

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: **0330123023**
Status: **Active**
Overview: mx150 sealed connector system
Description: MX150™ Female Terminal, Tin (Sn) Plating, 22 AWG, Left Reel Payoff, Large Polarization Rib, Contact Material Thickness 0.30mm (.012")

Documents:

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

General

Product Family	Crimp Terminals
Series	<u>33012</u>
Comments	Left Reel Payoff, Large Polarization Rib
Crimp Quality Equipment	Yes
Overview	<u>mx150 sealed connector system</u>
Product Name	MX150™

Physical

Gender	Female
Material - Metal	High Performance Alloy (HPA)
Material - Plating Mating	Tin
Material - Plating Termination	Tin
Packaging Type	Reel
Plating min: Mating (µin)	20.00
Plating min: Mating (µm)	0.500
Plating min: Termination (µin)	20.00
Plating min: Termination (µm)	0.50
Termination Interface: Style	Crimp or Compression
Wire Insulation Diameter	2.60mm (.102") max.
Wire Size AWG	22
Wire Size mm²	0.5

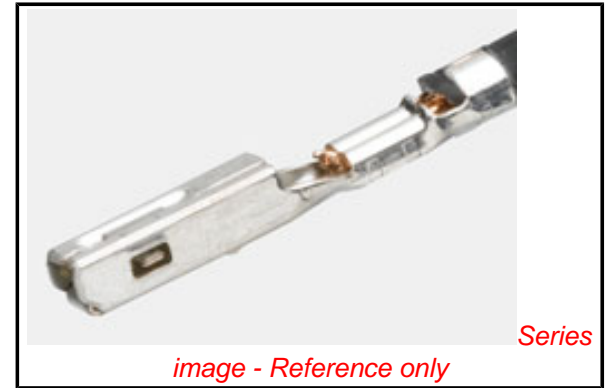
Electrical

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

Material Info

Reference - Drawing Numbers

Sales Drawing	SD-33012-002
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EU RoHS

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

China RoHS



Not Reviewed

**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

33012Series

Use With

33472 Dual Row Housing, 33476 Hybrid Housing, 33471 Single Row Housing

Application Tooling | FAQ

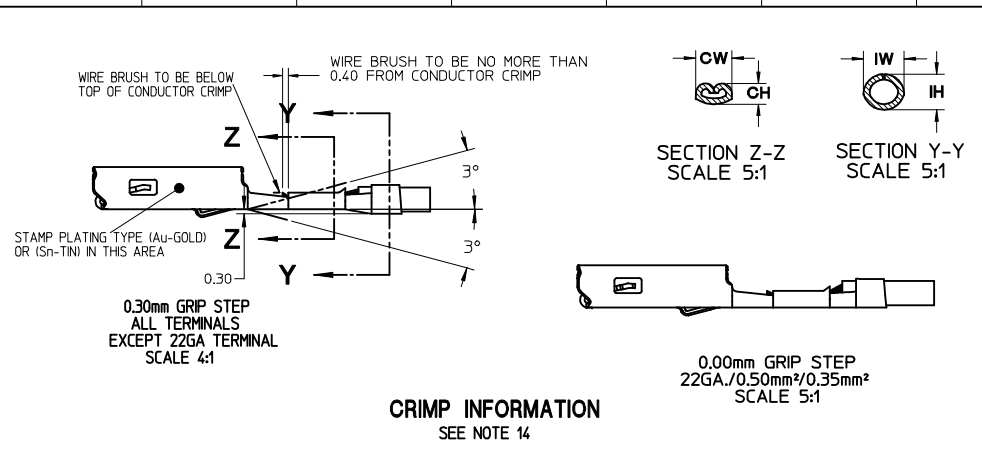
Tooling specifications and manuals are found by selecting the products below. Crimp Height Specifications are then contained in the Application Tooling Specification document.

Global

Description	Product #
Manual Extraction Tool	<u>0638131500</u>
FineAdjust™ Applicator	<u>0639001000</u>
Hand Crimp Tool, 18-22AWG	<u>0638116000</u>
Hand Crimp Tool, Metric 0.05 and 0.75	<u>0638116200</u>

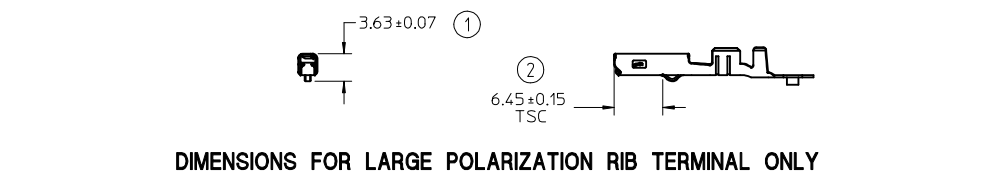
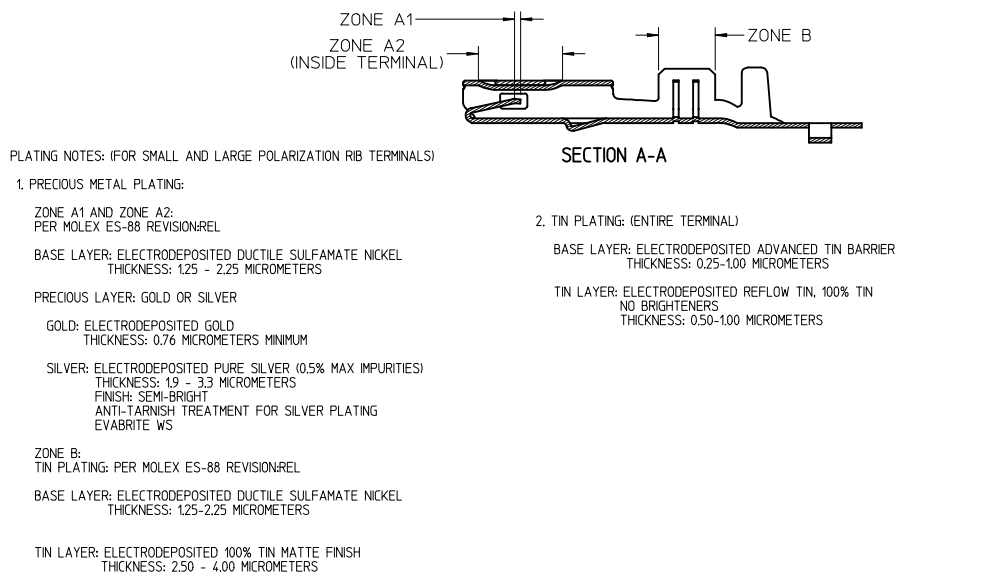
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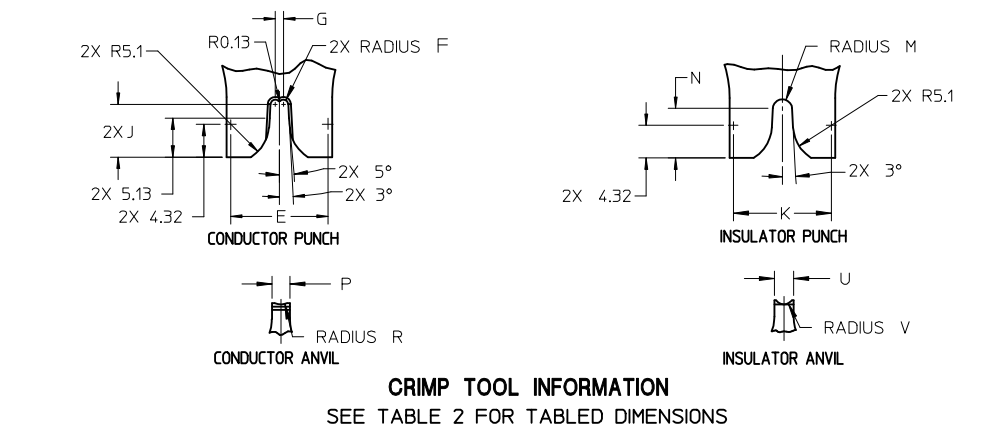


CRIMP INFORMATION
SEE NOTE 14

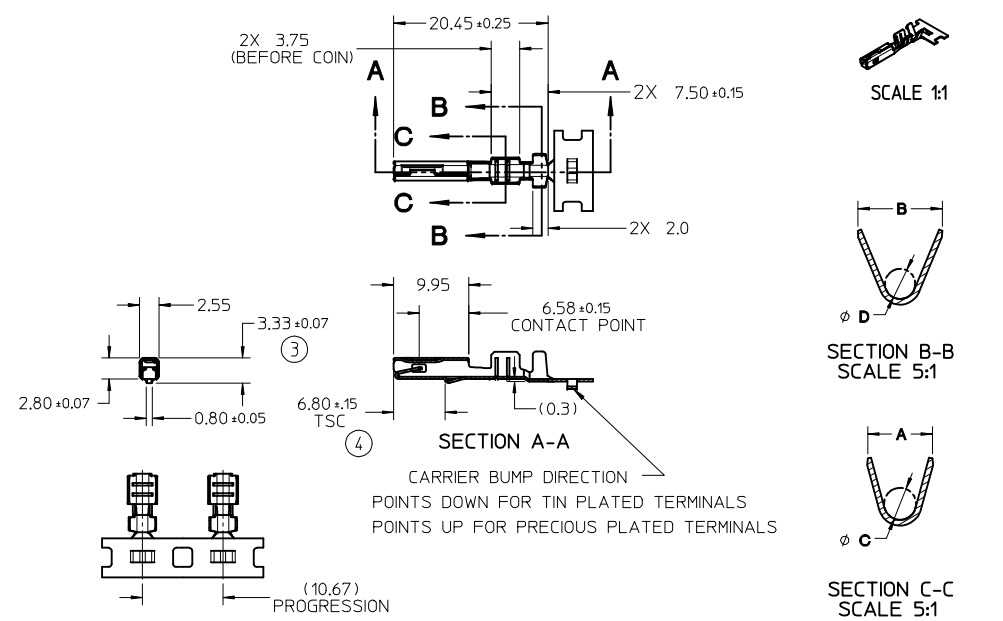
PLATING INFORMATION



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 IEC NO: UAU2010-0107 DR: WINKFERGUSON CHKD: A. DHIR APPR: B. MOSER 2009/08/19 2009/08/20	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE 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	APPROVED BY B. MOSER DATE 2005/06/22	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-33012-002	MOLEX INCORPORATED
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

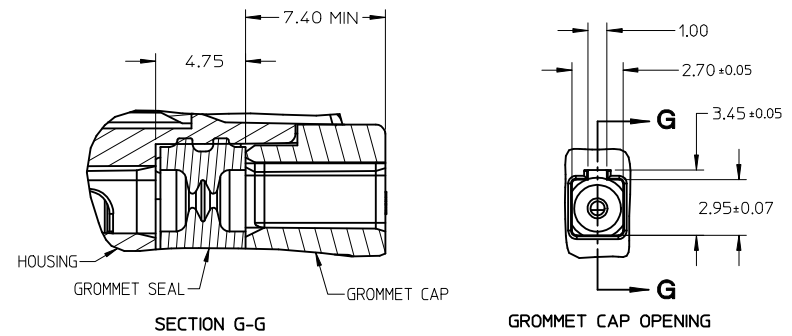
SUPPLIER PART NO.		FORD PART NO.		PLATING	WIRE SIZE (awg)	WIRE SPECIFICATION	CONDUCTOR CH (SEC Z-Z) ±0.05 mm	CONDUCTOR CW (SEC Z-Z) ±0.10 mm	INSULATOR IH (SEC Y-Y) ±0.10 mm	INSULATOR IW (SEC Y-Y) ±0.10 mm	WIRE PULL FORCE (N)
SMALL POLARIZATION RIB											
RIGHT PAYOFF		LEFT PAYOFF									
33012-2001	33012-3001	7C3T-14474-EA	TIN	14	MIL-123A	1.65	2.45	2.90	2.75	2.68	
				16	MIL-135A1	1.65	2.45	2.70	2.60	2.68	
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	18	MIL-123A	1.15	2.15	1.90	2.10	128	
				20	HIFLON WIRE ¹	1.15	2.15	1.90	2.10	135	
33012-2001	33012-3001	7C3T-14474-EA	TIN	22	MIL-123A	1.00	1.60	1.85	1.90	88	
				2.00mm ²	JASO D 611 (AVSSI)	1.60	2.45	2.90	2.75	231	
33012-2002	33012-3002	7C3T-14474-DA	TIN	150mm ²	MIL-126A1	1.40	2.45	2.60	2.60	257	
				1.00mm ²	MIL-126A1	1.30	2.15	2.00	2.30	211	
33012-2003	33012-3003	7C3T-14474-CA	TIN	0.75mm ²	MIL-126A1	1.25	2.15	1.95	2.10	142	
				0.50mm ²	MIL-126A1	1.10	1.60	1.80	1.90	111	
33012-2003*	33012-3003*	7C3T-14474-CA*	TIN	0.50mm ²	JASO D 611 (AVSSI)	1.10	1.60	1.85	1.90	125	
				0.35mm ²	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	
				2.00mm ²	MIL-123A	1.15	2.15	1.90	2.10	128	
33001-2003	33001-3003	7C3T-14474-HA	GOLD	150mm ²	HIFLON WIRE ¹	1.15	2.15	1.90	2.10	135	
				1.00mm ²	SAE J1128 (IGXL)	1.15	2.15	2.00	2.30	105	
33001-2004	33001-3004	7C3T-14474-GA	GOLD	22	MIL-123A	1.00	1.60	1.85	1.90	88	
				2.00mm ²	JASO D 611 (AVSSI)	1.60	2.45	2.90	2.75	231	
33001-2005	33001-3005	7C3T-14474-FA	GOLD	150mm ²	MIL-126A1	1.40	2.45	2.60	2.60	257	
				1.00mm ²	MIL-126A1	1.30	2.15	2.00	2.30	211	
33001-2005*	33001-3005*	7C3T-14474-FA*	GOLD	0.75mm ²	MIL-126A1	1.25	2.15	1.95	2.10	142	
				0.50mm ²	JASO D 611 (AVSSI)	1.10	1.60	1.85	1.90	125	
33001-4001	33001-5001	7U5T-14474-UA	SILVER**	14	WSK-1A348-A2	0.95	1.60	1.70	1.90	50	
				16	MIL-123A	1.65	2.45	2.90	2.75	268	
33001-4002	33001-5002	7U5T-14474-TA	SILVER**	18	MIL-135A1	1.65	2.45	2.70	2.60	268	
				20	MIL-123A	1.35	2.45	2.40	2.60	222	
33001-4003	33001-5003	7U5T-14474-SA	SILVER**	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	
33001-4001	33001-5001	7U5T-14474-UA	SILVER**	22	MIL-123A	1.15	2.15	1.90	2.10	128	
				2.00mm ²	HIFLON WIRE ¹	1.15	2.15	1.90	2.10	135	
33001-4002	33001-5002	7U5T-14474-TA	SILVER**	150mm ²	SAE J1128 (IGXL)	1.15	2.15	2.00	2.30	105	
				1.00mm ²	MIL-123A	1.00	1.60	1.85	1.90	88	
33001-4002	33001-5002	7U5T-14474-TA	SILVER**	2.00mm ²	JASO D 611 (AVSSI)	1.60	2.45	2.90	2.75	231	
				1.50mm ²	MIL-126A1	1.40	2.45	2.60	2.60	257	
33001-4002	33001-5002	7U5T-14474-TA	SILVER**	1.00mm ²	MIL-126A1	1.30	2.15	2.00	2.30	211	
				0.75mm ²	MIL-126A1	1.25	2.15	1.95	2.10	142	
33001-4003	33001-5003	7U5T-14474-SA	SILVER**	0.50mm ²	MIL-126A1	1.10	1.60	1.80	1.90	111	
				0.35mm ²	JASO D 611 (AVSSI)	1.10	1.60	1.85	1.90	125	
33001-4003*	33001-5003*	7U5T-14474-SA*	SILVER**	0.35mm ²	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 ²	MIL-126A1	JASO D 611 (AVSSI)	1.10	1.60	1.80	1.90	111
							1.10	1.60	1.85	1.90	125
33001-4023*	33001-5023*	7U5T-14474-NA*	SILVER**	0.35mm ²	WSK-1A348-A2		0.95	1.60	1.70	1.90	50

¹HIFLON WIRE:
CORE WIRE: STAINLESS STEEL, SUS #0.14, 7 STRANDS
SURROUNDING WIRE: NICKEL (Ni) PLATED COPPER (Cu) #0.14, 30 STRANDS
INSULATOR: PTFE

* 0.35mm² WIRE MUST NOT BE USED IN MX150 SEALED CONNECTOR SYSTEMS

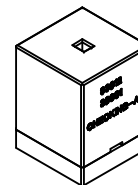
** SILVER PLATED TERMINALS NOT TO BE USED IN CONNECTOR SYSTEMS WITH CIRCUIT COUNTS HIGHER THAN 8 DUE TO HIGHER CONNECTOR MATE/UNMATE FORCE



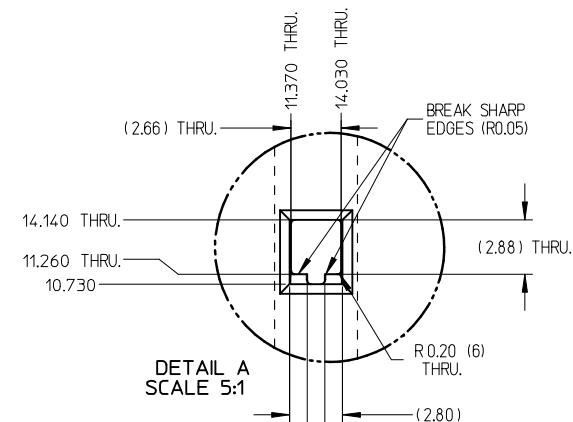
GROMMET SEAL / CAP CONFIGURATION TO MODIFY LARGE POLARIZATION RIB CAVITY TO ACCEPT SMALL POLARIZATION RIB APPLICATIONS

ENTER DESCRIPTION EC NO: UAU2010-0107 DRINKWATERGUSON 2009/08/18 CHKDA-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	
		mm INCH 4 PLACES ± --- ± --- 3 PLACES ± 0.005 ± --- 2 PLACES ± 0.10 ± --- 1 PLACE ± 0.3 ± ---		DRAWN BY DATE L. PULLIAM 2005/06/21		TITLE MX150 RECEPTACLE TERMINAL MOLEX INCORPORATED	SHEET NO. 2 OF 5		
		ANGULAR ± 3 °		CHECKED BY DATE A. DHIR 2005/06/21					
		APPROVED BY DATE B. MOSER 2005/06/22		MATERIAL NO. SEE TABLE				DOCUMENT NO. SD-33012-002	
SIZE C		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

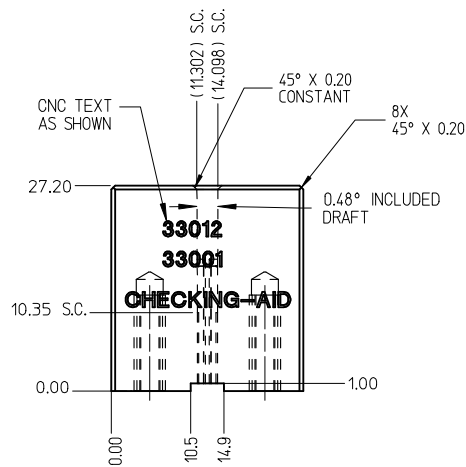
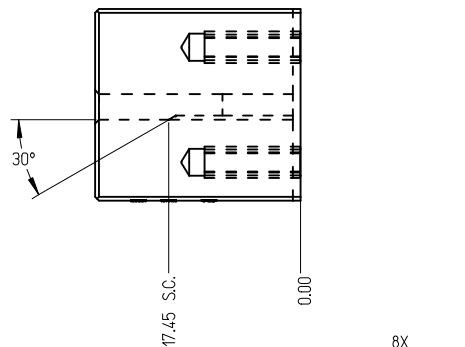
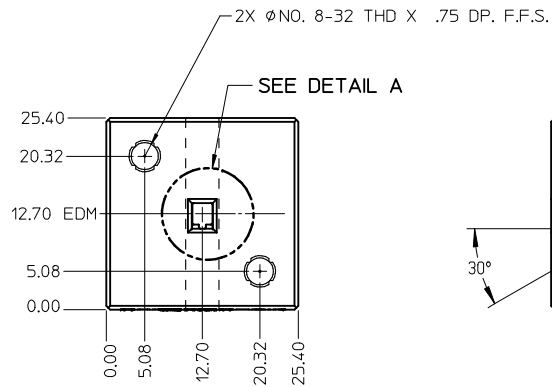
THIS CHECKING - AID IS FOR SMALL POLARIZATION RIB TERMINALS ONLY



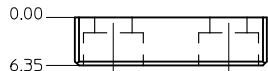
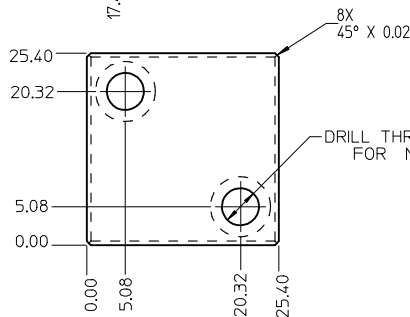
CHECKING - AID ASSEMBLY
SCALE 1:1



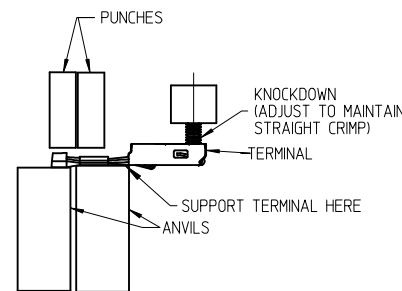
DETAIL A
SCALE 5:1



CHECKING - AID
UPPER



CHECKING - AID
LOWER



CRIMP REQUIREMENTS:

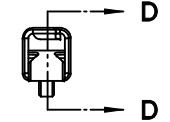
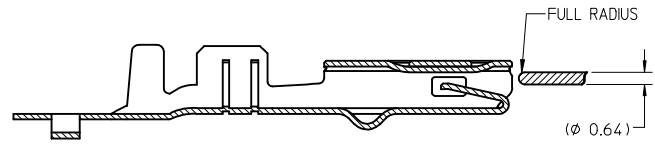
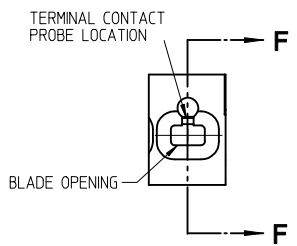
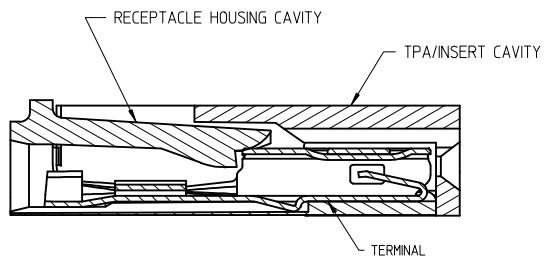
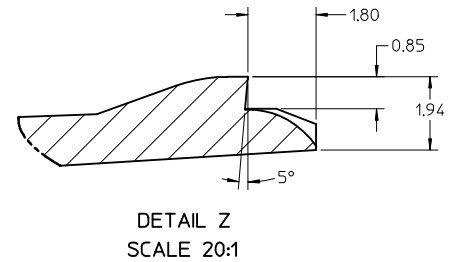
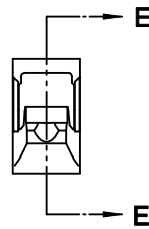
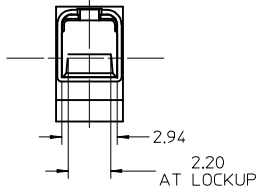
1. CRIMP STRAIGHTNESS MUST BE MAINTAINED
USE A KNOCKDOWN TOOL LOCATED AS SHOWN
TERMINAL BOX MUST NOT BE DEFORMED
2. AFTER CRIMPING, THE CRIMPED TERMINAL (AND UP TO 5 mm OF WIRE PAST THE INSULATOR CUTOFF TAB) MUST FIT FREELY INTO THE CHECKING-AID SHOWN ON THIS PAGE
3. FOR OTHER MECHANICAL REQUIREMENTS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

ENTER DESCRIPTION EC NO: UAU2010-0107 DRINKFERGUSON 2009/08/18 CHKDA:DHIR 2009/08/19 APPR:BMOSER 2009/08/20	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		4 PLACES ± mm 3 PLACES ± 0.005 2 PLACES ± 0.10 1 PLACE ± 0.3	INCH ± --- ± --- ± --- ± ---	DRAWN BY L. PULLIAM	DATE 2005/06/21	TITLE MX150 RECEPTACLE TERMINAL	MOLEX INCORPORATED	
REV B1	DESCRIPTION B1	ANGULAR ± 3 °		APPROVED BY B. MOSER	DATE 2005/06/22	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-33012-002	SHEET NO. 3 OF 5



- NOTES: UNLESS OTHERWISE SPECIFIED
1. TOLERANCES: LINEAR ± 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



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)
$\nabla=0$	mm INCH
$\nabla=0$	4 PLACES \pm --- \pm ---
	3 PLACES ± 0.005 \pm ---
	2 PLACES ± 0.10 \pm ---
	1 PLACE ± 0.3 \pm ---
	ANGULAR $\pm 3^\circ$

DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY		5:1	METRIC	
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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