

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

**Part Number:** [0330014021](#)  
**Status:** **Active**  
**Overview:** [mx150 sealed connector system](#)  
**Description:** MX150™ Female Terminal, Silver (Ag) Plating, 14-16 AWG, Right 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	Right Reel Payoff, Small Polarization Rib
Crimp Quality Equipment	Yes
Overview	<a href="#">mx150 sealed connector system</a>
Product Name	MX150™

**Physical**

Gender	Female
Material - Metal	High Performance Alloy (HPA)
Material - Plating Mating	Silver
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	14, 16
Wire Size mm²	1.5

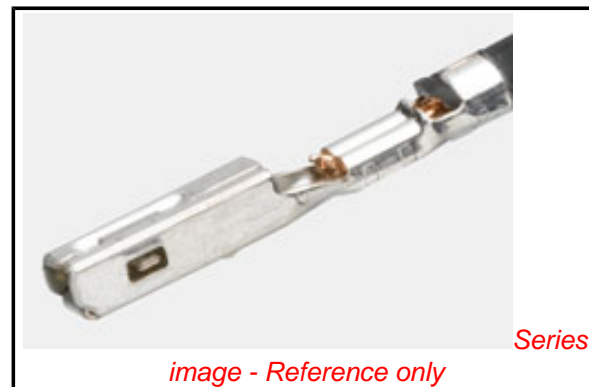
**Electrical**

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

**Material Info**

**Reference - Drawing Numbers**

Sales Drawing	SD-33012-002
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*image - Reference only*

**EU RoHS**

**ELV and RoHS  
Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free  
Status**  
**Not Reviewed**

**China RoHS**



**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

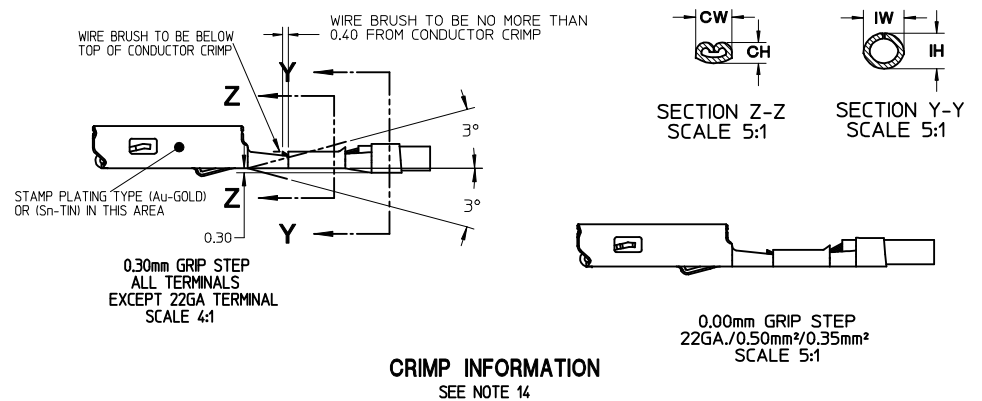
**Application Tooling | FAQ**

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

**Global**

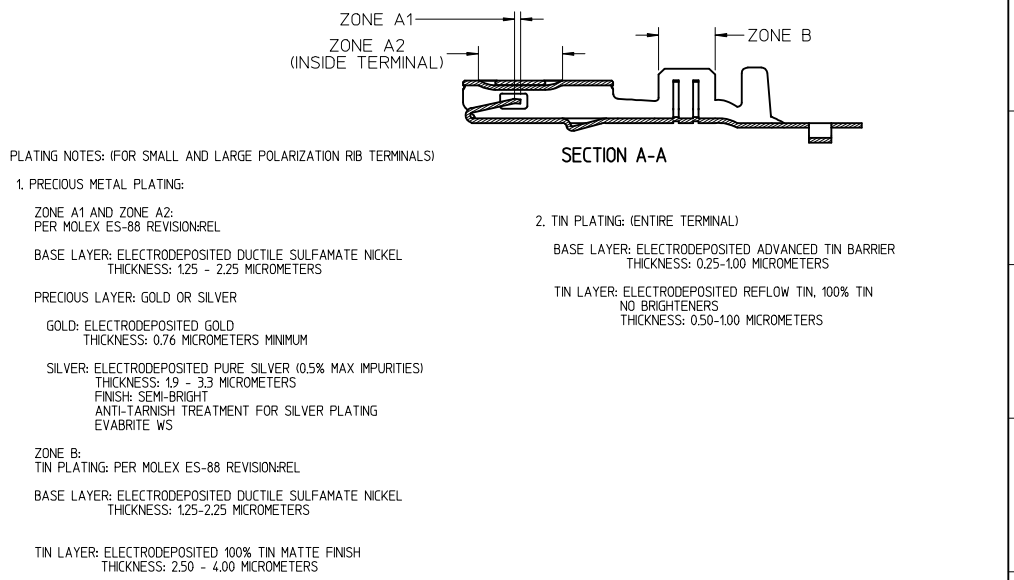
Description	Product #
Manual Extraction Tool	<a href="#">0638131500</a>
Hand Crimp Tool, 14-16AWG	<a href="#">0638115900</a>
Hand Crimp Tool, Metric 1.00 and 1.50	<a href="#">0638116100</a>

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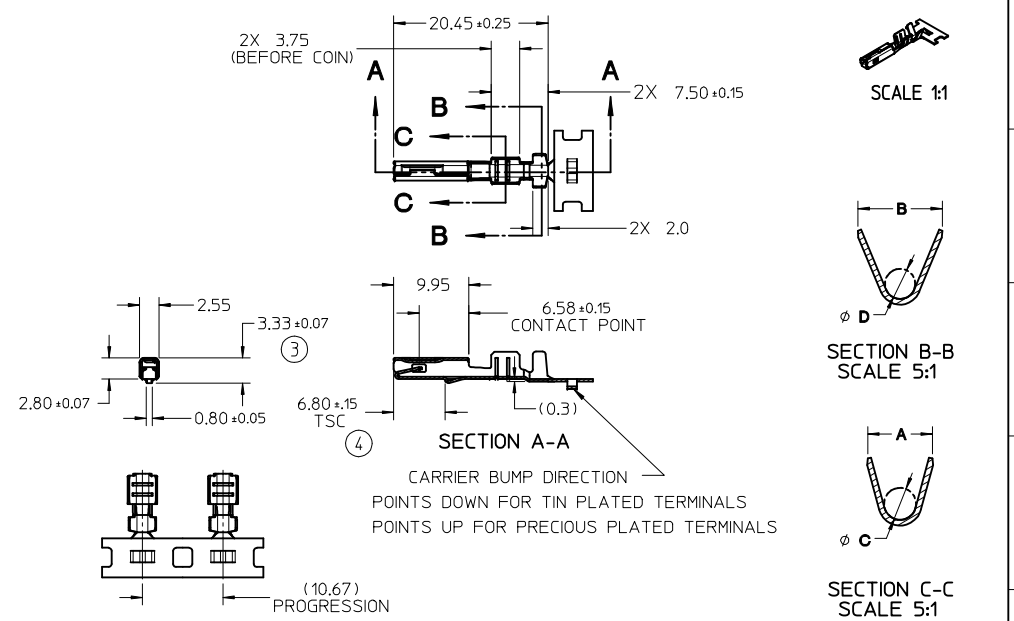
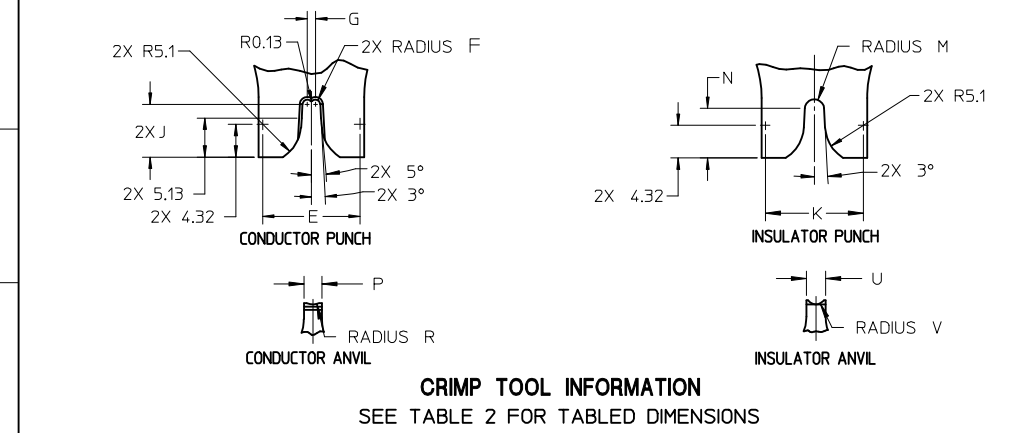


**CRIMP INFORMATION**  
SEE NOTE 14

**PLATING INFORMATION**



**DIMENSIONS FOR LARGE POLARIZATION RIB TERMINAL ONLY**



- 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

<b>ENTER DESCRIPTION</b> IEC NO: UAU2010-0107 DR: WINKFERGUSON CHKD: A. DHIR APPR: B. MOSER 2009/08/19 2009/08/20	<b>QUALITY SYMBOLS</b> ▽=0 ▽=0	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>		<b>DIMENSION STYLE</b> MM ONLY	SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		mm 4 PLACES ± --- ± --- 3 PLACES ± 0.005 ± --- 2 PLACES ± 0.10 ± --- 1 PLACE ± 0.3 ± ---	INCH ± --- ± --- ± --- ± --- ± --- ± ---	DRAWN BY L. PULLIAM DATE 2005/06/21	CHECKED BY A. DHIR DATE 2005/06/21	<b>MX150 RECEPTACLE TERMINAL</b>			
		ANGULAR ± 3 °		APPROVED BY B. MOSER DATE 2005/06/22	<b>MOLEX INCORPORATED</b>				
		<b>B1</b>	<b>REVISION</b>	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-33012-002	SHEET NO. 1 OF 5			

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

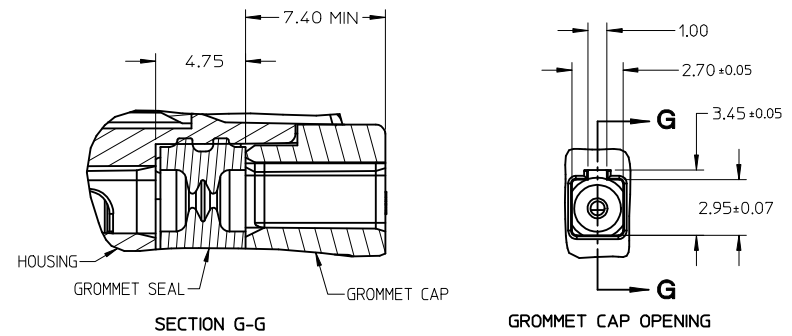
J	SUPPLIER PART NO.		FORD PART NO.	PLATING	WIRE SIZE (awg)	WIRE SPECIFICATION	CONDUCTOR CH (SEC Z-Z) ±0.05 mm		CONDUCTOR CW (SEC Z-Z) ±0.10 mm		INSULATOR IH (SEC Y-Y) ±0.10 mm		INSULATOR IW (SEC Y-Y) ±0.10 mm		WIRE PULL FORCE (N)	
	RIGHT PAYOFF	LEFT PAYOFF					CH	CW	IH	IW						
I	SMALL POLARIZATION RIB															
	33012-2001	33012-3001	7C3T-14474-EA	TIN	14	ML-123A	1.65	2.45	2.90	2.75	2.68					
H	LARGE POLARIZATION RIB															
	33001-4023*	33001-5023*	7U5T-14474-NA	SILVER**	0.50mm <sup>2</sup>	JASO D 611 (AVSS)	1.60	2.45	2.90	2.75	2.31	ML-126A1	1.10	1.60	1.80	1.90

RIGHT PAYOFF	LEFT PAYOFF	LARGE POLARIZATION RIB															
33001-4023	33001-5023	7U5T-14474-NA	SILVER**	0.50mm <sup>2</sup>	JASO D 611 (AVSS)	1.10	1.60	1.80	1.90	1.11							
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

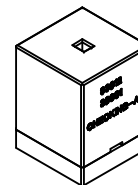


**GROMMET SEAL / CAP CONFIGURATION TO MODIFY LARGE POLARIZATION RIB CAVITY TO ACCEPT SMALL POLARIZATION RIB APPLICATIONS**

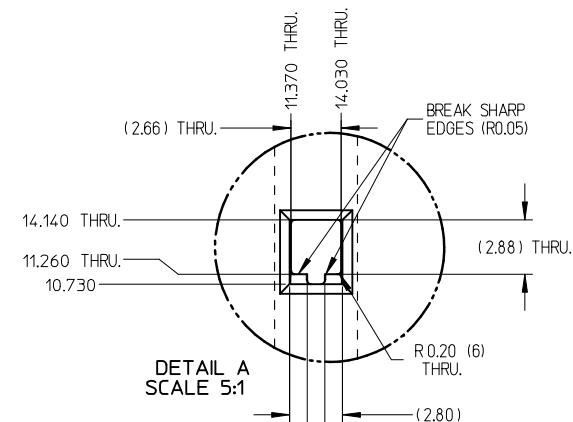
ENTER DESCRIPTION EC NO: UAU2010-0107 DRINKWATERGUSON 2009/08/18 CHK:DA-DHIR 2009/08/19 APPR:BMOSER 2009/08/20	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE MM ONLY	SCALE DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ± --- ± --- 3 PLACES ± 0.005 ± --- 2 PLACES ± 0.10 ± --- 1 PLACE ± 0.3 ± --- ANGULAR ± 3°	DRAWN BY DATE L. PULLIAM 2005/06/21	CHECKED BY DATE A. DHIR 2005/06/21	APPROVED BY DATE B. MOSER 2005/06/22	TITLE MX150 RECEPTACLE TERMINAL	MATERIAL NO. SEE TABLE

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

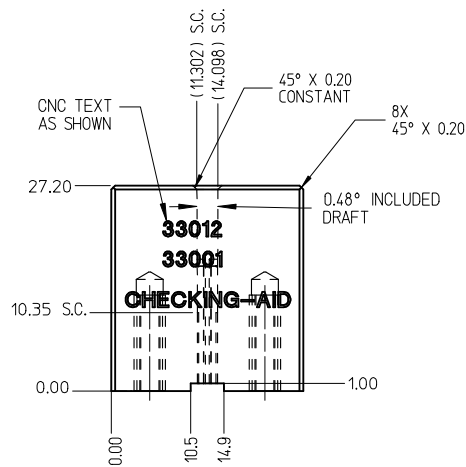
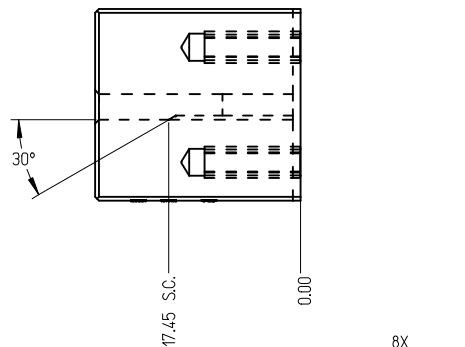
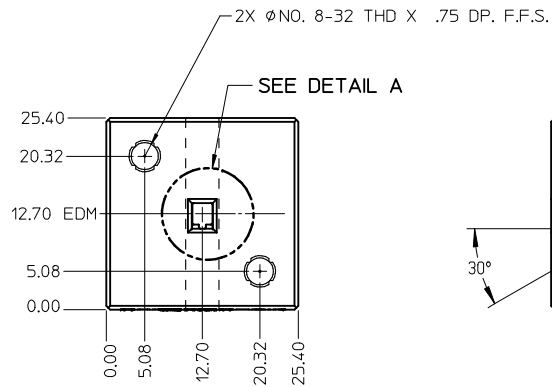
THIS CHECKING - AID IS FOR SMALL POLARIZATION RIB TERMINALS ONLY



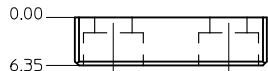
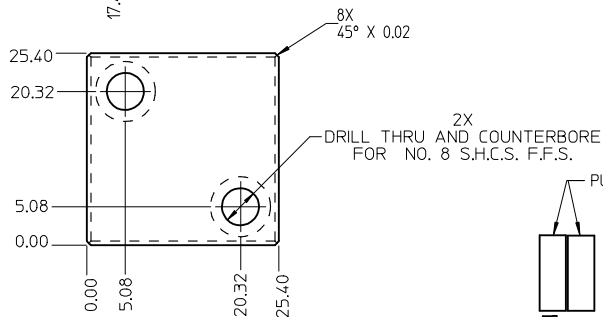
CHECKING - AID ASSEMBLY  
SCALE 1:1



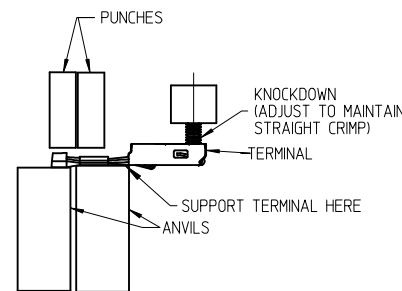
DETAIL A  
SCALE 5:1



CHECKING - AID  
UPPER



CHECKING - AID  
LOWER



CRIMP REQUIREMENTS:

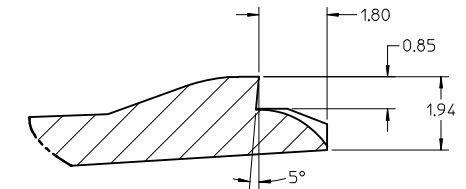
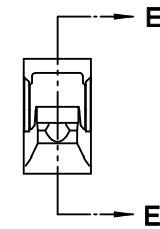
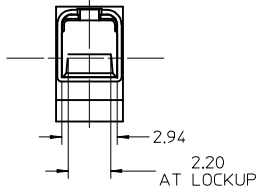
1. CRIMP STRAIGHTNESS MUST BE MAINTAINED  
USE A KNOCKDOWN TOOL LOCATED AS SHOWN  
TERMINAL BOX MUST NOT BE DEFORMED
2. AFTER CRIMPING, THE CRIMPED TERMINAL (AND UP TO 5 mm OF WIRE PAST THE INSULATOR CUTOFF TAB) MUST FIT FREELY INTO THE CHECKING-AID SHOWN ON THIS PAGE
3. FOR OTHER MECHANICAL REQUIREMENTS 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

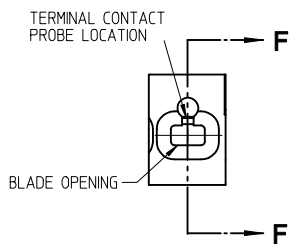
<b>ENTER DESCRIPTION</b> EC NO: UAU2010-0107 DRINKFERGUSON 2009/08/18 CHYKDA-DHIR 2009/08/19 APPR:BMOSER 2009/08/20	<b>QUALITY SYMBOLS</b> ▽=0 ▽=0	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>		<b>DIMENSION STYLE</b> MM ONLY	<b>SCALE</b> 2:1	<b>DESIGN UNITS</b> METRIC	THIRD ANGLE PROJECTION	
		4 PLACES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



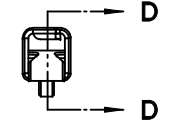
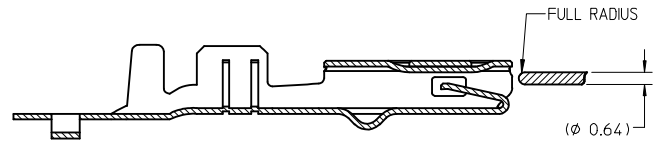
- NOTES: UNLESS OTHERWISE SPECIFIED
1. TOLERANCES: LINEAR  $\pm 0.10$   
ANGULAR  $\pm 3^\circ$
  2. ALL DRAFT WITHIN TOLERANCE.
  3. MAX RADII ON ALL CORNERS SHOWN SHARP: 0.10
  4. MAX FLASH PERMISSIBLE: 0.1
  5. EJECTOR PIN MARKS PERMISSIBLE IF FLUSH TO 0.25 BELOW SURFACE.
  6. MATERIAL: HOUSING/FINGER 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
B1	ENTER DESCRIPTION	2009/08/18	DRWIN:KEERGUSON
	EC NO: UAU2010-0107	2009/08/19	CHKD:A.DHIR
	APPR:BMOSER	2009/08/20	

QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)
▽=0	mm
▽=0	INCH
	4 PLACES ± --- ± ---
	3 PLACES ± 0.005 ± ---
	2 PLACES ± 0.10 ± ---
	1 PLACE ± 0.3 ± ---
	ANGULAR ± 3 °

DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY		5:1	METRIC	THIRD ANGLE PROJECTION
DRAWN BY	DATE	TITLE		
L. PULLIAM	2005/06/21	MX150 RECEPTACLE TERMINAL		
CHECKED BY	DATE	MOLEX INCORPORATED		
A. DHIR	2005/06/21	MATERIAL NO. SEE TABLE		
APPROVED BY	DATE	DOCUMENT NO. SD-33012-002		
B. MOSER	2005/06/22	SHEET NO. 4 OF 5		

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