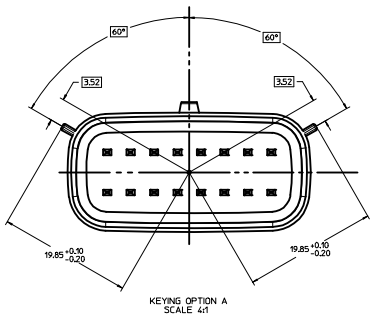
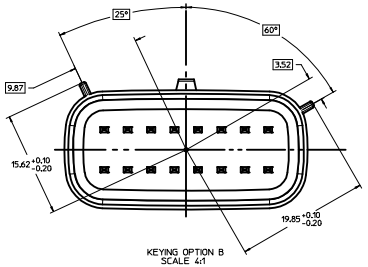
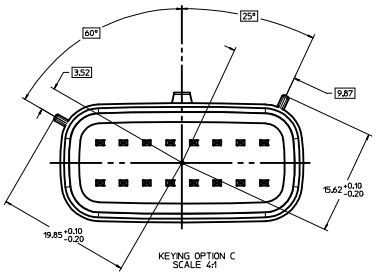


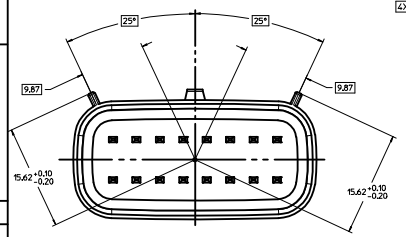
KEYING OPTION A
SCALE 4:1



KEYING OPTION B
SCALE 4:1



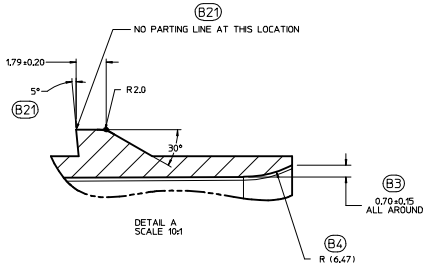
KEYING OPTION C
SCALE 4:1



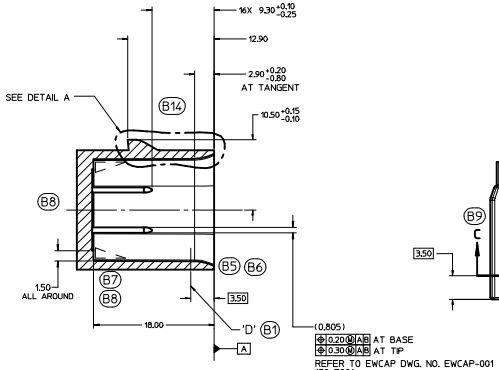
KEYING OPTION D
SCALE 4:1

150-S-016-2-D01	D	BLACK
150-S-016-2-C01	C	DK GRAY
150-S-016-2-B01	B	LT GRAY
150-S-016-2-A01	A	BLACK
EWCAP P/N	OPTION	MATING CONNECTOR COLOR

B2

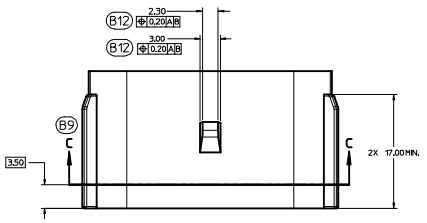


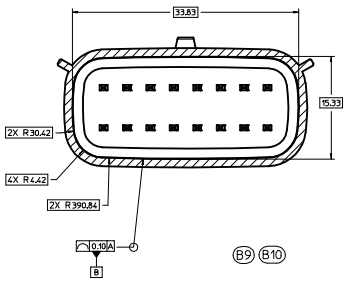
DETAIL A
SCALE 10:1



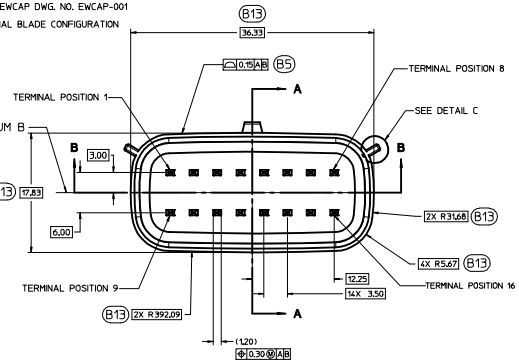
SECTION A-A

REFER TO EWCAP DWG. NO. EWCAP-001
150-T001
1.50 TERMINAL BLADE CONFIGURATION

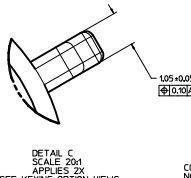




SECTION C-C
SCALE 4:1

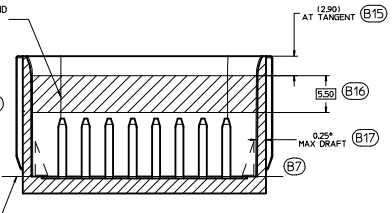


REFER TO EWCAP DWG. NO. EWCAP-001
150-T001
1.50 TERMINAL BLADE CONFIGURATION



DETAIL C
SCALE 20:1
APPLIES 2X
SEE KEYING OPTION VIEWS
FOR POSITIONS

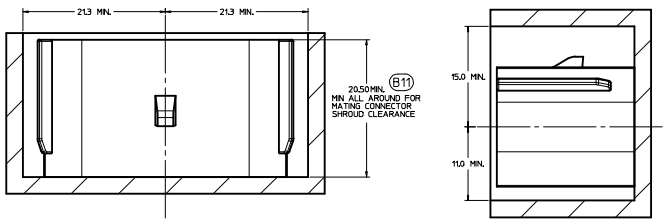
B19 SURFACE MUST BE FREE OF SURFACE DEFECTS AND PARTING LINES FOR SEALING ALL AROUND



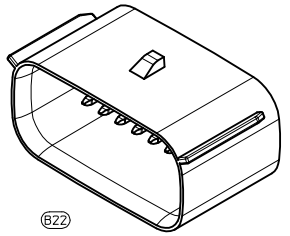
CONSTRUCTION BELOW THIS SURFACE IS NOT CONTROLLED BY EWCAP. NO PLASTIC FEATURES MAY EXTEND ABOVE THIS SURFACE.

SECTION B-B

IF HEADER IS RECESSED INTO A POCKET, THESE DIMENSIONS REPRESENT THE MINIMUM CLEARANCE REQUIRED FOR THE MATING CONNECTOR SHROUD.



PACKAGING FRAME



NOTICE

THIS DRAWING OR PORTIONS OF IT, ARE CONTROLLED BY THE ELECTRICAL WIRING COMPONENTS APPLICATION PARTNERSHIP (EWCAP), A SUBGROUP OF THE UNITED STATES CONSORTIUM FOR AUTOMOTIVE RESEARCH LLC (USCAR). USCAR IS A PARTNERSHIP BETWEEN CHRYSLER GROUP LLC, FORD MOTOR COMPANY, AND GENERAL MOTORS CORPORATION B20
ANY CHANGE TO A EWCAP CONTROLLED PORTION OF THIS DRAWING, INCLUDING A "RECORD CHANGE" MUST BE APPROVED, IN WRITING, BY THE RESPONSIBLE EWCAP MEMBER FROM EACH USCAR COMPANY. EACH EWCAP MEMBER AUTHORIZED TO SIGN FOR HIS OR HER COMPANY IS RESPONSIBLE FOR OBTAINING ALL NECESSARY APPROVALS WITHIN THAT COMPANY PRIOR TO SIGNING FOR APPROVAL OF THE CHANGE. EWCAP EXPRESSLY PROHIBITS ANY PARTY FROM CHANGING EITHER ANY EWCAP CONTROLLED PORTION OF THIS DRAWING OR ANY ASSOCIATED TOOLING BEFORE RECEIVING AN APPROVAL SIGNED BY AN AUTHORIZED REPRESENTATIVE FROM EACH EWCAP PARTNER. REFERENCE TO THE SIGNED APPROVAL FORM MUST BE ENTERD IN THIS DRAWING'S CONTROL COLUMN.

NOTES: UNLESS OTHERWISE SPECIFIED B18

1. ALL DIMENSIONS SHOWN IN MILLIMETERS.
2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994
3. 0.25 RADII ON ALL CORNERS SHOWN SHARP.
4. UNSPECIFIED RADII: 0.25 EXCEPT AS NOTED.
5. STANDARD COLORS FOR POLARIZATION (SEE CHART). DEVIATION REQUIRES APPROVAL OF AUTHORIZED PERSON.
6. REFER TO "SAE/USCAR 12 CONNECTOR GUIDELINES" FOR ADDITIONAL REQUIREMENTS.
7. EXCEPT WHERE NOTED, DRAFT ON OUTSIDE SURFACES IS PERMISSIBLE WITHIN TOLERANCE.
8. ⊿ ⊂ ⊐ SYMBOL INDICATES DRAFT DIRECTION.
9. FOR TERMINAL MATERIAL, DIMENSIONAL, AND COATING REQUIREMENTS AND ANY BLADE TERMINAL DESIGN INFORMATION NOT SHOWN ON THIS DRAWING SEE EWCAP DRW. NO. EWCAP-001
10. A FULL SHROUD ON THE MATING CONNECTOR IS REQUIRED TO INSURE THAT THE CONNECTOR-HEADER POLARIZATION FEATURES (OPTIONS A THRU D) WILL FUNCTION. THE FULL SHROUD ALSO PREVENTS SCOOP DAMAGE TO THE HEADER PINS. REFER TO "SAE/USCAR-12 CONNECTOR DESIGN GUIDE LINES" FOR ADDITIONAL INFORMATION.
11. REFER TO USCAR/EWCAP PART LIST AS FOUND ON WEBSITE http://www.uscarteams.org
12. THIS IS A 100% CAD GENERATED PART. THE CAD MATHEMATICAL DATA IS THE MASTER FOR THIS PART. FOR DIMENSIONAL OR ANY INFORMATION NOT SHOWN ON THIS DRAWING, ANALYZE THE CAD MODEL.

molex

095	B22	CHANGED ISO VIEW SCALE TO 4:1 WAS 1:1			
095	B21	ADDED PARTING LINE NOTE TO DETAIL A, REMOVED NOTE BACK ANGLE OPTIONAL FROM 5°			
095	B20	CORRECTED CHRYSLER GROUP LLC NOMENCLATURE			
095	B19	MOVED NOTE TO SECTION B-B			
095	B18	UPDATED NOTES			
095	B17	ADDED 0.25° MAX DRAFT ANGLE ALL AROUND			
095	B16	ADDED 5.50			
095	B15	ADDED AT TANGENT NOTE			
095	B14	REMOVED DATUM D			
095	B13	ADDED BASIC DIMENSIONS FOR PROFILE CONTROL			
095	B12	ADDED 0.20 A B			
095	B11	DIMENSIONED TO DATUM A			
095	B10	SEALING SURFACE DIMENSIONS MOVED TO SECTION C-C			
095	B9	ADDED SECTION C-C			
095	B8	REMOVED 15.20 AND 2.50 FROM SECTION A-A			
095	B7	ADDED DRAFT ANGLE DIRECTION			
095	B6	REMOVED 0.80 +0.10/-0.20 ALL AROUND			
095	B5	REPLACED WALL THICKNESS CONTROL WITH PROFILE OF A SURFACE			
095	B4	ADDED R(6.47)			
095	B3	ADDED 0.70 ±0.15 ALL AROUND			
095	B2	UPDATED CONNECTOR COLORS			
095	B1	SURFACE 'D' RELOCATED TO 3.50 WAS AT 8.20	03-22-12	KC	MV
	A	RELEASED	10-31-02	DG	JC
CHANGE SERIAL NUMBER	LET	REVISION RECORD	DATE	DWN	CHK

TOLERANCES (UNLESS OTHERWISE SPECIFIED)
DIMENSIONS ARE IN MILLIMETERS
ANGLES ±3°
X ±0.2 XX ±0.10
THIRD ANGLE PROJECTION

EWCAP

SCALE	DRAWN BY	CHECKED BY	DATE
4 - 1	K.CUNNINGHAM	M.VANSLAMBROUCK	03-22-12

TITLE
DIRECT CONNECT INTERFACE
16 WAY (2 X 8) 1.5MM SEALED MALE

SHEET	DRAWING NUMBER	SIZE	DO NOT SCALE DRAWING COMPUTER ADDED DRAWING	REVISION LEVEL
1OF1	150-S-016-2-Z01	E		B

TABLE OF CONTENTS

SHEET NO.	SHEET DESCRIPTION
1	NOTES AND BOM
2	CONFIGURATIONS
3-4	KEY CONFIGURATIONS
5	RECEPTACLE CONNECTOR ASSEMBLY
6	BACKSHELL NOTES
7	BACKSHELL
8	BACKSHELL CONFIGURATIONS
9	2X10 CONNECTOR INTERFACE DEFINITION

NOTES: VALID UNLESS OTHERWISE SPECIFIED

1. GENERAL:
a. APPLICATION SPECIFICATION SEE: AS-33472-100
-CONTAINS: PRODUCT INTRODUCTION, PRODUCT SUMMARY, CONNECTOR ASSEMBLY, PACKAGING INFORMATION, CONNECTOR MATING, SERVICE INSTRUCTIONS, ELECTRICAL CONTINUITY CHECKING, CRIMPING, AND TROUBLESHOOTING.
-DESIGNED TO MATE WITH DEVICE OR CONNECTOR AS SPECIFIED IN THE MATING INTERFACE/CONNECTOR DRAWINGS CHART.
*DENOTES DRAWINGS THAT CAN BE ACCESSED AT <http://ewcap.uscarteams.org/>.
-ASSEMBLY SHIPPED WITH PLR IN PRE-LOCK POSITION (SEE PLR PRE-LOCK VIEW SHEET 5).
b. PRODUCT SPECIFICATION SEE:
-STANDARD CONFIGURATION (STD): PS-33472-000
-TRANSMISSION CONFIGURATION (TRNS):
CONTAINS SILICONE: TS-160038-0001
SILICONE FREE: TBD
-UL V0 CONFIGURATION (UL V0): TBD
CONTAINS: PRODUCT INTRODUCTION, PRODUCT SUMMARY, RATINGS (CURRENT, TEMPERATURE, SEALING, AND FLAMMABILITY), TERMINALS, WIRE DIAMETER RANGE, PRODUCT VALIDATION, AND PRODUCT DEVIATIONS.
c. PACKAGING SPECIFICATION PER MOLEX DRAWING: SEE PACKAGING CHART
d. PARTS MUST BE IN COMPLIANCE TO MOLEX CHEMICAL SUBSTANCES FOR PRODUCTS AND PACKAGING SPECIFICATION: QEHS-699000-301
e. DATA MUST BE SUBMITTED UNDER THE MOLEX PART NUMBER TO IMDS (COMPANY ID#13255)

2. DESIGN - MATERIALS:
a. FOR BILL OF MATERIALS SEE:
-STANDARD CONFIGURATION SD-33472-0002
-TRANSMISSION CONGURATION
CONTAINS SILICONE: SD-160038-0002
SILICONE FREE: SD-160092-0002
-UL V0 CONFIGURATION SD-160074-0002
b. TRANSMISSION CONNECTOR COMPONENTS MUST MEET THE MATERIAL REQUIREMENTS SPECIFIED IN TS-160038-0001 & TBD

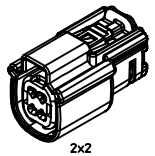
3. DESIGN - GEOMETRY:
a. THE 3-D CAD DATA IS BASIC (WITHOUT TOLERANCE) AND MASTER FOR THIS PART WITH THE EXCEPTION OF UNDERLINED DIMENSIONS. DIMENSIONAL INFORMATION NOT SHOWN ON THIS DRAWING IS DEFINED BY THE DATA FILE AT ITS LATEST REVISION.
b. GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5M-2009
c. EDGES AND UNDIMENSIONED DETAILS PER ISO13715
d. CORNERS SHOWN AS SHARP TO BE R 0.2 MAX.
e. LETTERING SHALL BE 0.15 MAX RAISED IN 0.25 MAX RECESS PAD. THIS INCLUDES RECYCLING CODE, CAVITY ID, VENDOR IDENTIFICATION, AND CUSTOMER MATERIAL NUMBER.
f. VISUAL DEFECTS SHALL MEET COSMETIC STANDARD PS-45499-002 (Class B).
g. LASER MARKING:
1. PART NUMBER
2. DAY OF THE YEAR
3. SHIFT
4. YEAR
FOR ADDITIONAL INFORMATION SEE SECTION 5 UNDER PROCEDURES IN ES-34735-008.

PACKAGING

DESCRIPTION	DRAWING NO.
2X2	PK-31300-635
2X3	PK-31300-903
2X4	PK-31300-903
2X6	PK-31300-903
2X8	PK-31300-903
2X10	PK-31300-903

MATING INTERFACE/CONNECTOR DRAWINGS

DESCRIPTION	INTERFACE DEFINITION	MOLEX INLINE
STANDARD 2X2	*150-S-004-2-Z02	SD-33482-0001
UL V0 2X2	*150-S-004-2-Z02	SD-33482-0001
STANDARD 2X3	*150-S-006-2-Z02	SD-33482-0001
TRANSMISSION 2X3	*150-S-006-2-Z02	N/A
STANDARD 2X4	*150-S-008-2-Z02	SD-33482-0001
UL V0 2X4	*150-S-008-2-Z02	SD-33482-0001
STANDARD 2X6	*150-S-012-2-Z01	SD-33482-0001
STANDARD 2X8	*150-S-016-2-Z01	SD-33482-0001
STANDARD 2X10	SD-33472-0001	SD-33482-0001
UL V0 2X10	SD-33472-0001	SD-33482-0001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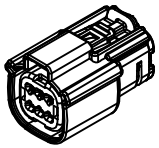
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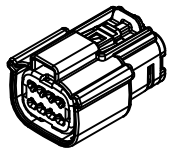
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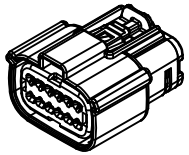
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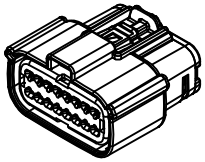
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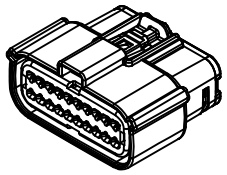
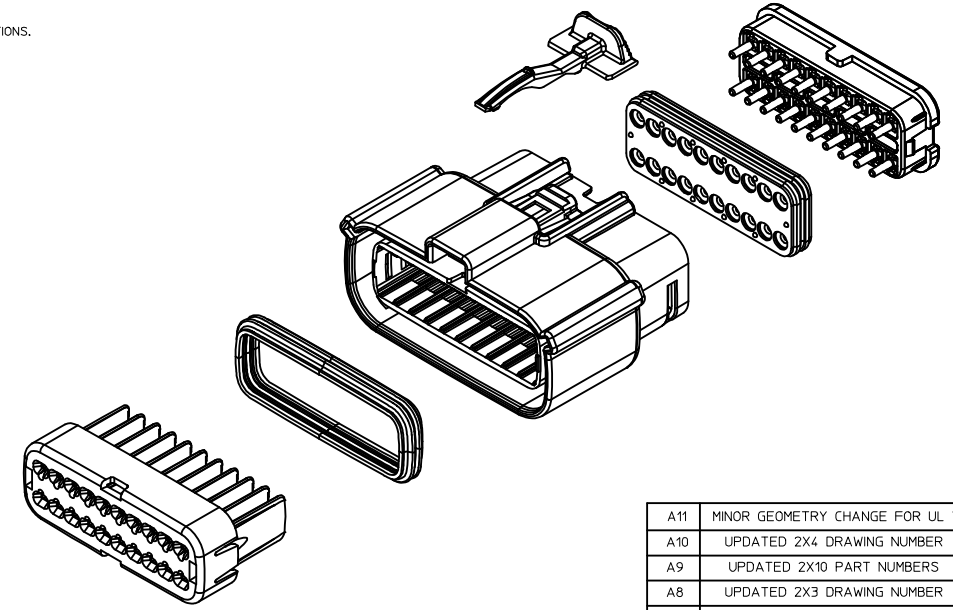

2x10



REV	REV DESCRIPTION
A11	MINOR GEOMETRY CHANGE FOR UL V0
A10	UPDATED 2X4 DRAWING NUMBER
A9	UPDATED 2X10 PART NUMBERS
A8	UPDATED 2X3 DRAWING NUMBER
A7	UPDATED 2X10 INTERFACE
A6	ADDED TRANSMISSION REFERENCES
A5	ADD 2X10 INTERFACE SHEETS
A4	ADD UL V0 CONFIGURATIONS
A3	ADDED 2X3 STD AND TRANSMISSION
A2	UPDATED 2X8 BLD DRAWINGS
A1	FIXED TYPO IN NOTE 1a, UPDATED 2X6 MOLEX INLINE BLADE DRAWING
A	INITIAL RELEASE

INSPECTION NUMBER LOG
LAST NUMBER: 11
ADDED: 11
REMOVED:

ENTER DESCRIPTION
EC NO: UAU2016-1539 2016/05/03
DRWN: XBTANG
CHKD:
APPR: KDEKOSKI 2016/05/24
REV A11 DESCRIPTION

QUALITY SYMBOLS
=0
=0
=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.2	± ---
0 PLACE	± ---	± ---

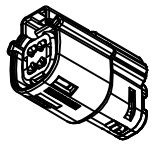
ANGULAR ± 1 °
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE: 1.5:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION
DRAWN BY: APROFFITT DATE: 2014/05/14
CHECKED BY: DATE:
APPROVED BY: VKOSHY DATE: 2014/06/27
MATERIAL NO.: SEE NOTE 2a.
TITLE: MX150 RCPT DUAL ROW SEALED ASSEMBLY MAT SEAL
DOCUMENT NO.: SD-33472-0001
SHEET NO.: 1 OF 9
SIZE: A1

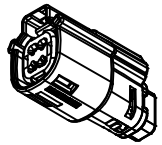
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

SHEET DESCRIPTION

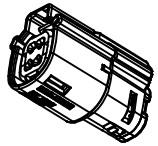
CONFIGURATIONS



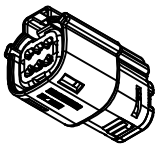
2X2 - STD.
2X2 - TRNS. - SILICONE FREE †



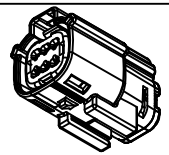
2X2 - STD. - LENGTHENED



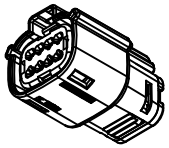
† 2X2 - UL V0



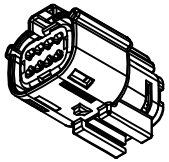
2X3 - STD.
2X3 - TRNS. - CONTAINS SILICONE †



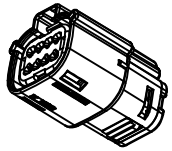
2X3 - STD. - WITH CLIPSLOT *



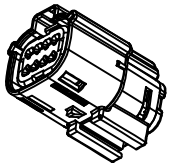
2X4 - STD.



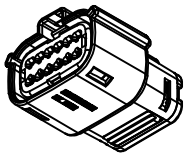
2X4 - STD. - WITH CLIPSLOT *



† 2X4 - UL V0



† 2X4 - UL V0-WITH CLIPSLOT*



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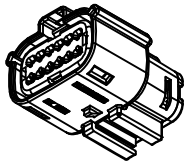
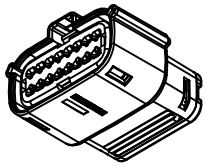


2X6 - STD. - WITH CLIPSLOT *



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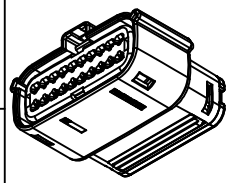

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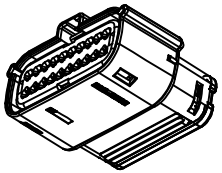


† 2X10 - UL V0

* WITH CLIPSLOT CONFIGURATION DOES NOT
MEET THE USCAR PACKAGING FRAME REQUIREMENTS

† MINOR GEOMETRY DIFFERENCE THAN STANDARD CONFIGURATION.
SEE NOTES 1a & 2a-b FOR MORE INFORMATION

ENTER DESCRIPTION
EC NO: UAU2016-1539 2016/05/03
DRWN:XBTANG
CHKD:
APPR:KDEKOSKI 2016/05/24
REV DESCRIPTION
A11

QUALITY SYMBOLS
=0
=0
=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.2	± ---
0 PLACE	± ---	± ---

ANGULAR ± 1 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE: 1.5:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: APROFFITT DATE: 2014/05/14
CHECKED BY: DATE:
APPROVED BY: VKOSHY DATE: 2014/06/27
MATERIAL NO.: SEE NOTE 2a.

TITLE
MX150 RCPT
DUAL ROW SEALED ASSEMBLY
MAT SEAL

molex

DOCUMENT NO.: SD-33472-0001
SHEET NO.: 2 OF 9

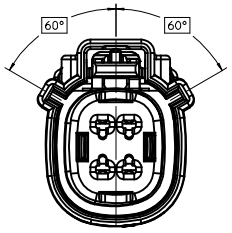
SIZE A1

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

SHEET DESCRIPTION

KEY CONFIGURATIONS

2X2



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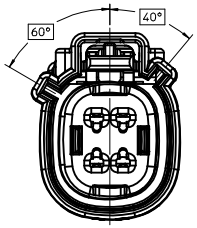

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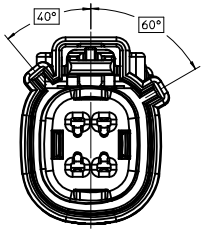

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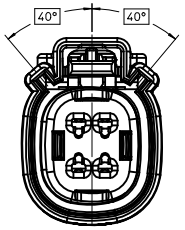

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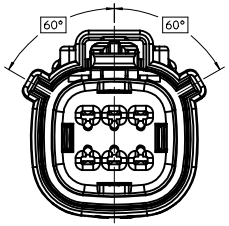

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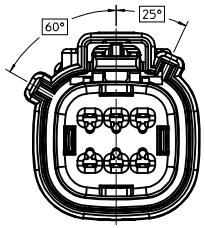

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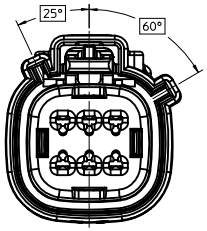

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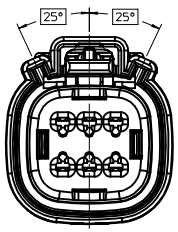

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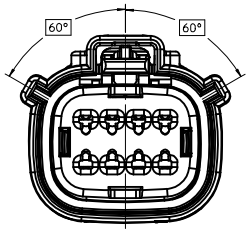

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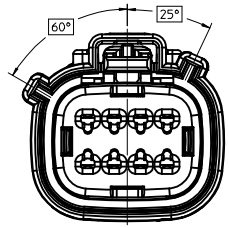

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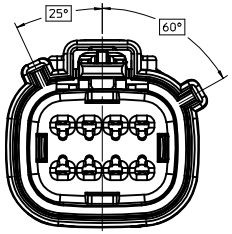

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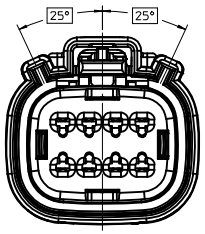


KEY D

ENTER DESCRIPTION
EC NO: UAU2016-1539 2016/05/03
DRWN:XBTANG
CHKD:
APPR:KDEKOSKI 2016/05/24
REV DESCRIPTION
A11

QUALITY SYMBOLS
=0
=0
=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.2	± ---
0 PLACE	± ---	± ---

ANGULAR ± 1 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE: 3:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: APROFFITT DATE: 2014/05/14
CHECKED BY: DATE:
APPROVED BY: VKOSHY DATE: 2014/06/27
MATERIAL NO.: SEE NOTE 2a.

TITLE: MX150 RCPT
DUAL ROW SEALED ASSEMBLY
MAT SEAL

molex

DOCUMENT NO.: SD-33472-0001
SHEET NO.: 3 OF 9

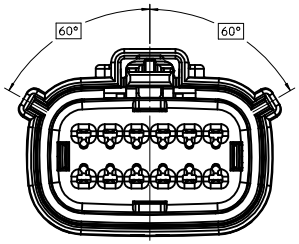
SIZE A1

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

SHEET DESCRIPTION

KEY CONFIGURATIONS CONT.

2X6



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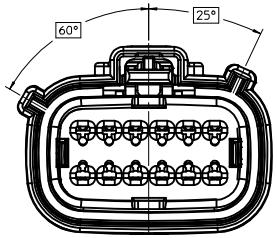

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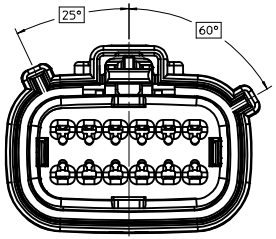

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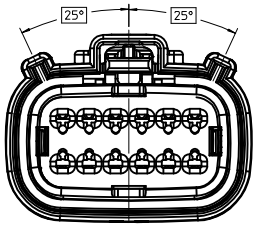

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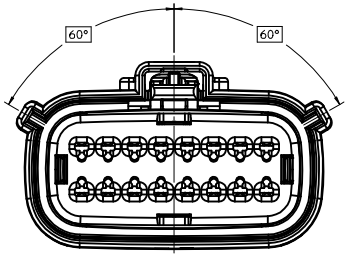

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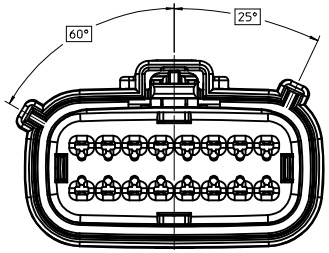

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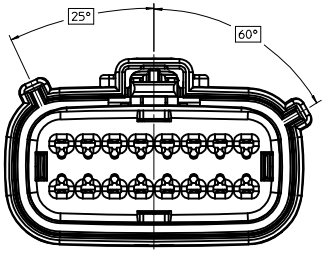

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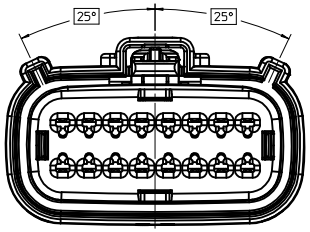

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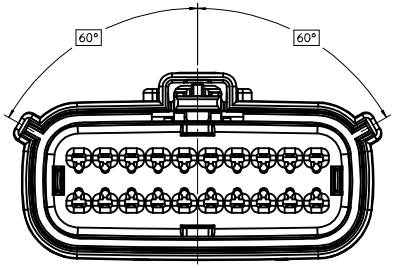

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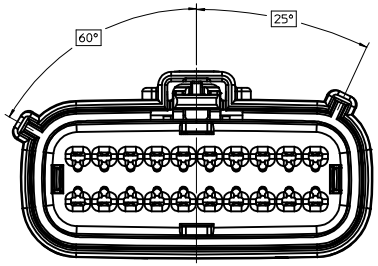

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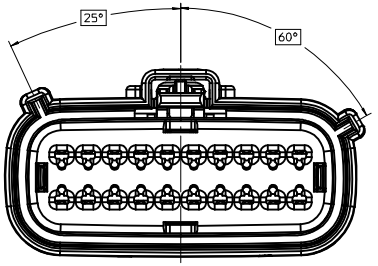

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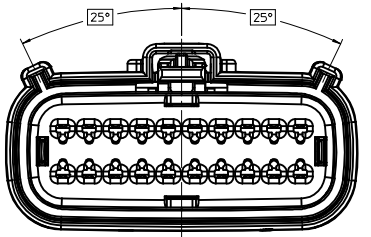


KEY D

ENTER DESCRIPTION
EC NO: UAU2016-1539 2016/05/03
DRWN:XBTANG
CHKD:
APPR:KDEKOSKI 2016/05/24
DESCRIPTION
REV
A11

QUALITY SYMBOLS
=0 4 PLACES
=0 3 PLACES
=0 2 PLACES
=0 1 PLACE
=0 0 PLACE

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.2	± ---
0 PLACE	± ---	± ---

ANGULAR ± 1 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE: 3:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: APROFFITT DATE: 2014/05/14
CHECKED BY: DATE:
APPROVED BY: VKOSHY DATE: 2014/06/27
MATERIAL NO.: SEE NOTE 2a.
SIZE: A1

TITLE
MX150 RCPT
DUAL ROW SEALED ASSEMBLY
MAT SEAL

molex

DOCUMENT NO.: SD-33472-0001
SHEET NO.: 4 OF 9

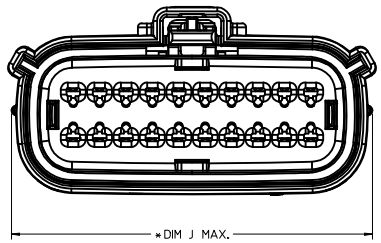
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

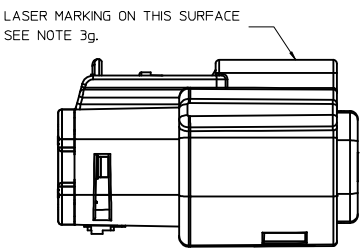
SHEET DESCRIPTION

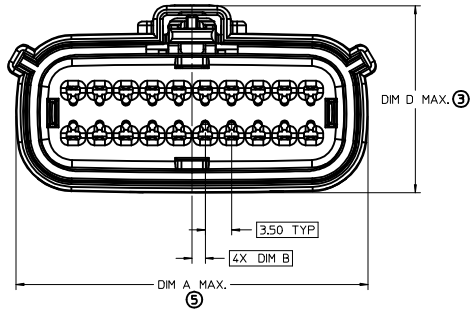
RECEPTACLE CONNECTOR ASSEMBLY

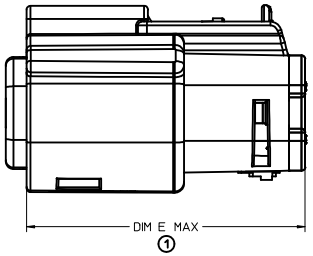
CHARTED DIMENSIONS

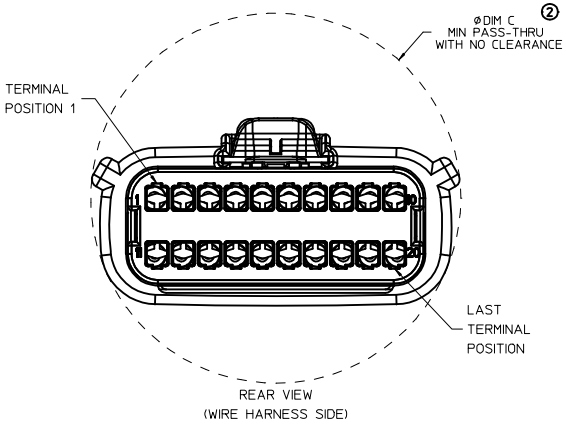
DESCRIPTION	DIMENSIONS							
	A	B	C	D	E	F	G	J
2X2 STANDARD	18.58	1.75	25.45	24.81	37.65	N/A	2.75±0.50	20.04
2X2 LENGTHENED	18.58	1.75	25.45	24.81	42.25	N/A	2.75±0.50	
2X3 W/ CLIPSLOT	22.25	3.50	30.50	N/A	37.65	27.96	4.0±0.4	
2X3 W/O CLIPSLOT	22.25	3.50	26.24	24.90	37.65	N/A	4.0±0.4	
2X4 W/ CLIPSLOT	25.75	1.75	31.50	N/A	37.65	28.00	2.75±0.50	27.04
2X4 W/O CLIPSLOT	25.75	1.75	29.19	24.81	37.65	N/A	2.75±0.50	27.04
2X6 W/ CLIPSLOT	32.75	1.75	35.58	N/A	37.65	27.76	2.75±0.50	
2X6 W/O CLIPSLOT	32.75	1.75	35.58	24.90	37.65	N/A	2.75±0.40	
2X8 W/O CLIPSLOT	39.80	1.75	42.25	24.90	37.65	N/A	4.0±0.4	
2X10 W/O CLIPSLOT	46.75	1.75	49.05	24.90	37.65	N/A	2.75±0.50	48.04

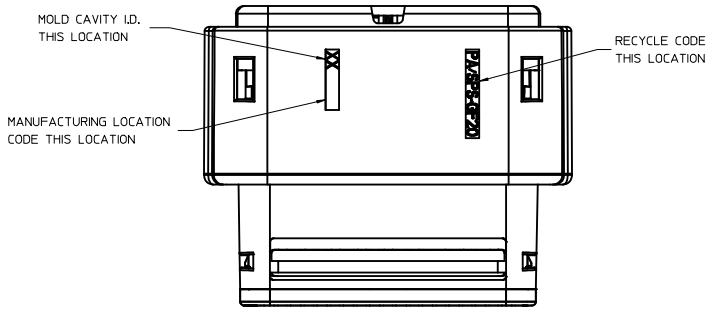


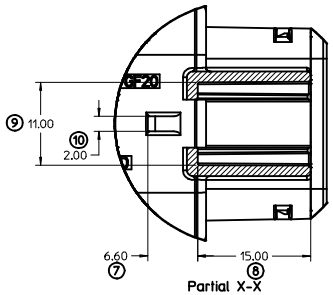


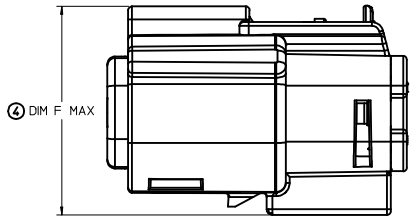


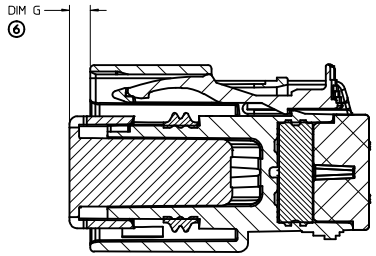






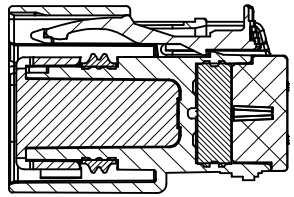






PRIMARY LOCK REINFORCEMENT (PLR) SHOWN
IN PRE-STAGED POSITION

SECTION Y-Y



PRIMARY LOCK REINFORCEMENT (PLR) SHOWN
IN FINAL-LOCK POSITION

SECTION Z-Z

ENTER DESCRIPTION
EC NO: UAU2016-1539 2016/05/03
DRWN:XBTANG
CHKD:
APPR:KDEKOSKY 2016/05/24
REV DESCRIPTION
A11

QUALITY SYMBOLS
=0
=0
=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.2	± ---
0 PLACE	± ---	± ---

ANGULAR ± 1 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE: 3:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: APROFFITT DATE: 2014/05/14
CHECKED BY: DATE:
APPROVED BY: VKOSHY DATE: 2014/06/27
MATERIAL NO.: SEE NOTE 2a.

TITLE: MX150 RCPT
DUAL ROW SEALED ASSEMBLY
MAT SEAL

molex

DOCUMENT NO.: SD-33472-0001
SHEET NO.: 5 OF 9
SIZE: A1

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

SHEET DESCRIPTION

BACKSHELL NOTES

BACKSHELL NOTES: VALID UNLESS OTHERWISE SPECIFIED

1. GENERAL:

a. APPLICATION SPECIFICATION SEE: AS-34951-001

-DESIGNED TO MATE WITH RECEPTACLE SEALED ASSEMBLY SPECIFIED IN MOLEX DRAWING SD-33472-0001.

-SYSTEM TO BE USED WITH WIRE WITHIN DIAMETER RANGE OF 1.2mm TO 2.69mm.

-COMPONENTS ARE OPTIONAL AND MUST BE PURCHASED SEPERATELY.

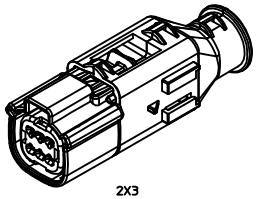
-BACKSHELL DESIGN IS OWNED BY SCHLEMMER.

-FOR ADDITIONAL INFORMATION SEE THE BACKSHELL COMPONENT DRAWING SD-34951-0001.

BACKSHELL CUSTOMER
MODEL NUMBER LEGEND

34951-XXXX

- CUSTOMER MODEL COMPONENTS
  - 0 - BACKSHELL ONLY
  - 1 - BACKSHELL & MX150 HOUSING KEY A ASSEMBLY
  - 2 - BACKSHELL & MX150 HOUSING KEY B ASSEMBLY
  - 3 - BACKSHELL & MX150 HOUSING KEY C ASSEMBLY
  - 4 - BACKSHELL & MX150 HOUSING KEY D ASSEMBLY
- BACKSHELL FEATURES
  - 1 - WITH RIBS
  - 2 - WITHOUT RIBS
- MX150 CIRCUIT SIZE 04, 06, 08, 12, 16, 20



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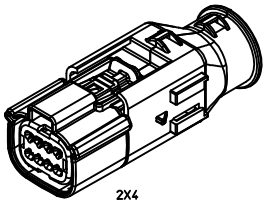

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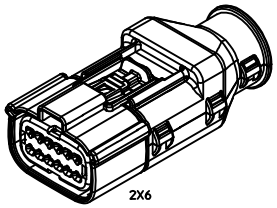

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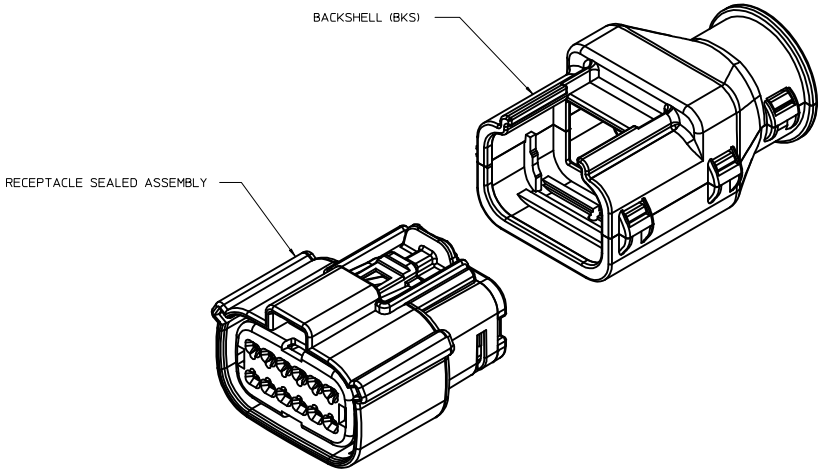
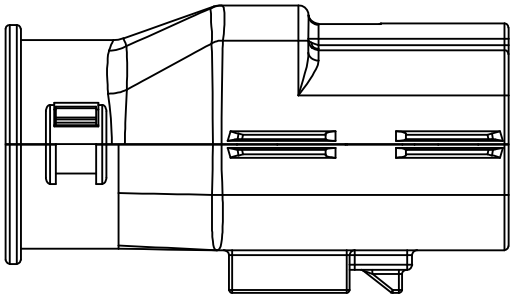
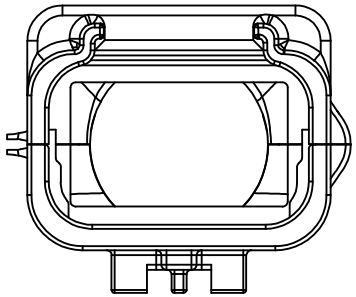


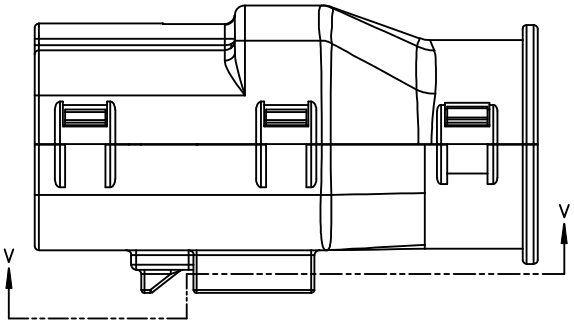
ENTER DESCRIPTION EC NO: UAU2016-1539 2016/05/03 DRWN:XBTANG CHKD: APPR:KDEKOSKI 2016/05/24 DESCRIPTION REV A11	QUALITY SYMBOLS =0 =0 =0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm / INCH 4 PLACES ± --- / ± --- 3 PLACES ± --- / ± --- 2 PLACES ± 0.10 / ± --- 1 PLACE ± 0.2 / ± --- 0 PLACE ± --- / ± --- ANGULAR ± 1 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DIMENSION STYLE: MM ONLY DRAWN BY: APROFFITT DATE: 2014/05/14 CHECKED BY: DATE: APPROVED BY: VKOSHY DATE: 2014/06/27 MATERIAL NO.: SEE NOTE 2a.	SCALE: 4:1 DESIGN UNITS: METRIC THIRD ANGLE PROJECTION TITLE: MX150 RCPT DUAL ROW SEALED ASSEMBLY MAT SEAL molex DOCUMENT NO.: SD-33472-0001 SHEET NO.: 6 OF 9 SIZE: A1 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

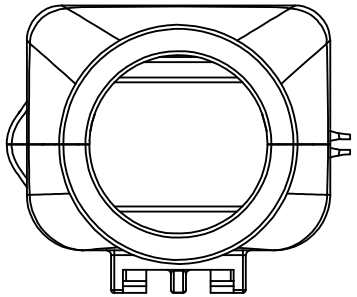
SHEET DESCRIPTION

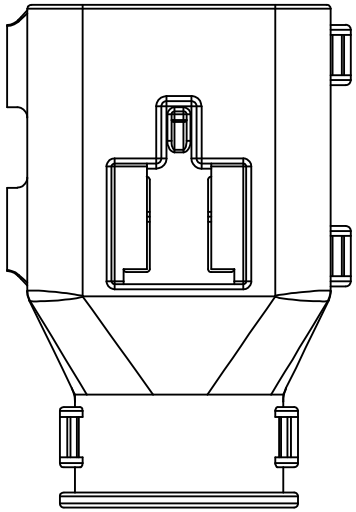
BACKSHELL

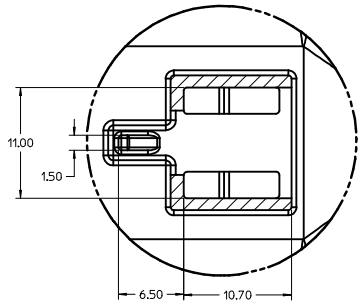










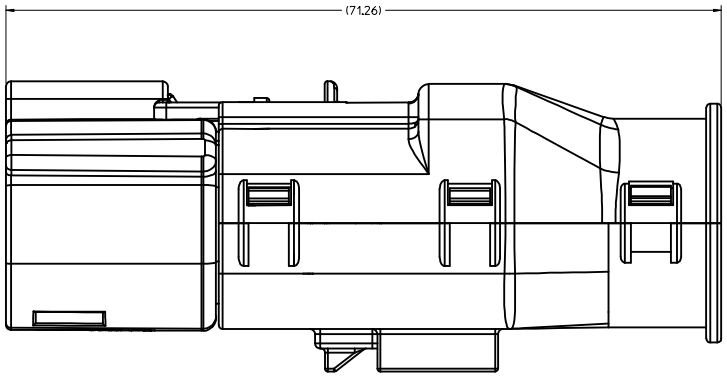


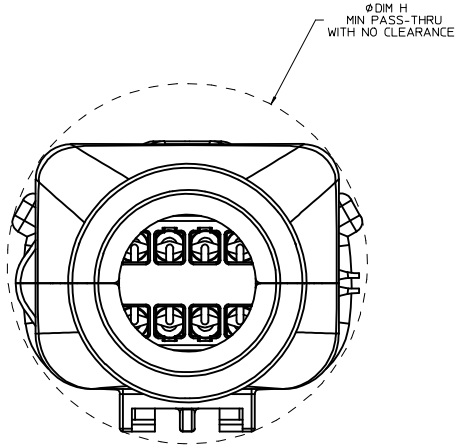
Partial V-V
SCALE 4:1

ENTER DESCRIPTION EC NO: UAU2016-1539 2016/05/03 DRWN:XBTANG CHKD: APPR:KDEKOSKI 2016/05/24 DESCRIPTION REV A11	QUALITY SYMBOLS =0 =0 =0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm / INCH 4 PLACES ± --- / ± --- 3 PLACES ± --- / ± --- 2 PLACES ± 0.10 / ± --- 1 PLACE ± 0.2 / ± --- 0 PLACE ± --- / ± --- ANGULAR ± 1 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DIMENSION STYLE MM ONLY DRAWN BY DATE APROFFITT 2014/05/14 CHECKED BY DATE APPROVED BY DATE VKOSHY 2014/06/27 MATERIAL NO. SEE NOTE 2a.	SCALE 4:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION TITLE MX150 RCPT DUAL ROW SEALED ASSEMBLY MAT SEAL molex DOCUMENT NO. SD-33472-0001 SHEET NO. 7 OF 9	SIZE A1	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

SHEET DESCRIPTION
BACKSHELL CONFIGURATIONS

CHARTED DIMENSIONS	
DESCRIPTION	DIMENSIONS
	H
2X2 STANDARD	TBD
2X2 LENGTHENED	TBD
2X3 W/ CLIPSLOT	TBD
2X3 W/O CLIPSLOT	28,50
2X4 W/ CLIPSLOT	TBD
2X4 W/O CLIPSLOT	30,75
2X6 W/ CLIPSLOT	TBD
2X6 W/O CLIPSLOT	35,83
2X8 W/O CLIPSLOT	TBD
2X10 W/O CLIPSLOT	TBD





RECEPTACLE SEALED ASSEMBLY WITH RECEPTACLE BACKSHELL

ENTER DESCRIPTION
EC NO: UAU2016-1539 2016/05/03
DRWN:XBTANG
CHKD:
APPR:KDEKOSKI 2016/05/24
DESCRIPTION
REV
A11

QUALITY SYMBOLS
=0
=0
=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0,10	± ---
1 PLACE	± 0,2	± ---
0 PLACE	± ---	± ---

ANGULAR ± 1 °
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE: 4:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

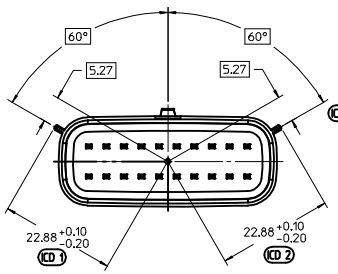
DRAWN BY: APROFFITT DATE: 2014/05/14
CHECKED BY: DATE:
APPROVED BY: VKOSHY DATE: 2014/06/27
MATERIAL NO.: SEE NOTE 2a.

TITLE
MX150 RCPT
DUAL ROW SEALED ASSEMBLY
MAT SEAL

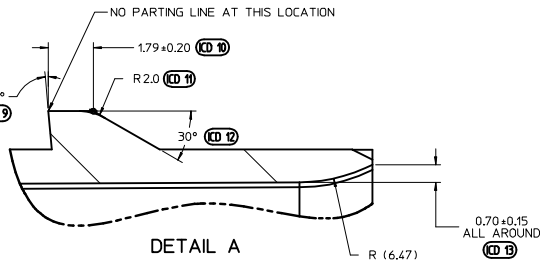
molex

DOCUMENT NO.: SD-33472-0001
SHEET NO.: 8 OF 9
SIZE: A1

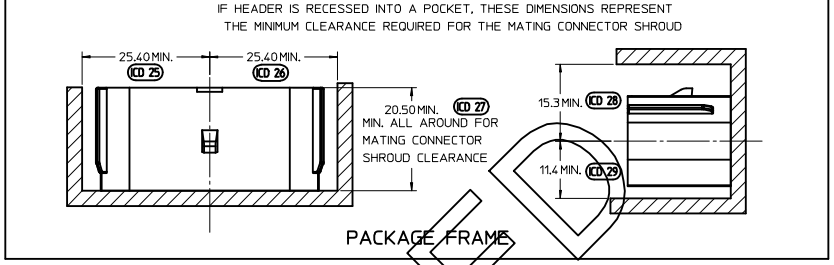
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

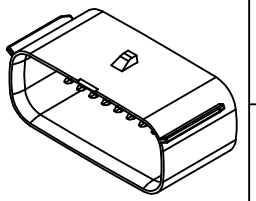


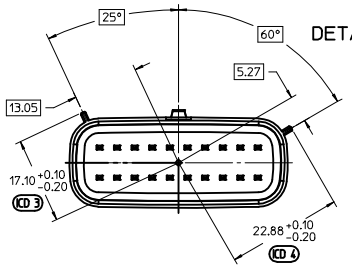
KEYING OPTION A
SCALE 4:1



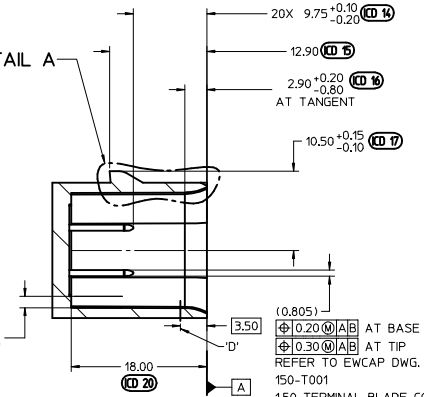
DETAIL A
SCALE 10:1



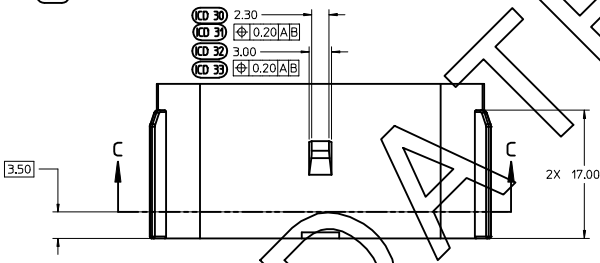


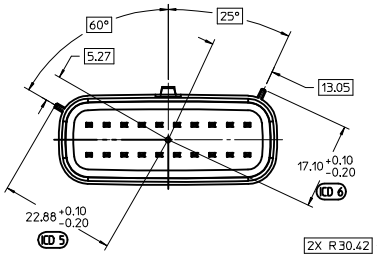


KEYING OPTION B
SCALE 4:1

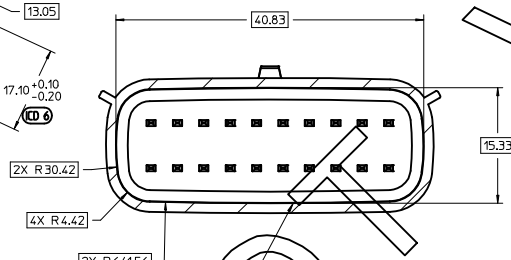


SECTION A-A

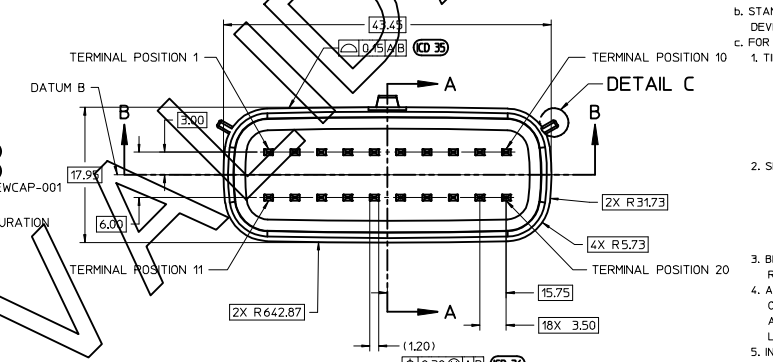


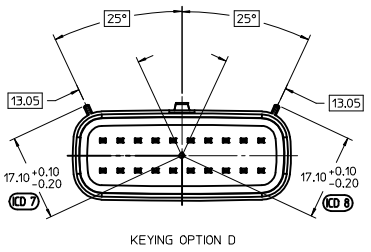


KEYING OPTION C
SCALE 4:1

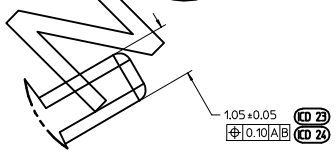


SECTION C-C





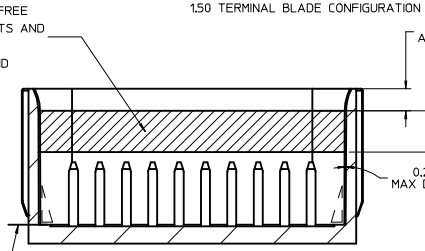
KEYING OPTION D
SCALE 4:1



DETAIL C
SCALE 20:1
APPLIES 2X
SEE KEYING OPTION VIEWS
FOR POSITIONS

SURFACE MUST BE FREE
OF SURFACE DEFECTS AND
PARTING LINES FOR
SEALING ALL AROUND

CONSTRUCTION BELOW THIS SURFACE IS
NOT CONTROLLED BY EWCAP. NO PLASTIC
FEATURES MAY EXTEND ABOVE THIS SURFACE.



SECTION B-B

MATING INTERFACE NOTES: VALID UNLESS OTHERWISE SPECIFIED

1. GENERAL:
   a. DESIGNED TO MATE WITH MOLEX CONNECTOR 33472-2XXX & 160008-0XXX & 160074-0XXX A FULL SHROUD ON THE MATING CONNECTOR IS REQUIRED TO INSURE THAT THE CONNECTOR-HEADER POLARIZATION FEATURES (OPTIONS A THRU D) WILL FUNCTION. THE FULL SHROUD ALSO PREVENTS SCOOP DAMAGE TO THE HEADER PINS. REFER TO 'SAE/USCAR-12 CONNECTOR DESIGN GUIDE LINES' FOR ADDITIONAL INFORMATION
   b. PARTS MUST BE IN COMPLIANCE TO MOLEX CHEMICAL SUBSTANCES FOR PRODUCTS AND PACKAGING SPECIFICATION: ES-40000-5016
   c. FLAMMABILITY REQUIREMENT: PER ISO3795 OR GM3191
      1. BURN RATE 100mm/MIN MAXIMUM
      2. MATERIAL MUST BE SELF EXTINGUISHING

2. MATERIALS:
   a. MATERIAL: SPS/NYLON GF20, REGRIND 20% MAX BY WEIGHT
   b. STANDARD COLORS FOR POLARIZATION (SEE KEYING OPTIONS TABLE). DEVIATION REQUIRES APPROVAL OF AUTHORIZED PERSON
   c. FOR BLADE BASE MATERIAL, PLATING AND PROCESS LUBRICANT:
      1. TIN: - BASE MATERIAL:≤COPPER ALLOY, CONDUCTIVITY >=60% IACS AT 20°C, TENSILE STRENGTH >= 410 N/mm²
         - BARRIER MATERIAL: NICKEL DEPOSIT FROM NICKEL SULFAMATE PLATING SOLUTION W/O ANY ADDITIVES THICKNESS: 1.25 - 2.25 MICROMETERS
         - TOP LAYER: 100% ELECTRO-DEPOSITED TIN, MATTE FINISH THICKNESS: 2.5 - 4.0 MICROMETERS
      2. SILVER: - BARRIER MATERIAL: ELECTRO-DEPOSITED DUCTILE SULPHAMATE NICKEL THICKNESS: 1.25 - 2.25 MICROMETERS
         - TOP LAYER: ELECTRO-DEPOSITED SEMI-BRIGHT PURE SILVER (0.5% MAX IMPURITIES) OVER NICKEL ANTI-TARNISH TREATMENT EVERBRIGHT WS THICKNESS: 1.9 - 3.3 MICROMETERS
      3. BLADES MUST CONFORM TO ES-40000-5007, EXCEPT FOR SPECULAR REFLECTIVITY - SECTION 6.0
      4. ANY PROCESS LUBRICANT REMAINING ON THE TERMINAL MUST NOT VARNISH OR DEGRADE IT'S ELECTRICAL PERFORMANCE UP TO A MAXIMUM CLASS AMBIENT TERMPERATURE PER SAE USCAR-2 FOR 1008 HOURS. PROCESS LUBRICANTS SHOULD BE APPROVED BY THE RESPONSIBLE ENGINEER.
      5. INFORMATION FOR BLADE DESIGN WAS DEVELOPED FROM EWCAP DWG: EWCAP-001

3. GEOMETRY:
   a. THIS IS A 100% CAD GENERATED PART. THE CAD MATHEMATICAL DATA IS THE MASTER FOR THIS PART. FOR DIMENSIONAL OR ANY INFORMATION NOT SHOWN ON THIS DRAWING, ANALYZE THE CAD MODEL.
   b. GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5M - 1994
   c. GENERAL TOLERANCES: SEE TITLE BLOCK
   d. EDGES AND UNDIMENSIONED DETAILS PER ISO13715

4. MANUFACTURING:
   a. DRAFT TO BE WITHIN TOLERANCE.
      PLUS DRAFT - INDICATES A DIMENSION REPRESENTS THE SMALLEST SIZE OF A FEATURE. DRAFT WILL ADD MATERIAL.
      MINUS DRAFT - INDICATES A DIMENSION REPRESENTS THE LARGEST SIZE OF A FEATURE. DRAFT WILL REMOVE MATERIAL.
   b. ALLOWABLE FLASH MAX 0.20 HIGH BY MAX 0.13 THICK.
   c. ALLOWABLE SPLIT/PARTING LINE MISMATCH 0.2 MAX.
   d. VISUAL DEFECTS SHALL MEET COSMETIC STANDARD PS-45499-002 (Class B)
   e. NO EXTERNAL MOLD RELEASE AGENT ALLOWED DURING MANUFACTURING
   f. NO PARTING LINES, NO DRAFT, MISMATCHES OR EJECTOR MARKS PERMISSIBLE WITHIN SEALING SURFACE. SEALING SURFACE TOOLING TO BE PROCESSED TO A SURFACE FINISH OF NTMA #70 (400 PAPER) MINIMUM

P/N	OPTION	MATING CONNECTOR COLOR
150-S-020-2-D02	D	STONE GRAY
150-S-020-2-C02	C	DK GRAY
150-S-020-2-B02	B	LT GRAY
150-S-020-2-A02	A	BLACK

ENTER DESCRIPTION
EC NO: UAU2016-1539 2016/05/03
DRWN:XBTANG
CHKD:
APPR:KDEKOSKI 2016/05/24
REV: A11
DESCRIPTION

QUALITY SYMBOLS

GENERAL TOLERANCES (UNLESS SPECIFIED)	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.2	± ---
0 PLACE	± ---	± ---
ANGULAR ± 1 °		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE: 3:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: APROFFITT DATE: 2014/05/14
CHECKED BY: DATE:
APPROVED BY: VKOSHY DATE: 2014/06/27
MATERIAL NO.: SEE NOTE 2a.

TITLE: MX150 RCPT
DUAL ROW SEALED ASSEMBLY
MAT SEAL

molex

DOCUMENT NO.: SD-33472-0001
SHEET NO.: 9 OF 9
SIZE: A1

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OBSOLETE
NOT FOR NEW DESIGN

tb_frame_A1_P_AM_T
Rev. G 2012/01/11