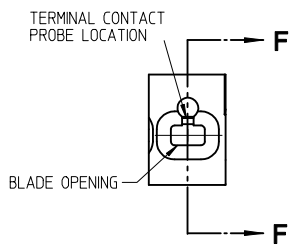


DETAIL Z  
SCALE 20:1

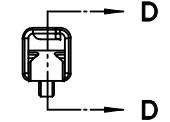


SECTION F-F

RECEPTACLE CAVITY ASSEMBLED VIEWS  
FOR SMALL POLARIZATION RIB APPLICATIONS  
FIG. 1



SECTION D-D  
FOR LARGE POLARIZATION RIB APPLICATIONS  
FIG. 2



PROBING DOWN THE THROAT MUST USE THIS TERMINAL PROBE

PROBE PIN DETAILS:  
MANUFACTURER: LONE STAR INDUSTRIAL  
PART NUMBER: LS054R-403-N-4.6  
PIN DIAMETER: 0.025 IN (0.64mm)  
TIP SHAPE: SPHERICAL  
TEL: 915-779-7255

PREFERRED PROBING LOCATION IS NOT ON SPRING MEMBER

IF ELECTRICAL CONTINUITY PROBE TOUCHES SPRING MEMBER USE PROBING AS SHOWN IN FIG. 2

| REV | DESCRIPTION         | DATE       | BY              | APP |
|-----|---------------------|------------|-----------------|-----|
| B1  | ENTER DESCRIPTION   | 2009/08/18 | DRWIN:KEERGUSON |     |
|     | EC NO: UAU2010-0107 | 2009/08/19 | CHKD:A.DHIR     |     |
|     |                     | 2009/08/20 | APPR:BMOSER     |     |

| QUALITY SYMBOLS |
|-----------------|
| ▽=0             |
| ▽=0             |

| GENERAL TOLERANCES (UNLESS SPECIFIED) |          |
|---------------------------------------|----------|
| mm                                    | INCH     |
| 4 PLACES ± 0.10                       | ± 0.005  |
| 3 PLACES ± 0.005                      | ± 0.0005 |
| 2 PLACES ± 0.10                       | ± 0.005  |
| 1 PLACE ± 0.3                         | ± 0.012  |
| ANGULAR ± 3°                          |          |

| DIMENSION STYLE |            |
|-----------------|------------|
| MM ONLY         |            |
| DRAWN BY        | DATE       |
| L. PULLIAM      | 2005/06/21 |
| CHECKED BY      | DATE       |
| A. DHIR         | 2005/06/21 |
| APPROVED BY     | DATE       |
| B. MOSER        | 2005/06/22 |
| MATERIAL NO.    |            |
| SEE TABLE       |            |

|                              |              |                        |
|------------------------------|--------------|------------------------|
| SCALE                        | DESIGN UNITS | THIRD ANGLE PROJECTION |
| 5:1                          | METRIC       |                        |
| MX150<br>RECEPTACLE TERMINAL |              |                        |
| MOLEX INCORPORATED           |              |                        |
| DOCUMENT NO.                 | SHEET NO.    |                        |
| SD-33012-002                 | 4 OF 5       |                        |

TABLE 2 - TERMINAL GRIP/CRIMP TOOL DIM. REFERENCE TABLE

| J | SUPPLIER PART NO.      |              | FORD PART NO. | PLATING (STAMPING) | WIRE APPLICATION |      | WIRE SPECIFICATION                   |     | A±0.30 | B±0.30 | C±0.30 | D±0.30 | E±0.005 | F±0.005 | G±0.005 | J±0.005 | K±0.005 | M±0.005 | N±0.005 | P±0.005 | R±0.005 | U±0.005 | V±0.005 |  |
|---|------------------------|--------------|---------------|--------------------|------------------|------|--------------------------------------|-----|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|
|   | SMALL POLARIZATION RIB | RIGHT PAYOFF |               |                    | LEFT PAYOFF      | SAE  | METRIC                               |     |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |  |
| J | 33012-2001             | 33012-3001   | 7C3T-1474-EA  | TIN                | 14               | 2.0  | MIL-123A JASO D 611 (AVSS)           | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 13.12   | 1.35    | 6.91    | 2.44    | 6.11    | 2.72    | 1.40    |         |  |
|   |                        |              |               |                    | 14               | -    | MIL-135A1                            | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 12.96   | 1.28    | 6.51    | 2.44    | 6.11    | 2.52    | 1.30    |         |  |
| I | 33012-2002             | 33012-3002   | 7C3T-1474-DA  | TIN                | 16               | 1.5  | MIL-123A/MIL-126A1                   | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 12.96   | 1.28    | 6.51    | 2.44    | 6.11    | 2.52    | 1.30    |         |  |
|   |                        |              |               |                    | 18               | 1.0  | MIL-123A/MIL-126A1                   | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.65   | 1.13    | 6.46    | 2.14    | 1.93    | 2.23    | 1.15    |         |  |
| H | 33012-2003             | 33012-3003   | 7C3T-1474-CA  | TIN                | 18               | -    | SAE J1128 (IGXL)                     | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.96   | 1.28    | 6.51    | 2.14    | 1.93    | 2.52    | 1.30    |         |  |
|   |                        |              |               |                    | 20               | 0.75 | MIL-123A/MIL-126A1                   | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.42   | 1.03    | 6.36    | 2.14    | 1.93    | 2.04    | 1.05    |         |  |
| G | 33012-2003*            | 33012-3003*  | 7C3T-1474-CA* | TIN                | 22               | -    | SAE J1128 (IGXL)                     | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.65   | 1.13    | 6.46    | 2.14    | 1.93    | 2.23    | 1.15    |         |  |
|   |                        |              |               |                    | 20               | 0.5  | MIL-123A/MIL-126A1 JASO D 611 (AVSS) | 2.5 | 2.6    | 0.9    | 1.0    | 11.97  | 0.42    | 0.72    | 6.57    | 12.24   | 0.93    | 6.31    | 1.60    | 1.44    | 1.84    | 0.95    |         |  |
| F | 33012-2003*            | 33012-3003*  | 7C3T-1474-CA* | TIN                | -                | 0.35 | WSK-14348-A2                         | 2.5 | 2.6    | 0.9    | 1.0    | 11.97  | 0.42    | 0.72    | 6.57    | 12.24   | 0.93    | 6.31    | 1.60    | 1.44    | 1.84    | 0.95    |         |  |
|   |                        |              |               |                    | 14               | 2.0  | MIL-123A JASO D 611 (AVSS)           | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 13.12   | 1.35    | 6.91    | 2.44    | 6.11    | 2.72    | 1.40    |         |  |
| E | 33001-2003             | 33001-3003   | 7C3T-1474-HA  | GOLD               | 14               | -    | MIL-135A1                            | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 12.96   | 1.28    | 6.51    | 2.44    | 6.11    | 2.52    | 1.30    |         |  |
|   |                        |              |               |                    | 16               | 1.5  | MIL-123A/MIL-126A1                   | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 12.96   | 1.28    | 6.51    | 2.44    | 6.11    | 2.52    | 1.30    |         |  |
| D | 33001-2004             | 33001-3004   | 7C3T-1474-GA  | GOLD               | 18               | 1.0  | MIL-123A/MIL-126A1                   | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.65   | 1.13    | 6.46    | 2.14    | 1.93    | 2.23    | 1.15    |         |  |
|   |                        |              |               |                    | 18               | -    | SAE J1128 (IGXL)                     | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.96   | 1.28    | 6.51    | 2.14    | 1.93    | 2.52    | 1.30    |         |  |
| C | 33001-2005*            | 33001-3005*  | 7C3T-1474-FA* | GOLD               | 20               | 0.75 | MIL-123A/MIL-126A1                   | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.42   | 1.03    | 6.36    | 2.14    | 1.93    | 2.04    | 1.05    |         |  |
|   |                        |              |               |                    | 20               | -    | SAE J1128 (IGXL)                     | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.65   | 1.13    | 6.46    | 2.14    | 1.93    | 2.23    | 1.15    |         |  |
| B | 33001-2005*            | 33001-3005*  | 7C3T-1474-FA* | GOLD               | 22               | 0.5  | MIL-123A/MIL-126A1 JASO D 611 (AVSS) | 2.5 | 2.6    | 0.9    | 1.0    | 11.97  | 0.42    | 0.72    | 6.57    | 12.24   | 0.93    | 6.31    | 1.60    | 1.44    | 1.84    | 0.95    |         |  |
|   |                        |              |               |                    | -                | 0.35 | WSK-14348-A2                         | 2.5 | 2.6    | 0.9    | 1.0    | 11.97  | 0.42    | 0.72    | 6.57    | 12.24   | 0.93    | 6.31    | 1.60    | 1.44    | 1.84    | 0.95    |         |  |
| A | 33001-4001             | 33001-5001   | 7U5T-1474-UA  | SILVER             | 14               | 2.0  | MIL-123A JASO D 611 (AVSS)           | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 13.12   | 1.35    | 6.91    | 2.44    | 6.11    | 2.72    | 1.40    |         |  |
|   |                        |              |               |                    | 14               | -    | MIL-135A1                            | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 12.96   | 1.28    | 6.51    | 2.44    | 6.11    | 2.52    | 1.30    |         |  |
| Z | 33001-4002             | 33001-5002   | 7U5T-1474-TA  | SILVER             | 16               | 1.5  | MIL-123A/MIL-126A1                   | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 12.96   | 1.28    | 6.51    | 2.44    | 6.11    | 2.52    | 1.30    |         |  |
|   |                        |              |               |                    | 18               | 1.0  | MIL-123A/MIL-126A1                   | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.65   | 1.13    | 6.46    | 2.14    | 1.93    | 2.23    | 1.15    |         |  |
| Y | 33001-4003             | 33001-5003   | 7U5T-1474-SA  | SILVER             | 18               | -    | SAE J1128 (IGXL)                     | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.96   | 1.28    | 6.51    | 2.14    | 1.93    | 2.52    | 1.30    |         |  |
|   |                        |              |               |                    | 20               | 0.75 | MIL-123A/MIL-126A1                   | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.42   | 1.03    | 6.36    | 2.14    | 1.93    | 2.04    | 1.05    |         |  |
| X | 33001-4003*            | 33001-5003*  | 7U5T-1474-SA* | SILVER             | 20               | -    | SAE J1128 (IGXL)                     | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.65   | 1.13    | 6.46    | 2.14    | 1.93    | 2.23    | 1.15    |         |  |
|   |                        |              |               |                    | 22               | 0.5  | MIL-123A/MIL-126A1 JASO D 611 (AVSS) | 2.5 | 2.6    | 0.9    | 1.0    | 11.97  | 0.42    | 0.72    | 6.57    | 12.24   | 0.93    | 6.31    | 1.60    | 1.44    | 1.84    | 0.95    |         |  |
| W | 33001-4003*            | 33001-5003*  | 7U5T-1474-SA* | SILVER             | -                | 0.35 | WSK-14348-A2                         | 2.5 | 2.6    | 0.9    | 1.0    | 11.97  | 0.42    | 0.72    | 6.57    | 12.24   | 0.93    | 6.31    | 1.60    | 1.44    | 1.84    | 0.95    |         |  |
|   |                        |              |               |                    | 14               | 2.0  | MIL-123A JASO D 611 (AVSS)           | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 13.12   | 1.35    | 6.91    | 2.44    | 6.11    | 2.72    | 1.40    |         |  |
| V | 33012-2021             | 33012-3021   | 7C3T-1474-LA  | TIN                | 14               | 2.0  | MIL-123A JASO D 611 (AVSS)           | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 13.12   | 1.35    | 6.91    | 2.44    | 6.11    | 2.72    | 1.40    |         |  |
|   |                        |              |               |                    | 14               | -    | MIL-135A1                            | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 12.96   | 1.28    | 6.51    | 2.44    | 6.11    | 2.52    | 1.30    |         |  |
| U | 33012-2022             | 33012-3022   | 7C3T-1474-KA  | TIN                | 16               | 1.5  | MIL-123A/MIL-126A1                   | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 12.96   | 1.28    | 6.51    | 2.44    | 6.11    | 2.52    | 1.30    |         |  |
|   |                        |              |               |                    | 18               | 1.0  | MIL-123A/MIL-126A1                   | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.65   | 1.13    | 6.46    | 2.14    | 1.93    | 2.23    | 1.15    |         |  |
| T | 33012-2023             | 33012-3023   | 7C3T-1474-JA  | TIN                | 18               | -    | SAE J1128 (IGXL)                     | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.96   | 1.28    | 6.51    | 2.14    | 1.93    | 2.52    | 1.30    |         |  |
|   |                        |              |               |                    | 20               | 0.75 | MIL-123A/MIL-126A1                   | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.42   | 1.03    | 6.36    | 2.14    | 1.93    | 2.04    | 1.05    |         |  |
| S | 33012-2023*            | 33012-3023*  | 7C3T-1474-JA* | TIN                | 20               | -    | SAE J1128 (IGXL)                     | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.65   | 1.13    | 6.46    | 2.14    | 1.93    | 2.23    | 1.15    |         |  |
|   |                        |              |               |                    | 22               | 0.5  | MIL-123A/MIL-126A1 JASO D 611 (AVSS) | 2.5 | 2.6    | 0.9    | 1.0    | 11.97  | 0.42    | 0.72    | 6.57    | 12.24   | 0.93    | 6.31    | 1.60    | 1.44    | 1.84    | 0.95    |         |  |
| R | 33001-2021             | 33001-3021   | 7C3T-1474-PA  | GOLD               | 14               | 2.0  | MIL-123A JASO D 611 (AVSS)           | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 13.12   | 1.35    | 6.91    | 2.44    | 6.11    | 2.72    | 1.40    |         |  |
|   |                        |              |               |                    | 14               | -    | MIL-135A1                            | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 12.96   | 1.28    | 6.51    | 2.44    | 6.11    | 2.52    | 1.30    |         |  |
| Q | 33001-2022             | 33001-3022   | 7C3T-1474-NA  | GOLD               | 16               | 1.5  | MIL-123A/MIL-126A1                   | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 12.96   | 1.28    | 6.51    | 2.44    | 6.11    | 2.52    | 1.30    |         |  |
|   |                        |              |               |                    | 18               | 1.0  | MIL-123A/MIL-126A1                   | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.65   | 1.13    | 6.46    | 2.14    | 1.93    | 2.23    | 1.15    |         |  |
| P | 33001-2023             | 33001-3023   | 7C3T-1474-MA  | GOLD               | 18               | -    | SAE J1128 (IGXL)                     | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.96   | 1.28    | 6.51    | 2.14    | 1.93    | 2.52    | 1.30    |         |  |
|   |                        |              |               |                    | 20               | 0.75 | MIL-123A/MIL-126A1                   | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.42   | 1.03    | 6.36    | 2.14    | 1.93    | 2.04    | 1.05    |         |  |
| O | 33001-2023*            | 33001-3023*  | 7C3T-1474-MA* | GOLD               | 20               | -    | SAE J1128 (IGXL)                     | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.65   | 1.13    | 6.46    | 2.14    | 1.93    | 2.23    | 1.15    |         |  |
|   |                        |              |               |                    | 22               | 0.5  | MIL-123A/MIL-126A1 JASO D 611 (AVSS) | 2.5 | 2.6    | 0.9    | 1.0    | 11.97  | 0.42    | 0.72    | 6.57    | 12.24   | 0.93    | 6.31    | 1.60    | 1.44    | 1.84    | 0.95    |         |  |
| N | 33001-4021             | 33001-5021   | 7U5T-1474-RA  | SILVER             | 14               | 2.0  | MIL-123A JASO D 611 (AVSS)           | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 13.12   | 1.35    | 6.91    | 2.44    | 6.11    | 2.72    | 1.40    |         |  |
|   |                        |              |               |                    | 14               | -    | MIL-135A1                            | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 12.96   | 1.28    | 6.51    | 2.44    | 6.11    | 2.52    | 1.30    |         |  |
| M | 33001-4022             | 33001-5022   | 7U5T-1474-PA  | SILVER             | 16               | 1.5  | MIL-123A/MIL-126A1                   | 3.9 | 4.4    | 1.7    | 1.6    | 12.82  | 0.6     | 1.19    | 7.05    | 12.96   | 1.28    | 6.51    | 2.44    | 6.11    | 2.52    | 1.30    |         |  |
|   |                        |              |               |                    | 18               | 1.0  | MIL-123A/MIL-126A1                   | 3.3 | 3.1    | 1.3    | 1.4    | 12.46  | 0.57    | 0.99    | 6.52    | 12.65   | 1.13    | 6.46    | 2.14    | 1.93    | 2.23    | 1.15    |         |  |
| L | 33001-4022             | 33001-5022   | 7U5T-1474-PA  | SILVER             | 18               | -    | SAE J1128 (IGXL)                     | 3.3 | 3.1    |        |        |        |         |         |         |         |         |         |         |         |         |         |         |  |