

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number:

0330111004

Status:

Active

Overview:

mx150_sealed_connector_system

Description:

MX150™ Male Terminal, Gold (Au) Plating, 16-20 AWG, Right Reel Payoff, Contact Material Thickness 0.30mm (.012")



Series

image - Reference only

Documents:

[Drawing \(PDF\)](#)

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

General	
Product Family	Crimp Terminals
Series	<u>33011</u>
Comments	Right Reel Payoff
Crimp Quality Equipment	Yes
Overview	<u>mx150_sealed_connector_system</u>
Product Name	MX150™

Physical	
Gender	Male
Material - Metal	High Performance Alloy (HPA)
Material - Plating Mating	Gold
Material - Plating Termination	Tin
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	16, 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-33000-001

EU RoHS

ELV and RoHS

Compliant

REACH SVHC

Contains SVHC: No

Halogen-Free

Status

Halogen-Free

China RoHS



Need more information on product environmental compliance?

Email 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

33011Series

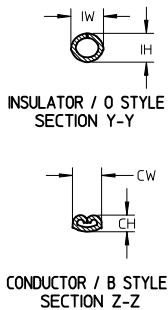
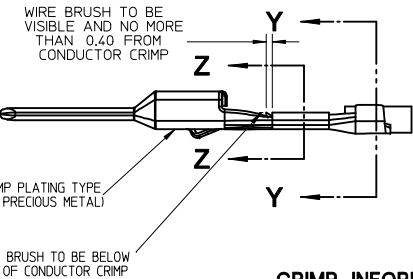
Use With

33482 Dual Row Housing, 33481 Single Row Housing, 33486 Hybrid 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 #
Hand Crimp Tool, 14-16AWG	<u>0638112400</u>
Hand Crimp Tool, 18-22AWG	<u>0638112600</u>

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

13 12 11 10 9 8 7 6 5 4 3 2 1



PLATING NOTES:

1. PRECIOUS METAL PLATED TERMINAL:

1.1 GOLD PLATING:

ZONE A: SHALL BE COMPLETELY COVERED WITH NICKEL TO PREVENT EXPOSED BASE METAL
REDUCED GOLD THICKNESS FROM ZONE B PERMITTED

ZONE B: PRECIOUS METAL PLATING PER MOLEX PLATING SPECIFICATION ES-88

BASE LAYER: ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL
THICKNESS: 1.25 - 2.25 MICROMETERS

GOLD LAYER: ELECTRODEPOSITED GOLD
THICKNESS: 0.76 MICROMETERS MINIMUM

ZONE C: SHALL BE COMPLETELY COVERED WITH NICKEL TO PREVENT EXPOSED BASE METAL
REDUCED PLATING THICKNESS FROM ZONE B AND ZONE D PERMITTED

ZONE D: TIN PLATING PER MOLEX PLATING SPECIFICATION ES-88

BASE LAYER: ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL
THICKNESS: 1.25 - 2.25 MICROMETERS

TIN LAYER: ELECTRODEPOSITED 100% TIN, MATTE FINISH
THICKNESS: 2.5 - 4.0 MICROMETERS

ZONE E: SHALL BE COMPLETELY COVERED WITH NICKEL TO PREVENT EXPOSED BASE METAL
REDUCED THICKNESS FROM ZONE D PERMITTED

1.2 SILVER PLATING:

ZONE A: SHALL BE COMPLETELY COVERED WITH NICKEL TO PREVENT EXPOSED BASE METAL
REDUCED SILVER THICKNESS FROM ZONE B PERMITTED

ZONE B: SILVER PLATING

BASE LAYER: ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL
THICKNESS: 1.25 - 2.25 MICROMETERS

SILVER LAYER: ELECTRODEPOSITED PURE SILVER (0.5% MAX IMPURITIES)
THICKNESS: 19 - 3.3 MICROMETERS
FINISH: SEMI BRIGHT

ANTI-TARNISH: TREATMENT FOR SILVER PLATED TERMINAL - EVABRITE WS

ZONE C: SHALL BE COMPLETELY COVERED WITH NICKEL TO PREVENT EXPOSED BASE METAL
REDUCED PLATING THICKNESS FROM ZONE B AND ZONE D PERMITTED

ZONE D: TIN PLATING PER MOLEX PLATING SPECIFICATION ES-88

BASE LAYER: ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL
THICKNESS 1.25 - 2.25 MICROMETERS

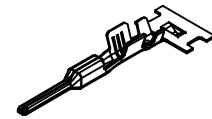
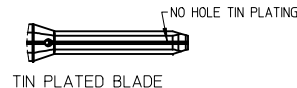
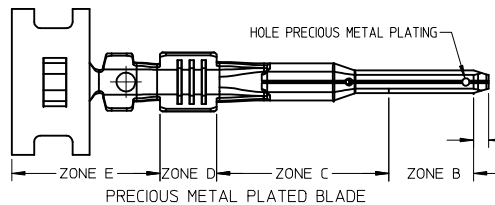
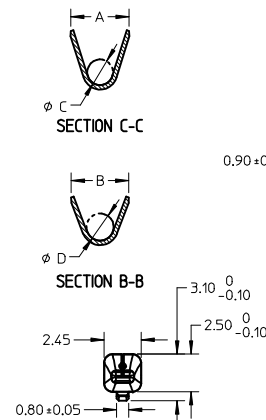
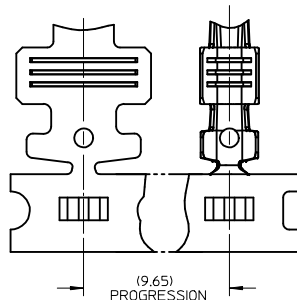
TIN LAYER: ELECTRODEPOSITED 100% TIN, MATTE FINISH
THICKNESS 2.5 - 4.0 MICROMETERS

ZONE E: SHALL BE COMPLETELY COVERED WITH NICKEL TO PREVENT EXPOSED BASE METAL
REDUCED THICKNESS FROM ZONE D PERMITTED

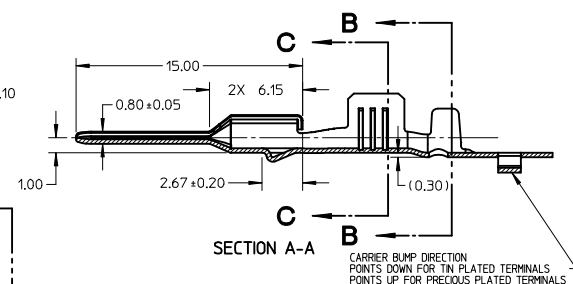
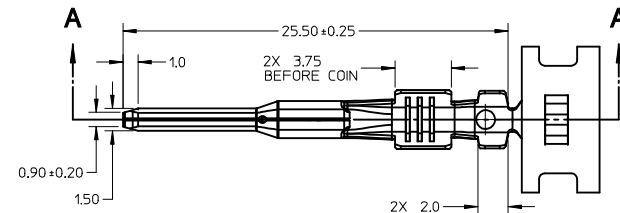
2. TIN PLATED TERMINAL (ENTIRE TERMINAL)

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



ISO VIEW
SCALE 2:1

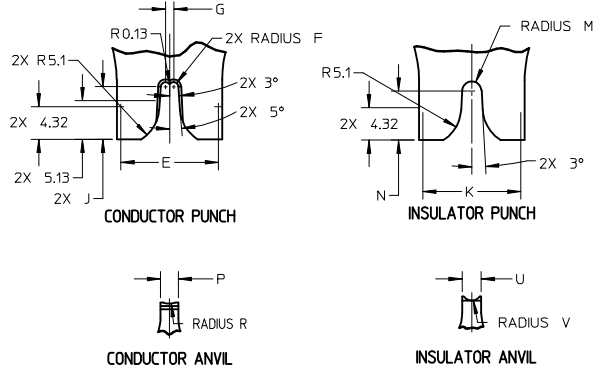


GENERAL NOTES: (UNLESS OTHERWISE SPECIFIED)

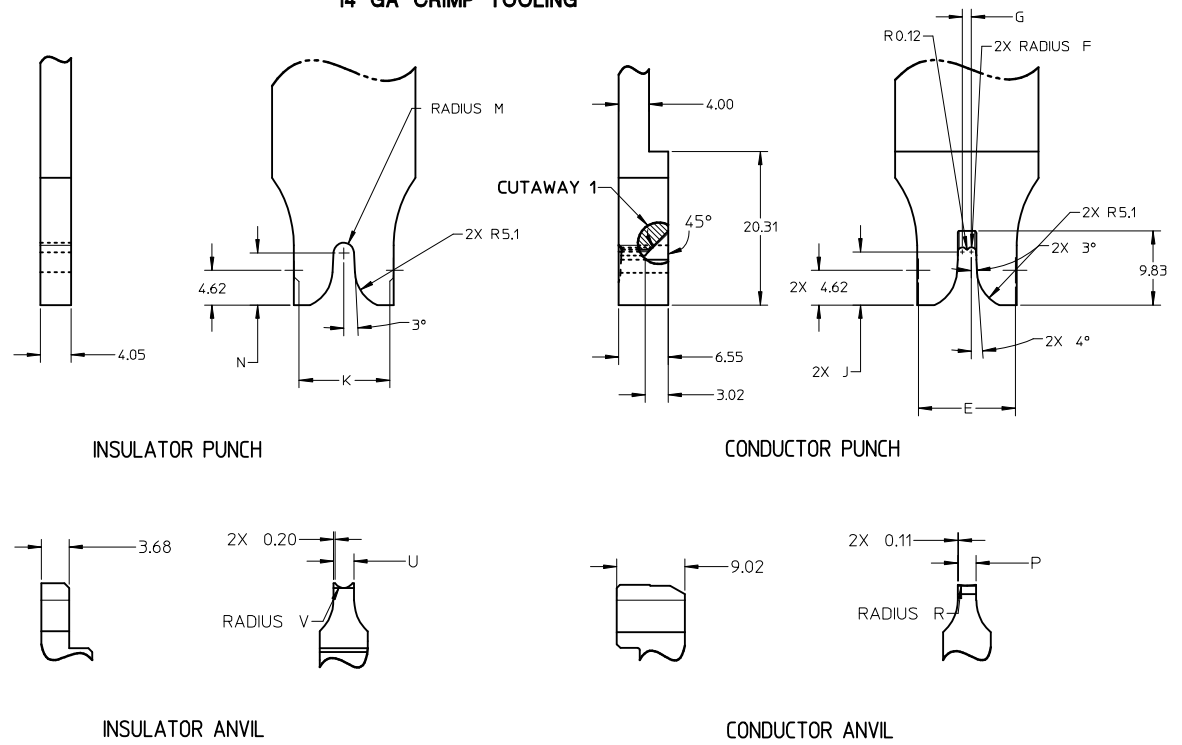
- MATING TERMINAL SHOWN ON SD-33012-002
- MATERIAL: ASTM B422, UNS C19025, HR04
THICKNESS: 0.30 mm +0.01
TEMPER: FULL HARD (REF)
TENSILE: 496-572 MPA
PLATING: SEE PLATING NOTES
- MEETS CRIMP PERFORMANCE SPECIFICATION SAE/USCAR-21 (RELEASED: 08/25/01)
- MEETS PERFORMANCE STANDARD FOR AUTOMOTIVE ELECTRICAL CONNECTOR SYSTEMS SAE/USCAR-2 REV 3 (APRIL 2001)
- MEETS FIELD CORRELATED LIFE TEST SAE/USCAR-20 (NOVEMBER 2001)
- MEETS WIRING COMPONENT DESIGN GUIDELINES SAE/USCAR-12 REV 2 (DECEMBER 2001)
- MEETS ELECTRICAL CONNECTION SYSTEM DESIGN SPECIFICATION (SDS) REV 11 (5/2002)
- REFERENCE PK-31300-516 FOR REEL DIRECTION
- REFERENCE CS-33000-001 FOR ADDITIONAL CRIMP INFORMATION

ENTER DESCRIPTION EC NO: UAU2010-0107 DRAWN: KFERGUSON CHKD: A.DHIR APPR: B.MOSER	DESCRIPTION REV C10	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 4:1	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION	TITLE MX150 15MM BLADE TERMINAL	
				mm	INCH	DRAWN BY L.PULLIAM	DATE 2006/01/31				
			4 PLACES	± ---	± ---	CHECKED BY A.DHIR	DATE 2006/02/01				
			3 PLACES	± ---	± ---	APPROVED BY B.MOSER	DATE 2006/02/02				
			2 PLACES	± 0.1	± ---						
			1 PLACE	± 0.3	± ---						
			ANGULAR ± 3 °			MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-33000-001			SHEET NO. 1 OF 5
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION											

**CRIMP TOOL INFORMATION
EXCEPT 14 GA**

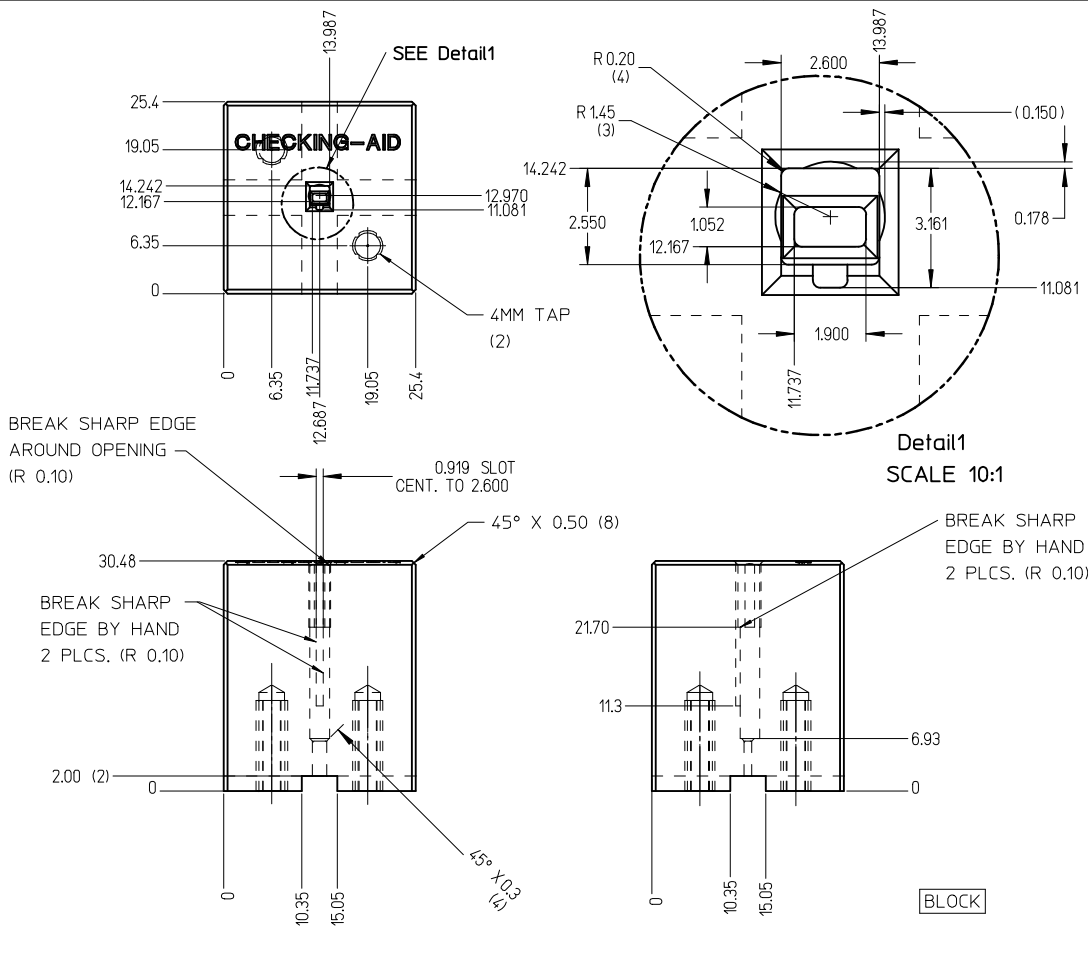


14 GA CRIMP TOOLING

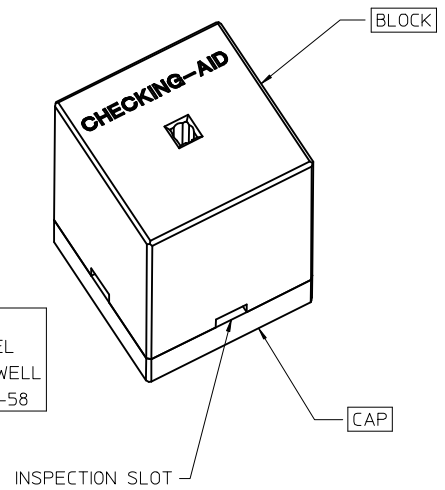


ENTER DESCRIPTION EC NO: UAU2010-0107 2009/08/18 DRWN:KFERGUSON 2009/08/19 CHKD:A.DHIR 2009/08/20 APPR:BMOSER	DESCRIPTION REV	QUALITY SYMBOLS ▽=0 C=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	TITLE MX150 1.5MM BLADE TERMINAL MOLEX INCORPORATED DOCUMENT NO. SD-33000-001 SHEET NO. 3 OF 5
				mm	INCH	DRAWN BY L.PULLIAM	DATE 2006/01/31			
			4 PLACES	± ---	± ---	CHECKED BY A.DHIR	DATE 2006/02/01			
			3 PLACES	± ---	± ---	APPROVED BY B.MOSER	DATE 2006/02/02			
			2 PLACES	± 0.1	± ---					
			1 PLACE	± 0.3	± ---					
			ANGULAR ± 3 °							

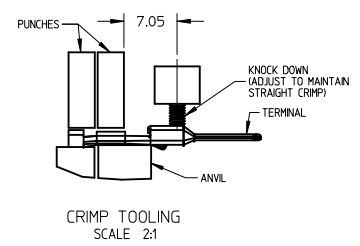
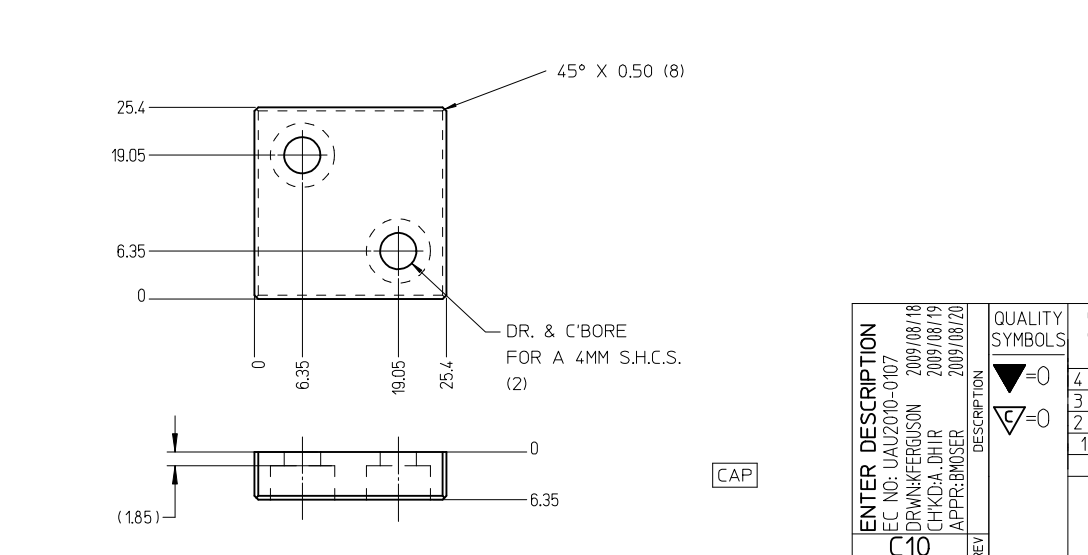
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CHECKING-AID
2 PIECE ASM. A2 TOOL STEEL
HARDEN & GRIND TO A ROCKWELL
HARDNESS "C" SCALE OF 56-58

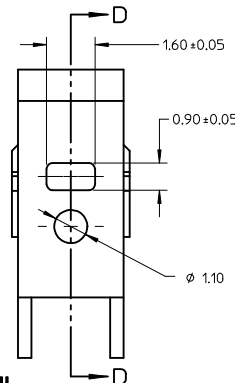
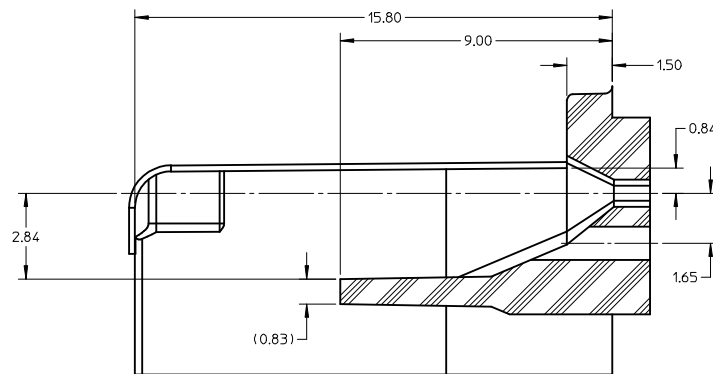
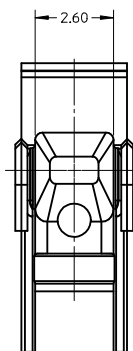


CHECKING AID TOLERANCE	
.XXX	= .005
.XX	= .03
.X	= .3



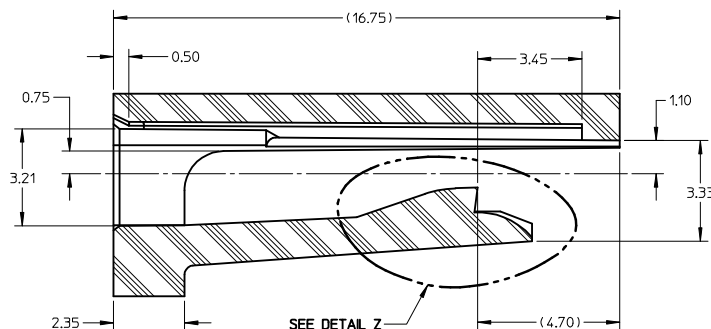
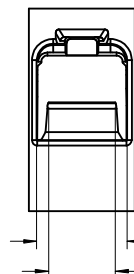
- CRIMP REQUIREMENTS:
1. CRIMP STRAIGHTNESS MUST BE MAINTAINED. USE A KNOCKDOWN TOOL LOCATED AS SHOWN. TERMINAL BOX MUST NOT BE DEFORMED
 2. AFTER CRIMPING, THE TERMINAL AND WIRE MUST FIT FREELY INTO THE CHECKING AID 33000-700. PROPER INSERTION DEPTH IS MET WHEN BLADE TIP STOPS ON CAP. SLOTS PROVIDED TO VISUALLY INSPECT STOPAGE OF PIN TIP.
 3. FOR OTHER MECHANICAL REQUIREMENTS ON CRIMPED TERMINALS, REFER TO SAE/USCAR-21 (5-13-02) SECTIONS 4.2 (VISUAL INSPECTION), 4.3 (CROSS SECTION ANALYSIS) AND 4.4 (CONDUCTOR CRIMP PULLOUT FORCE)

ENTER DESCRIPTION EC NO: UAU2010-0107 DRWN:KFERGUSON 2009/08/18 CHKD:A .DHIR 2009/08/19 APPR:B.MOSER 2009/08/20 C10	DESCRIPTION QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	TITLE MX150 15MM BLADE TERMINAL MOLEX MOLEX INCORPORATED SEE TABLE THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
			mm	INCH	DRAWN BY L.PULLIAM	DATE 2006/01/31					
		4 PLACES	± ---	± ---	CHECKED BY	DATE					
		3 PLACES	± ---	± ---	A.DHIR	2006/02/01					
		2 PLACES	± 0.1	± ---	APPROVED BY	DATE					
		1 PLACE	± 0.3	± ---	B.MOSER	2006/02/02					
		ANGULAR ± 3 °			MATERIAL NO.		DOCUMENT NO.	SHEET NO.			
					SD-33000-001		4 OF 5				



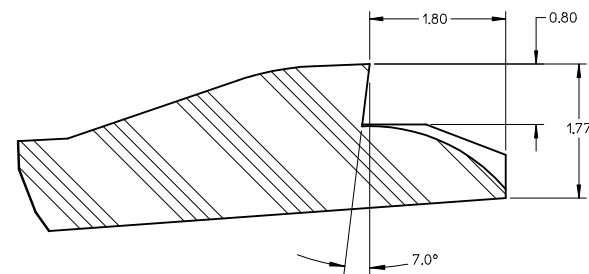
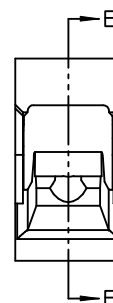
SECTION D-D

TPA/INSERT DETAIL

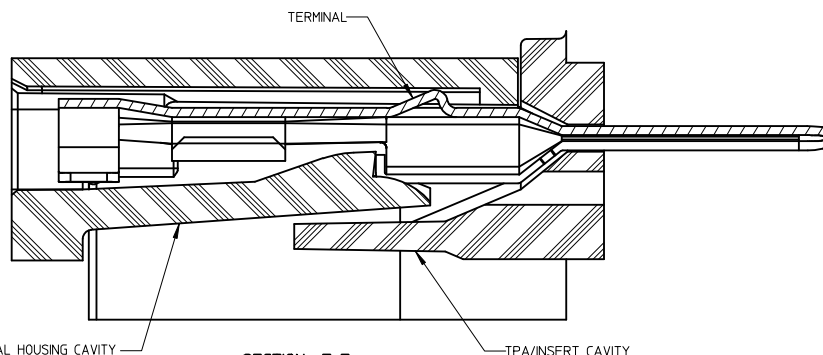
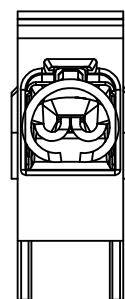


SECTION E-E

HOUSING DETAIL

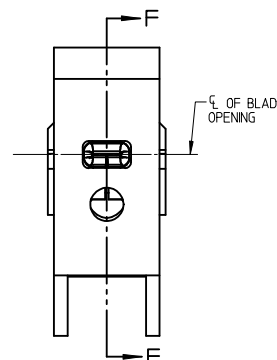


DETAIL Z
SCALE 20:1



SECTION F-F

BLADE CAVITY ASSEMBLY VIEWS



NOTES: (UNLESS OTHERWISE SPECIFIED)

1. TOLERANCES: LINEAR ± 0.10
ANGULAR 3°
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 BLADE TERMINAL PART NUMBERS (EXCEPT P/N'S FOR UNSEALED APPLICATIONS) SPECIFIED ELSEWHERE ON THIS DRAWING

ENTER DESCRIPTION		QUALITY SYMBOLS	DESCRIPTION
EC NO:	DATE		
U02010-0107	2009/08/18	▽=0	DRINKFERGUSON
CHKD:A.DHIR	2009/08/19	▽=0	CHKD:A.DHIR
APPR:BMOSER	2009/08/20		APPR:BMOSER
REV			
C10			

GENERAL TOLERANCES (UNLESS SPECIFIED)	
mm	INCH
4 PLACES ± 0.1	± 0.004
3 PLACES ± 0.1	± 0.004
2 PLACES ± 0.1	± 0.004
1 PLACE ± 0.3	± 0.012
ANGULAR $\pm 3^\circ$	

DIMENSION STYLE	
MM ONLY	
DRAWN BY	DATE
L.PULLIAM	2006/01/31
CHECKED BY	DATE
A.DHIR	2006/02/01
APPROVED BY	DATE
B.MOSER	2006/02/02
MATERIAL NO.	
SEE TABLE	
SIZE	
C	

SCALE 8:1	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION
TITLE	MX150 1.5MM BLADE TERMINAL	
MOLEX	MOLEX INCORPORATED	
DOCUMENT NO. SD-33000-001	SHEET NO. 5 OF 5	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		