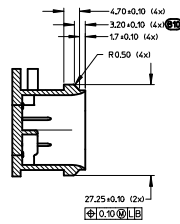
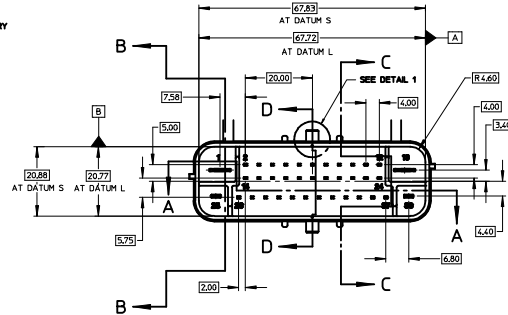


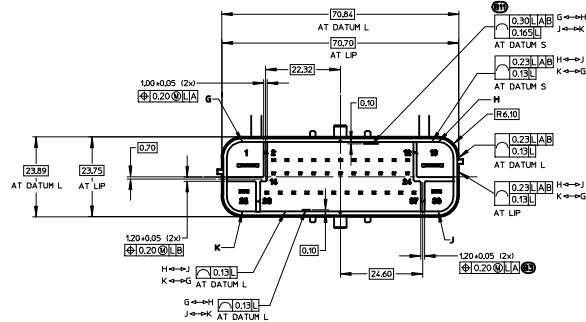
- NOTES:
1. ALL DIMENSIONS SHOWN IN MILLIMETERS.
 2. DIMENSIONING AND TOLERANCING PER ASME Y14.5-1994.
 3. RADIUS ON ALL CORNERS SHOWN SHARP OR ALL UNSPECIFIED RADIUS 0.25 EXCEPT AS NOTED.
 4. REFER TO "SAE/USCAR-12 CONNECTOR DESIGN GUIDELINES" FOR ADDITIONAL INFORMATION.
 5. 0.25 DEGREE DRAFT ON ALL INSIDE SURFACES, UNLESS OTHERWISE SPECIFIED.
 6. STANDARD COLORS FOR POLARIZATION - DEVIATION REQUIRES APPROVAL OF AUTHORIZED PERSON.
 7. REFER TO DRAWING EMCAP-001 FOR TERMINAL GEOMETRY AND PLATING DETAILS.



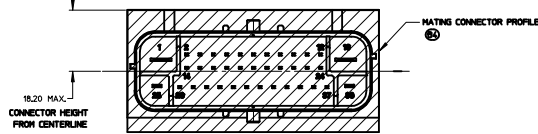
SECTION C-C



SECTION B-B

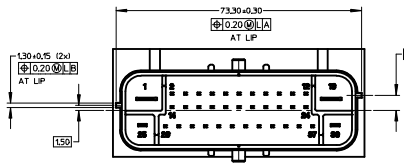


SECTION D-D

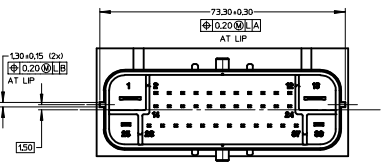


18.20 MAX.
CONNECTOR HEIGHT
FROM CENTERLINE

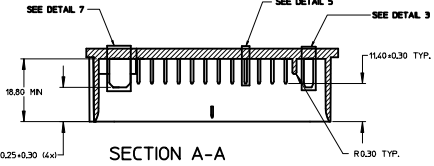
999-S-038-001	C	BROWN
999-S-038-001	B	GRAY
999-S-038-001	A	BLACK
USCAR PART NO.	OPTION	COLOR



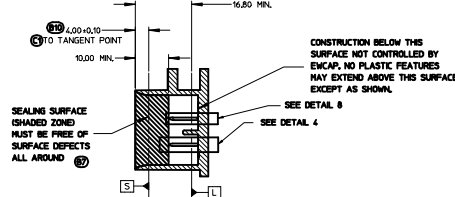
POLARIZATION 'A'



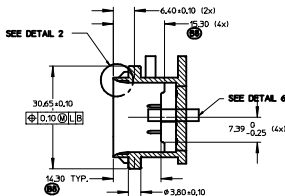
POLARIZATION 'B'



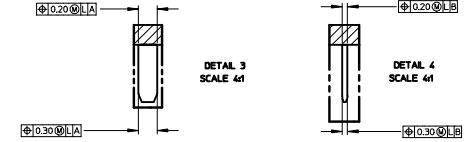
SECTION A-A



SECTION B-B

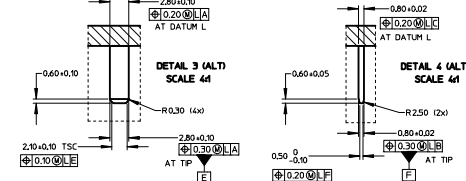


SECTION D-D

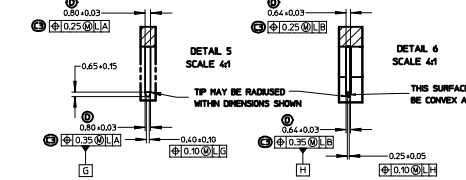


2.80MM BLADE DETAIL

SEE DRAWING EMCAP-001
FOR DETAILS

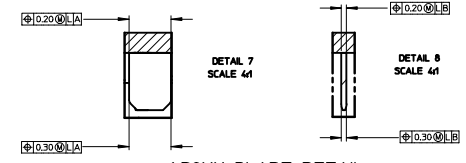


2.80MM BLADE DETAIL (ALTERNATE) #2



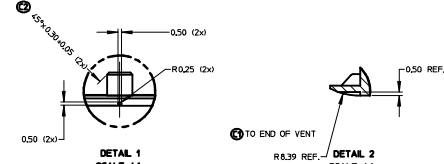
0.80X0.64MM BLADE DETAIL #2

(ABS INTERFACE ONLY)



6.30MM BLADE DETAIL

SEE DRAWING EMCAP-001
FOR DETAILS



DETAIL 1
SCALE 4:1

DETAIL 2
SCALE 4:1

TO BE DETERMINED

POLARIZATION 'C'



059	D	REVISED 0.64mm x 0.60mm PIN SIZE	03292005	HCD	BBW
		TOLERANCE +0.03			
C5		REVISED 0.64mm POS. 0.25 BASE/0.35 TIP			
C2		ADDED CHAMFER DIMENSION 45°x0.30x0.05			
C1		CLAMPED LOCATION OF TANGENT POINT	11052004	HCD	BBW
B11		INCREASED TOLERANCE ON LONG SIDES			
B10		DIMENSION FEATURES TO FRONT OF SHROUD			
B9		REVISED 0.64mm ON 0.60x0.64 BLADE			
B8		ADDED CIRCUIT DIVIDER HEIGHT			
B7		ADDED SEALING AREA DESCRIPTION			
B6		REMOVED EMCAP FROM TITLE BLOCK			
B5		ADDED POLARIZATION 'B'			
B4		ADDED MATING CONN. PROFILE			
B3		CHANGED DIVIDER WALL TOLERANCE TO 0.20			
B2		ADDED OPTIONAL BLADE CONSTRUCTION			
B1		ADDED STANDOFF RIBS			
0031			12092003	HCD	BBW
A		RELEASED	08252003	HCD	BBW
LET		REVISION RECORD	DATE	DWN	CHK
TOLERANCES UNLESS OTHERWISE SPECIFIED					
DIMENSIONS ARE IN MILLIMETERS					
ANGLES °					
X .X25 X .X25 X .X25					
THIRD ANGLE PROJECTION					
SCALE	2:1	DRAWN BY	DANIELS	CHECKED BY	WILSON
DATE		DATE		DATE	08/25/2003
36 CIRCUIT ABS CONNECTOR INTERFACE -OPTION 2					
REV	1	REV	1	REV	1
DATE		DATE		DATE	
DESIGNED BY	999-S-038-3-201	DATE		DATE	
REV		REV		REV	
DATE		DATE		DATE	

TABLE OF CONTENTS	
SHEET NO.	SHEET DESCRIPTION
1	NOTES AND BOM
2	CONFIGURATIONS
3	RECEPTACLE CONNECTOR ASSEMBLY
4	WIRE SHIELD

NOTES: VALID UNLESS OTHERWISE SPECIFIED

1. CONNECTOR TO BE SHIPPED WITH TPA IN PRE-LOAD POSITION AS SHOWN IN SECTION Z-Z.
- ② 2. ALL TEXT TO BE CLEARLY LEGIBLE AND 1.50MM MIN. HEIGHT.
MARKING ORIENTATION MAY BE PARALLEL TO THE LENGTH OF THE PART, AS SHOWN,
OR PERPENDICULAR TO THE LENGTH OF THE PART.

DATE CODE DESCRIPTION:
-1st THROUGH 3rd DIGIT = "DAY#" OF THE CALENDAR YEAR. (EXAMPLE FEB, 3rd = '034')
-LAST DIGIT = LAST DIGIT OF CALENDAR YEAR. (EXAMPLE: 2000 = '0')
SERIAL NUMBER DESCRIPTION:
-FIRST CHARACTER "M." = ASSEMBLY MACHINE NUMBER
-FOLLOWING NUMBER STARTS AT "00001" AND IS RESET FOR EACH NEW "DAY#".
MOLEX PART NUMBER:
- SEE TABLE

3. DIMENSIONS NOT SHOWN CAN BE OBTAINED FROM THE ASSOCIATED MODEL.

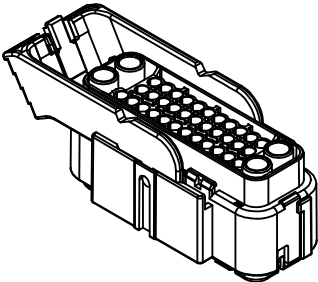
4. GENERAL:
- a. APPLICATION SPECIFICATION SEE: AS-31380-001
-CONTAINS: PRODUCT INTRODUCTION, PRODUCT SUMMARY,
HARNESS ASSEMBLY, CONNECTOR MATING,
AND SERVICE INSTRUCTIONS.
-DESIGNED TO MATE WITH DEVICE AS SPECIFIED
IN THE MATING INTERFACE DRAWINGS CHART.
*DENOTES DRAWINGS THAT CAN BE ACCESSED AT <<http://ewcap.uscarteams.org/>>.
- b. PRODUCT SPECIFICATION SEE: PS-31380-100
CONTAINS: PRODUCT INTRODUCTION, PRODUCT SUMMARY,
RATINGS (CURRENT AND TEMPERATURE),
TERMINALS, WIRE DIAMETER RANGE, PRODUCT VALIDATION, AND PRODUCT DEVIATIONS.
- c. PACKAGING SPECIFICATION PER MOLEX DRAWING: PK-31300-550
- d. PARTS MUST BE IN COMPLIANCE TO MOLEX CHEMICAL SUBSTANCES FOR
PRODUCTS AND PACKAGING SPECIFICATION: QEH5-699000-300
- e. DATA MUST BE SUBMITTED UNDER THE MOLEX PART NUMBER TO IMDS
(COMPANY ID#13255)

5. DESIGN - MATERIALS:
a. SEE BOM TABLE IN SD-31380-0002

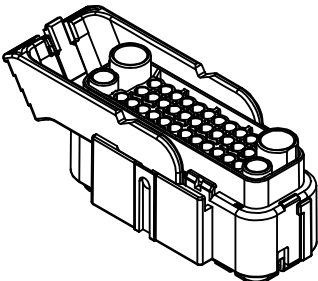
6. DESIGN - GEOMETRY:
- a. THE 3-D CAD DATA IS BASIC (WITHOUT TOLERANCE) AND MASTER FOR THIS PART
WITH THE EXCEPTION OF UNDERLINED DIMENSIONS. DIMENSIONAL INFORMATION NOT SHOWN
ON THIS DRAWING IS DEFINED BY THE DATA FILE AT ITS LATEST REVISION.
- b. GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5M-2009
- c. EDGES AND UNDIMENSIONED DETAILS PER ISO13715
- d. CORNERS SHOWN AS SHARP TO BE R 0.2 MAX.
- e. VISUAL DEFECTS SHALL MEET COSMETIC STANDARD PS-45499-002 (Class B).

7. MUST BE USED WITH WIRE SHIELD - MOLEX PART NUMBER 31382-1001. WIRE SHIELD SHIPPED
SEPARATELY.

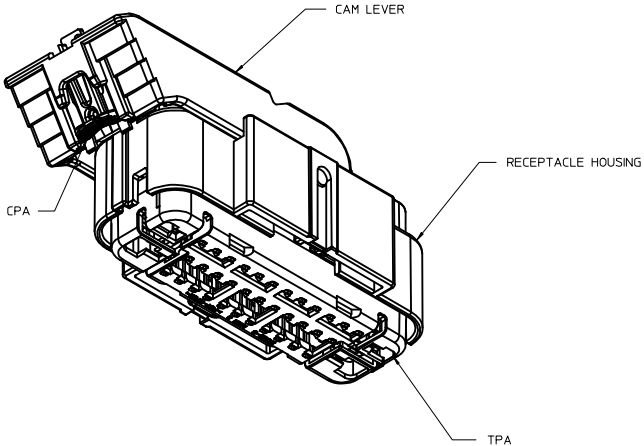
MATING INTERFACE DRAWINGS	
SERIES	INTERFACE DEFINITION
31380	*999-S-038-3-Z01
31381	*999-S-038-3-Z02



31381 SERIES



31380 SERIES

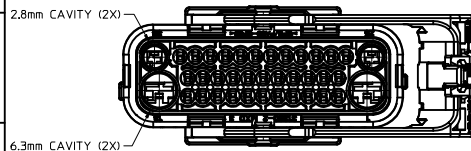
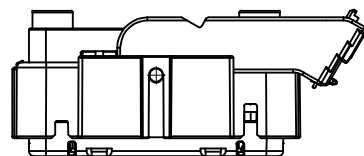


INSPECTION NUMBER LOG			
LAST NUMBER: 2		A	
ADDED:		INITIAL RELEASE	
REMOVED:		REV	
DIMENSION STYLE MM ONLY		SCALE 1.5:1	
DRAWN BY APPROFFITT		DATE 2014/06/26	
CHECKED BY		DATE	
APPROVED BY VKOSHY		DATE 2014/06/30	
MATERIAL NO.		DOCUMENT NO.	
SEE NOTE 5a.		SD-31380-0001	
SIZE 1		SHEET NO. 1 OF 4	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

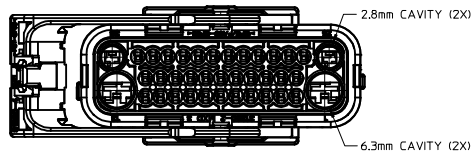
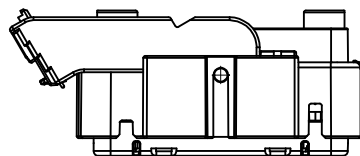
ENTER DESCRIPTION EC NO: UAU2014-1972 DRAWNAPROFFITT 2014/06/26 CHKOKRIZZI 2014/06/27 APPROVKOSHY 2014/06/30	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)	
		mm	INCH
		4 PLACES ±---	±---
		3 PLACES ±---	±---
		2 PLACES ±0.13	±---
1 PLACE ±0.25	±---		
0 PLACE ±---	±---		
ANGULAR ± 1 °			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			

SHEET DESCRIPTION

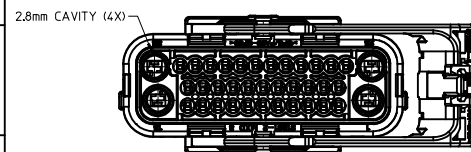
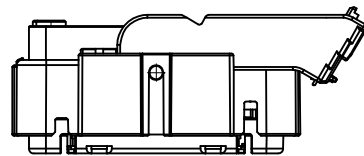
CONFIGURATIONS



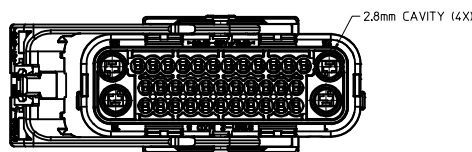
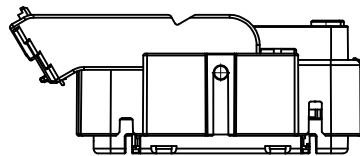
31380-10XX
TYPE II HARNESS ASSEMBLY
COUNTERCLOCKWISE LEVER THROW



31380-11XX
TYPE II HARNESS ASSEMBLY
CLOCKWISE LEVER THROW



31381-10XX
TYPE I HARNESS ASSEMBLY
COUNTERCLOCKWISE LEVER THROW



31381-11XX
TYPE I HARNESS ASSEMBLY
CLOCKWISE LEVER THROW

ENTER DESCRIPTION
EC NO: UAU2014-1972
DRAWN BY: APROFFITT
CHKD BY: CRIZZ
APPR: WKSHY

2014/06/26
2014/06/27
2014/06/30

QUALITY SYMBOLS
▽=0
▽=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)
mm INCH
4 PLACES ± --- ± ---
3 PLACES ± --- ± ---
2 PLACES ± 0.13 ± ---
1 PLACE ± 0.25 ± ---
0 PLACE ± --- ± ---
ANGULAR ± 1 °
DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

DIMENSION STYLE
MM ONLY
DRAWN BY: APROFFITT
DATE: 2014/06/26
CHECKED BY: WKSHY
DATE: 2014/06/30
APPROVED BY: WKSHY
DATE: 2014/06/30
MATERIAL NO.
SIZE: 1

SCALE: 1.5:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION
TITLE: USCAR 38 WAY HYBRID RCPT SEALED ASSEMBLY
DOCUMENT NO.: SD-31380-0001
SHEET NO.: 2 OF 4
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

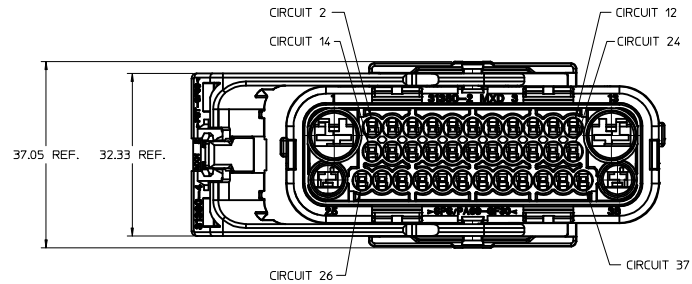
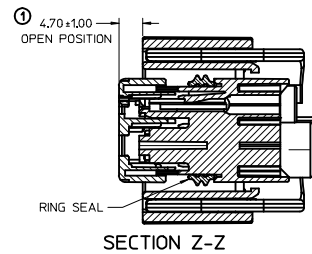
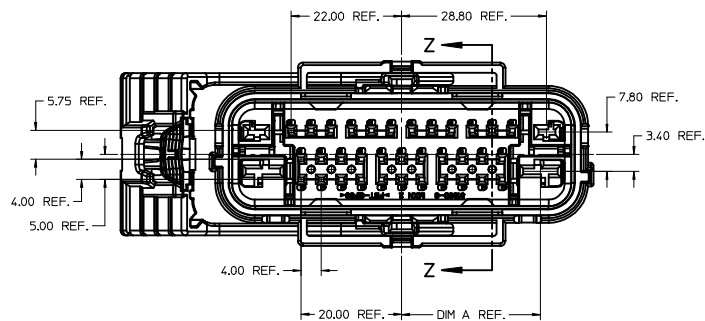
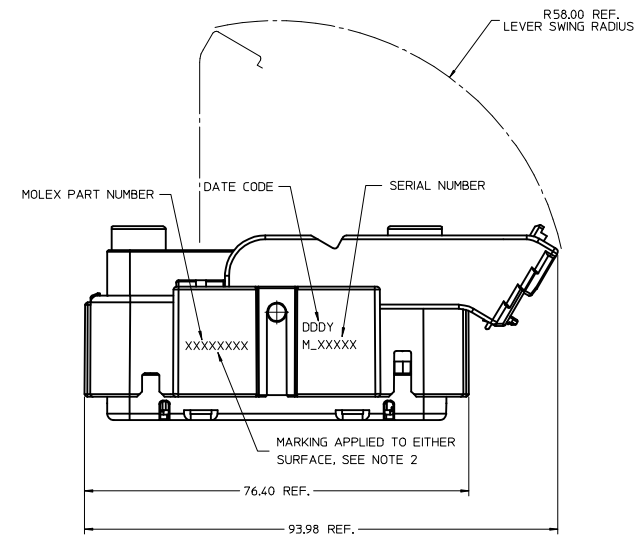
molex

SHEET DESCRIPTION

RECEPTACLE CONNECTOR ASSEMBLY

CHARTED DIMENSIONS

SERIES	DIMENSION
	A
31380	27.58
31381	27.90

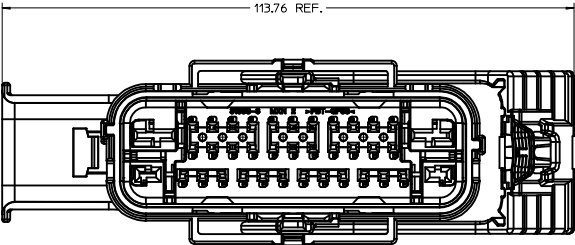
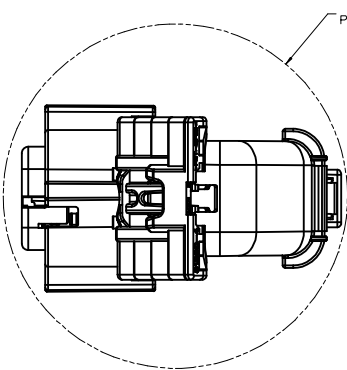
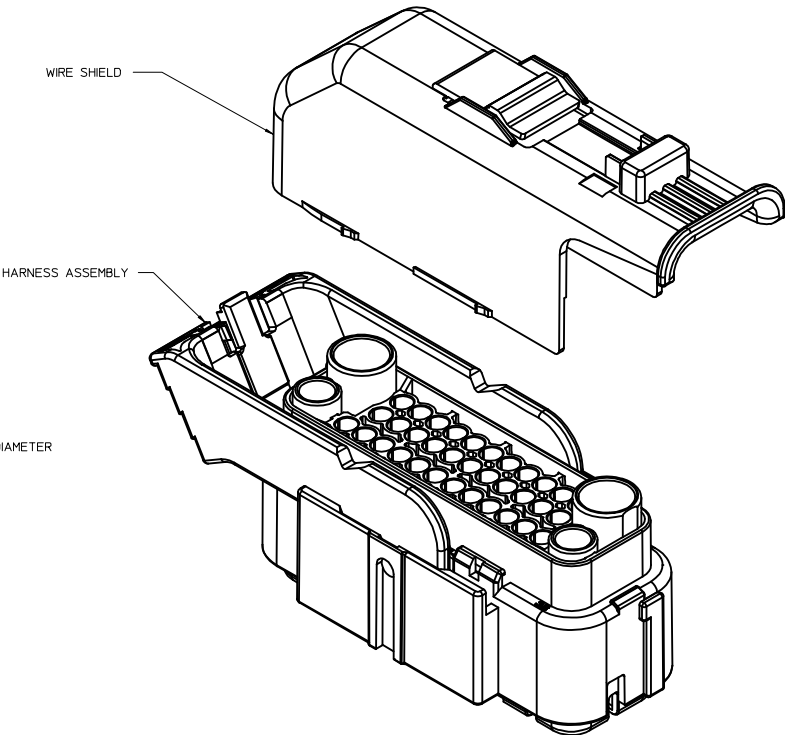


ENTER DESCRIPTION EC NO: UAU2014-1972 DRAWN BY: APROFFITT CHKD BY: CRIZZI APPR: VKOSHY DATE: 2014/06/26 2014/06/27 2014/06/30	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	TITLE USCAR 38 WAY HYBRID RCPT SEALED ASSEMBLY

SHEET DESCRIPTION
WIRE SHIELD

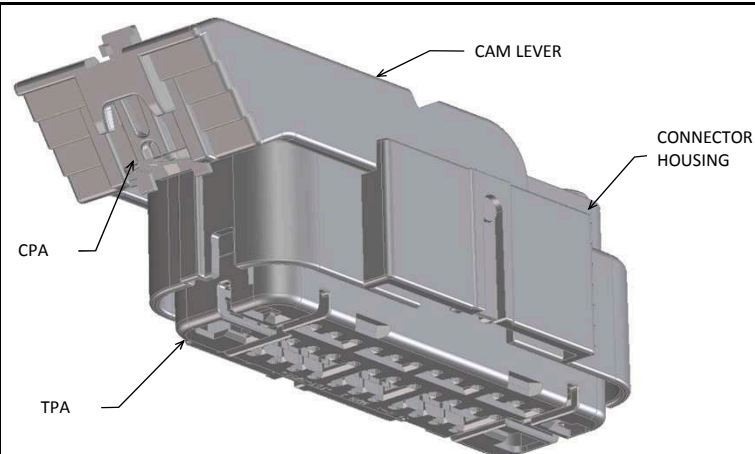
WIRESHIELD NOTES: VALID UNLESS OTHERWISE SPECIFIED

1. GENERAL:
a. APPLICATION SPECIFICATION SEE: AS-31380-001
-WIRE SHIELD (MOLEX PART NUMBER 31382-1001) MUST BE USED WITH HARNESS ASSEMBLY
-WIRE SHIELD SHIPPED SEPARATELY
-FOR ADDITIONAL INFORMATION SEE THE WIRE SHIELD COMPONENT DRAWING SD-31382-100.



ENTER DESCRIPTION EC NO: UAU2014-1972 DRAWN BY: A1 CHKD BY: IZZI APPR: VKOSHY	DESCRIPTION REV	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2.5:1	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION	TITLE USCAR 38 WAY HYBRID RCPT SEALED ASSEMBLY	DOCUMENT NO. SD-31380-0001	SHEET NO. 4 OF 4
			4 PLACES 3 PLACES 2 PLACES 1 PLACE 0 PLACE	± --- ± --- ± 0.13 ± 0.25 ± ---	± --- ± --- ± --- ± --- ± ---	DRAWN BY APROFFITT	DATE 2014/06/26	TITLE				
						CHECKED BY	DATE					
						APPROVED BY VKOSHY	DATE 2014/06/30					
						ANGULAR ± 1 °						
						MATERIAL NO.						
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE NOTE 5a.		NO.								
SIZE A1 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION												

USCAR 38 WAY HYBRID RECEPTACLE SEALED ASSEMBLY (TYPE II)
BOM AND PIN OUT SHEET

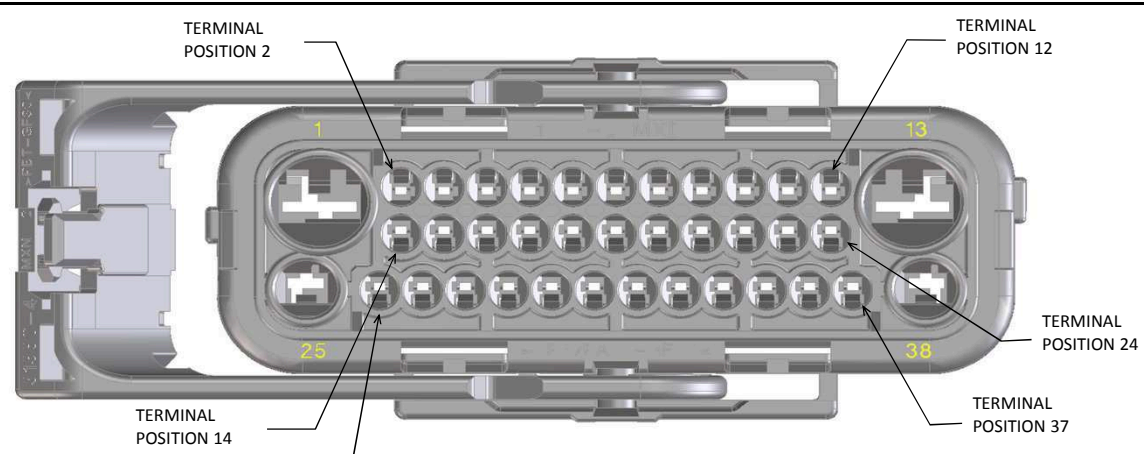


CPA

TPA

CAM LEVER

CONNECTOR HOUSING



TERMINAL POSITION 2

TERMINAL POSITION 12

TERMINAL POSITION 14

TERMINAL POSITION 24

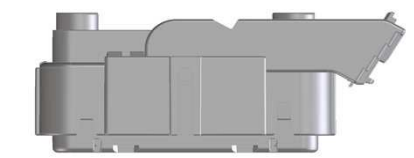
TERMINAL POSITION 25

TERMINAL POSITION 26

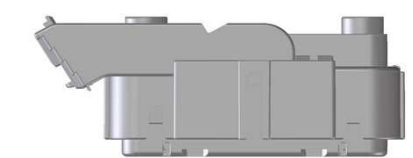
TERMINAL POSITION 37

TERMINAL POSITION 38

ABBREVIATION	DESCRIPTION	COLOR	MATERIAL
A2-BLK	HOUSING, KEYING OPTION A, TYPE II	BLACK	SP5/NYLON GF30
TPA-2	TPA, TYPE II	GRAY	PBT GF30
CL	CAM LEVER	BLACK	PBT GF30
CPA	CPA	RED	PPE/PA GF10
R	RING SEAL	RUST RED	INHERENTLY LUBRICATED SILICONE
CCW	COUNTERCLOCKWISE LEVER THROW		
CW	CLOCKWISE LEVER THROW		



COUNTERCLOCKWISE LEVER THROW



CLOCKWISE LEVER THROW

FOR ADDITIONAL INFORMATION SEE SD-31380-0001

ASSEMBLY DESCRIPTION	ASSEMBLY PART NUMBER	COMPONENT						BLOCKED TERMINALS																														STATUS	COMMENTS	WIRE SHIELD SHIPPED SEPERATELY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		THE PRESENCE OF AN ABBREVIATION INDICATES THE PRESENCE OF THAT COMPONENT.						CAVITY WITH A NUMBER INDICATES BLOCKED TERMINAL POSITION CAVITY WITHOUT A NUMBER INDICATES OPEN TERMINAL POSITION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		HOUSING KEY/COLOR	TPA	CAM LEVER	CPA	RING SEAL	LEVER THROW	2	3	4	5	6	7	8	9	10	11	12	14	15	16	17	18	19	20	21	22	23	24	26	27	28	29	30	31	32	33				34	35	36	37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
KEY A, BLACK, CCW THROW	31380-1000	A2-BLK	TPA-2	CL	CPA	R	CCW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									



ASSEMBLY DESCRIPTION	ASSEMBLY PART NUMBER	COMPONENT							BLOCKED TERMINALS																														STATUS	COMMENTS	WIRE SHIELD SHIPPED SEPERATELY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		THE PRESENCE OF AN ABBREVIATION INDICATES THE PRESENCE OF THAT COMPONENT.							CAVITY WITH A NUMBER INDICATES BLOCKED TERMINAL POSITION CAVITY WITHOUT A NUMBER INDICATES OPEN TERMINAL POSITION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		HOUSING KEY/COLOR	TPA	CAM LEVER	CPA	RING SEAL	LEVER THROW	2	3	4	5	6	7	8	9	10	11	12	14	15	16	17	18	19	20	21	22	23	24	26	27	28	29	30	31	32	33	34				35	36	37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
KEY A, BLACK, CCW THROW	31381-1000	A1-BLK	TPA-1	CL	CPA	R	CCW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										</