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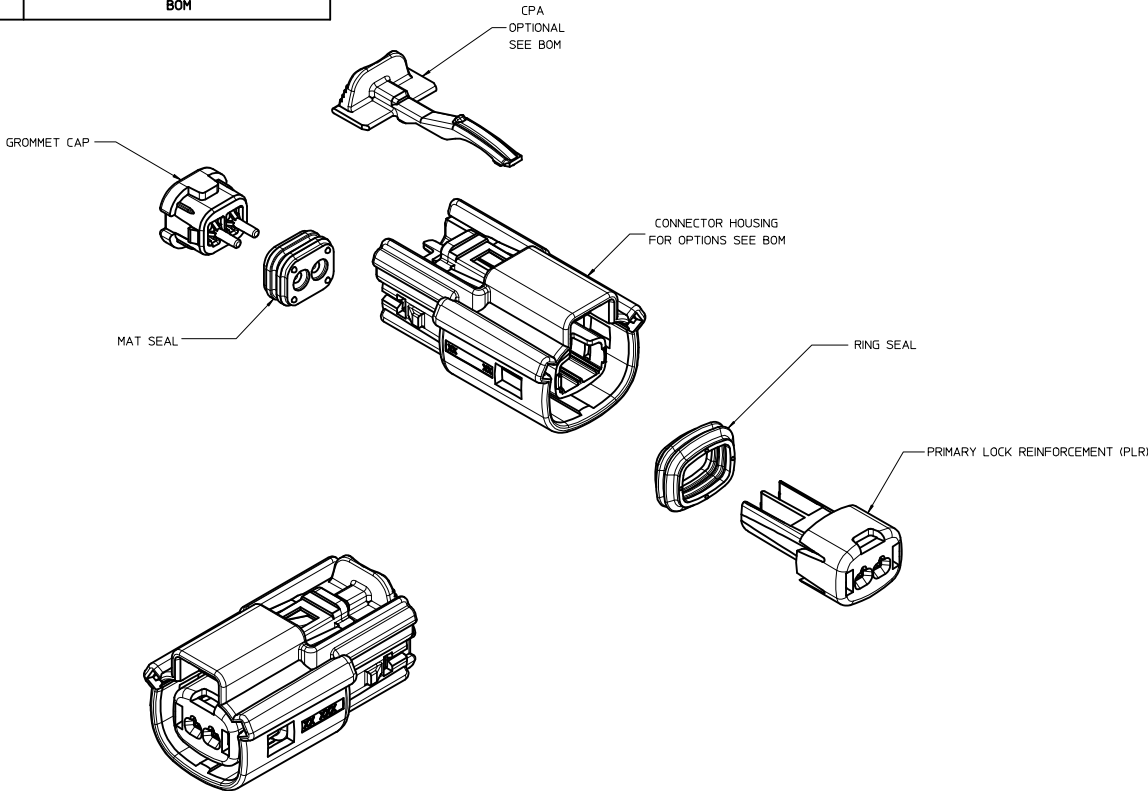
EACH COMPANY SHALL BE RESPONSIBLE FOR OBTAINING ANY OTHER AN EWCAP CONTROLLED PORTION OF THIS DRAWING OR ANY ASSOCIATED TOOLING BEFORE RECEIVING AN APPROVAL SIGNATURE BY AN AUTHORIZED REPRESENTATIVE FROM EACH EWCAP PARTNER. REFERENCE TO THE SIGNED APPROVAL FORM MUST BE ENTERED IN THIS DRAWING'S CONTROL COLUMN.

1. ALL DIMENSIONS SHOWN IN MILLIMETERS.
2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994
3. 0.25 RADI ON ALL CORNERS SHOWN SHARP.
4. UNSPECIFIED ROUNDED 0.25X 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, DRATES ON OUTSIDE SURFACES IS PERMISSIBLE WITH TOLERANCE.
8.  SYMBOL INDICATES DRILL DIRECTION.
9. FOR TERMINAL, MATERIAL, DIMENSIONAL AND COATING REQUIREMENTS AND ANY BLADE TERMINAL DESIGN INFORMATION NOT SHOWN ON THIS DRAWING SEE EPCW Dwg. NO. EWCAIP-001
10. A FULL SHROUD ON THE MATING CONNECTOR IS REQUIRED TO INSURE THAT THE CONTACTS ARE PROPERLY ALIGNED. FEATURES OPTIONS A THRU D WILL FUNCTION. THE FULL SHROUD DOES PREVENT THE CONTACTS FROM BEING DAMAGED BY THE READER PINS. REFER TO "SAE/USCAR '12 CONNECTOR DESIGN GUIDELINES" FOR ADDITIONAL INFORMATION ON THE CAD MODEL.
11. REFER TO USCAR/EPCW 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, REFER TO THE CAD MODEL.

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



TABLE OF CONTENTS	
SHEET NO.	SHEET DESCRIPTION
1	NOTES
2	KEY CONFIGURATIONS
3	RECEPTACLE SEALED ASSEMBLY
4	BACKSHELL NOTES
5	BACKSHELL
6	BACKSHELL CONFIGURATIONS
7	BOM



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 CONNECTION AS SPECIFIED IN DRAWING EWCAP 150-S-002-1-Z05, AVAILABLE AT <<http://ewcap.uscarteams.org/>>.
-DESIGNED TO MATE WITH BLADE SEALED ASSEMBLY AS SPECIFIED IN DRAWING SD-33481-021
-FOR 15mm RECEPTACLE TERMINALS TO BE USED WITH THIS ASSEMBLY. SEE MOLEX DRAWING SD-33012-002.
-SYSTEM TO BE USED WITH WIRE WITHIN DIAMETER RANGE OF 12 mm TO 2.69 mm.
-ASSEMBLY SHIPPED WITH PLR AND CPA IN PRE-LOCK POSITION (SEE SECTION Z-Z PRE-LOCK).
-IN THE EVENT THAT THE PLR IS FOUND IN THE SEATED (FINAL LOCK) POSITION, REFER TO MOLEX SPECIFICATION PS-34646-001, AVAILABLE AT www.molex.com <<http://www.molex.com>>.
-ASSEMBLY CONFORMS TO SAE/USCAR-2 REV.4 WITH THE FOLLOWING EXCEPTIONS:
ENGAGEMENT FORCE TO MOVE CPA FROM PRE-LOCK TO FINAL LOCK POSITION WHEN UNMATED: 40N MIN.
DISENGAGEMENT FORCE TO MOVE CPA FROM FINAL LOCK TO PRE-LOCK POSITION: 3N MIN, 40N MAX
TERMINAL INSERTION FORCE FOR WIRE DIAMETER ABOVE 2.5mm NOT EXCEEDING 2.69mm SHALL NOT EXCEED 40 NEWTONS.
b. PRODUCT SPECIFICATION SEE: PS-33471-000
CONTAINS: PRODUCT INTRODUCTION, PRODUCT SUMMARY, RATINGS (CURRENT, TEMPERATURE, SEALING, AND FLAMMABILITY), AND PRODUCT VALIDATION.
c. PACKAGING SPECIFICATION PER MOLEX DRAWING: PK-31300-635
d. PARTS MUST BE IN COMPLIANCE TO MOLEX CHEMICAL SUBSTANCES FOR PRODUCTS AND PACKAGING SPECIFICATION: ES-40000-5016
e. DATA MUST BE SUBMITTED UNDER THE MOLEX PART NUMBER TO IMDS (COMPANY ID#13255)
2. DESIGN - MATERIALS:
a. SEE BOM TABLE
3. DESIGN - 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. 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: TBD

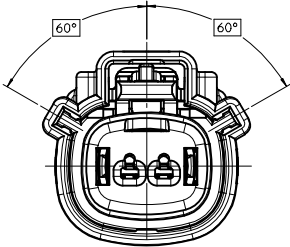
INSPECTION NUMBER LOG
LAST NUMBER USED: 5
ADDED:
REMOVED:

C9	UPDATED VIEWSET & NOTES
C8	RENAMED BACKSHELLS
C7	UPDATED CONFIGURATIONS SHEET 3
C6	UPDATED PACKAGING SPECIFICATION
C5	UPDATED GROMMET CAP CALLOUT
C4	REDRAWN, ADDED BACKSHELL
REV	DESCRIPTION

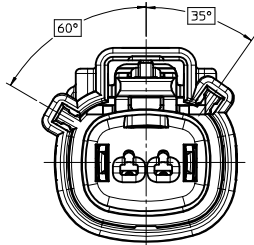
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		mm	INCH	DRAWN BY	DATE		
		4 PLACES ± ---	± ---	SVERZYL	06/17/08		
		3 PLACES ± ---	± ---	CHECKED BY	DATE		
		2 PLACES ± 0.10		± ---		DGRIFITHS	06/18/08
		1 PLACE ± 0.2		± ---		APPROVED BY	DATE
		0 PLACE ± ---		± ---		VKOSHY	2010/11/04
		ANGULAR ± 3 °				MATERIAL NO.	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE D		SEE BOM	

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

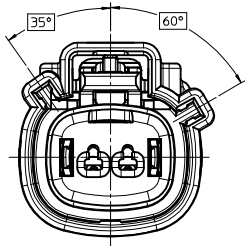
KEY CONFIGURATIONS



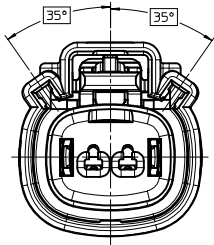
KEY A



KEY B



KEY C

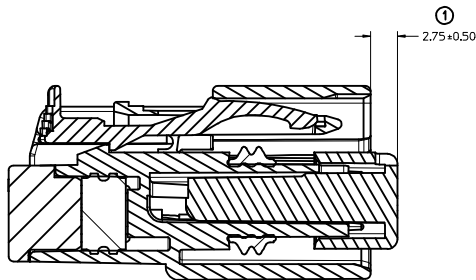
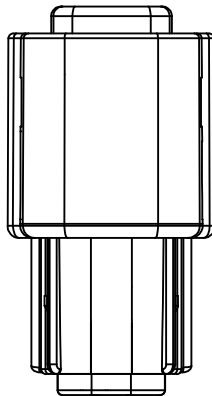
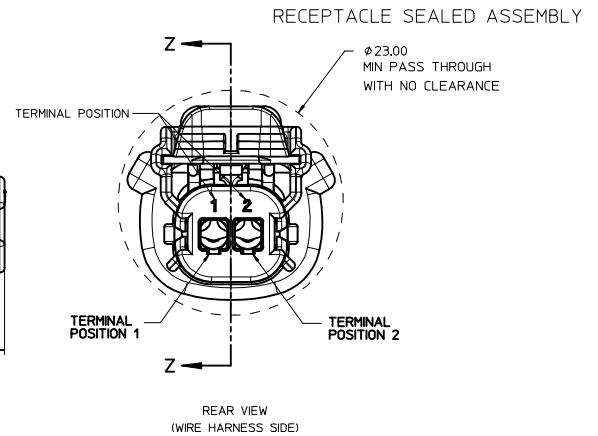
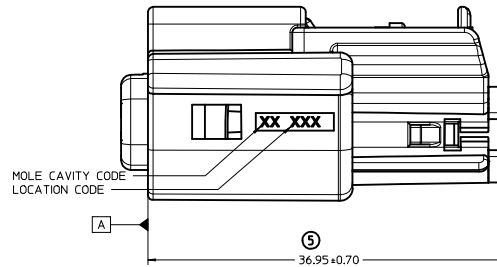
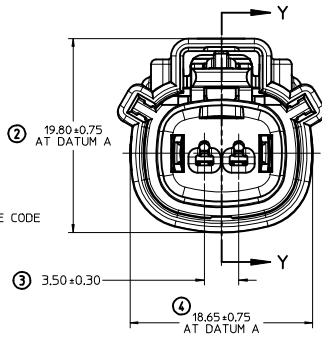
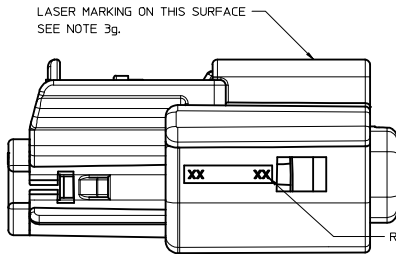


KEY D

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				mm	INCH	DRAWN BY SVERZYL	DATE 06/17/08	TITLE MX150 1X2 RECEPTACLE SEALED ASSEMBLY MAT SEAL molex	
		4 PLACES	± ---	± ---	CHECKED BY DGRIFITHS	DATE 06/18/08			
		3 PLACES	± ---	± ---	APPROVED BY VKOSHY	DATE 2010/11/04			
		2 PLACES	± 0.10	± ---	MATERIAL NO. SEE BOM		DOCUMENT NO. SD-33471-021		
		1 PLACE	± 0.2	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				
				ANGULAR ± 3 °		SHEET NO. 2 OF 7			
				SIZE D		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

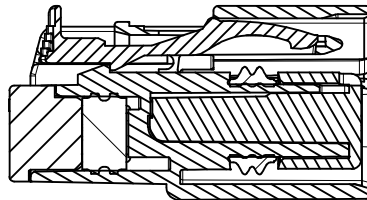
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20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1



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

SECTION Z-Z

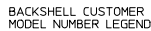


PRIMARY LOCK REINFORCEMENT (PLR) SHOWN
IN FINAL-LOCK POSITION

SECTION Y-Y

ENTER DESCRIPTION IEC NO: UAU2013-1913 DRAWN BY: DRWNGHALL CHKD: CHYD APPR: VKOSHY REV: 9		QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE		SCALE	DESIGN UNITS	 THIRD ANGLE PROJECTION		
						MM ONLY						
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			3 PLACES ±			---	---	SVERZYL	06/17/08			
			2 PLACES ±			0.10	---	CHECKED BY	DATE			
			1 PLACE ±			0.2	---	DGRIFTHS	06/18/08			
0 PLACE ±			---	---	APPROVED BY	DATE						
			ANGULAR ± 3°			VKOSHY		2010/11/04	MATERIAL NO.			
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SEE BOM		DOCUMENT NO.		SHEET NO. 3 OF 7		
						SIZE D		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1



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 02, 03, 04, 05, 06

1. GENERAL:

a. APPLICATION SPECIFICATION SEE: AS-34951-001

-DESIGNED TO MATE WITH RECEPTACLE SEALED ASSEMBLY
SPECIFIED IN MOLEX DRAWING SD-33471-021.

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

-COMPONENTS ARE OPTIONAL AND MUST BE PURCHASED SEPERATELY.

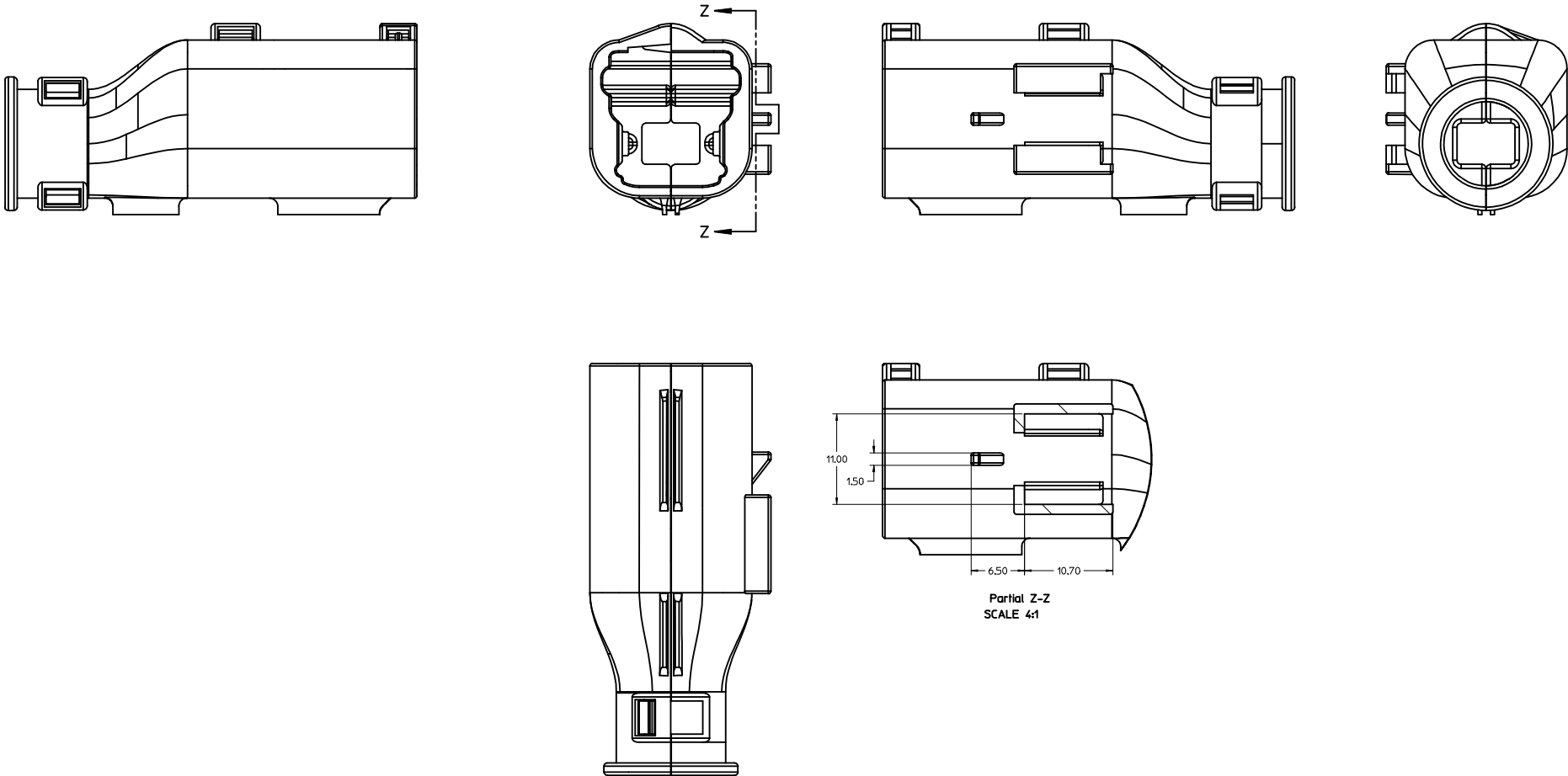
-BACKSHELL DESIGN IS OWNED BY SCHLEMMER.

-FOR ADDITIONAL INFORMATION SEE THE BACKSHELL COMPONENT DRAWING SD-34949-0001.

Ib_frame_D_P_AM_T
Rev. G 2012/01/11

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

BACKSHELL
THE VIEWS ON THIS SHEET ARE
IN THE CLOSED UN-ASSEMBLED POSITION

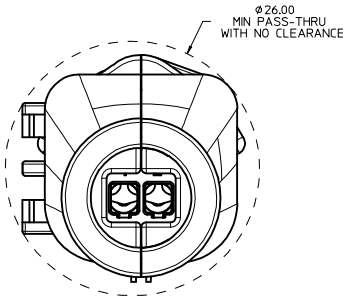
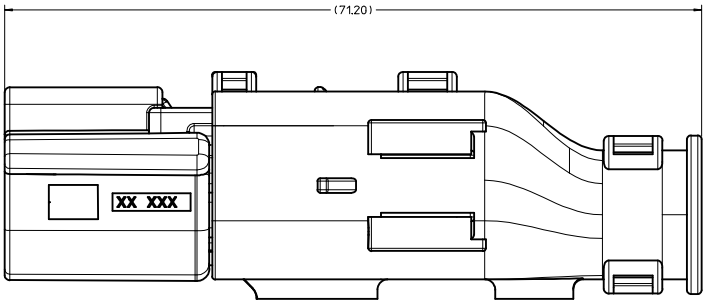


ENTER DESCRIPTION EC NO: UAU2013-1913 DRAWN BY: CHYDZ CHKD: APPR: VKOSHY 2013/05/01 2013/06/11	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION				
			MM ONLY		4:1	METRIC					
					DRAWN BY	DATE	TITLE				
			4 PLACES	±	---	SVERZYL	06/17/08	MX150 1X2 RECEPTACLE			
			3 PLACES	±	---	CHECKED BY	DATE	SEALED ASSEMBLY			
			2 PLACES	±	0.10	DGRIFITHS	06/18/08	MAT SEAL			
			1 PLACE	±	0.2	APPROVED BY	DATE	molex			
			0 PLACE	±	---	VKOSHY	2010/11/04				
			ANGULAR ± 3 °		MATERIAL NO.		DOCUMENT NO.				
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE BOM		SD-33471-021		SHEET NO. 5 OF 7		
SIZE D		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									

19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

BACKSHELL CONFIGURATIONS



RECEPTACLE SEALED ASSEMBLY WITH RECEPTACLE BACKSHELL

ENTER DESCRIPTION EC NO: UAU2013-1913 DRAWN BY: SVERZYL CHKD: DGRIFITHS APPR: VKOSHY 2013/05/01 2013/06/11	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE MM ONLY		SCALE 4:1	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION
			mm	INCH	DRAWN BY SVERZYL	DATE 06/17/08	TITLE MX150 1X2 RECEPTACLE SEALED ASSEMBLY MAT SEAL		
		4 PLACES ±	---	± ---	CHECKED BY DGRIFITHS	DATE 06/18/08	APPROVED BY VKOSHY		
		3 PLACES ±	---	± ---	DATE 2010/11/04		MATERIAL NO. SEE BOM		
		2 PLACES ±	---	± ---	DOCUMENT NO. SD-33471-021		SHEET NO. 6 OF 7		
REV C9	DESCRIPTION	1 PLACE ±	0.2	± ---					
		0 PLACE ±	---	± ---					
		ANGULAR ± 3 °							
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SIZE D		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

KEY A, BLACK	33471-0222	A				GCP		2	SALEABLE		34949-0210	34949-0220		
KEY A, BLACK	33471-0221	A				GCP	1	2	SALEABLE		34949-0210	34949-0220		
KEY D W/CPA, STONE GRAY	33471-0217			D		GCP	CPA	1	SALEABLE		34949-0210	34949-0220		
KEY C W/CPA, DARK GRAY	33471-0216			C		GCP	CPA	1	SALEABLE		34949-0210	34949-0220		
KEY B W/CPA, LIGHT GRAY	33471-0215		B			GCP	CPA	1	SALEABLE		34949-0210	34949-0220		
KEY A W/CPA, BLACK	33471-0214	A				GCP	CPA	1	SALEABLE		34949-0210	34949-0220		
KEY D, STONE GRAY	33471-0213			D		GCP		1	SALEABLE		34949-0210	34949-0220		
KEY C, DARK GRAY	33471-0212			C		GCP		1	SALEABLE		34949-0210	34949-0220		
KEY B, LIGHT GRAY	33471-0211		B			GCP		1	SALEABLE		34949-0210	34949-0220		
KEY A, BLACK	33471-0210	A				GCP		1	SALEABLE		34949-0210	34949-0220		
KEY D W/CPA, STONE GRAY	33471-0209			D	GCO	CPA			SALEABLE		34949-0210	34949-0220		
KEY C W/CPA, DARK GRAY	33471-0208			C	GCO	CPA			SALEABLE		34949-0210	34949-0220		
KEY B W/CPA, LIGHT GRAY	33471-0207		B		GCO	CPA			SALEABLE		34949-0210	34949-0220		
KEY A W/CPA, BLACK	33471-0206	A			GCO	CPA			SALEABLE		34949-0210	34949-0220		
KEY D, STONE GRAY	33471-0204			D	GCO				SALEABLE		34949-0210	34949-0220		
KEY C, DARK GRAY	33471-0203			C	GCO				SALEABLE		34949-0210	34949-0220		
KEY B, LIGHT GRAY	33471-0202		B		GCO				SALEABLE		34949-0210	34949-0220		
KEY A, BLACK	33471-0201	A			GCO				SALEABLE		34949-0210	34949-0220		
ASSEMBLY DESCRIPTION	ASSEMBLY PART NUMBER	A	B	C	D	GCO	GCP	CPA	1	2	STATUS	COMMENTS	BACKSHELL WITH RIBS	BACKSHELL WITHOUT RIBS
									BLOCKED TERMINAL					
CAVITY WITH A NUMBER INDICATES BLOCKED TERMINAL POSITION										OPTIONAL ATTACHMENTS SOLD SEPERATLEY				
CAVITY WITHOUT A NUMBER INDICATES OPEN TERMINAL POSITION														
									MAT SEAL		ROYAL BLUE		INHERENTLY LUBRICATED SILICONE	
									RING SEAL		LIGHT BLUE		INHERENTLY LUBRICATED SILICONE	
									PLR		NATURAL		SPS/NYLON GF20	
									CPA		RED		PBT GF20	
									GROMMET CAP (PLUGGED)		BLACK		SPS/NYLON GF20	
									GROMMET CAP (OPEN)		BLACK		SPS/NYLON GF20	
									HOUSING KEYING OPTION D		STONE GRAY		SPS/NYLON GF20	
									HOUSING KEYING OPTION C		DARK GRAY		SPS/NYLON GF20	
									HOUSING KEYING OPTION B		LIGHT GRAY		SPS/NYLON GF20	
									HOUSING KEYING OPTION A		BLACK		SPS/NYLON GF20	
									DESCRIPTION		COLOR		MATERIAL	
BOM/APPLICABLE COMPONENTS TABLE														

LEGEND TABLE	
ABREVIATION	COMPONENT
A	HOUSING KEY A
B	HOUSING KEY B
C	HOUSING KEY C
D	HOUSING KEY D
GCO	GROMMET CAP, OPEN
GCP	GROMMET CAP, CLOSED
M	MAT SEAL
R	RING SEAL
P	PLR, STANDARD
CPA	CPA
BKS	BACKSHELL

ENTER DESCRIPTION EC NO: UAU2013-1913 DRAWING NO: 2013/05/01 CHKD: 2013/06/11 APPR: VKOSHY	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE MM ONLY		SCALE	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION
					DRAWN BY	DATE	TITLE		
		4 PLACES $\pm .00$ $\pm .00$			SVERZYL	06/17/08	MX150 1X2 RECEPTACLE SEALED ASSEMBLY MAT SEAL		
		3 PLACES $\pm .00$ $\pm .00$			CHECKED BY	DATE			
		2 PLACES ± 0.10 $\pm .00$			DGRIFITHS	06/18/08			
		1 PLACE ± 0.2 $\pm .00$			APPROVED BY	DATE			
		0 PLACE $\pm .00$ $\pm .00$			VKOSHY	2010/11/04			
		ANGULAR $\pm 3^\circ$			MATERIAL NO.		DOCUMENT NO.		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SEE BOM		SD-33471-021		SHEET NO. 7 OF 7
					SIZE D	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			