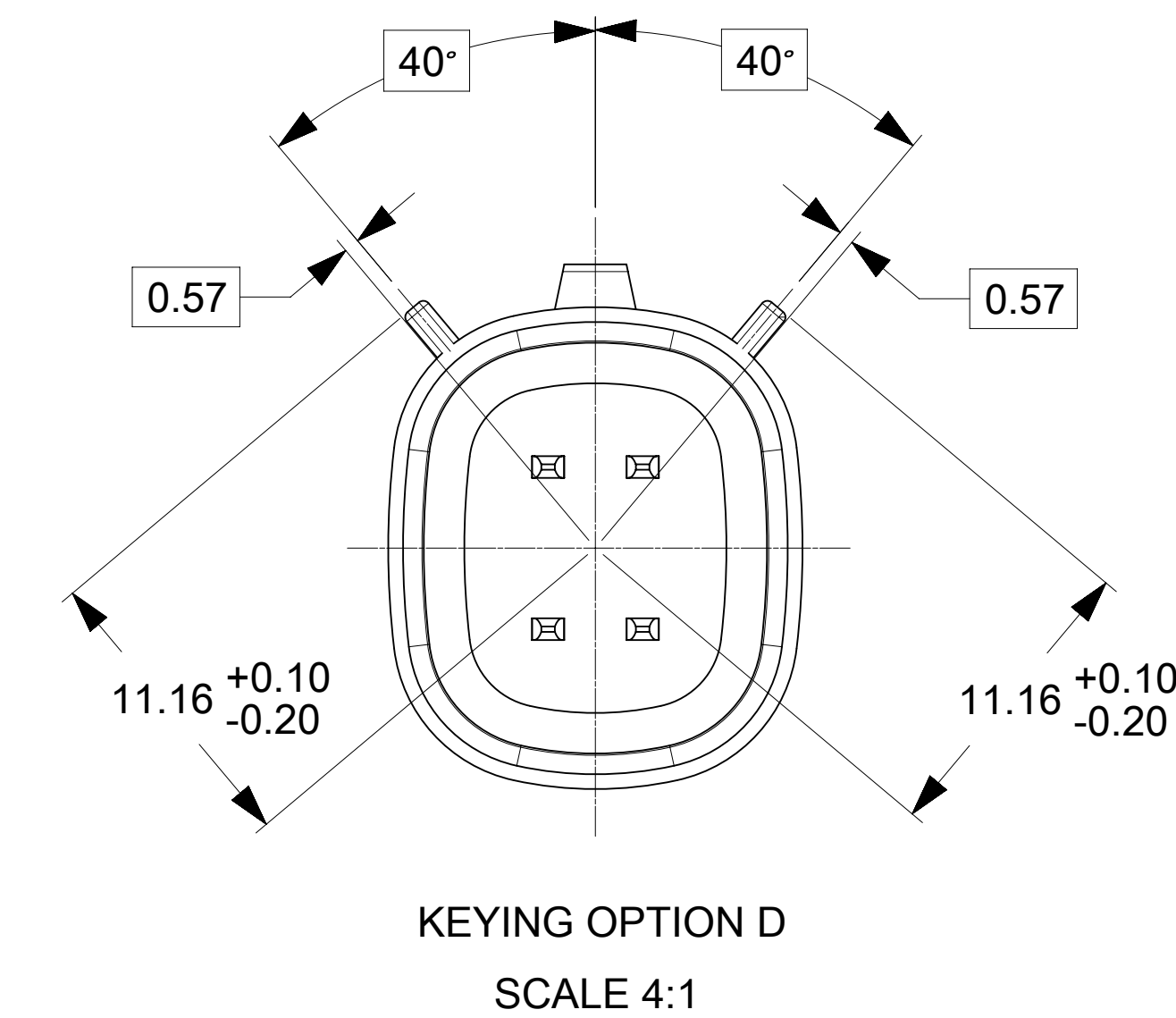
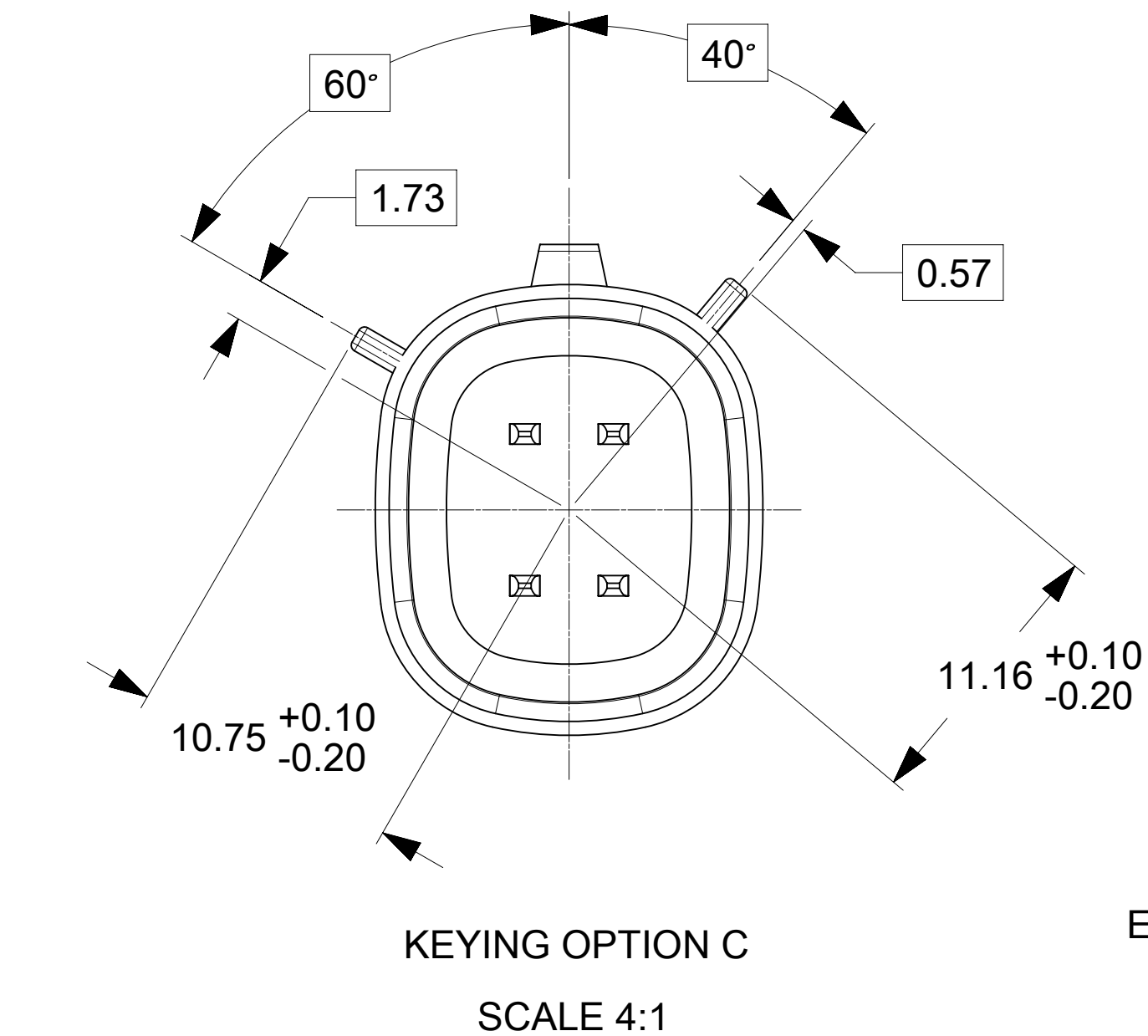
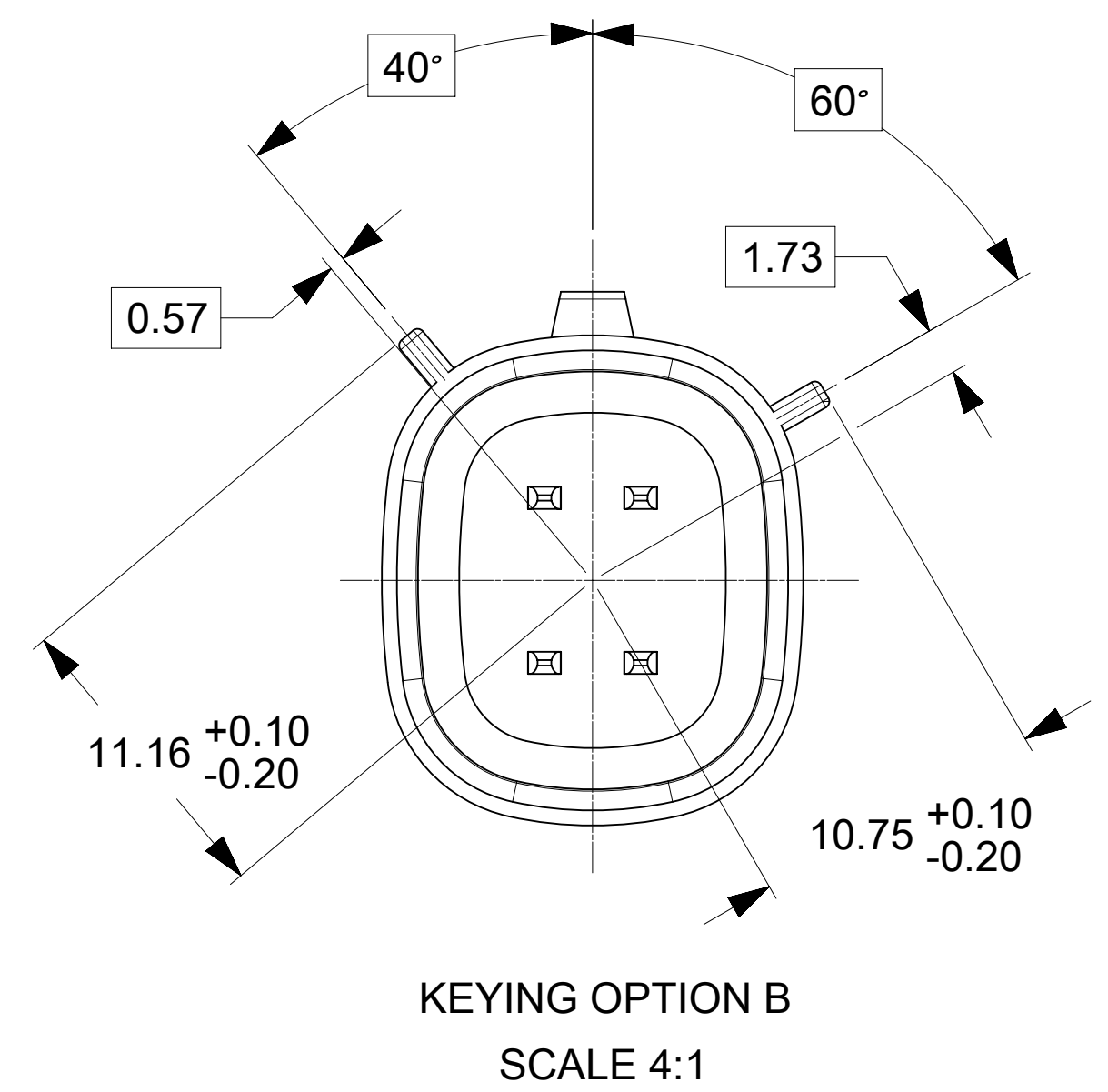
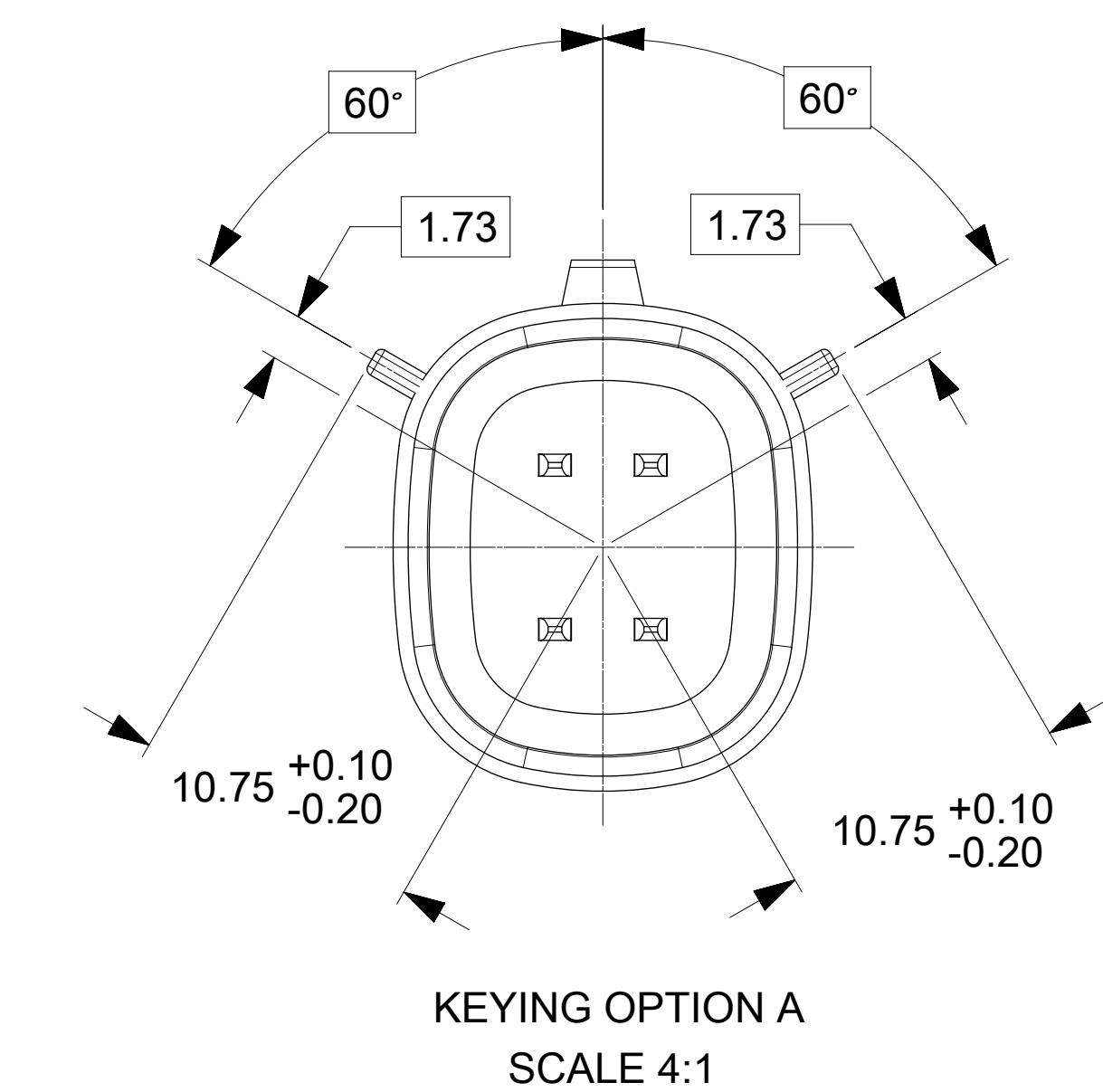
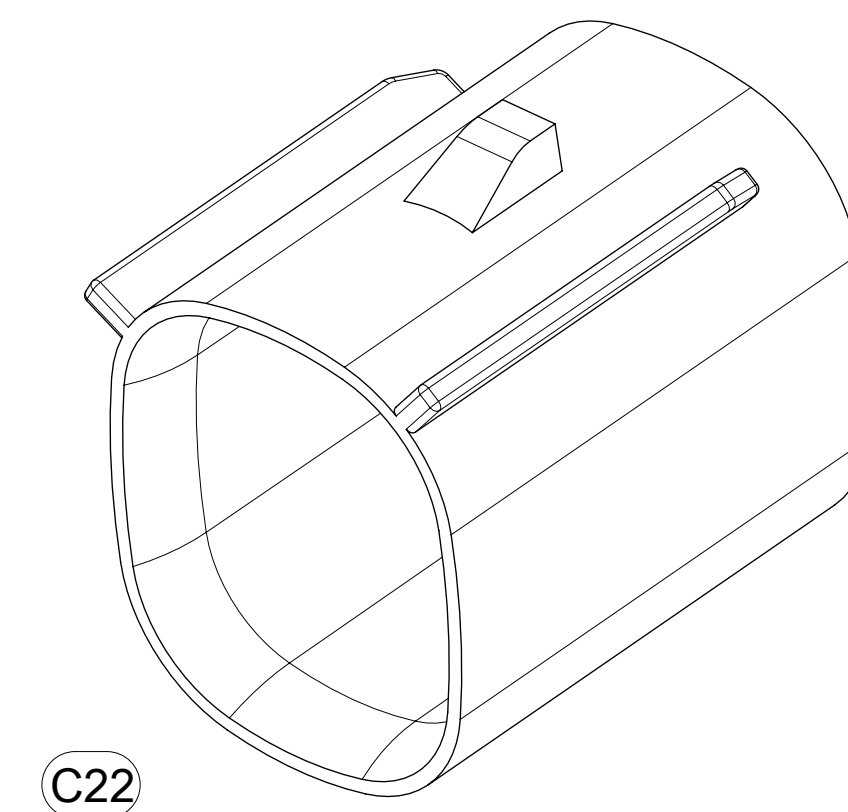
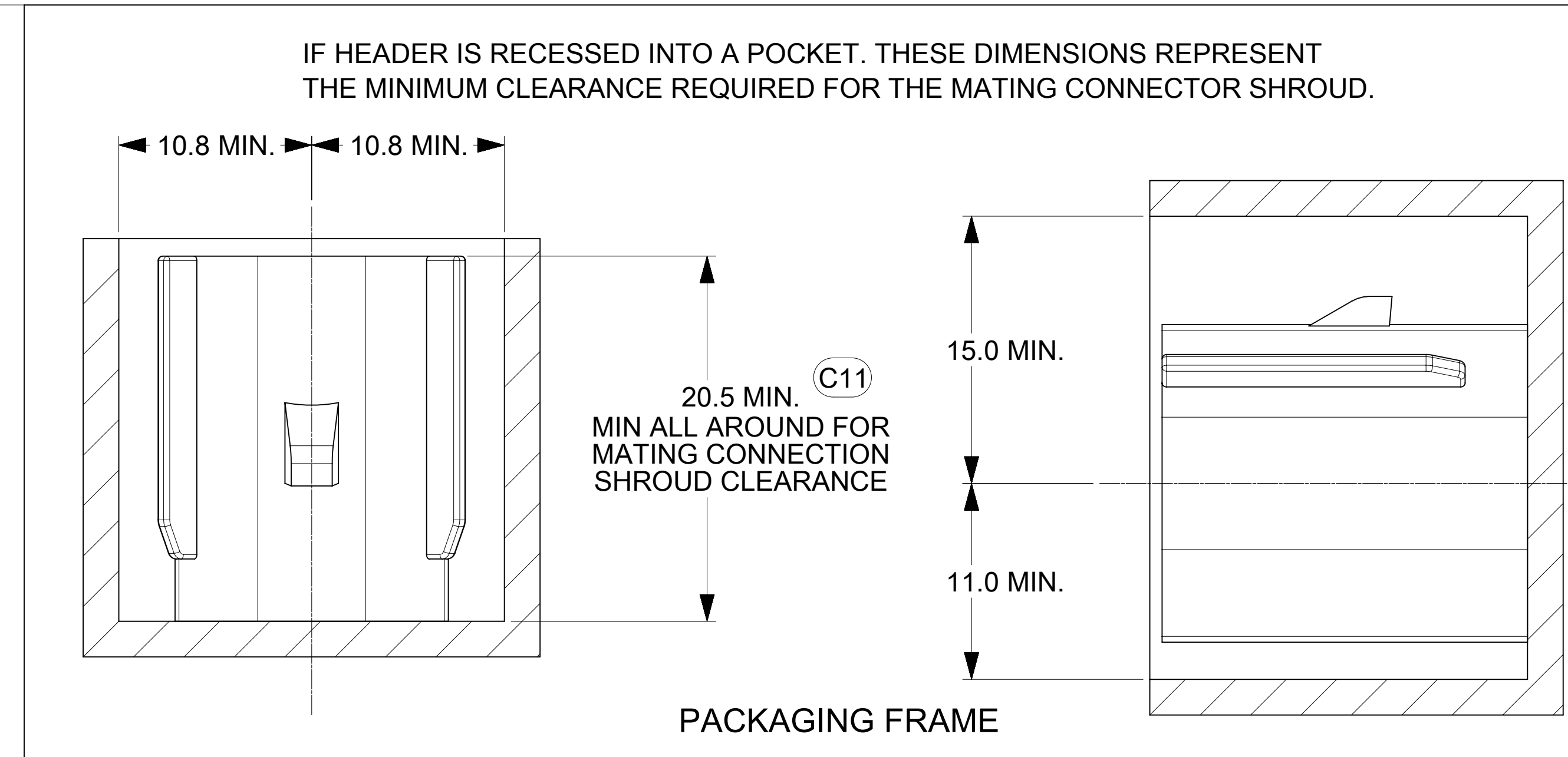
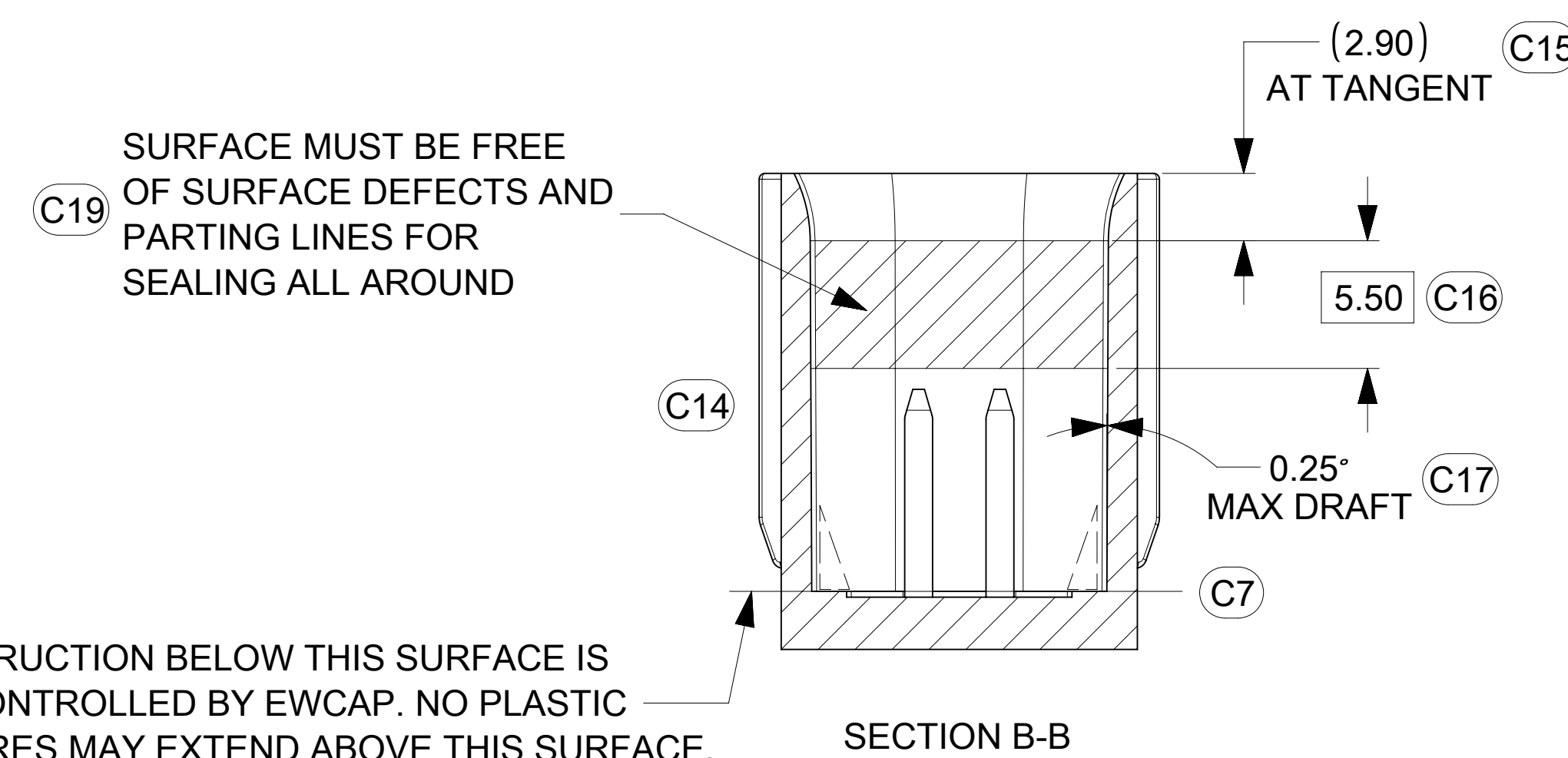
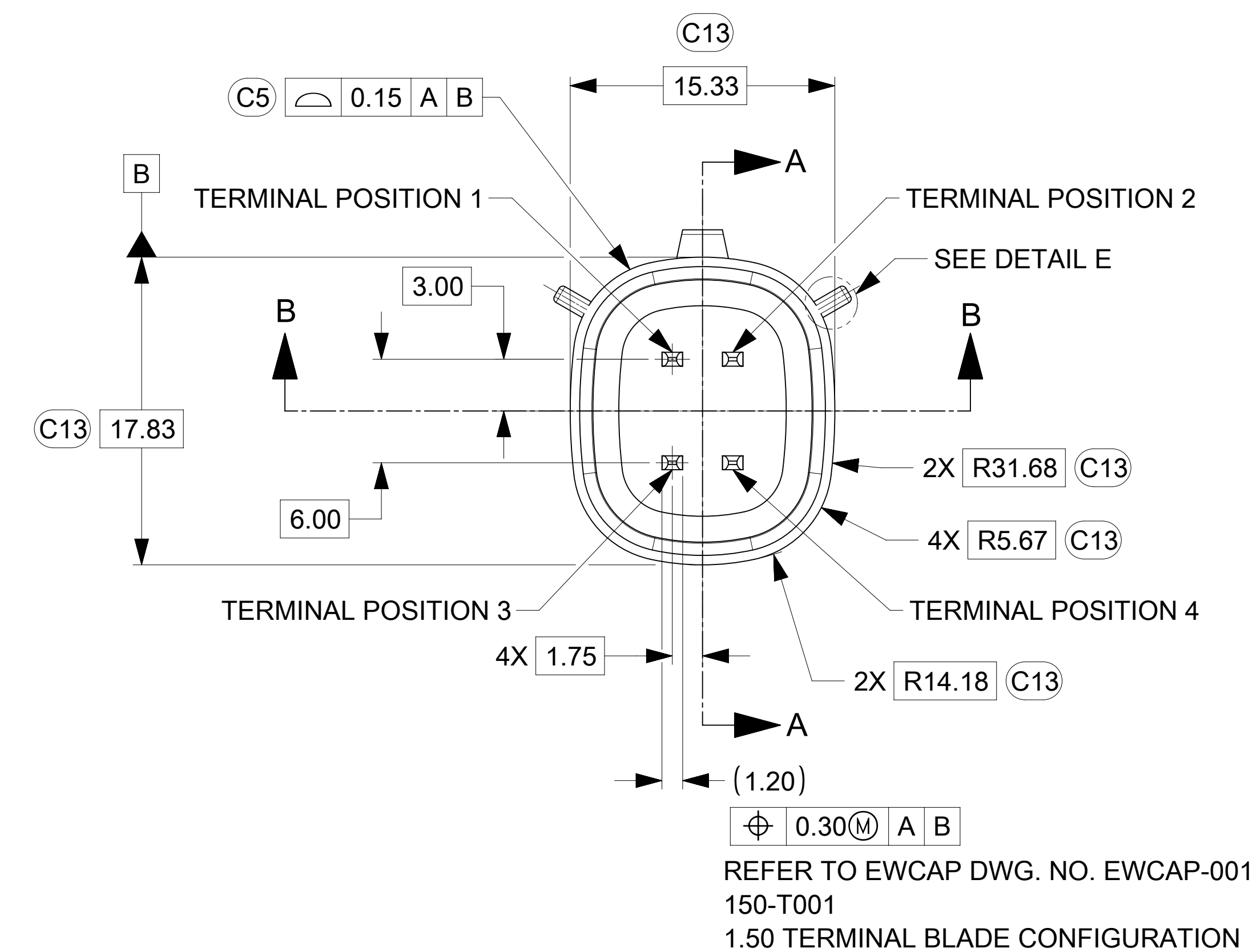
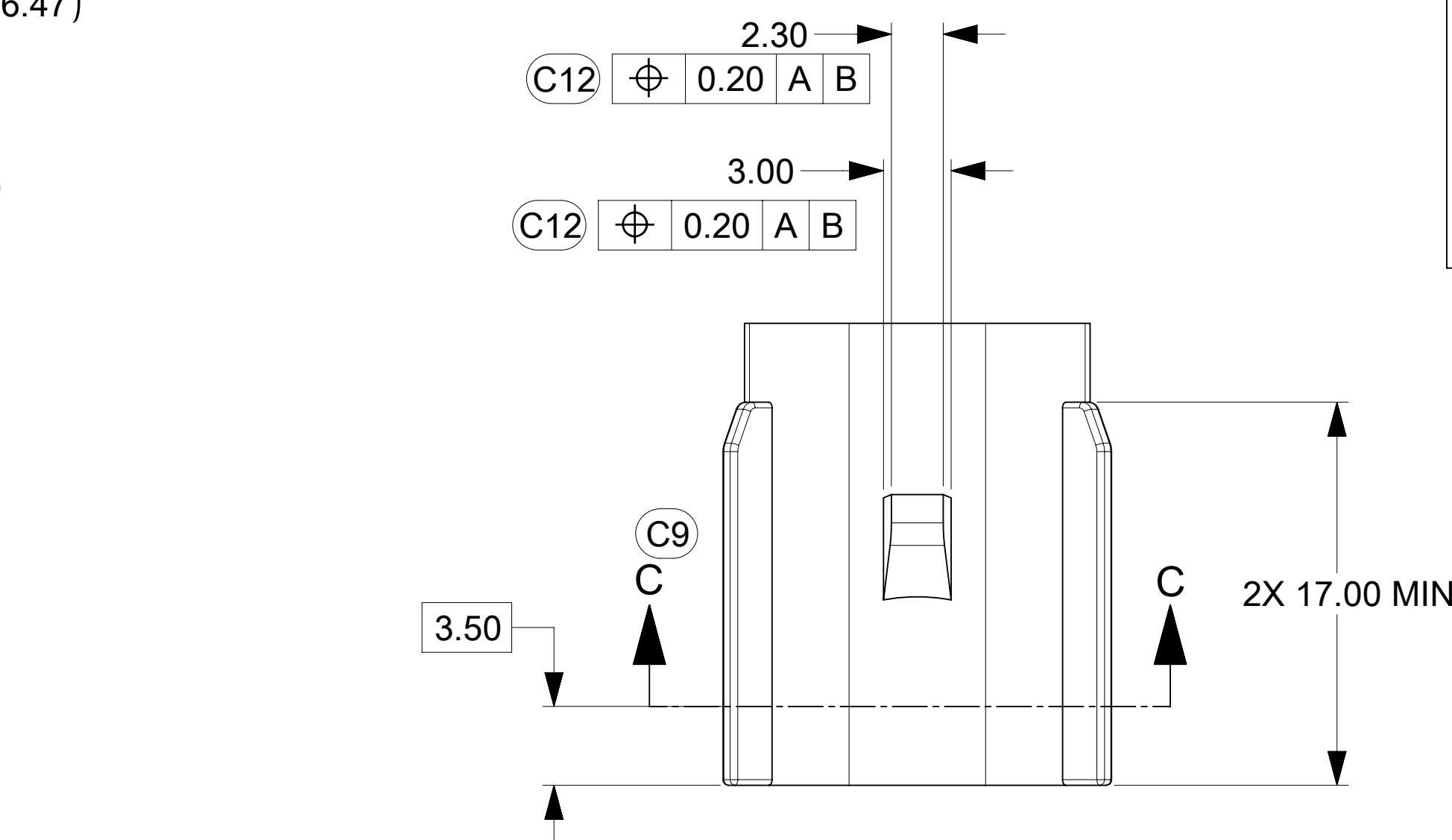
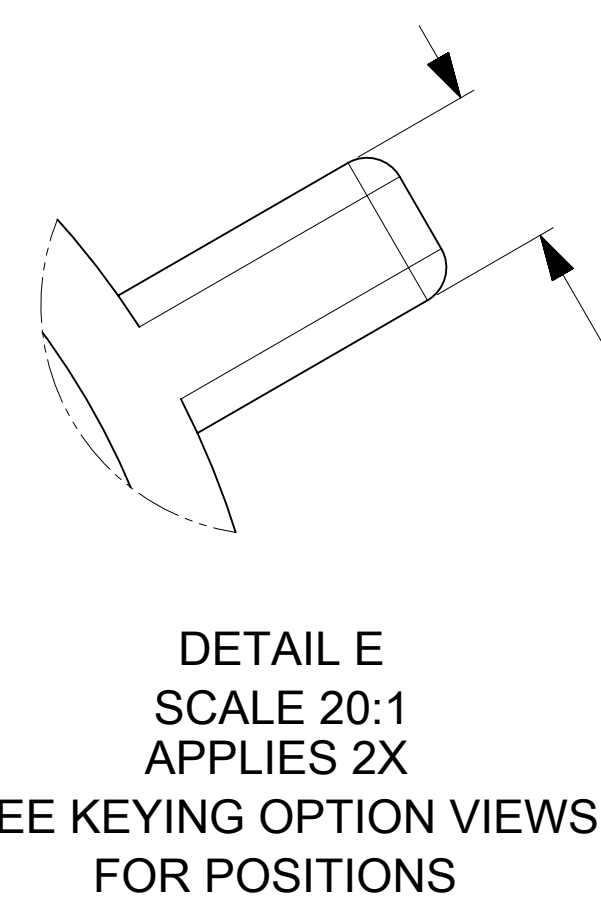
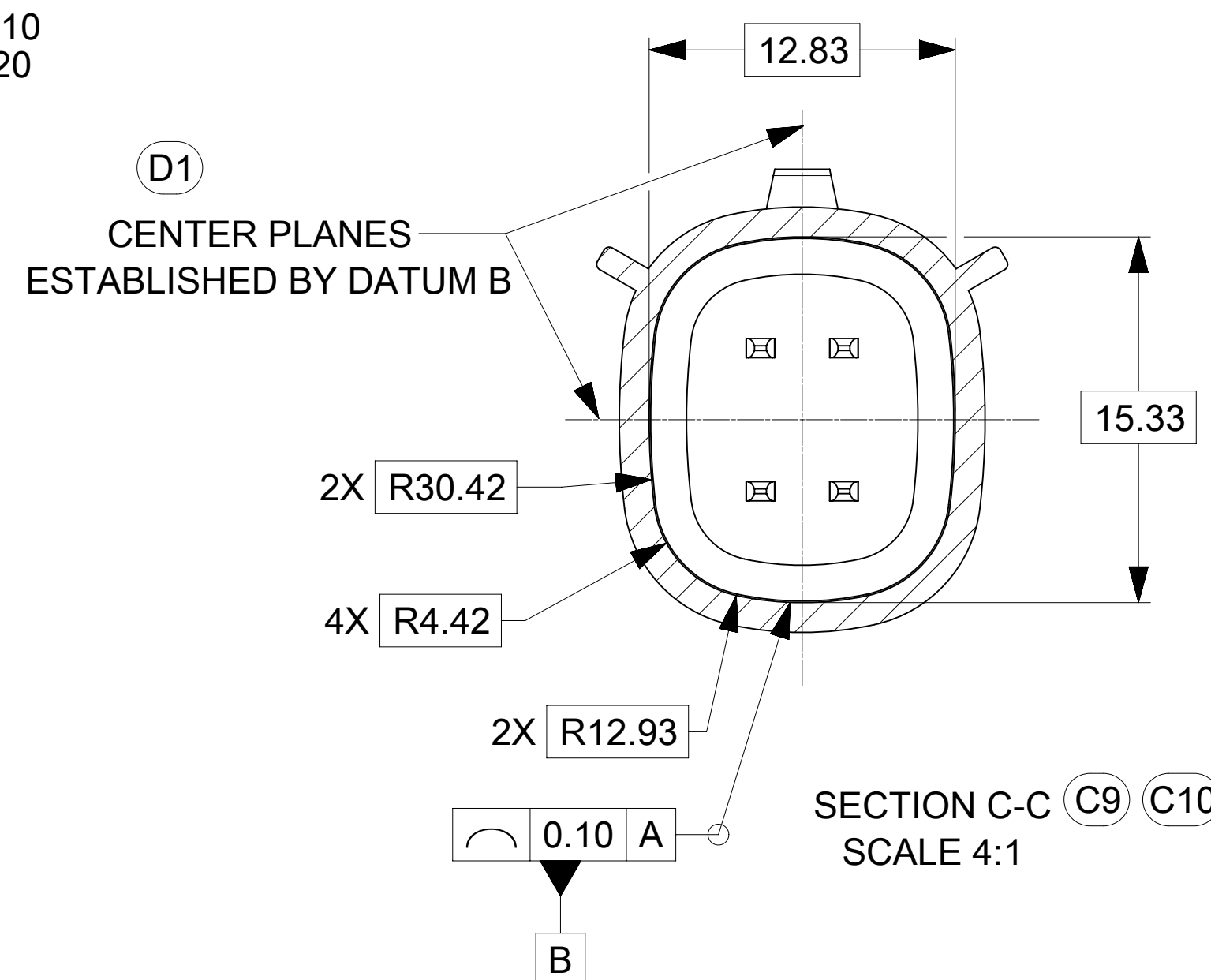
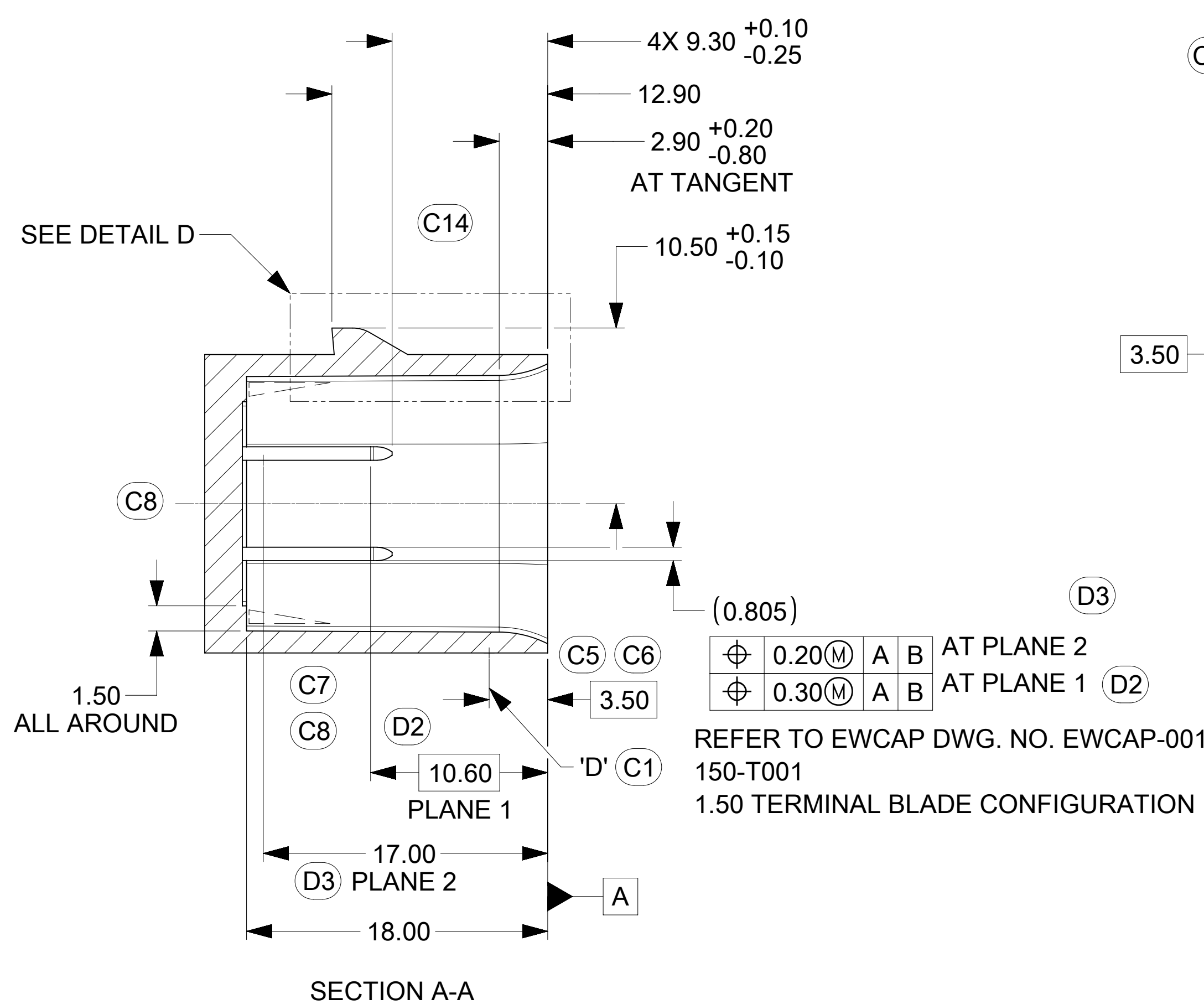
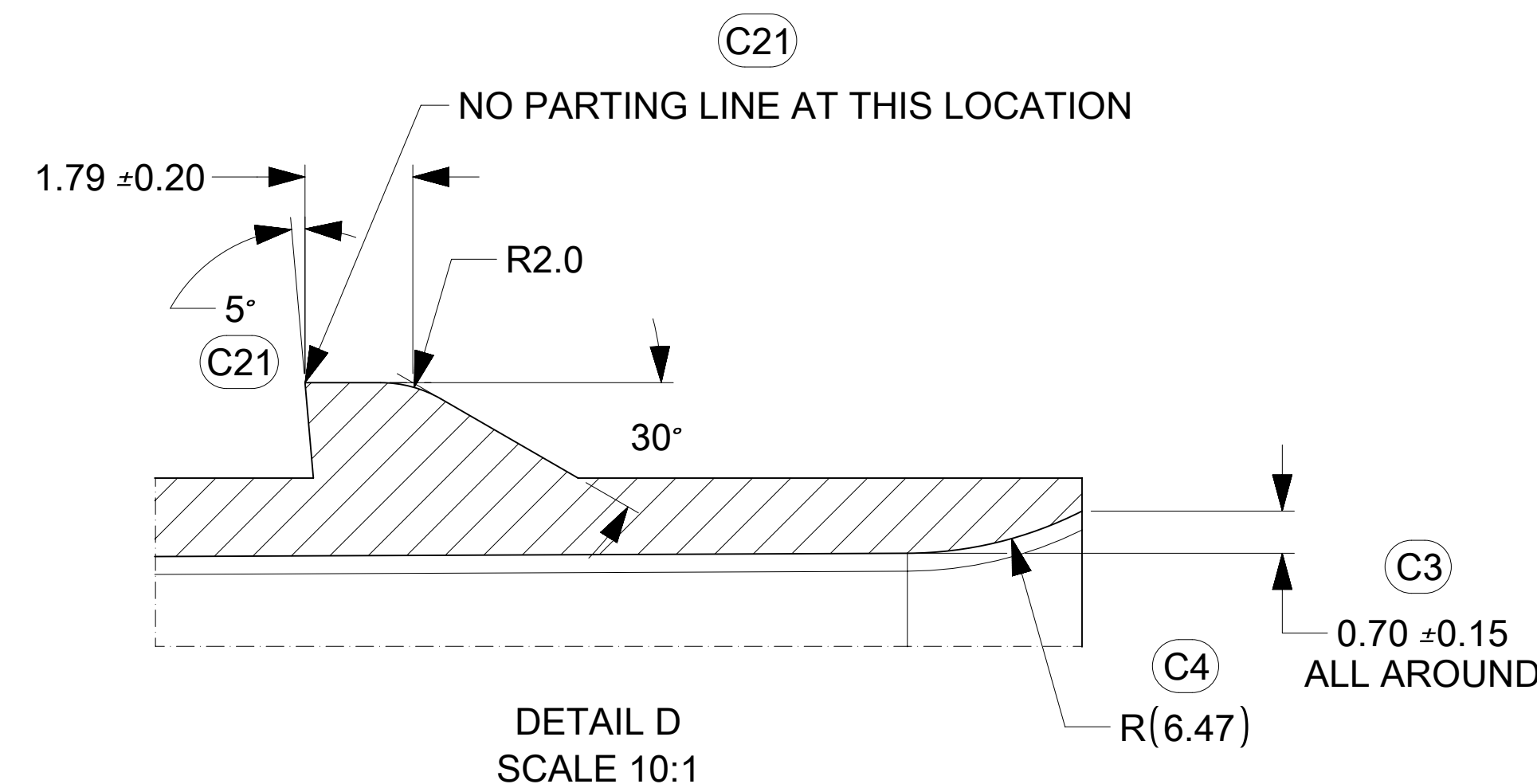




(C2)		
150-S-004-2-D02	D	BLACK
150-S-004-2-C02	C	DK GRAY
150-S-004-2-B02	B	LT GRAY
150-S-004-2-A02	A	BLACK
EWCAP P/N	OPTION	MATING CONNECTOR COLOR



STANDARD NOTICE

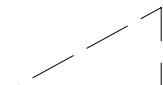
This drawing, or portions of it are controlled by the Electrical Wiring Components Application Partnership (EWCAP) a subgroup of the United States Council for Automotive Research LLC (USCAR LLC).

USCAR is an LLC consisting of members from FCA US LLC, Ford Motor Company and GM Corporation. Any change to a EWCAP controlled portion of this drawing, including a revision record change must be approved, in writing, by the responsible EWCAP representative from each USCAR member company.

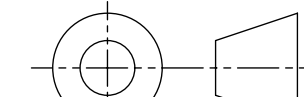
Each EWCAP representative authorized to sign for his or her member company is responsible for obtaining all necessary approvals within that company prior to signing for the approval of the change.

EWCAP expressly prohibits any party from changing either any EWCAP controlled portion of this drawing or any associated tooling before receiving approval, signed by the authorized representatives, of the USCAR member companies. Reference to the signed change notice must be entered in the drawing control column.

NOTES: UNLESS OTHERWISE SPECIFIED (C18)

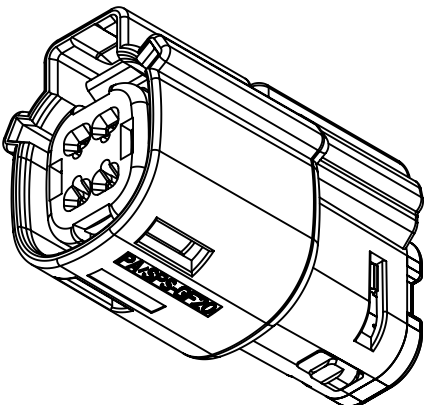
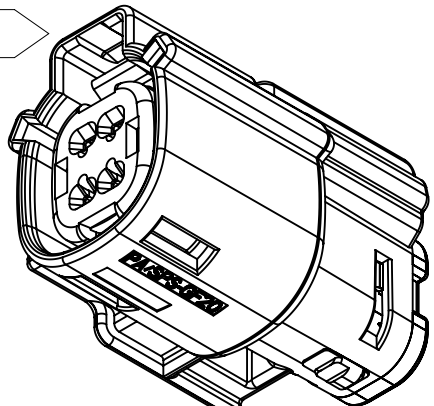
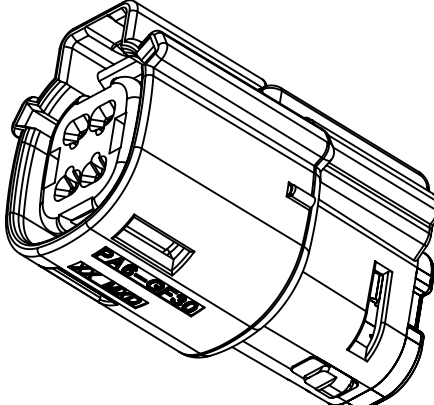
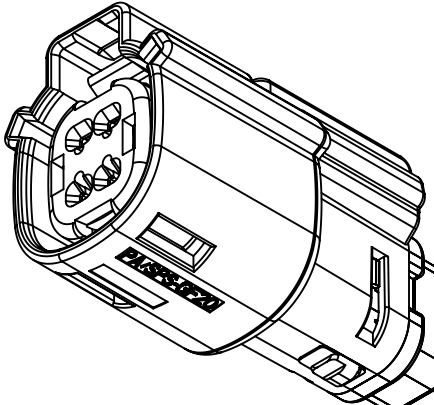
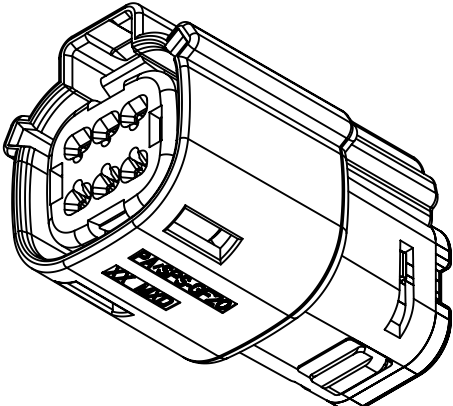
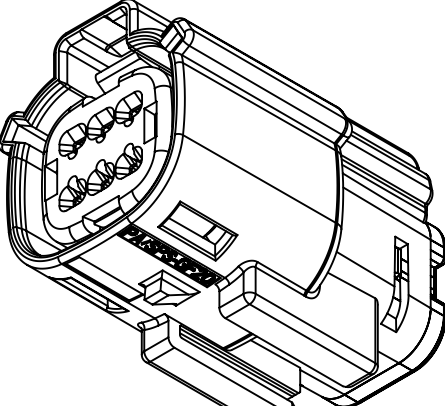
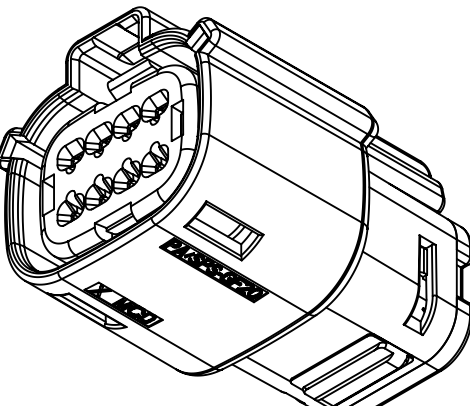
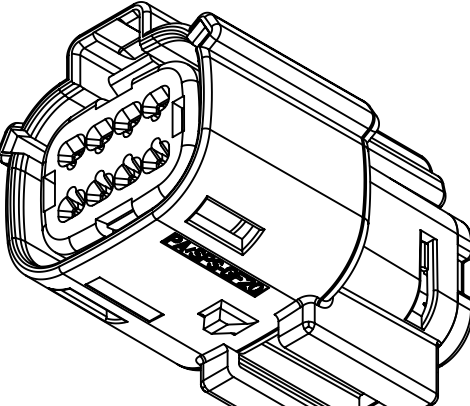
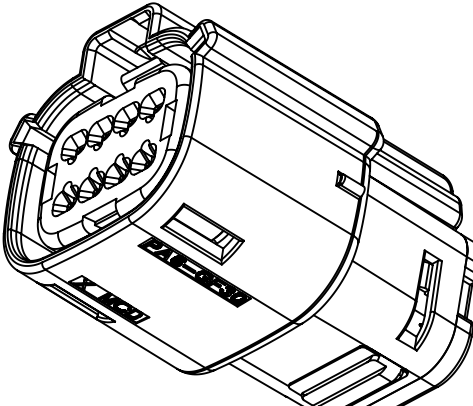
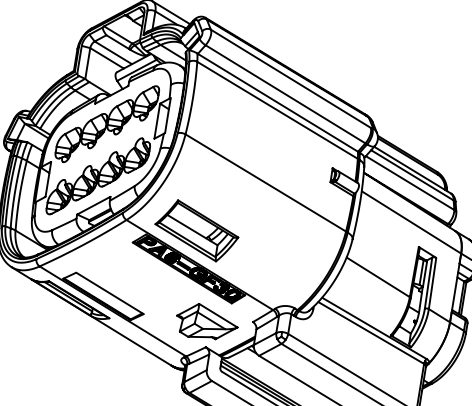
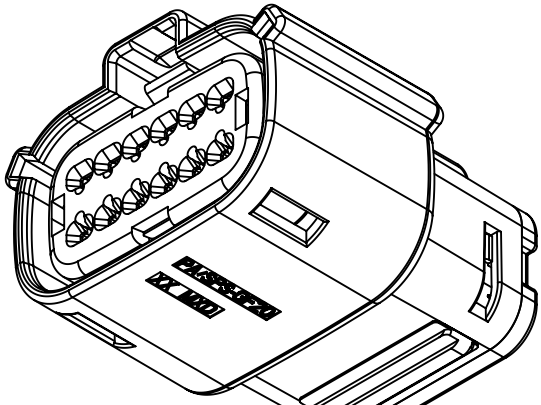
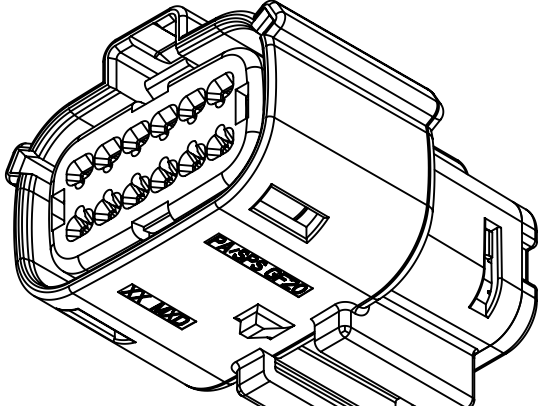
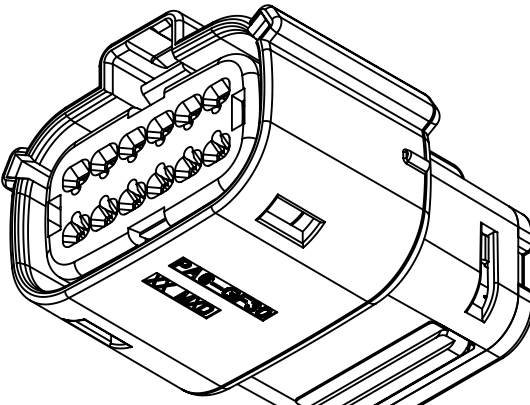
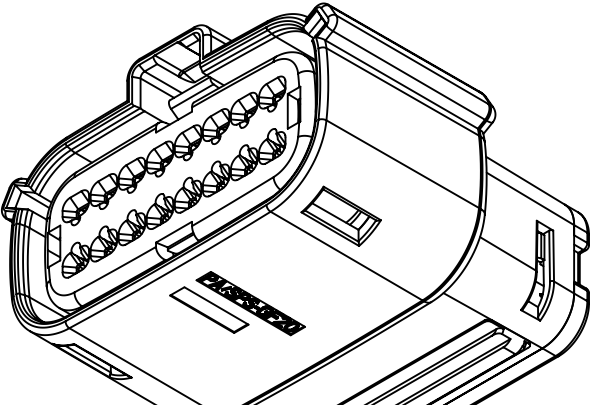
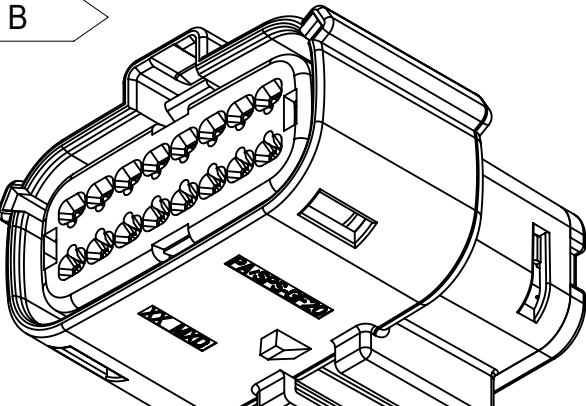
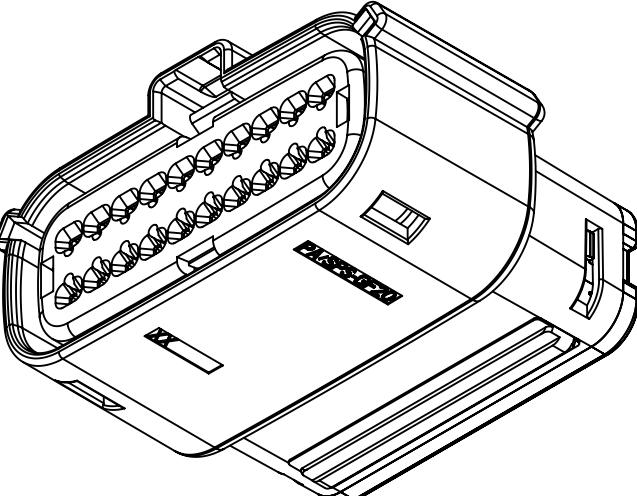
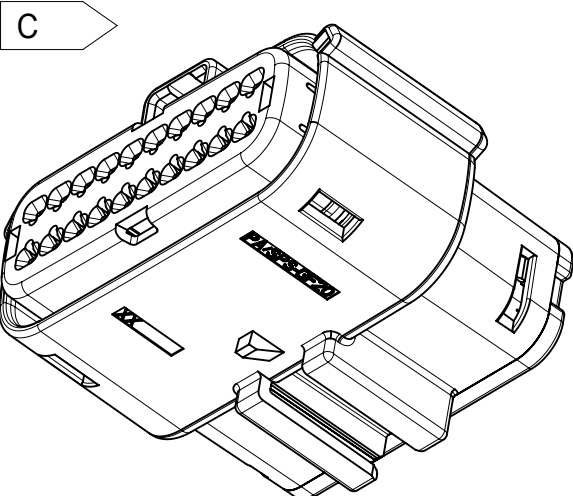
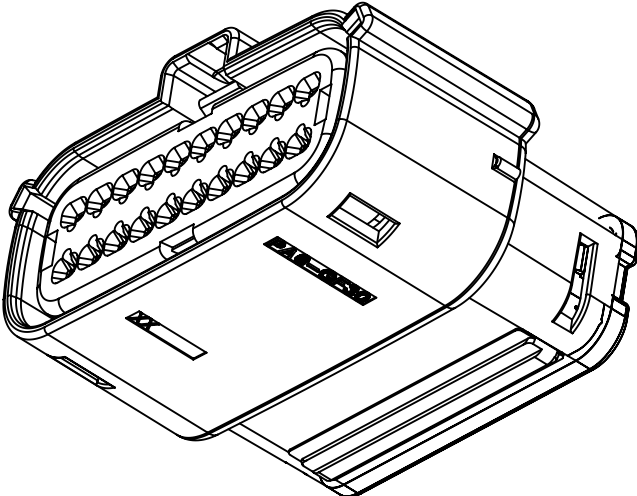
1. ALL DIMENSIONS SHOWN IN MILLIMETERS.
2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-2009 (D5)
3. 0.25 RADII ON ALL CORNERS SHOWN SHARP.
4. UNSPECIFIED RADII: 0.25 EXCEPT AS NOTED.
5. STANDARD COLORS FOR POLARIZATION (SEE CHART).
DEVIATION REQUIRES APPROVAL OF AUTHORIZED PERSON.
6. REFER TO "SAE/USCAR 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.

132	D5	UPDATED CALL OUT FOR THE REVISION OF GD&T FROM ASME Y14.5-1994 TO Y14.5-2009			
132	D4	UPDATED THE STANDARD NOTICE TO THE LATEST TEMPLATE			
132	D3	ADDED PLANE 2			
132	D2	ADDED PLANE 1			
132	D1	ADDED CALL OUT "CENTER PLANES ESTABLISHED BY DATUM B"	04-24-17	MV	KB
095	C22	CHANGED ISO VIEW SCALE TO 4:1, WAS 1:1			
095	C21	ADDED PARTING LINE NOTE TO DETAIL A, REMOVED NOTE BACK ANGLE OPTIONAL FROM 5°			
095	C20	CORRECTED CHRYSLER GROUP LLC NOMENCLATURE ADDED LEGAL NOTE AND EWCAP TO TITLE BLOCK			
095	C19	MOVED NOTE TO SECTION B-B			
095	C18	UPDATED NOTES			
095	C17	ADDED 0.25° MAX DRAFT ANGLE ALL AROUND			
095	C16	ADDED 5.50			
095	C15	ADDED AT TANGENT NOTE			
095	C14	REMOVED DATUM D			
095	C13	ADDED BASIC DIMENSIONS FOR PROFILE CONTROL			
095	C12	ADDED $\varnothing$ 0.20 A B			
095	C11	DIMENSION TO DATUM A			
095	C10	SEALING SURFACE DIMENSIONS MOVED TO SECTION C-C			
095	C9	ADDED SECTION C-C			
095	C8	REMOVED 15.20 AND 2.50 FROM SECTION A-A			
095	C7	ADDED DRAFT ANGLE DIRECTION			
095	C6	REMOVED 0.80 +0.10/-0.20 ALL AROUND			
095	C5	REPLACED WALL THICKNESS CONTROL WITH PROFILE OF A SURFACE			
095	C4	ADDED R(6.47)			
095	C3	ADDED 0.70+0.15 ALL AROUND			
095	C2	UPDATED CONNECTOR COLORS			
095	C1	SURFACE 'D' RELOCATED TO 3.50 WAS AT 8.20			
	B3	REMOVED EWCAP FROM THE TITLE BLOCK			
	B2	REMOVED LEGAL NOTICE			
	B1	ANGEL 40° WAS 60° -4 PLACES (A4-D4)	03-26-12	KC	MV
	A	RELEASED	10-31-02	MV	DG
CHANGE SERIAL NUMBER	LET	REVISION RECORD	DATE	DWN	CHK

TOLERANCES (UNLESS OTHERWISE SPECIFIED)				THIRD ANGLE PROJECTION	
DIMENSIONS ARE IN		MILLIMETERS			
ANGLES		±3°			
X	±0.2	XX	±0.10		
					
SCALE	4 - 1	DRAWN BY	K. CUNNINGHAM	CHECKED BY	M. VANS LAMBROUCK
TITLE		DIRECT CONNECT INTERFACE 4 WAY (2 X 2) 1.5MM SEALED MALE			DATE 03-26-12
SHEET OF	DRAWING NUMBER 150-S-004-2-Z02		SIZE E	DO NOT SCALE DRAWING COMPUTER AIDED DRAWING	
					REVISION LEVEL D

SHEET DESCRIPTION

CONFIGURATIONS

 2X2 - STD. 2X2 - TRNS. - SILICONE FREE †	 2X2 - STD. - WITH CLIPSLOT *	 † 2X2 - UL V0		 2X2 - STD. - LENGTHENED
 2X3 - STD. 2X3 - TRNS. - CONTAINS SILICONE †	 2X3 - STD. - WITH CLIPSLOT *			
 2X4 - STD.	 2X4 - STD. - WITH CLIPSLOT *	 † 2X4 - UL V0	 † 2X4 - UL V0-WITH CLIPSLOT*	
 2X6 - STD. C1 † 2X6 - TRNS.	 2X6 - STD. - WITH CLIPSLOT * C1 † 2X6 - TRNS. - WITH CLIPSLOT *	 † 2X6 - UL V0		
 2X8 - STD.	 2X8 - STD. - WITH CLIPSLOT *			
 2X10 - STD.	 2X10 - STD. - WITH CLIPSLOT *	 † 2X10 - UL V0		

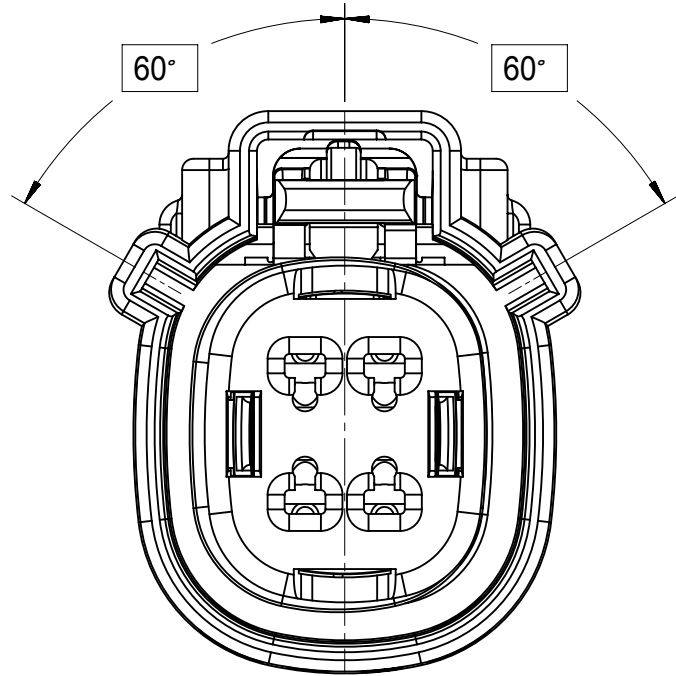
* WITH CLIPSLOT CONFIGURATION DOES NOT
MEET THE USCAR PACKAGING FRAME REQUIREMENTS
† MINOR GEOMETRY DIFFERENCE THAN STANDARD CONFIGURATION
SEE NOTES 1a & 2a-b FOR MORE INFORMATION

SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION														
 = 0	DIMENSION UNITS		SCALE		CURRENT REV DESC:			molex							
	mm		1:1												
 = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)				EC NO: 171650 DRWN: DDEB 2018/01/19 CHK'D: MVANSLAMBROU 2018/02/16 APPR: MVANSLAMBROU 2018/02/16			MX150 RCPT DUAL ROW SEALED ASSEMBLY MAT SEAL							
 = 0															
 = 0	ANGULAR TOL ± 1.0 °		PRODUCT CUSTOMER DRAWING												
 = 0	4 PLACES ±							DOCUMENT NUMBER		DOC TYPE		DOC PART		REVISION	
 = 0	3 PLACES ±														
 = 0	2 PLACES ± 0.1		INITIAL REVISION: DRWN: APROFFITT 2014/05/14 APPR: VKOSHY 2014/06/27			SD-33472-0001				PSD		001		C2	
 = 0	1 PLACE ± 0.2														
= 0	0 PLACES ±		THIRD ANGLE PROJECTION			DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER	
= 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS														
= 0					A1-SIZE		33472				GENERAL MARKET		2 OF 11		

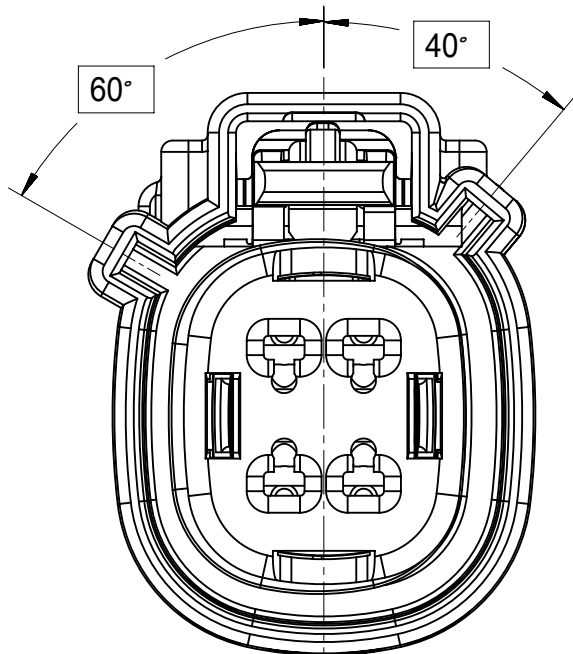
SHEET DESCRIPTION

KEY CONFIGURATIONS

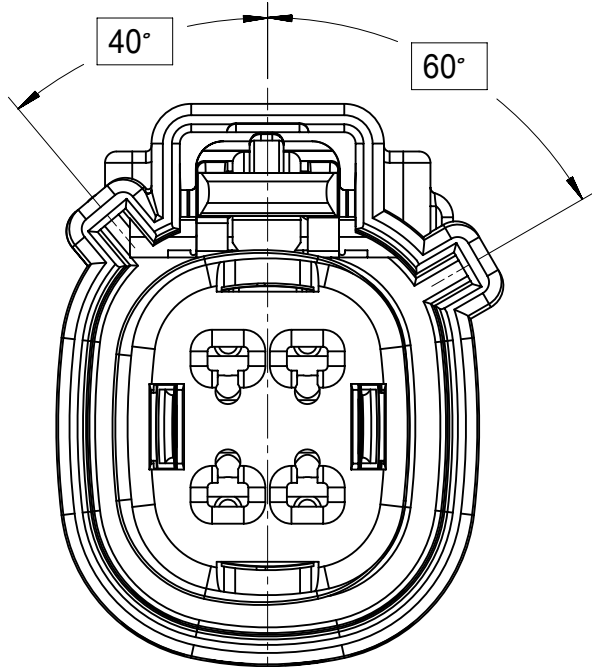
2X2



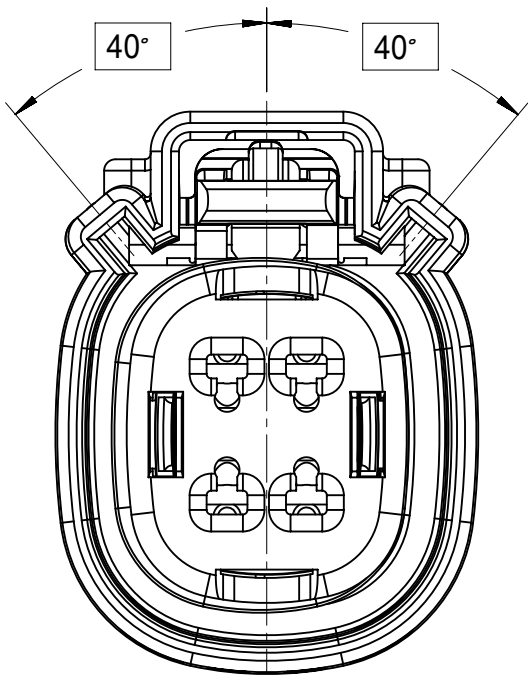
KEY A



KEY B

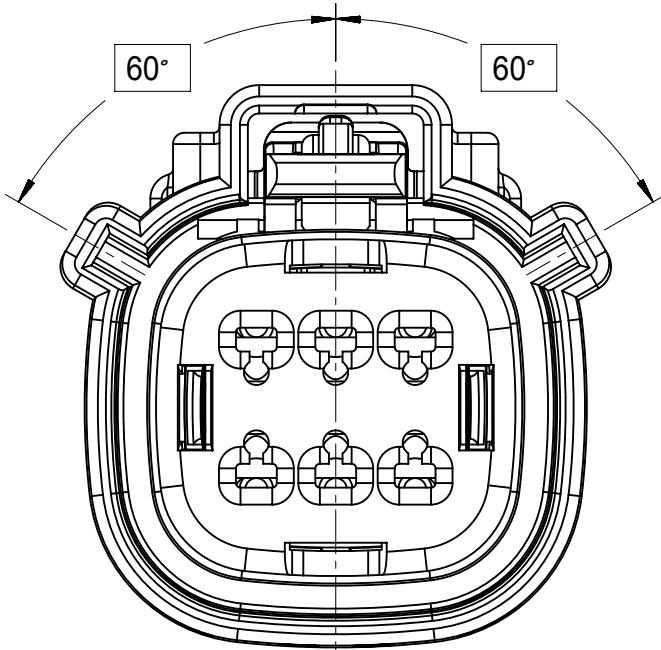


KEY C

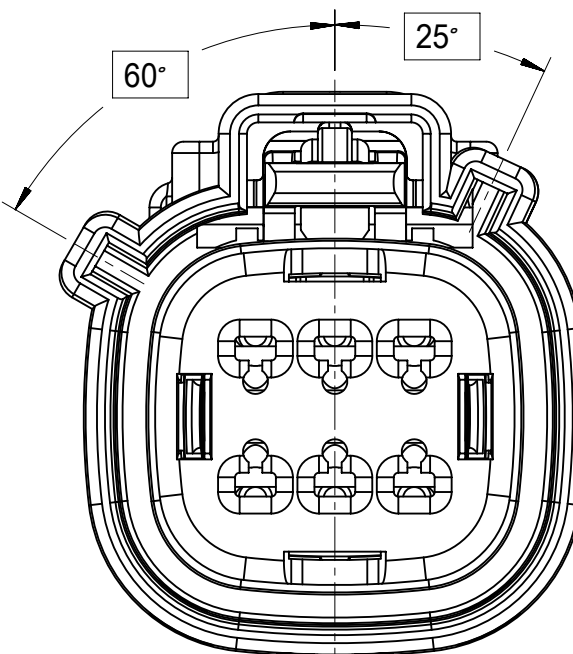


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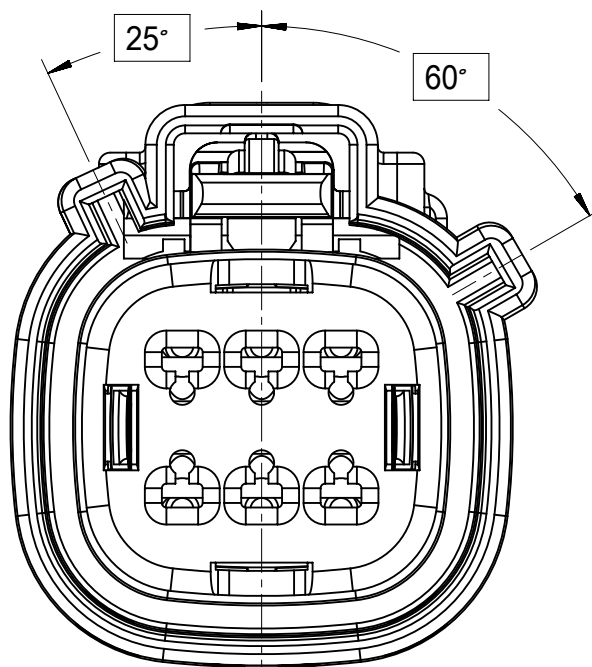
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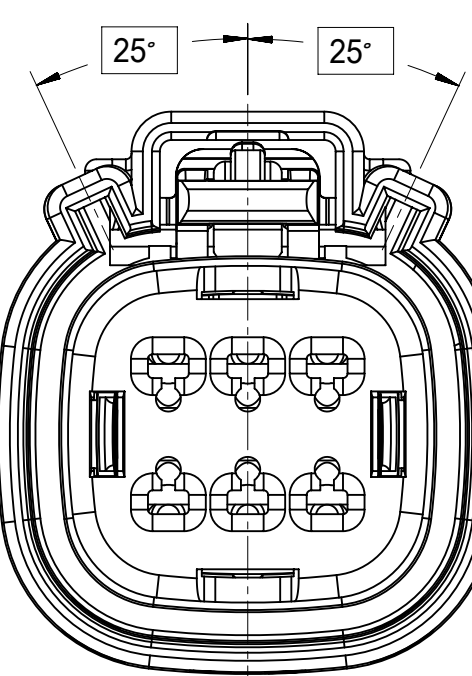
KEY A



KEY B

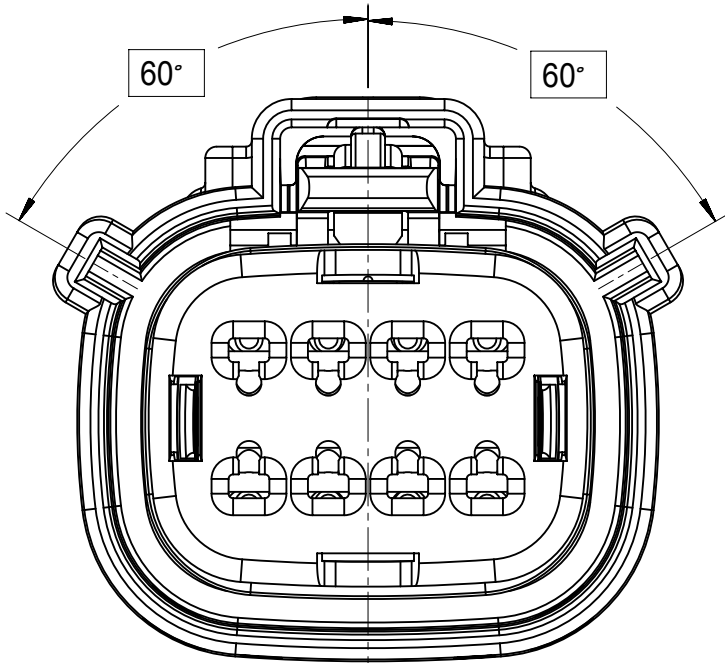


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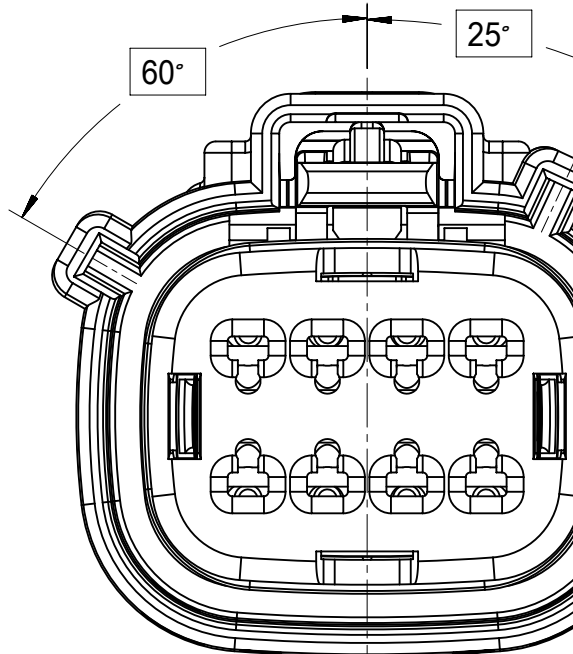


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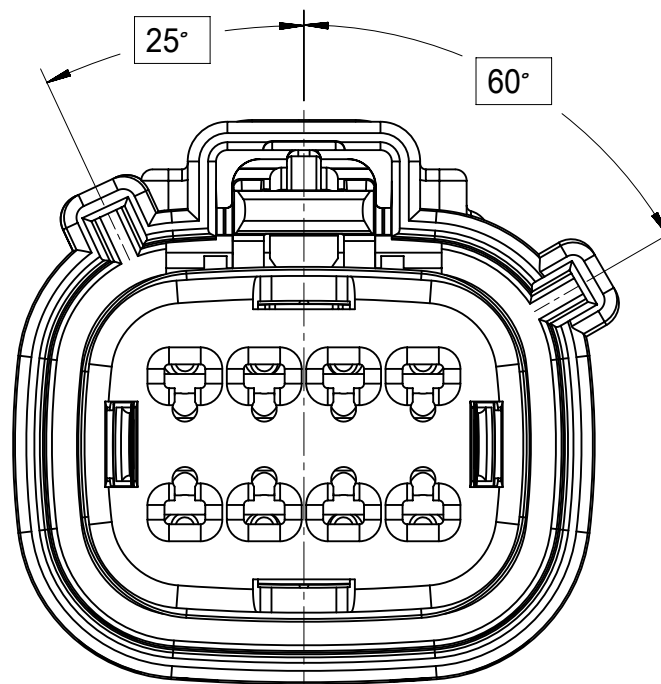
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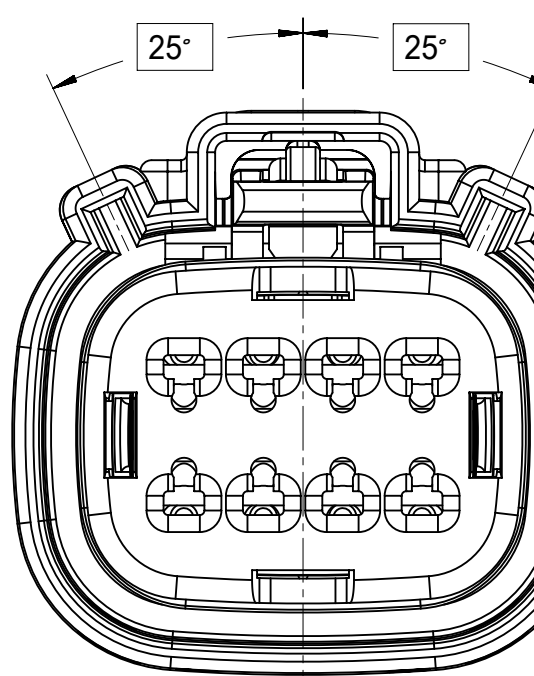
KEY A



KEY B



KEY C



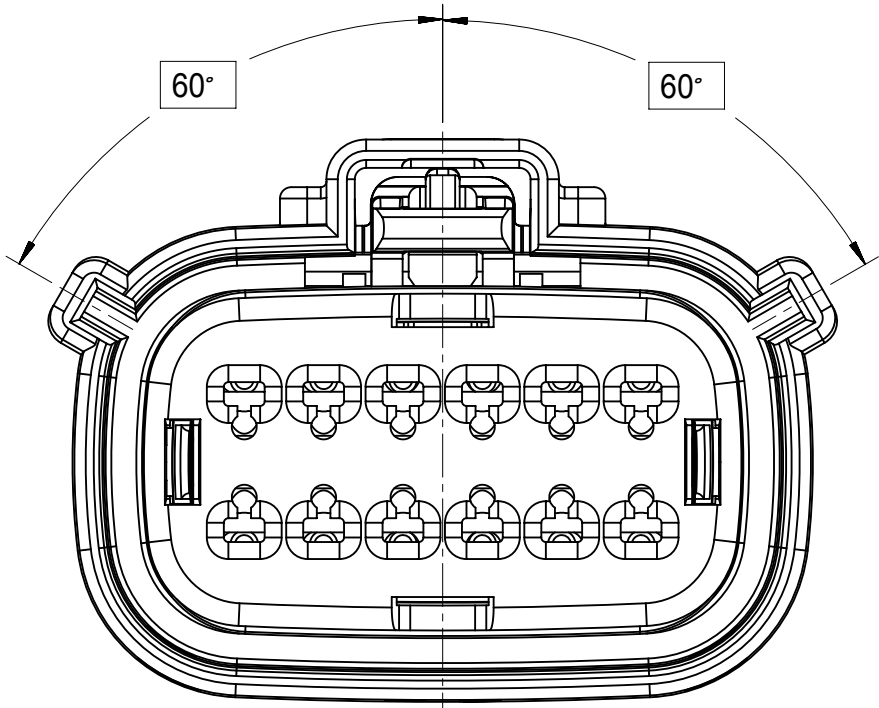
KEY D

SYMBOLS										THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION													
DIMENSION UNITS		SCALE		CURRENT REV DESC:										molex MX150 RCPT DUAL ROW SEALED ASSEMBLY MAT SEAL									
mm		1:1		EC NO: 171650 DRWN: DDEB 2018/01/19 CHK'D: MVANSLAMBROU 2018/02/16 APPR: MVANSLAMBROU 2018/02/16 INITIAL REVISION: DRWN: APROFFITT 2014/05/14 APPR: VKOSHY 2014/06/27																			
GENERAL TOLERANCES (UNLESS SPECIFIED)				ANGULAR TOL ± 1.0 °				PRODUCT CUSTOMER DRAWING															
4 PLACES ±				DOCUMENT NUMBER		DOC TYPE		DOC PART		REVISION													
3 PLACES ±				SD-33472-0001		PSD		001		C2													
2 PLACES ± 0.1				MATERIAL NUMBER		CUSTOMER		SHEET NUMBER															
1 PLACE ± 0.2				DRAWING		SERIES		GENERAL MARKET		3 OF 11													
0 PLACES ±				THIRD ANGLE PROJECTION		A1-SIZE		33472															
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS																							

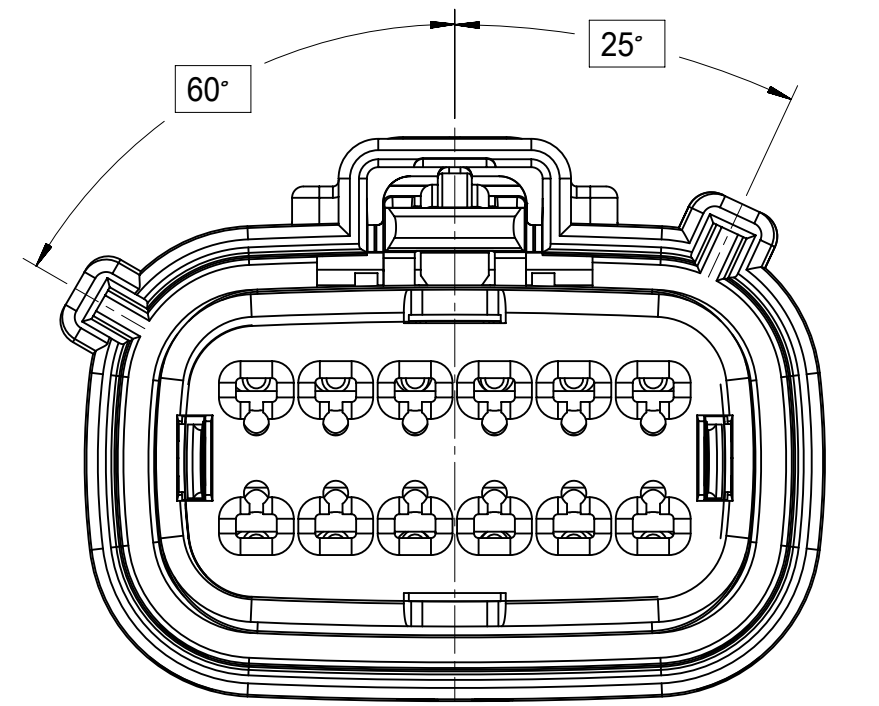
SHEET DESCRIPTION

KEY CONFIGURATIONS CONT.

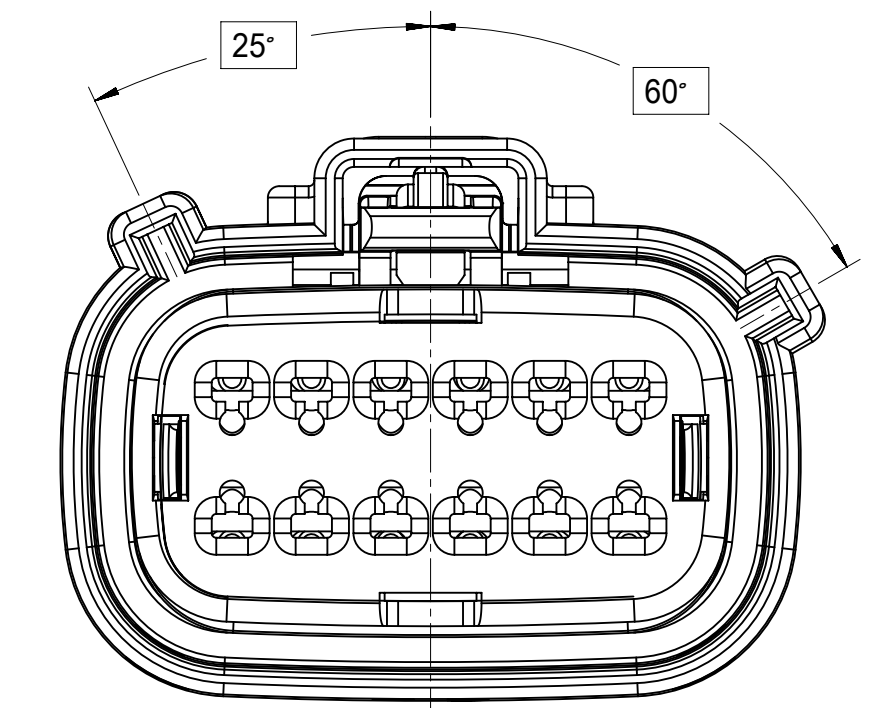
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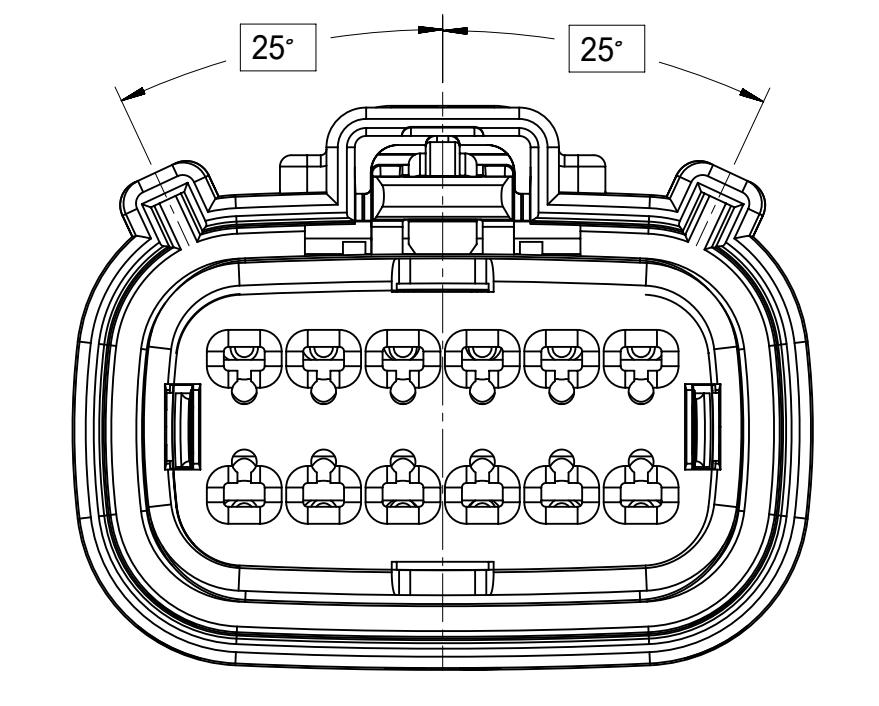
KEY A



KEY B

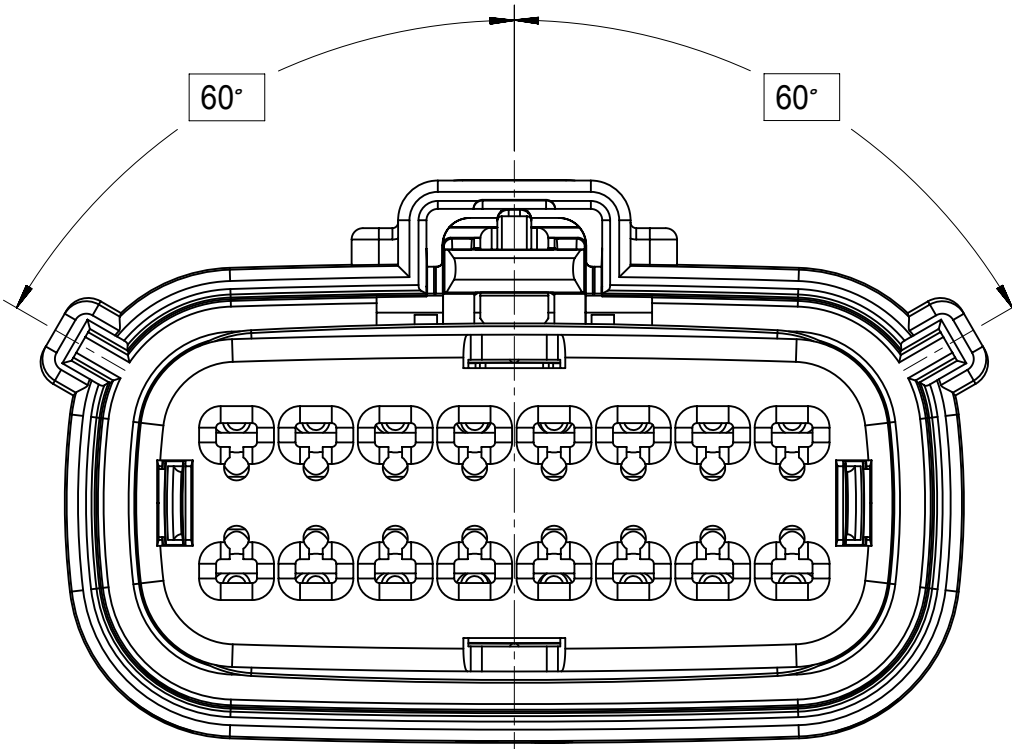


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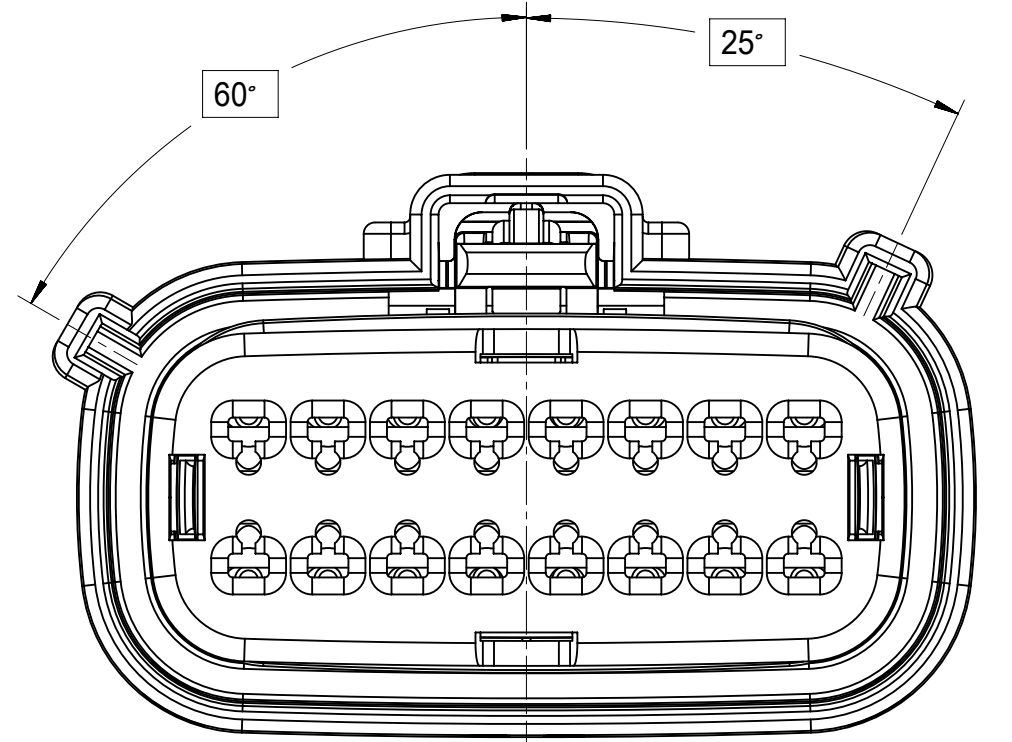


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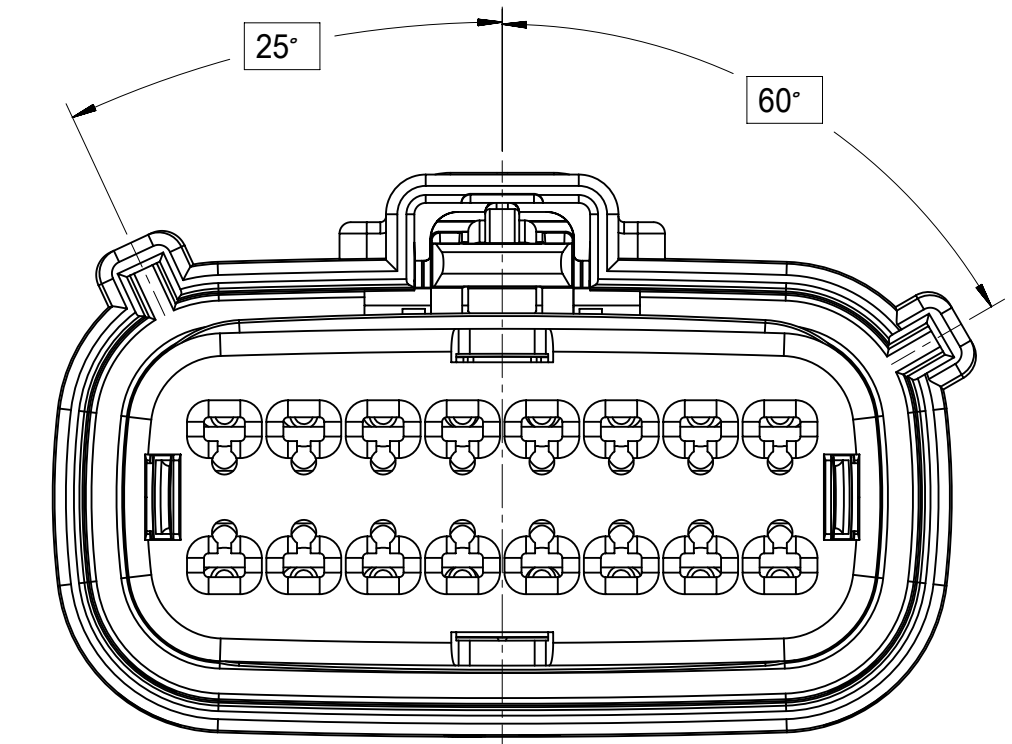
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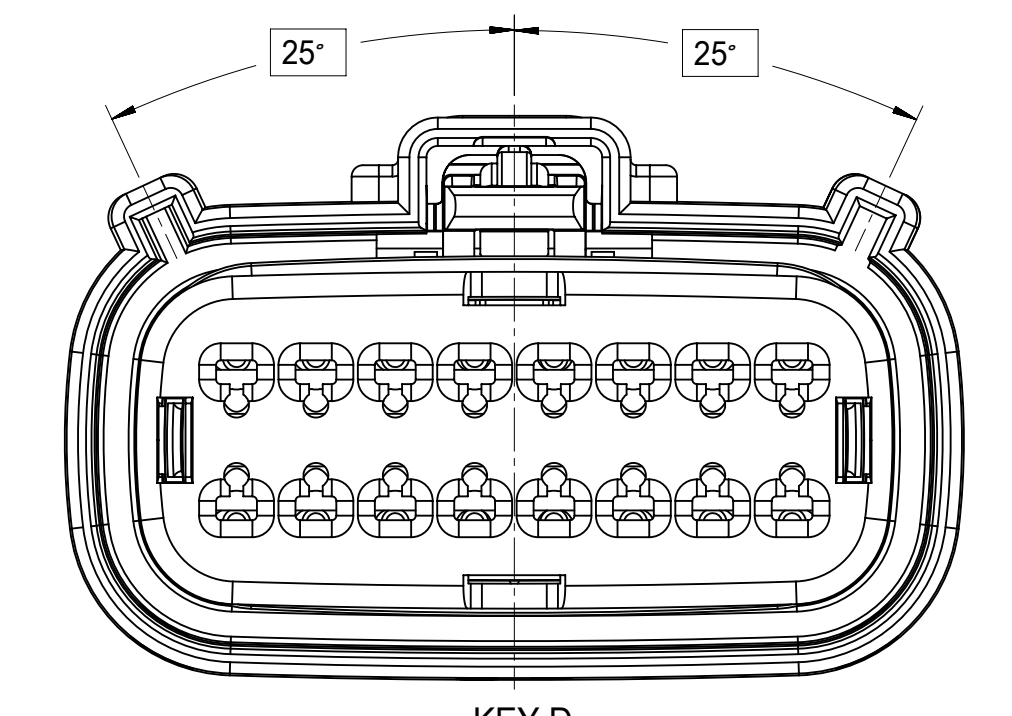
KEY A



KEY B

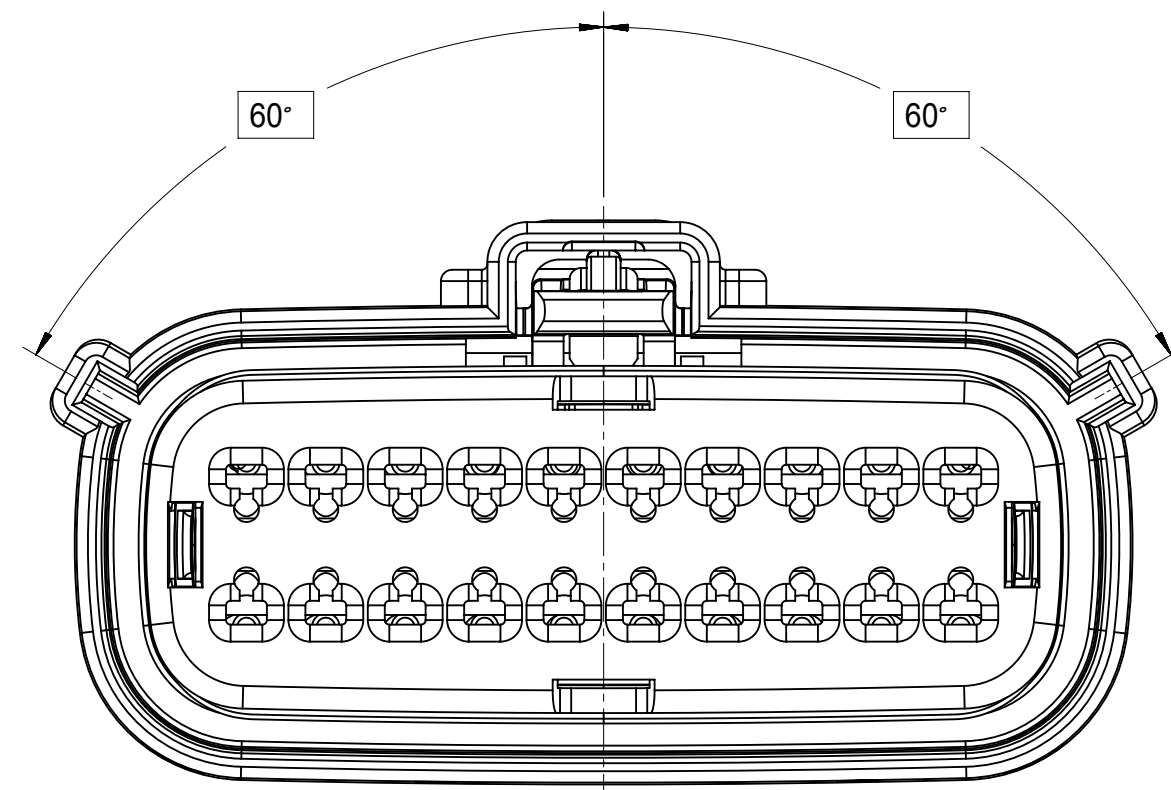


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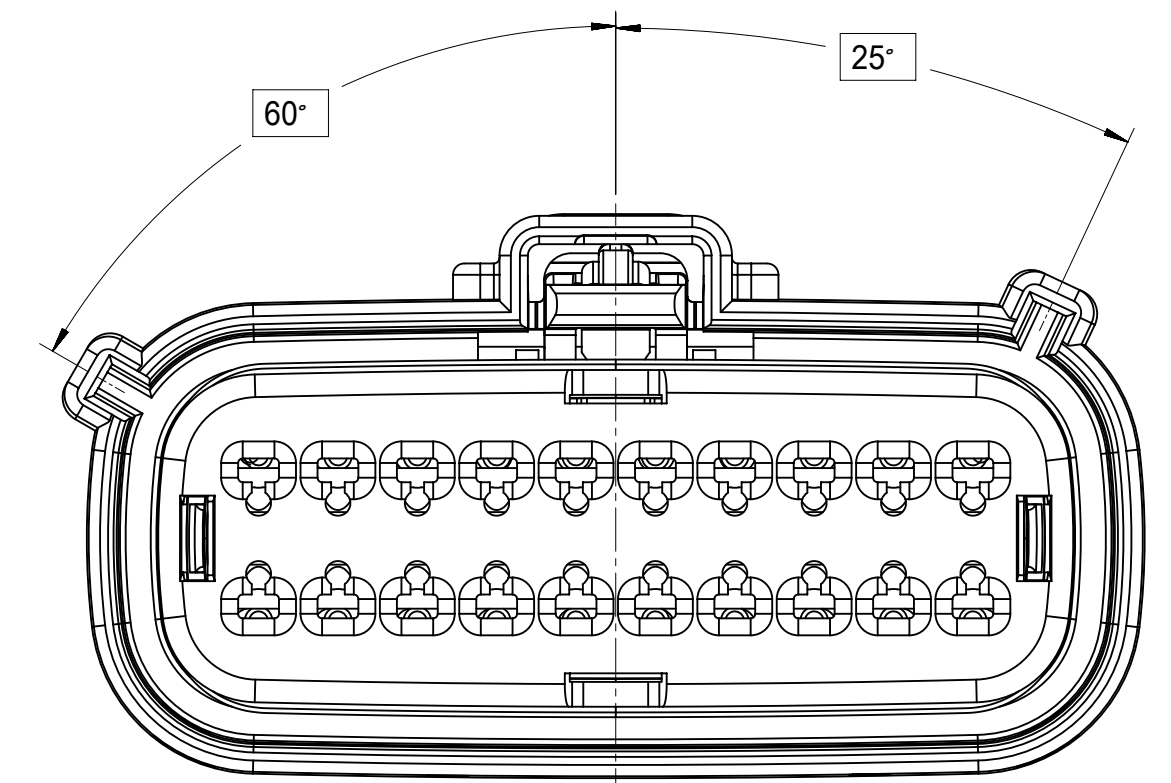


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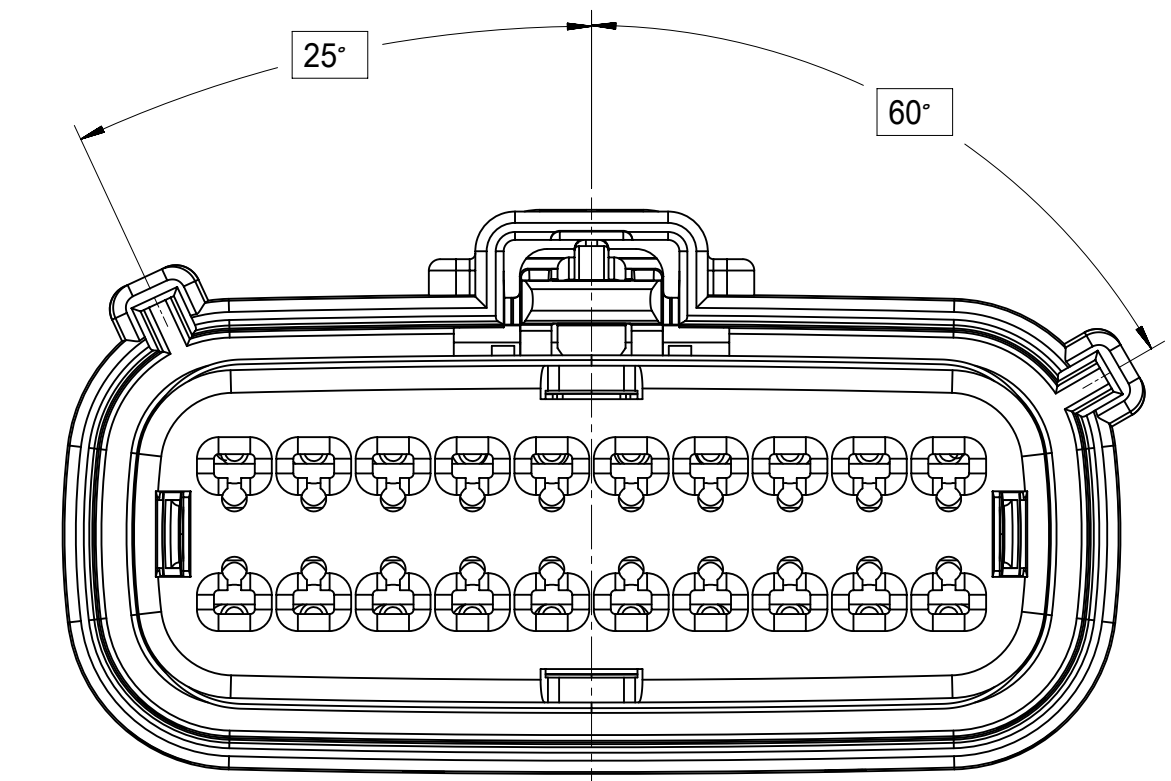
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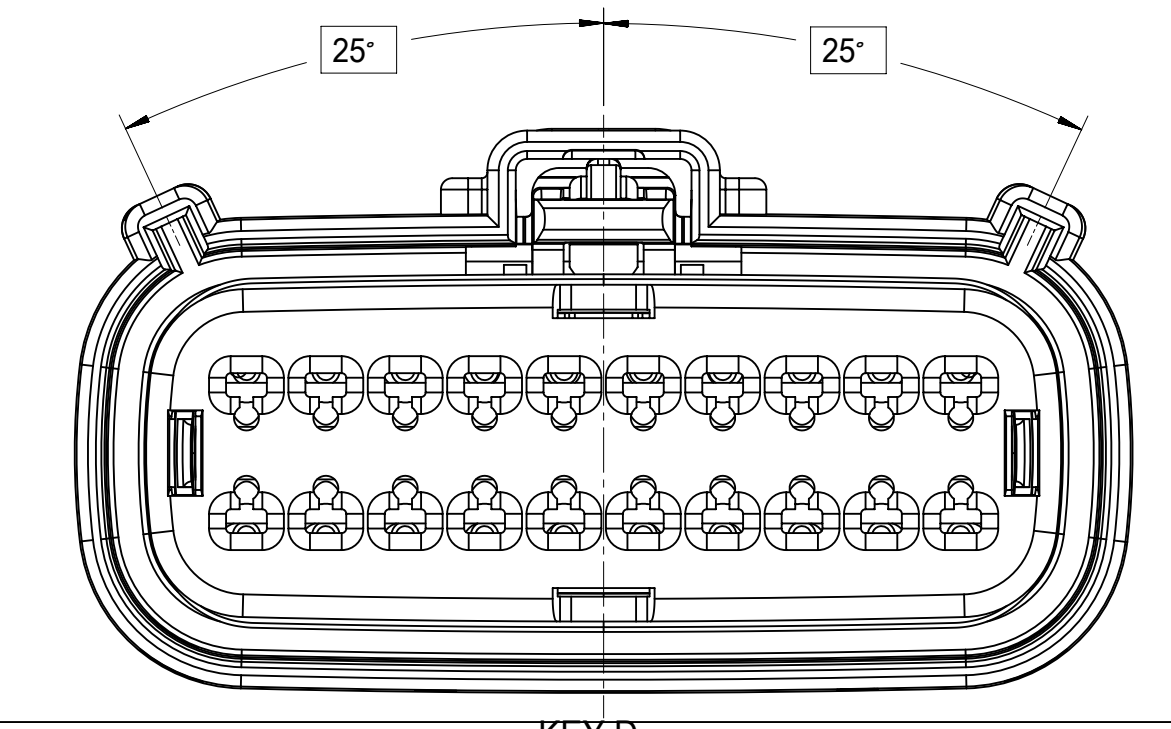
KEY A



KEY B



KEY C



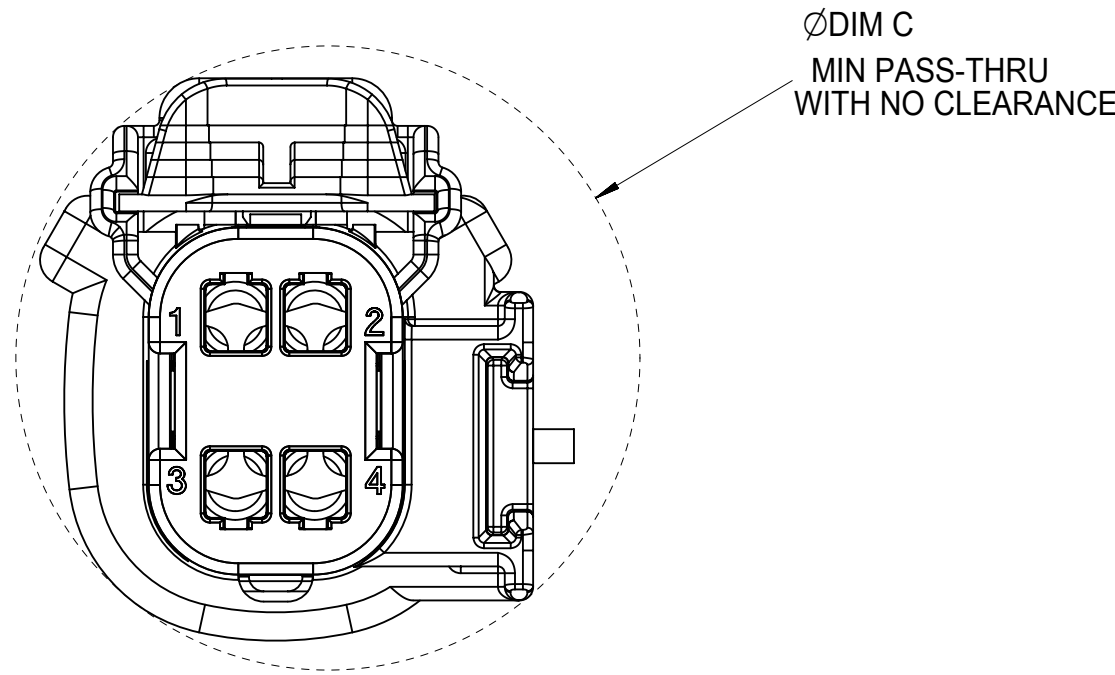
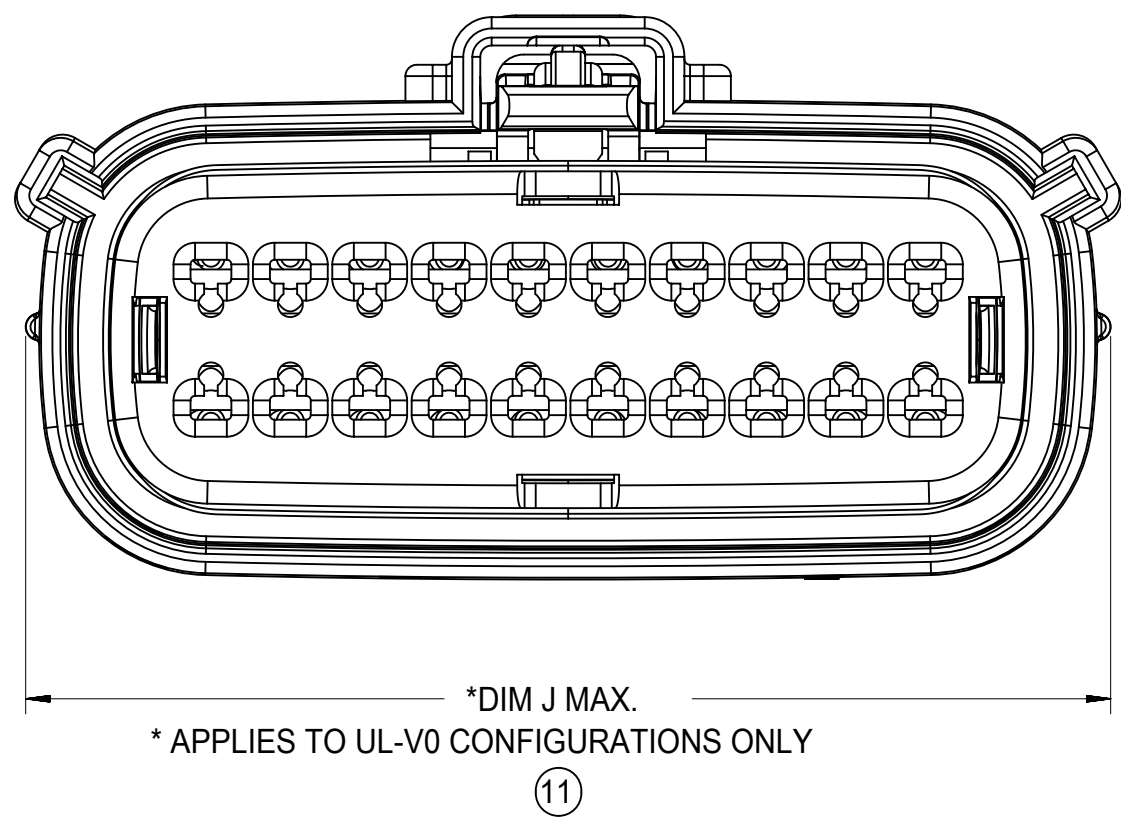
KEY D

SYMBOLS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
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	= 0	mm	1:1
	= 0	GENERAL TOLERANCES (UNLESS SPECIFIED)	
	= 0	ANGULAR TOL ± 1.0 °	
	= 0	4 PLACES	±
	= 0	3 PLACES	±
	= 0	2 PLACES	± 0.1
	= 0	1 PLACE	± 0.2
	= 0	0 PLACES	±
	= 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	
	= 0	THIRD ANGLE PROJECTION	DRAWING
	= 0		A1-SIZE
		SERIES	
		33472	
		CURRENT REV DESC:	
		EC NO: 171650	
		DRWN: DDEB 2018/01/19	
		CHK'D: MVANSLAMBROU 2018/02/16	
		APPR: MVANSLAMBROU 2018/02/16	
		INITIAL REVISION:	
		DRWN: APROFFITT 2014/05/14	
		APPR: VKOSHY 2014/06/27	
		DOCUMENT NUMBER	
		SD-33472-0001	
		DOC TYPE	
		PSD	
		DOC PART	
		001	
		REVISION	
		C2	
		MATERIAL NUMBER	
		CUSTOMER	
		GENERAL MARKET	
		SHEET NUMBER	
		4 OF 11	

DOCUMENT STATUS	P1	RELEASE DATE	2018/02/16	22:02:25
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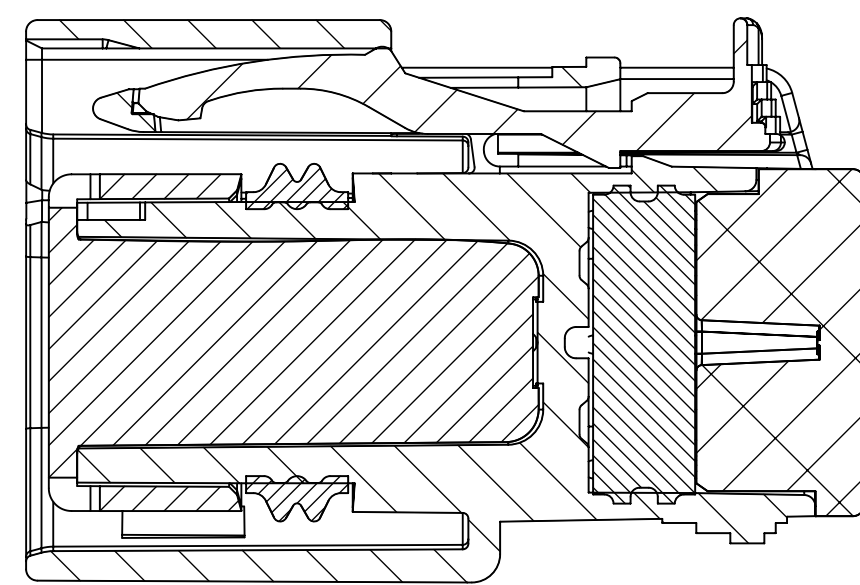
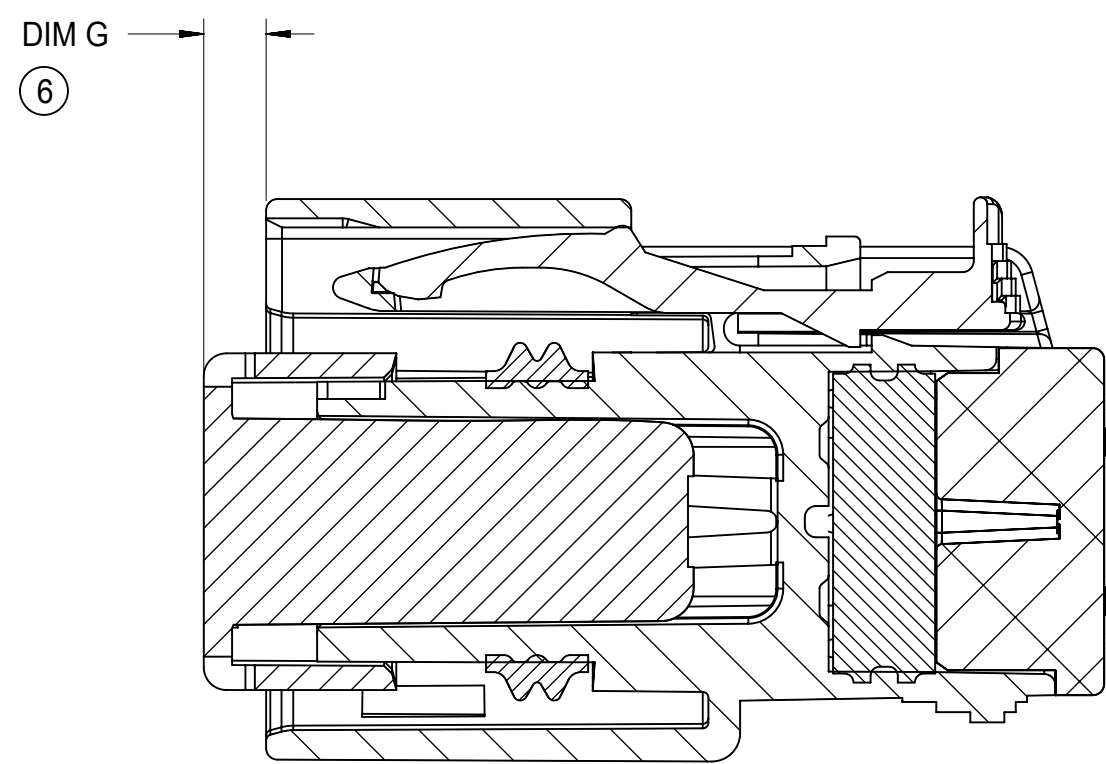
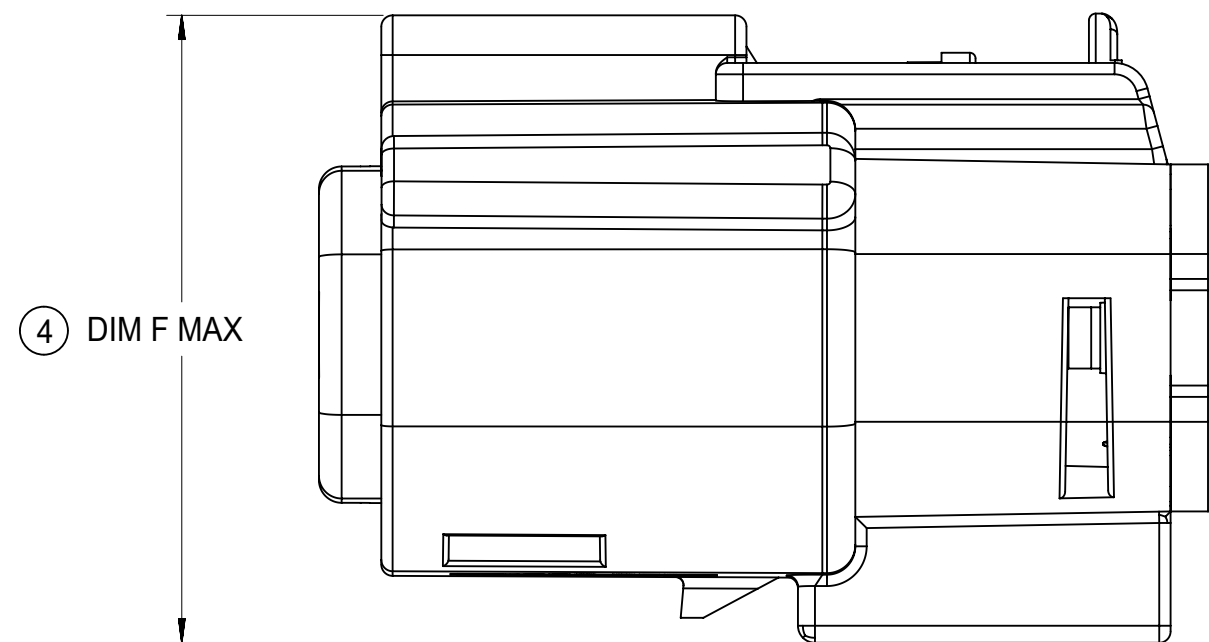
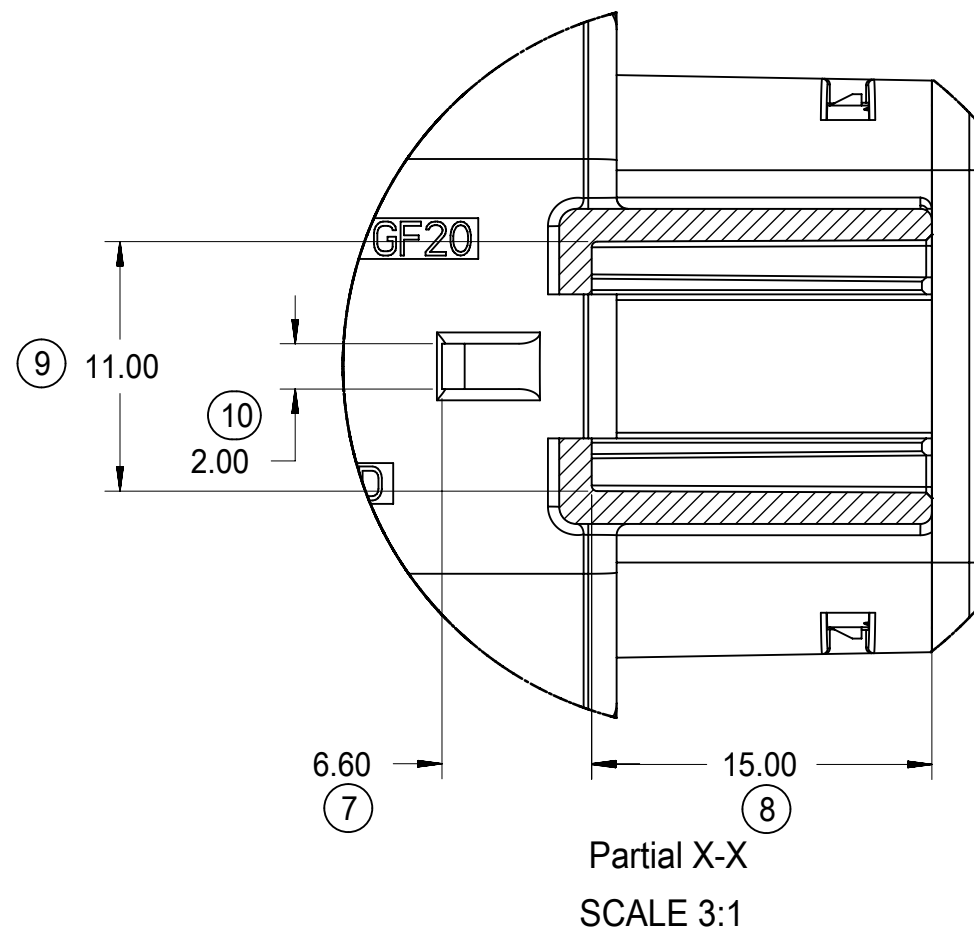
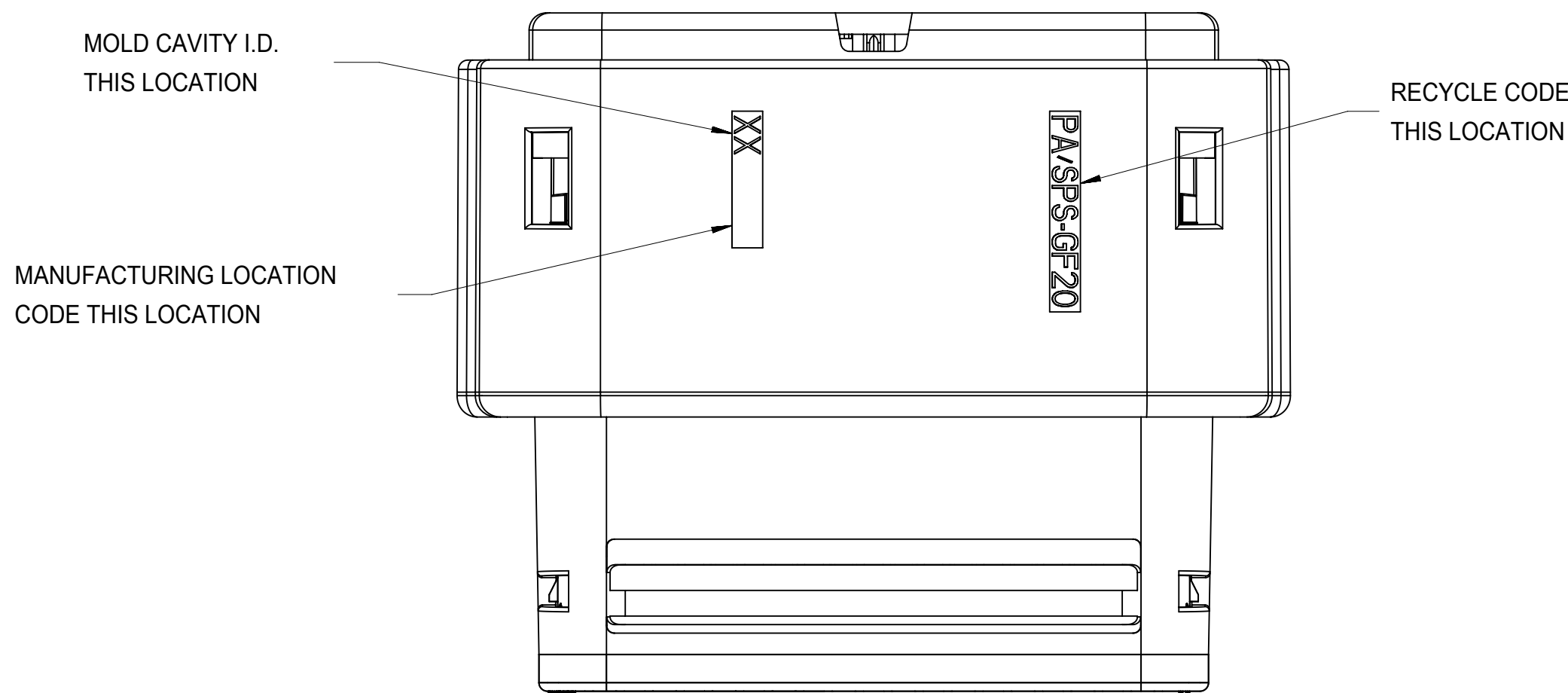
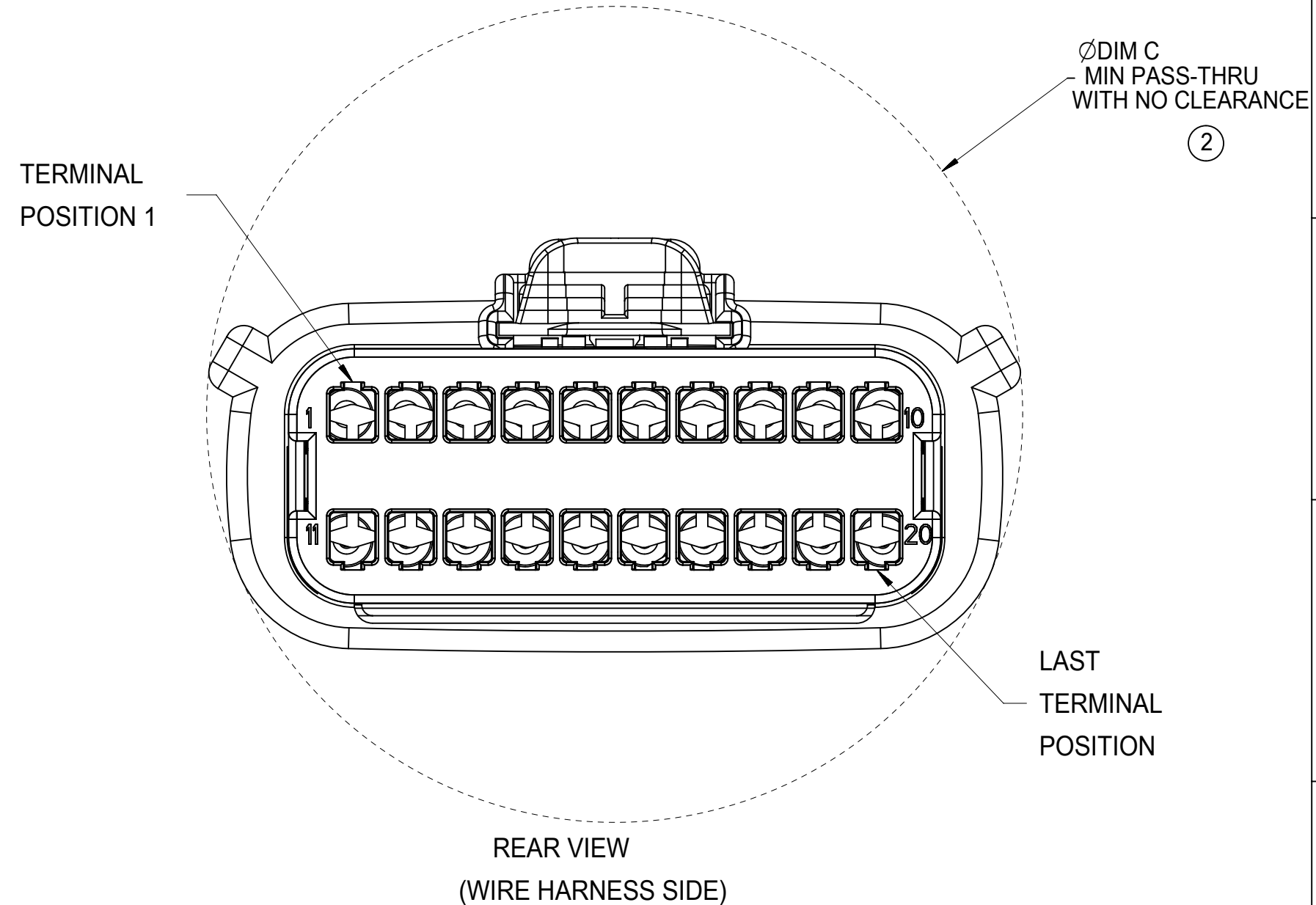
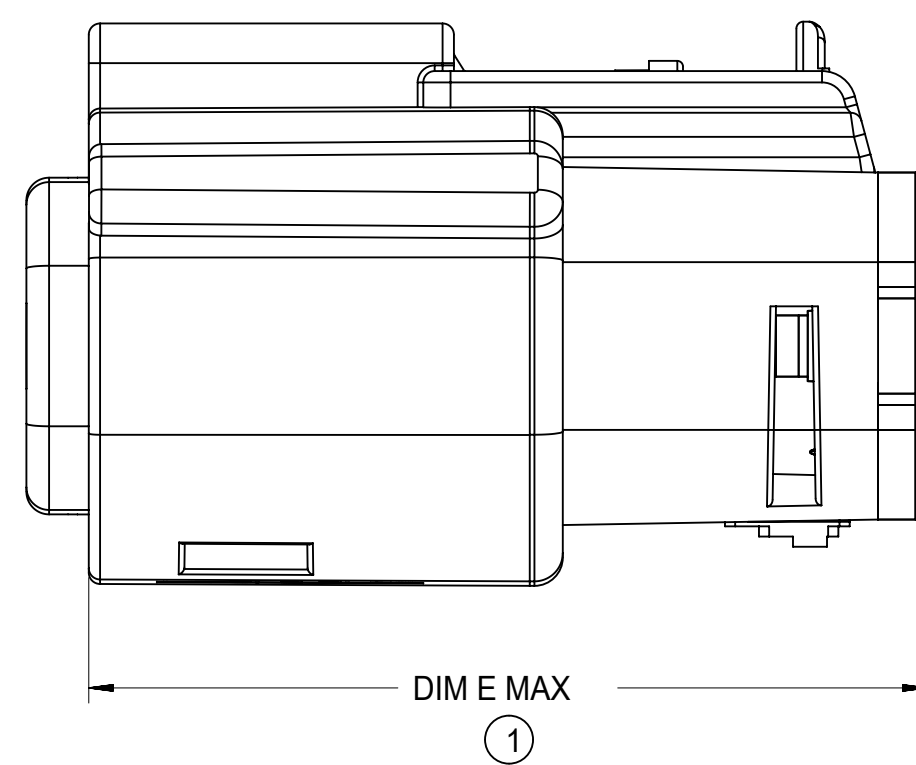
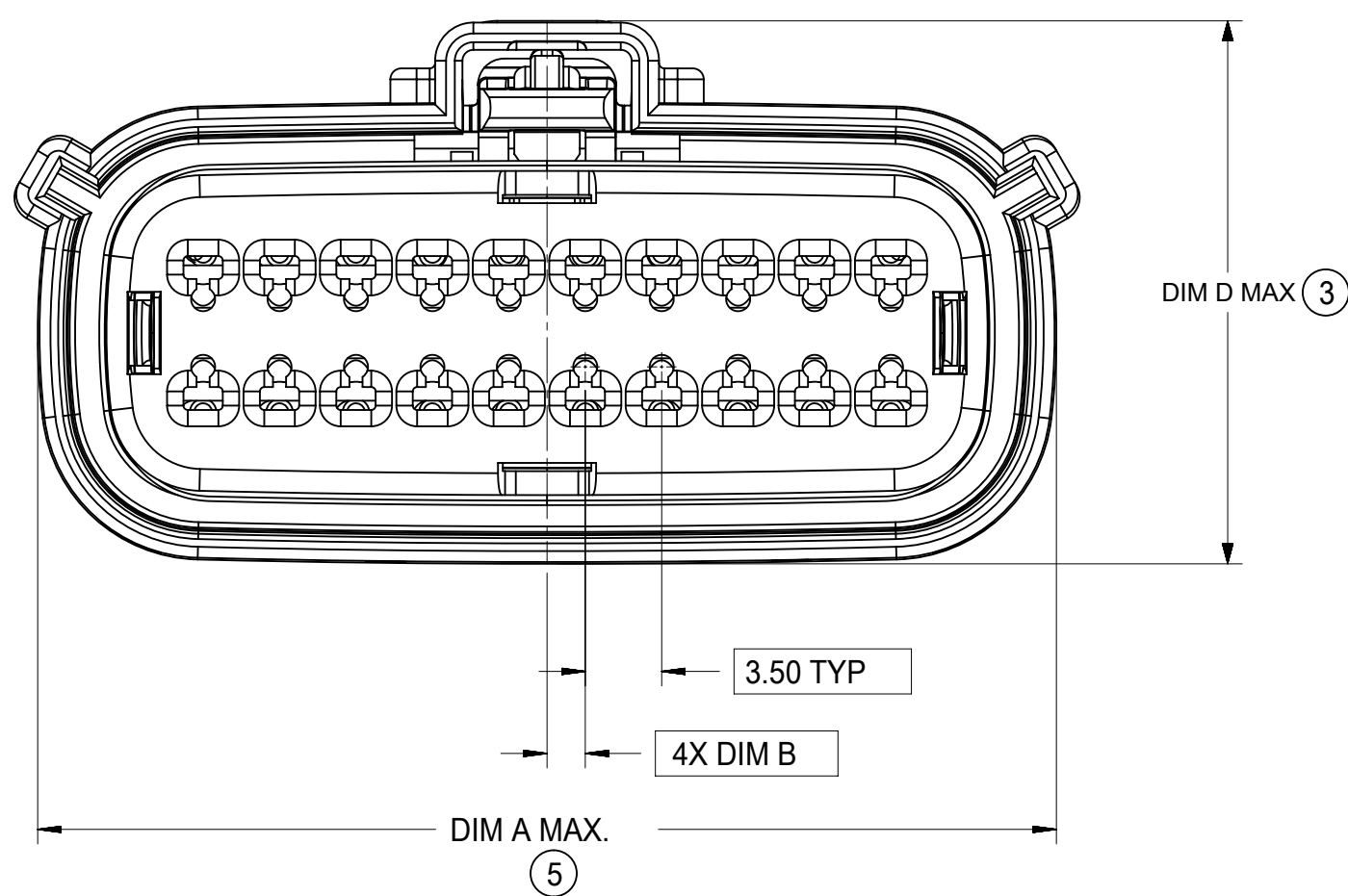
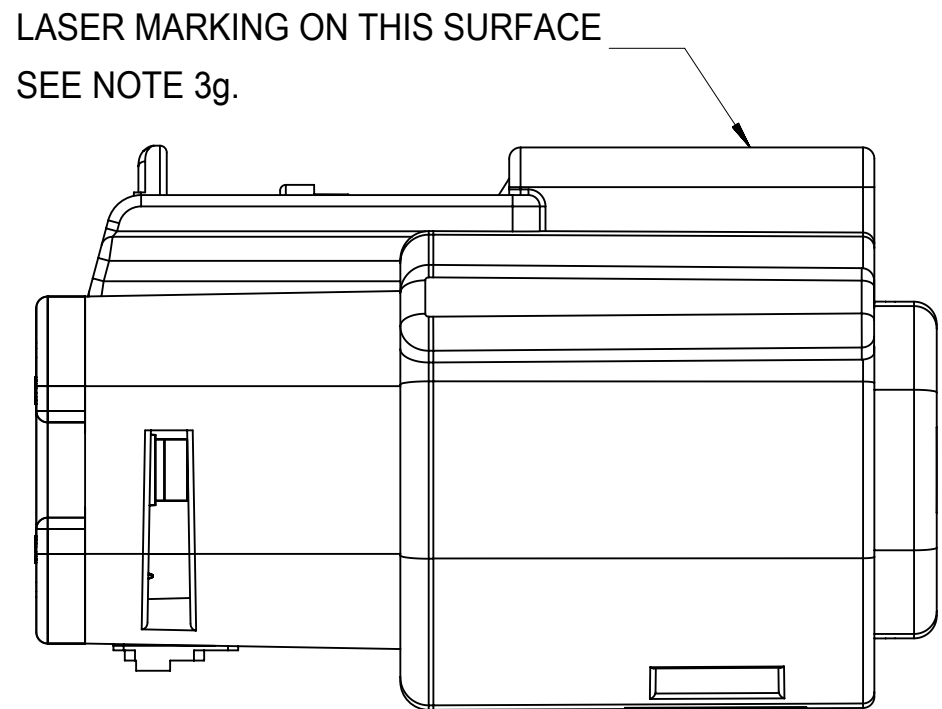
SHEET DESCRIPTION

RECEPTACLE CONNECTOR ASSEMBLY



B APPLIES TO 2X2 - STD. - WITH CLIPSLOT ONLY

DESCRIPTION	DIMENSIONS						
	A	B	C	D	E	F	J
2X2 W/O CLIPSLOT	18.58	1.75	25.45	24.81	37.65	N/A	2.75±0.50
2X2 W/ CLIPSLOT	18.58	1.75	27.65	24.81	37.65	N/A	2.75±0.50
2X2 LENGTHENED	18.58	1.75	25.45	24.81	42.25	N/A	2.75±0.50
2X3 W/ CLIPSLOT	22.25	3.5	30.50	N/A	37.65	27.96	4.0±0.4
2X3 W/O CLIPSLOT	22.25	3.5	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
2X4 W/O CLIPSLOT	25.75	1.75	29.19	24.81	37.65	N/A	2.75±0.50
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±0.50
2X6 W/O CLIPSLOT V0	32.75	1.75	35.58	25.0	37.65	N/A	2.75±0.50
2X8 W/O CLIPSLOT	39.80	1.75	42.25	24.90	37.65	N/A	4.0±0.4
2X8 W/ CLIPSLOT	39.80	1.75	42.25	N/A	37.65	27.80	4.0±0.4
2X10 W/O CLIPSLOT	46.75	1.75	49.95	24.90	37.65	N/A	2.75±0.50
2X10 W/ CLIPSLOT	46.75	1.75	49.95	N/A	37.65	27.80	2.75±0.50



SECTION Y-Y

SECTION Z-Z

SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION													
▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0	DIMENSION UNITS		SCALE		CURRENT REV DESC:			molex MX150 RCPT DUAL ROW SEALED ASSEMBLY MAT SEAL						
	mm		1:1											
	GENERAL TOLERANCES (UNLESS SPECIFIED)													
	ANGULAR TOL ± 1.0°													
	4 PLACES		±											
	3 PLACES		±											
	2 PLACES		± 0.1											
	1 PLACE		± 0.2											
	0 PLACES		±											
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION			DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER
					A1-SIZE		33472				GENERAL MARKET		5 OF 11	

DOCUMENT STATUS	P1	RELEASE DATE	2018/02/16	22:02:25
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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.
 - DESIGN IS OWNED BY SCHLEMMER FOR SCHLEMMER BACKSHELL.
 - DESIGN IS OWNED BY MOLEX FOR MOLEX BACKSHELL.
 - 90° ADAPTOR DESIGN IS OWNED BY MOLEX.
 - FOR ADDITIONAL INFORMATION SEE THE BACKSHELL COMPONENT DRAWING SD-34951-0001.

BACKSHELL CUSTOMER
MODEL NUMBER LEGEND

34951-XXXX

CUSTOMER MODEL COMPONENTS

- 0 - SCHLEMMER BACKSHELL ONLY
- 1 - SCHLEMMER BACKSHELL & MX150 HOUSING KEY A ASSEMBLY
- 2 - SCHLEMMER BACKSHELL & MX150 HOUSING KEY B ASSEMBLY
- 3 - SCHLEMMER BACKSHELL & MX150 HOUSING KEY C ASSEMBLY
- 4 - SCHLEMMER BACKSHELL & MX150 HOUSING KEY D ASSEMBLY
- 5 - MOLEX BACKSHELL ONLY
- 6 - MOLEX BACKSHELL & MX150 HOUSING KEY A ASSEMBLY
- 7 - MOLEX BACKSHELL & MX150 HOUSING KEY B ASSEMBLY
- 8 - MOLEX BACKSHELL & MX150 HOUSING KEY C ASSEMBLY
- 9 - MOLEX BACKSHELL & MX150 HOUSING KEY D ASSEMBLY

BACKSHELL FEATURES

- 1 - WITH RIBS
- 2 - WITHOUT RIBS
- 3 - 90° ADAPTOR

MX150 CIRCUIT SIZE 04, 06, 08, 12, 16, 20

RECEPTACLE SEALED ASSEMBLY

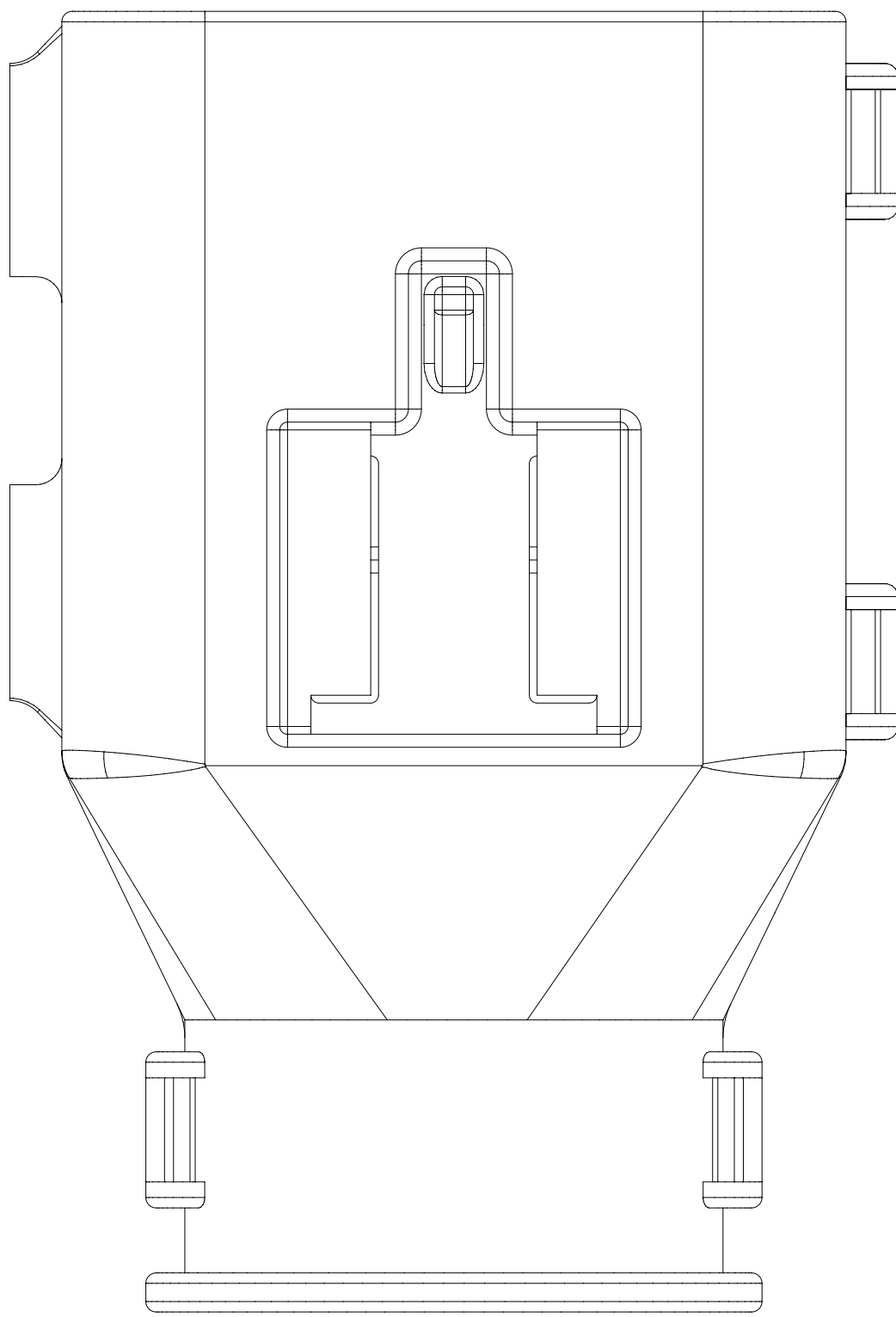
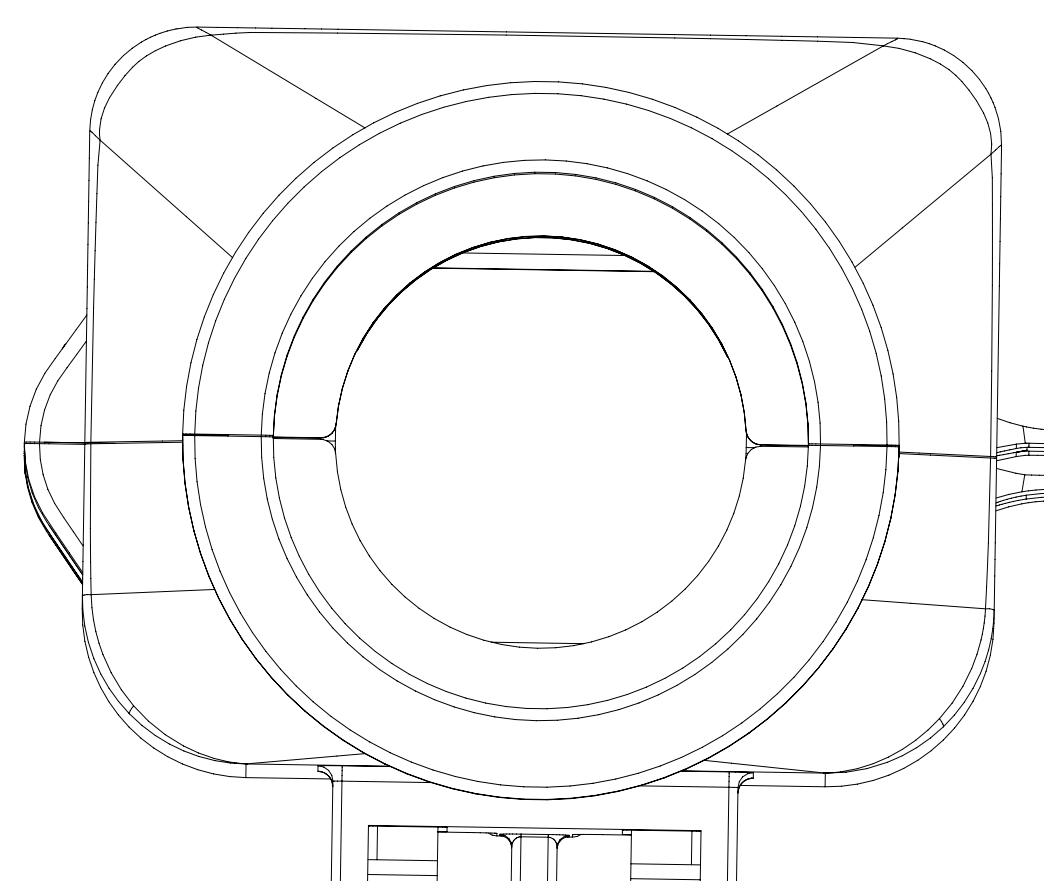
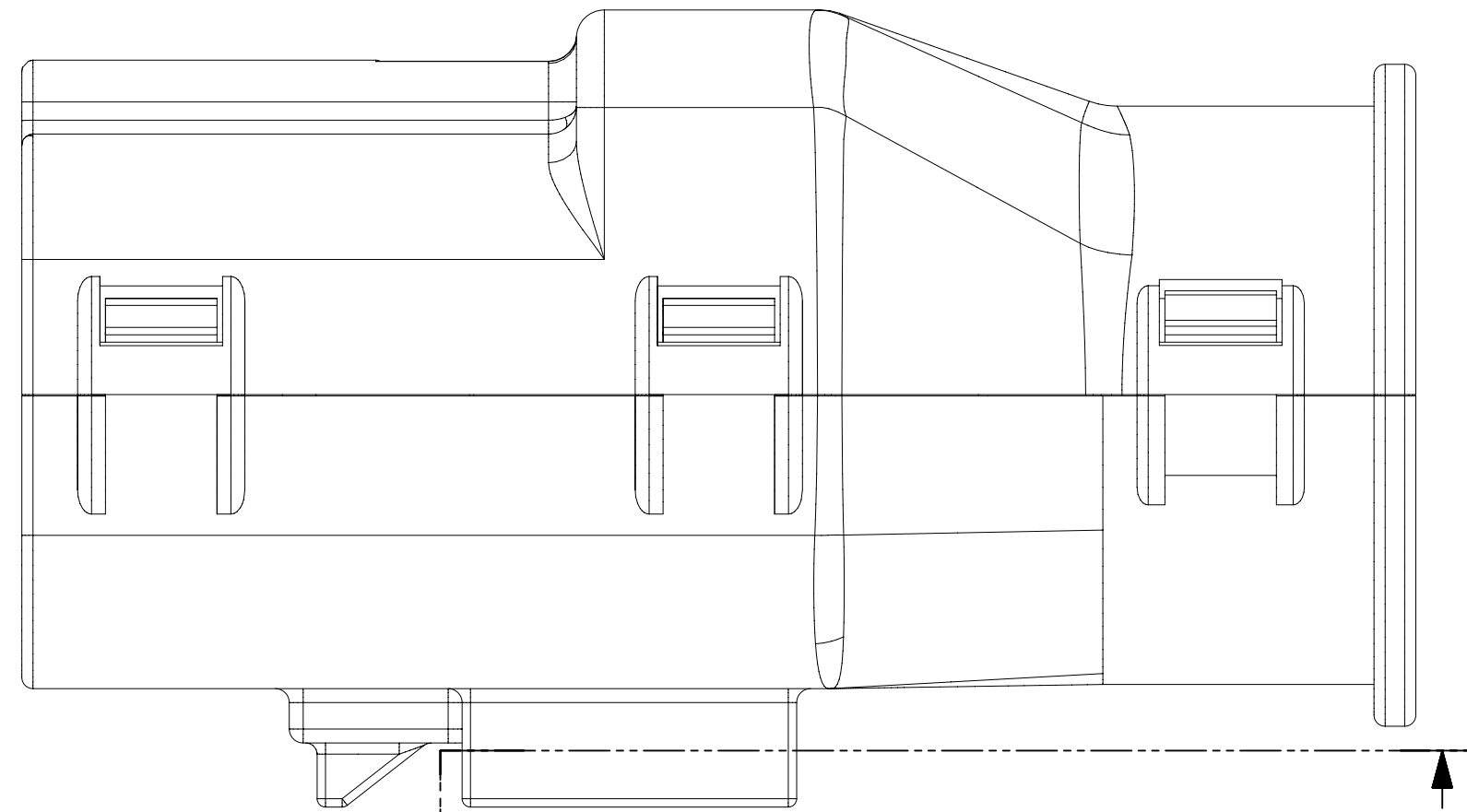
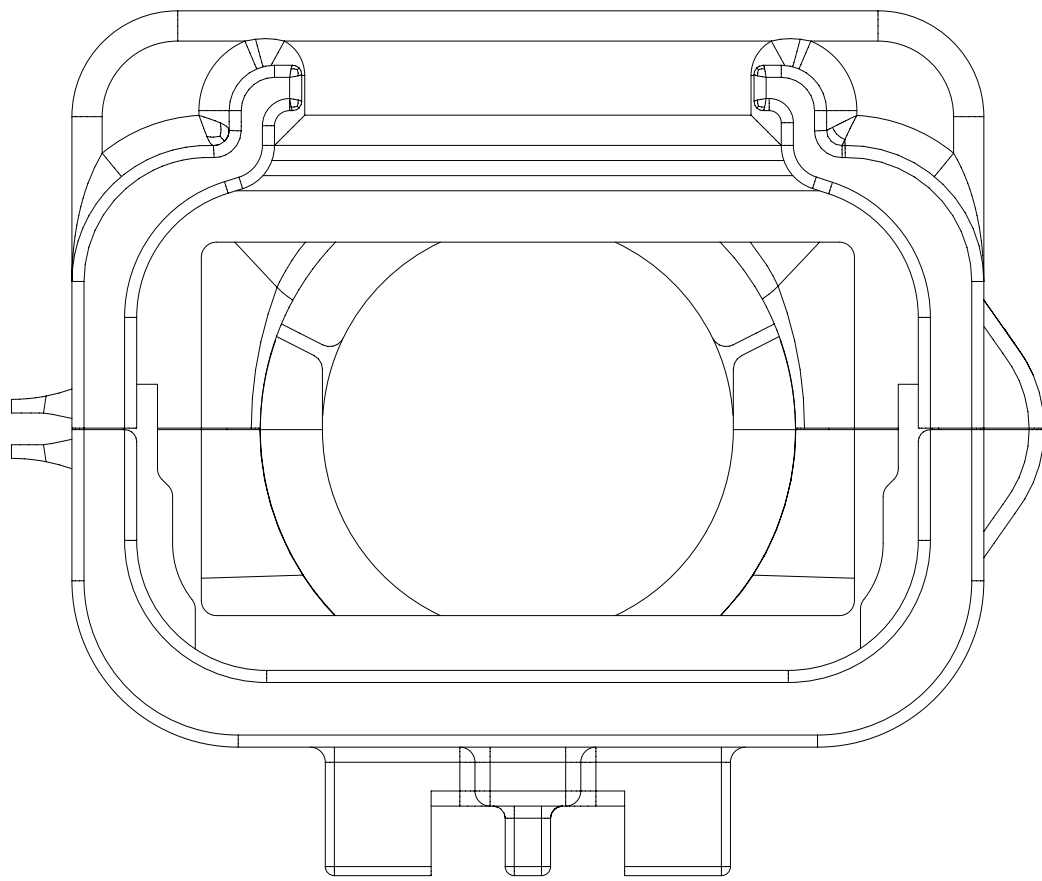
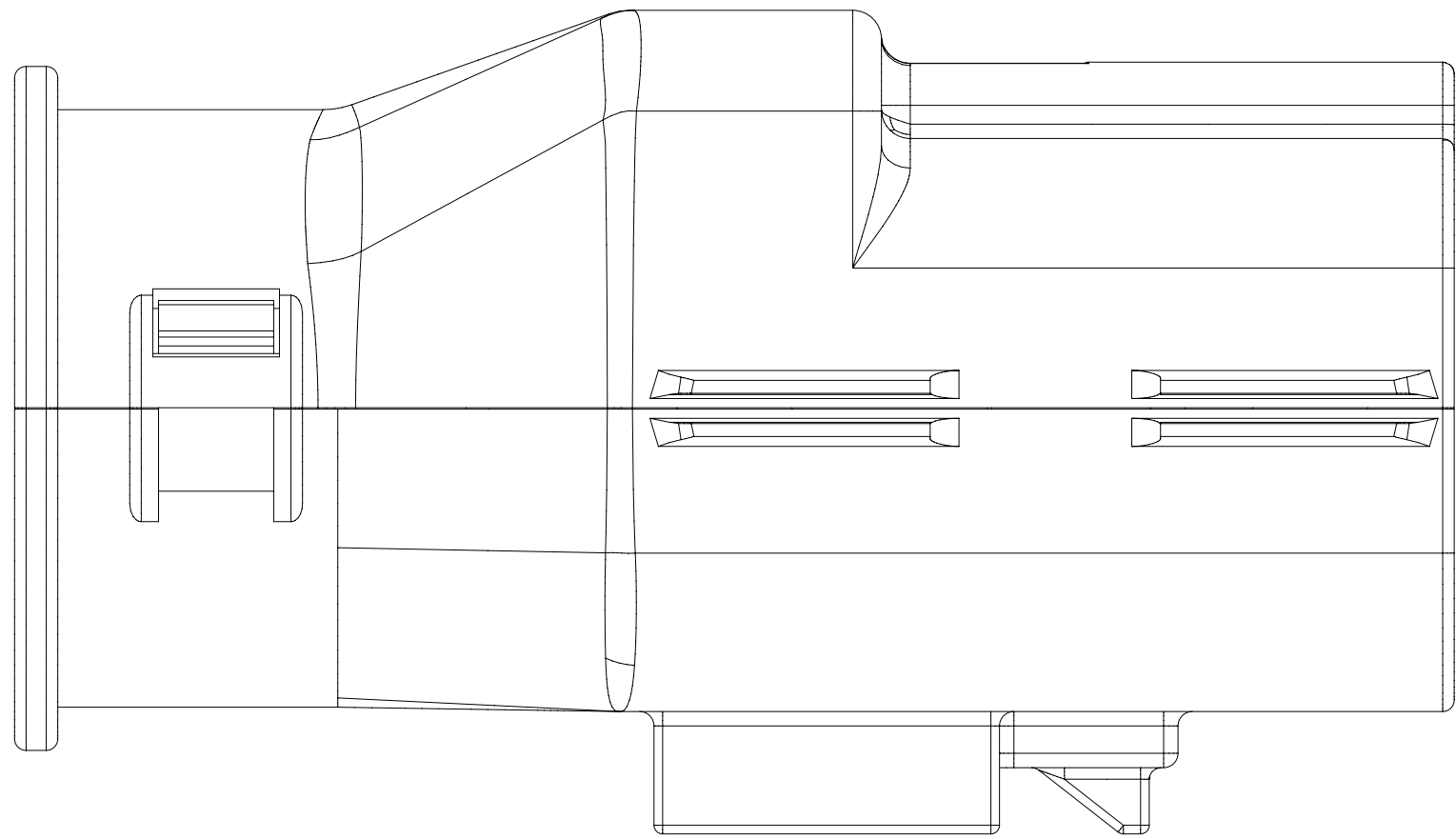
BACKSHELL (BKS)

SCALE 2:1

90° ADAPTOR

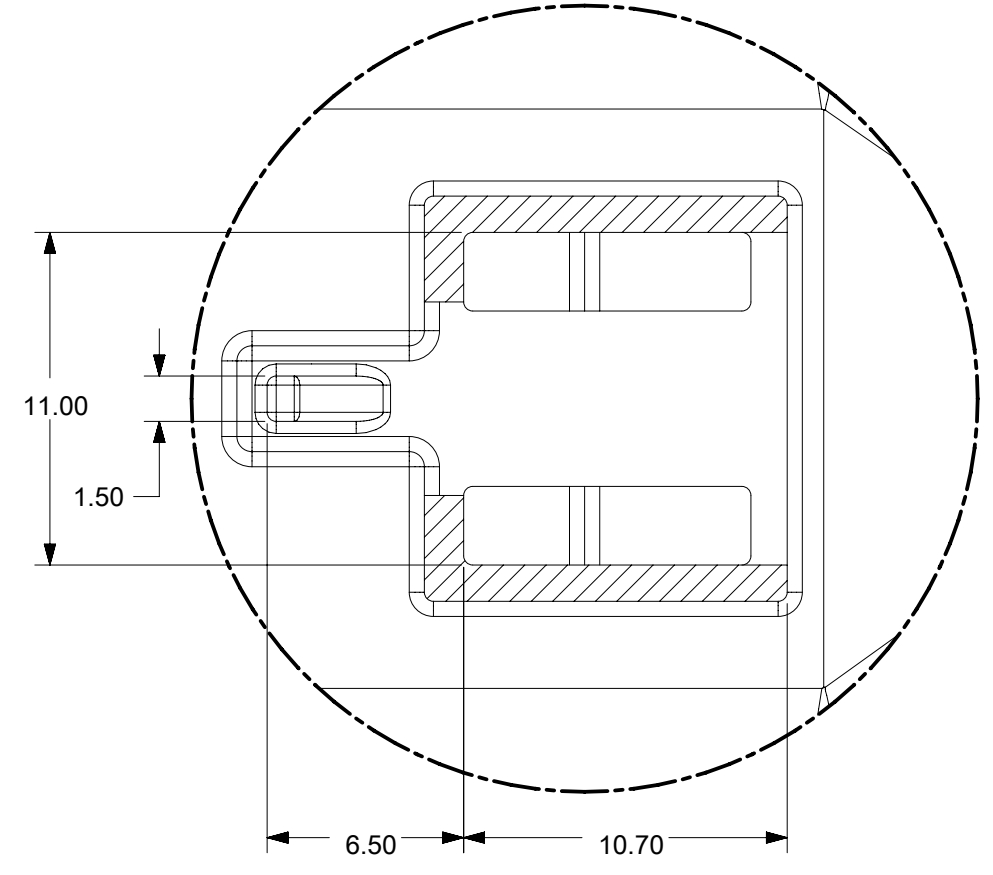
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SHEET DESCRIPTION	
SCHLEMMER BACKSHELL	



V

V



Partial V-V
SCALE 4:1

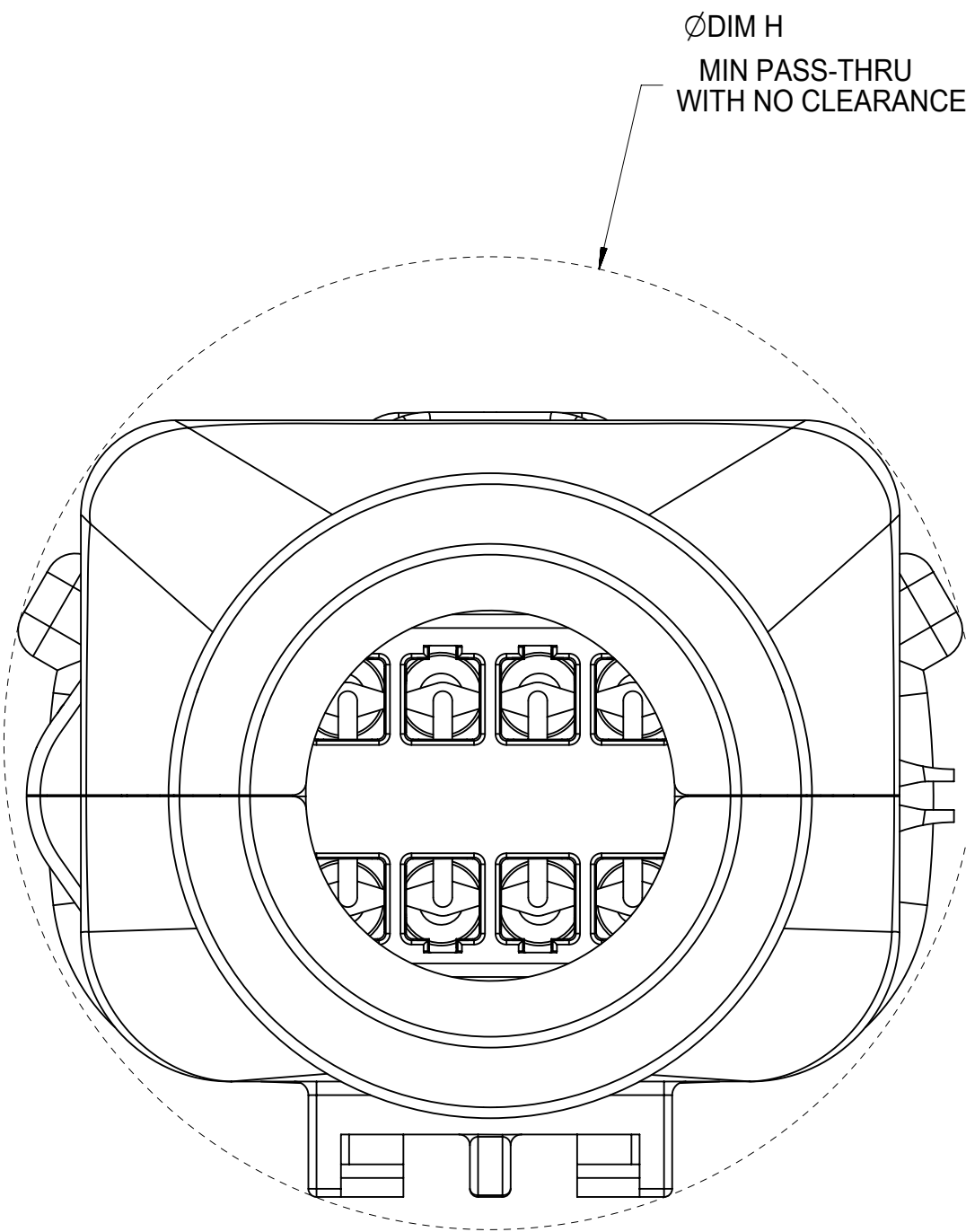
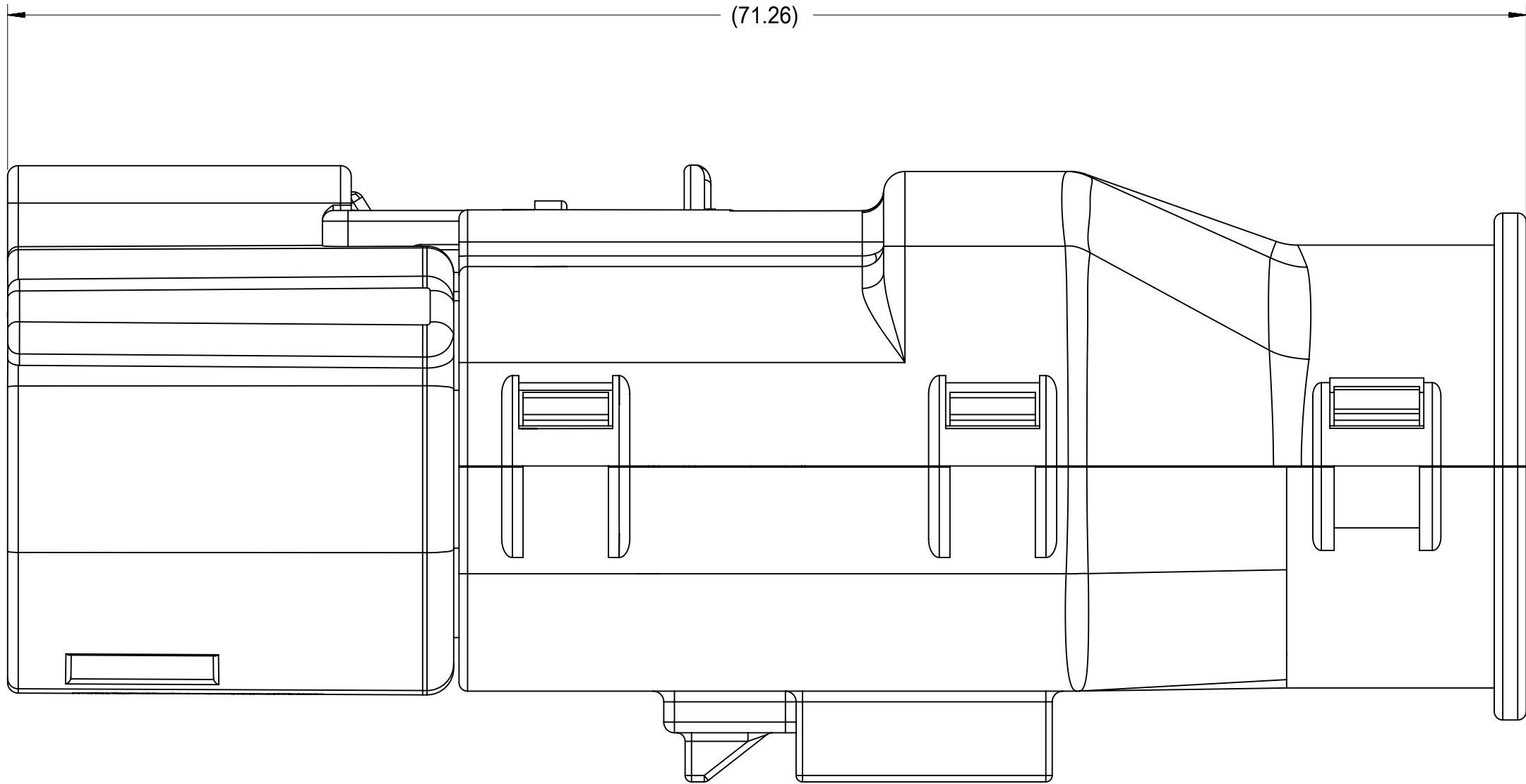
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	mm		4:1												
 = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)				EC NO: 171650 DRWN: DDEB 2018/01/19 CHK'D: MVANSLAMBROU 2018/02/16 APPR: MVANSLAMBROU 2018/02/16										
 = 0															
 = 0	ANGULAR TOL ± 1.0 °				INITIAL REVISION: DRWN: APROFFITT 2014/05/14 APPR: VKOSHY 2014/06/27					PRODUCT CUSTOMER DRAWING					
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 = 0	3 PLACES ±				DOCUMENT NUMBER SD-33472-0001					DOC TYPE PSD		DOC PART 001		REVISION C2	
 = 0	2 PLACES ± 0.1														
 = 0	1 PLACE ± 0.2				THIRD ANGLE PROJECTION					MATERIAL NUMBER GENERAL MARKET					
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 = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				DRAWING A1-SIZE		SERIES 33472		SHEET NUMBER 7 OF 11						
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DOCUMENT STATUS	P1	RELEASE DATE	2018/02/16 22:02:25
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18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

SHEET DESCRIPTION			
SCHLEMMER BACKSHELL CONFIGURATIONS			

CHARTED DIMENSIONS	
DESCRIPTION	DIMENSIONS
	H
2X3 W/ CLIPSLOT	N/A
2X3 W/O CLIPSLOT	28.50
2X4 W/ CLIPSLOT	N/A
2X4 W/O CLIPSLOT	30.75
2X6 W/ CLIPSLOT	N/A
2X6 W/O CLIPSLOT	35.83



RECEPTACLE SEALED ASSEMBLY WITH RECEPTACLE BACKSHELL

QUALITY SYMBOLS

FA

=

0

FE

=

0

FE

=

0

FV

=

0

FC

=

0

FX

=

0

FS

=

0

CV

=

0

EC NO: 171650

DRWN: DDEB

CHKD: MYANSLAMBROU

APPR: MYANSLAMBROU

2018/01/19

2018/02/16

2018/02/16

REV

C2

GENERAL TOLERANCES (UNLESS SPECIFIED)

ANGULAR TOL ± 1.0 °

4 PLACES ±

3 PLACES ±

2 PLACES ± 0.1

1 PLACE ± 0.2

0 PLACES ±

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION UNITS

mm

SCALE

4:1

DRWN BY

APPROFIT

DATE

2014/05/14

CHK'D BY

KBORUSZEWSKI

DATE

2014/06/16

APPR BY

VKOSHY

DATE

2014/06/27

DRAWING SIZE

A1

THIRD ANGLE PROJECTION

molex®

MX150 RCPT

DUAL ROW SEALED ASSEMBLY MAT SEAL

PRODUCT CUSTOMER DRAWING

SERIES

33472

MATERIAL NUMBER

CUSTOMER

GENERAL MARKET

DOCUMENT NUMBER

SD-33472-0001

DOC TYPE

PSD

DOC PART

001

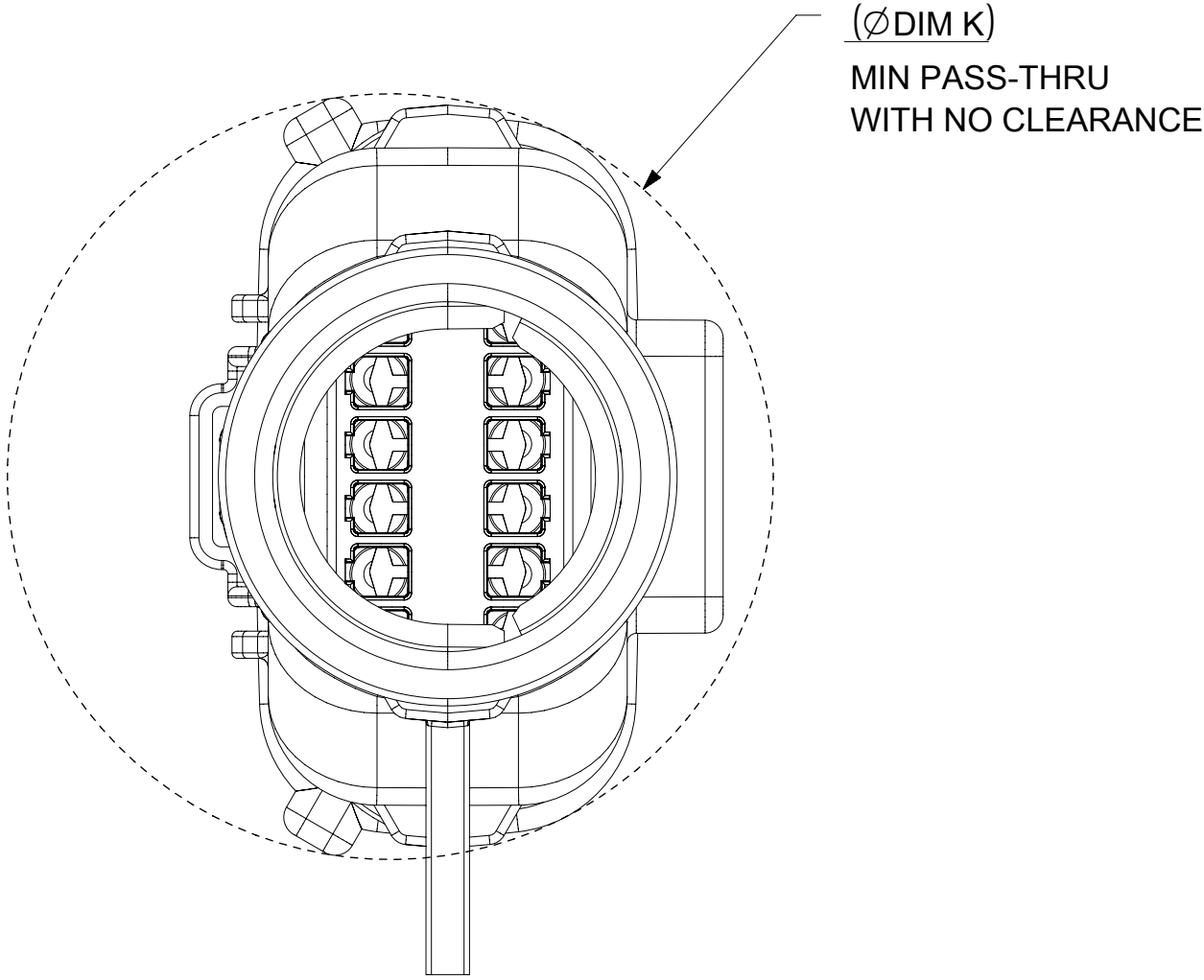
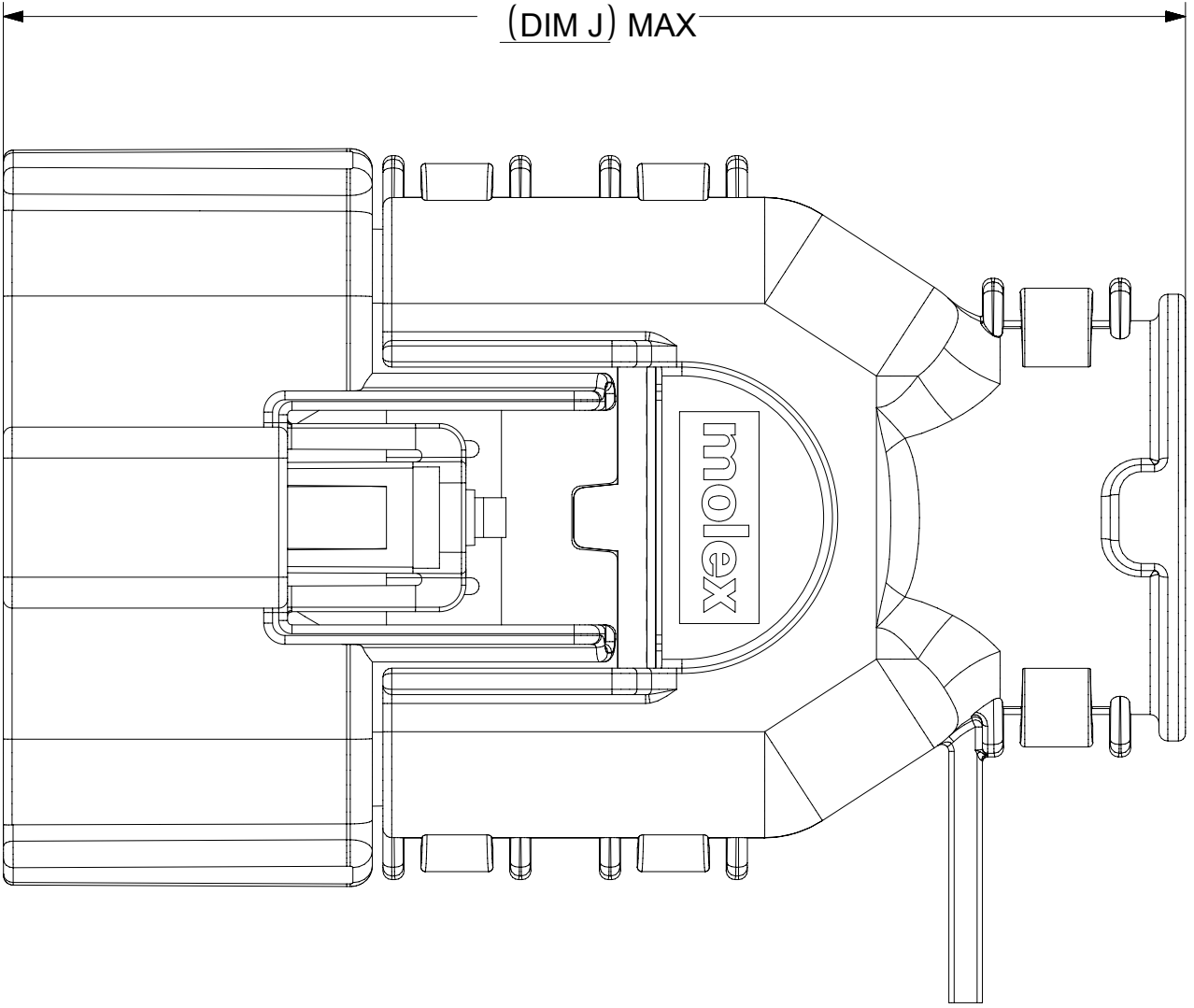
SHEET NUMBER

9 OF 11

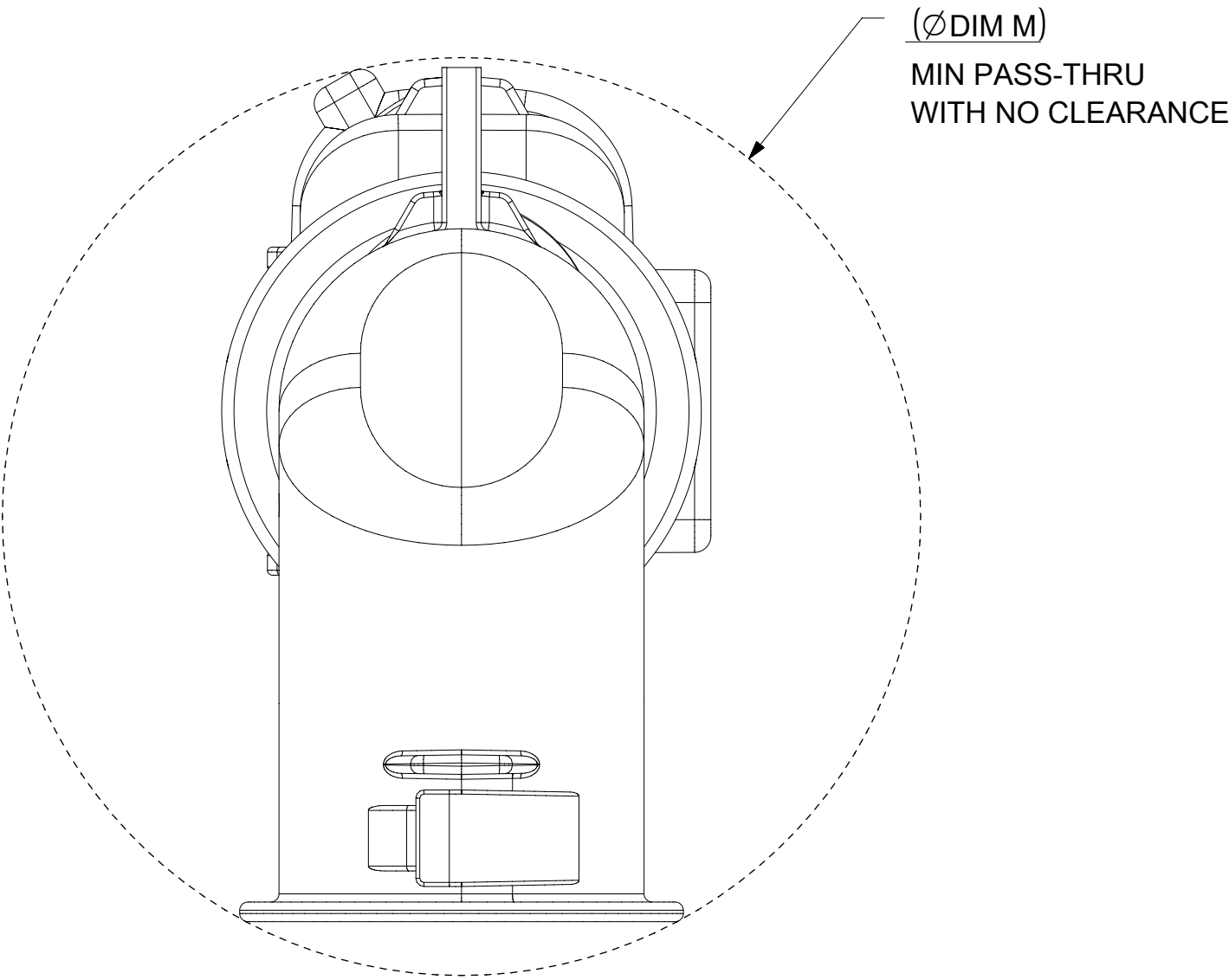
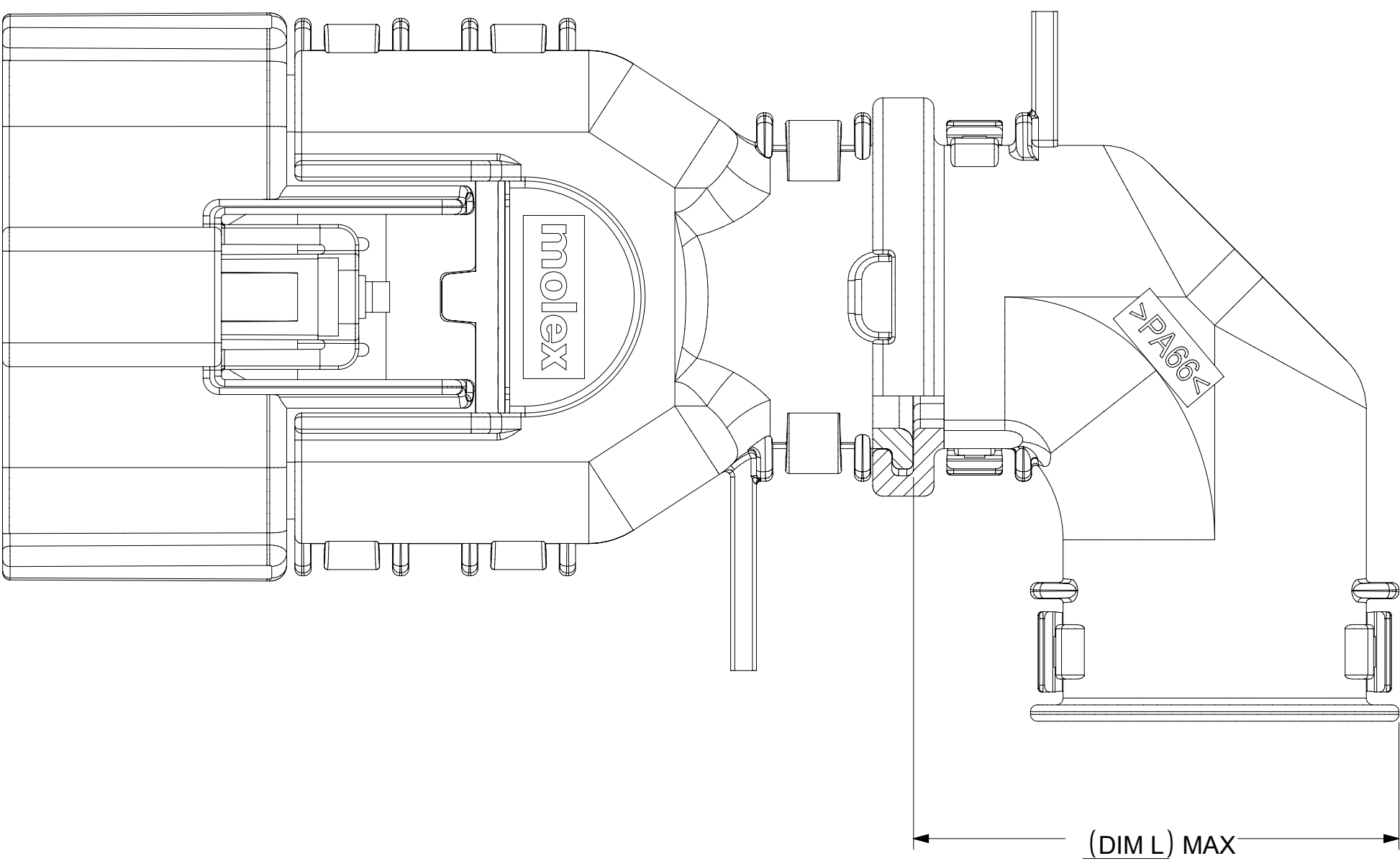
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SHEET DESCRIPTION

MOLEX BACKSHELL CONFIGURATIONS



RECEPTACLE SEALED ASSEMBLY WITH RECEPTACLE BACKSHELL

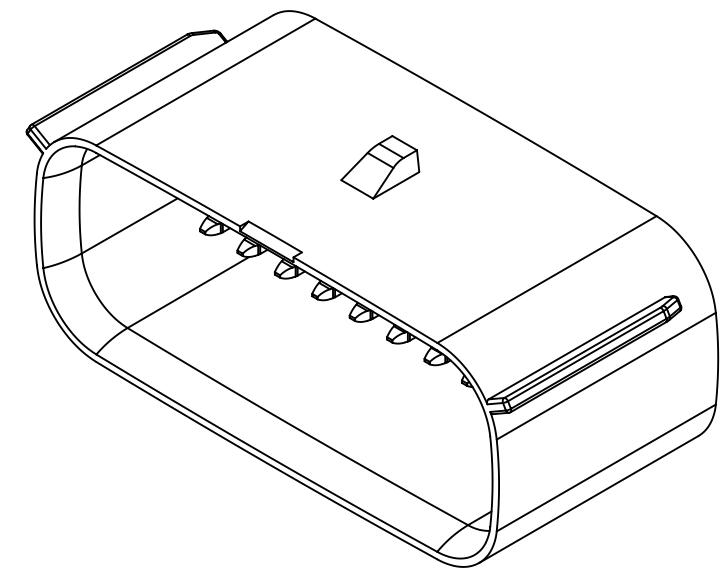
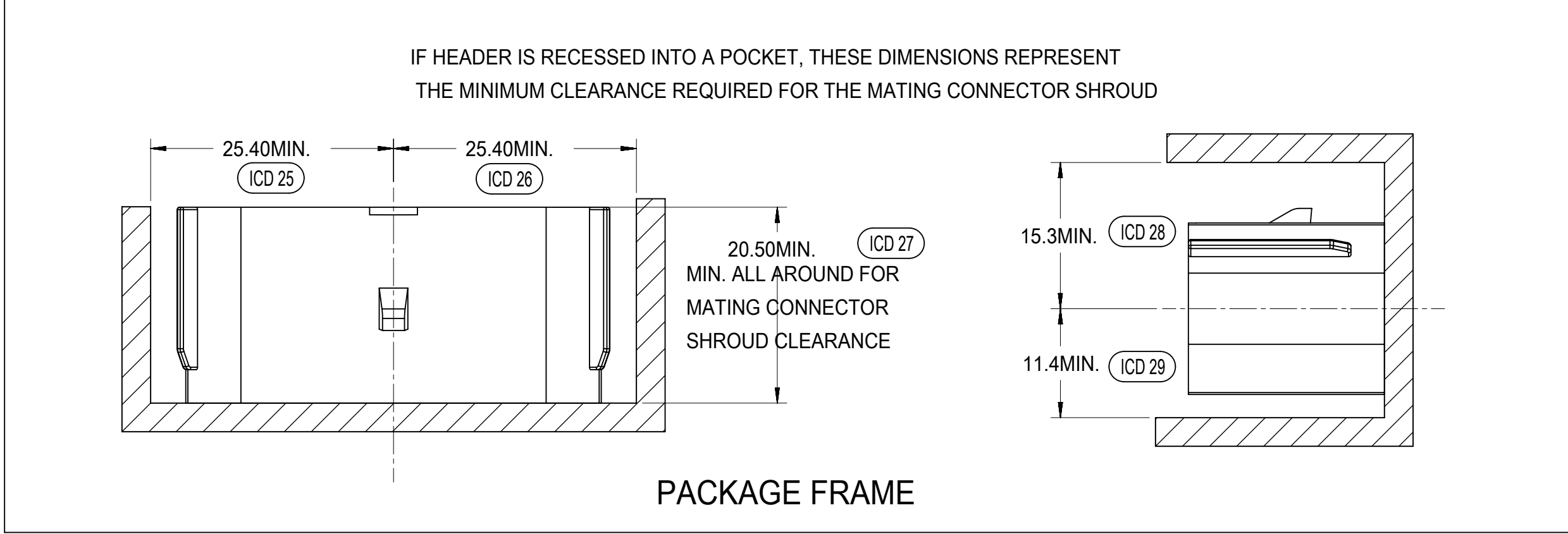
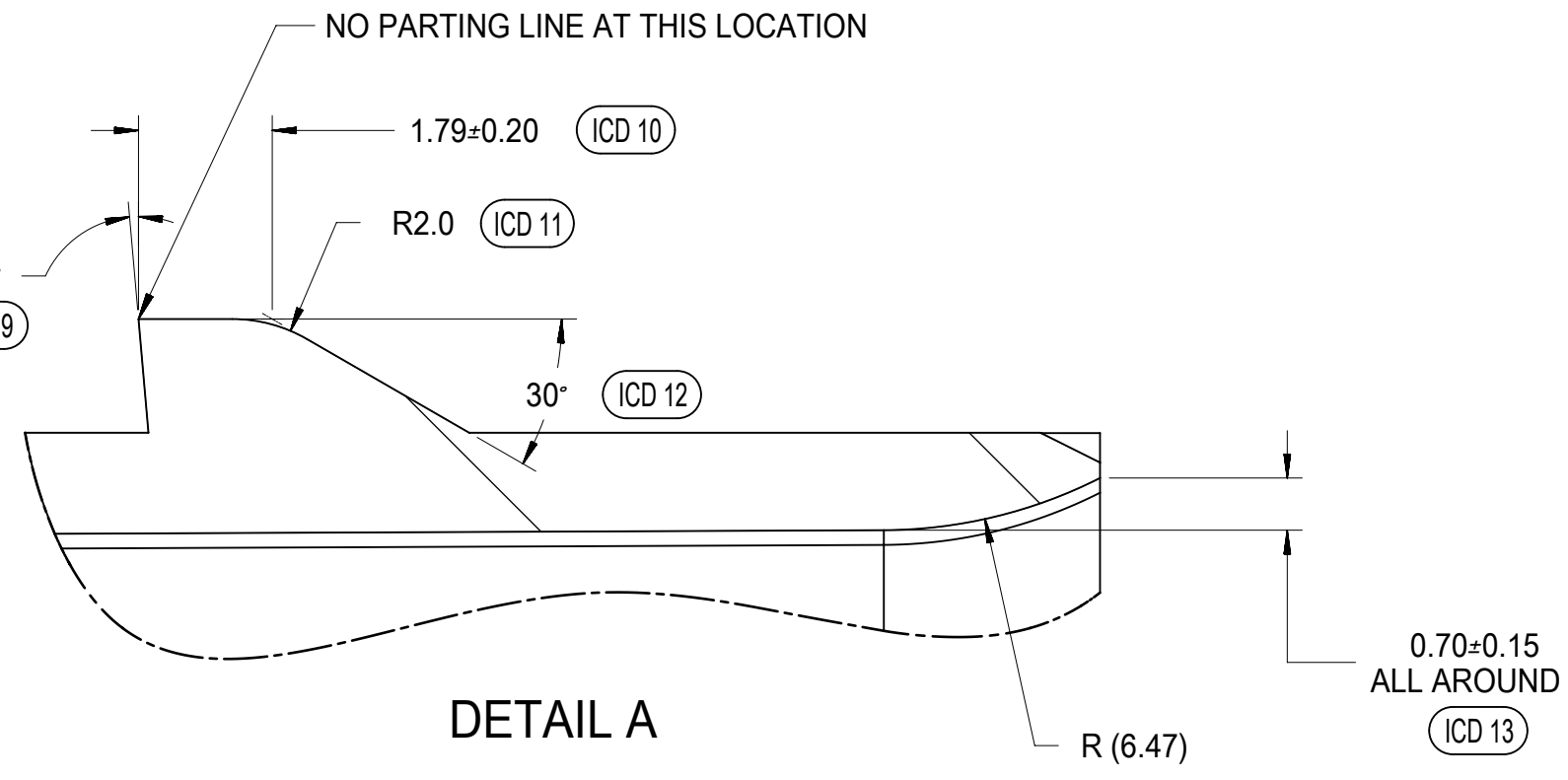
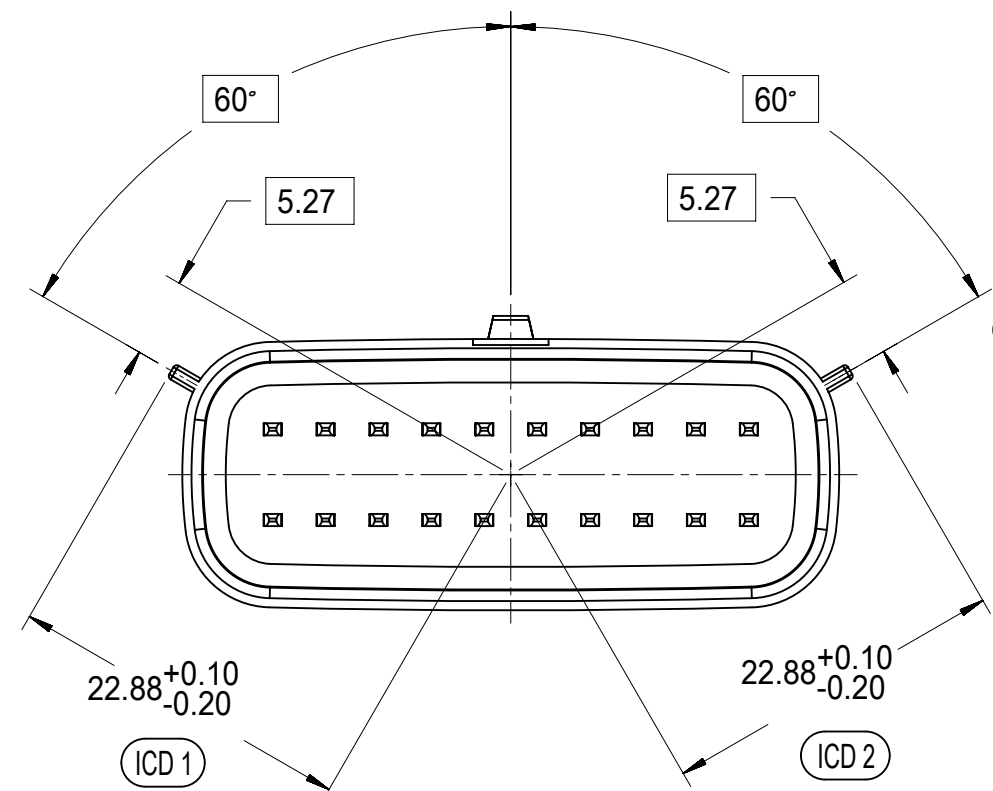


ADD THE VALUE OF 'L' TO THE TOTAL DIMENSION
WHENEVER ADAPTOR IS USED

CHARTED DIMENSIONS				
DESCRIPTION	DIMENSIONS			
	J	K	L	M
2X2 W/O CLIPSLOT	TBD	TBD	TBD	TBD
2X2 W/ CLIP SLOT	TBD	TBD	TBD	TBD
2X2 LENGTHENED	TBD	TBD	TBD	TBD
2X4 W/ CLIPSLOT	58.39	32.85	32.10	44.26
2X4 W/O CLIPSLOT	N/A	N/A	N/A	N/A
2X8 W/ CLIPSLOT	67.19	42.65	36.10	56.49
2X8 W/O CLIPSLOT	N/A	N/A	N/A	N/A
2X10 W/ CLIPSLOT	67.19	42.65	36.10	56.49
2X10 W/O CLIPSLOT	N/A	N/A	N/A	N/A

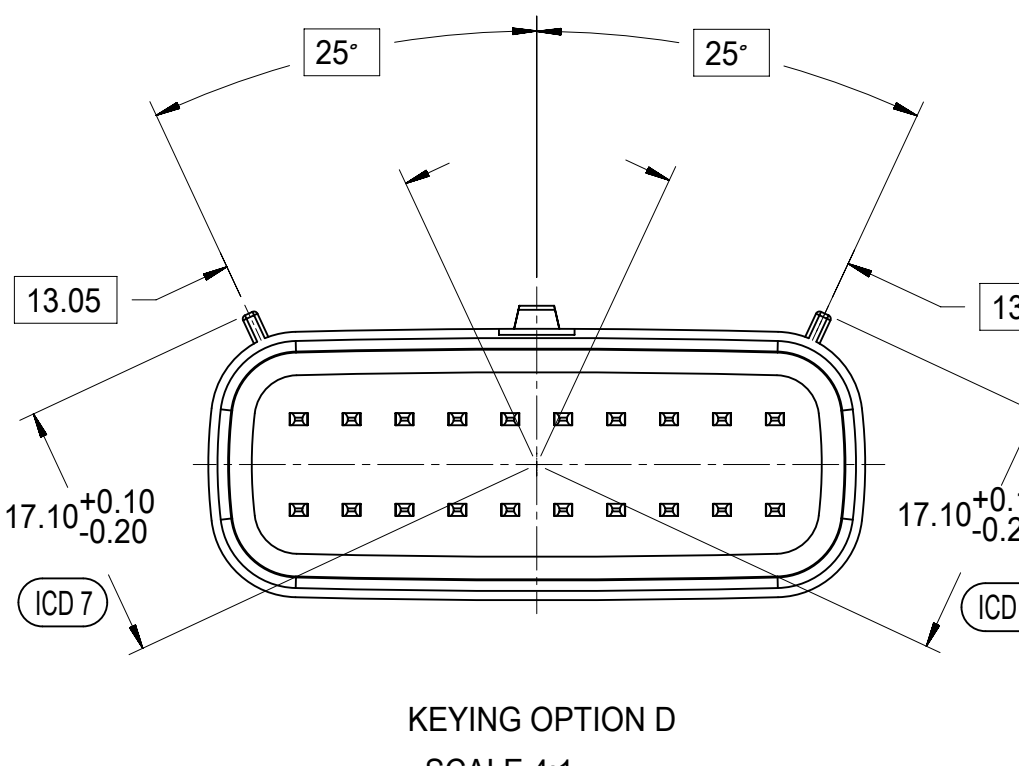
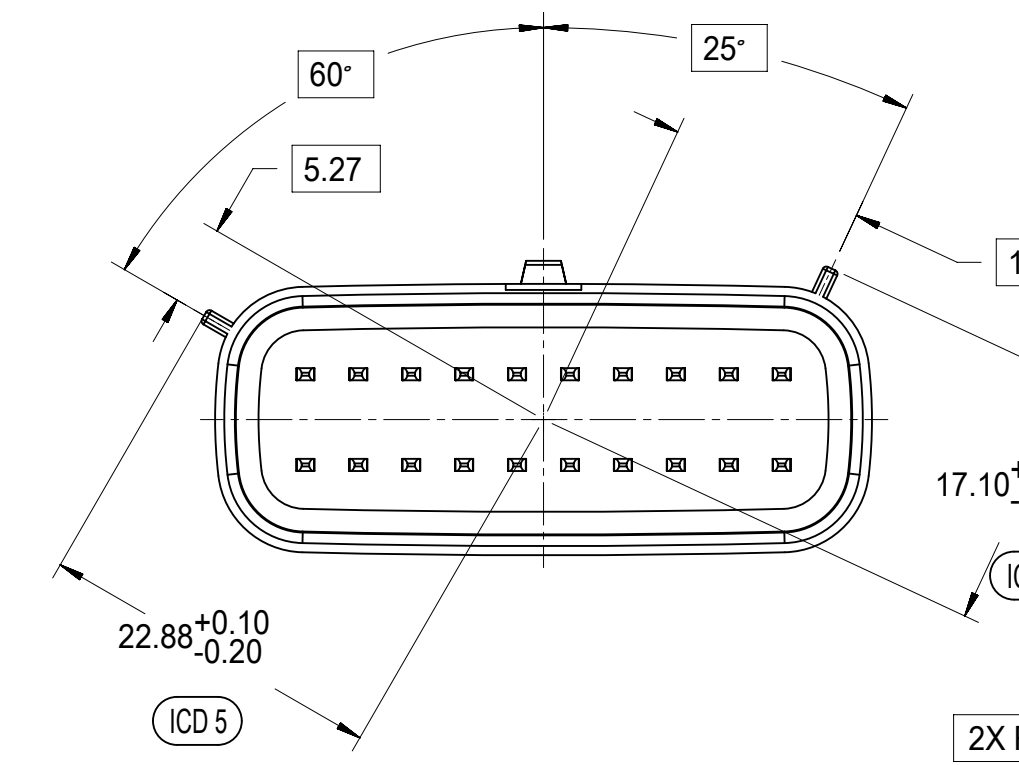
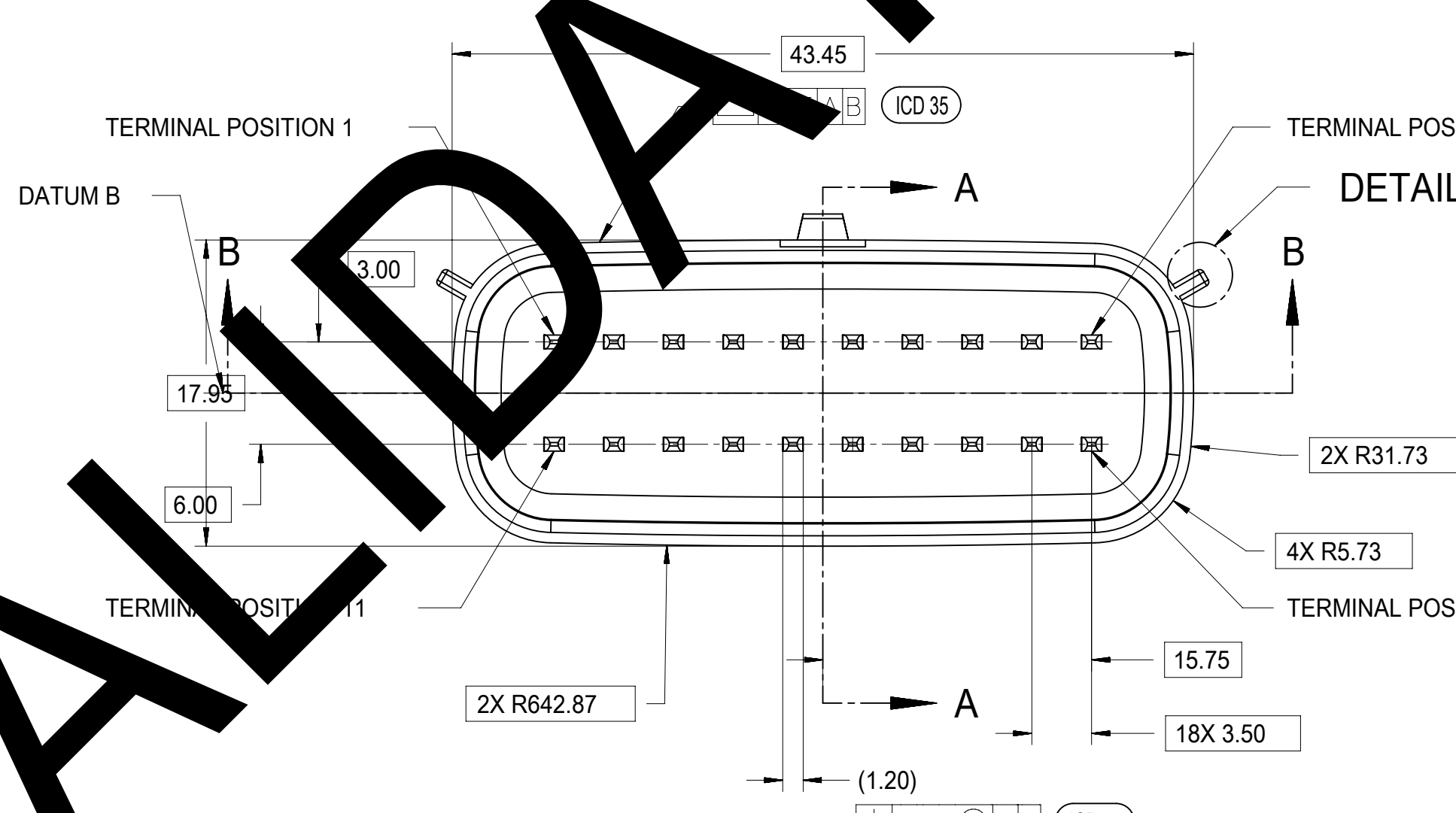
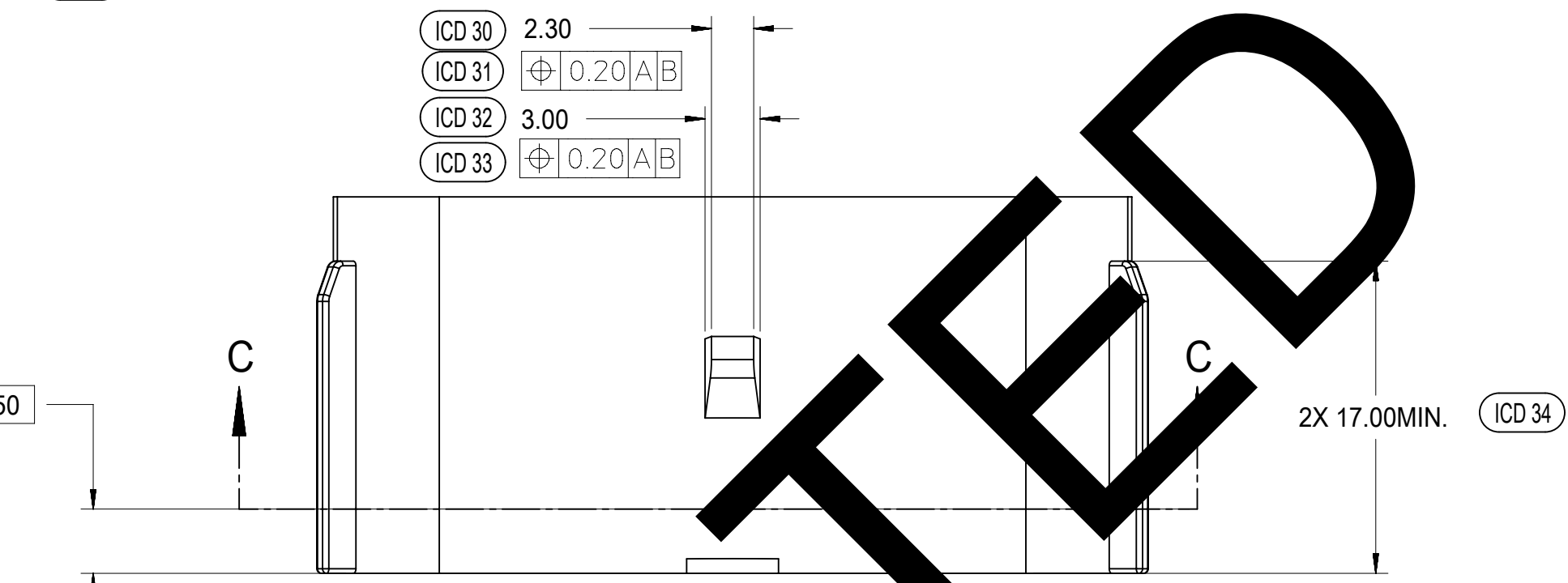
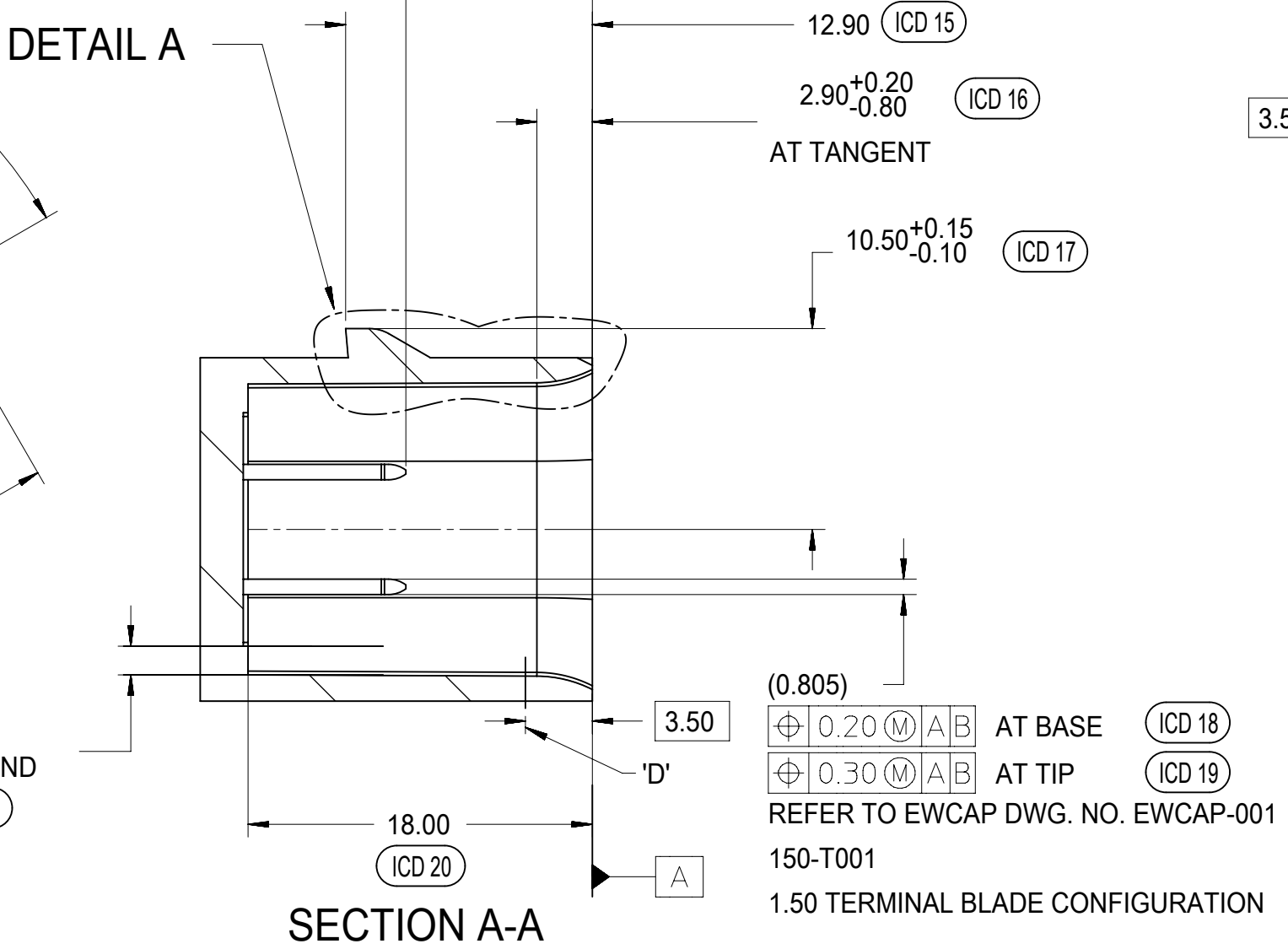
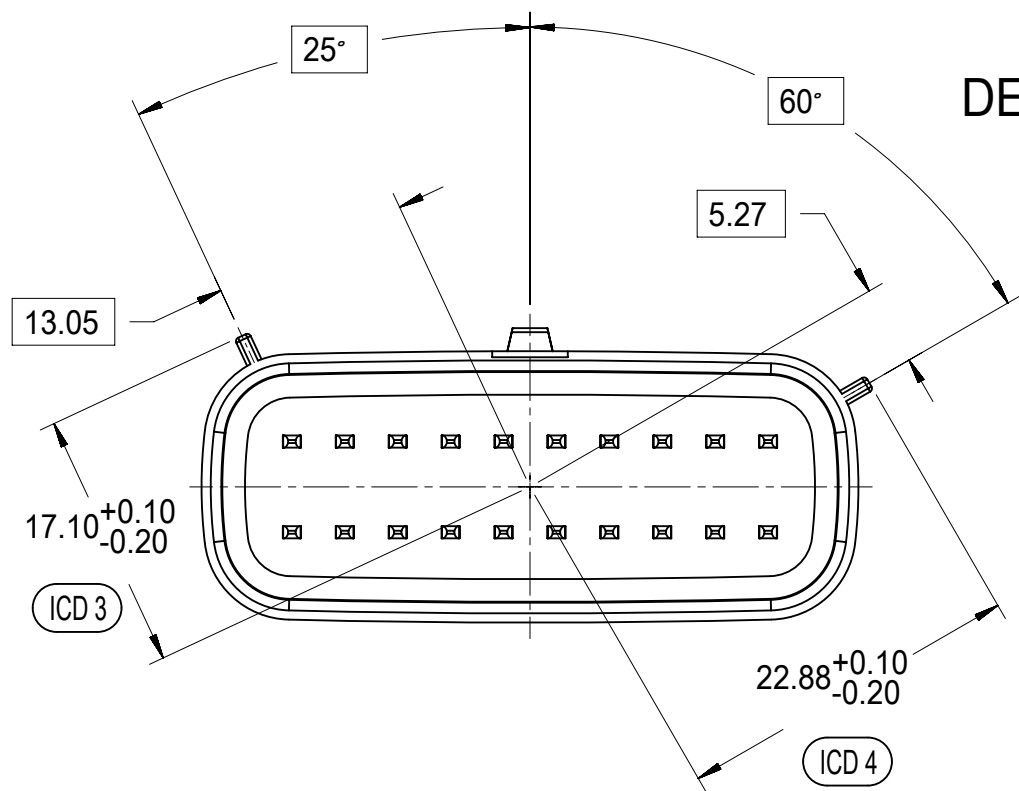
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		mm	2.5:1								
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	= 0										
	= 0	ANGULAR TOL ± 1.0 °		DRWN: DDEB 2018/01/19							
	= 0	4 PLACES ±									
	= 0	3 PLACES ±		CHK'D: MVANSLAMBROU 2018/02/16							
	= 0	2 PLACES ± 0.1									
	= 0	1 PLACE ± 0.2		APPR: MVANSLAMBROU 2018/02/16							
	= 0	0 PLACES ±									
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				SD-33472-0001		PSD		001		C2	
				MATERIAL NUMBER		CUSTOMER				SHEET NUMBER	
						GENERAL MARKET				10 OF 11	

DOCUMENT STATUS	P1	RELEASE DATE	2018/02/16 22:02:25
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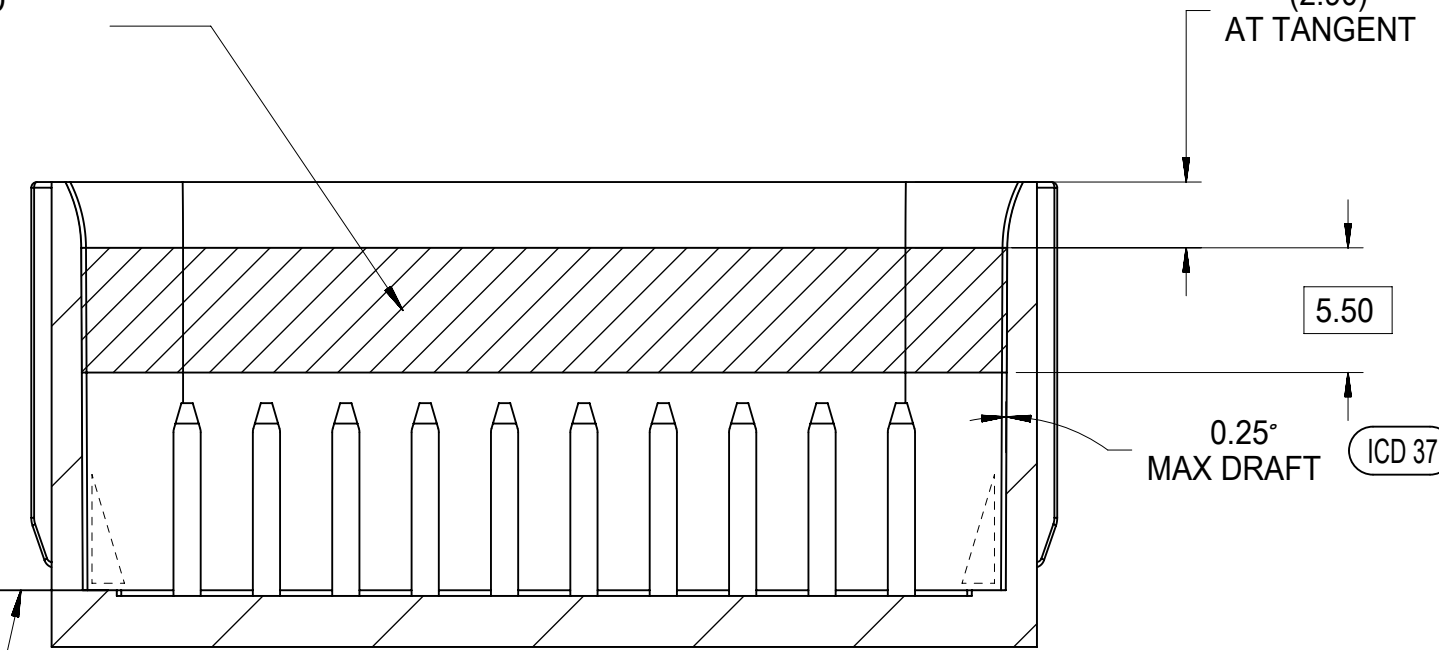
MATING INTERFACE NOTES: VALID UNLESS OTHERWISE SPECIFIED

- GENERAL:
 - 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
 - PARTS MUST BE IN COMPLIANCE TO MOLEX CHEMICAL SUBSTANCES FOR PRODUCTS AND PACKAGING SPECIFICATION: ES-40000-5016
 - FLAMMABILITY REQUIREMENT: PER ISO3795 OR GM3191
 - BURN RATE 100mm/MIN MAXIMUM
 - MATERIAL MUST BE SELF EXTINGUISHING
- MATERIALS:
 - MATERIAL: SPS/NYLON GF20, REGRIND 20% MAX BY WEIGHT
 - STANDARD COLORS FOR POLARIZATION (SEE KEYING OPTIONS TABLE). DEVIATION REQUIRES APPROVAL OF AUTHORIZED PERSON
 - FOR BLADE BASE MATERIAL, PLATING AND PROCESS LUBRICANT:
 - 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
 - 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
 - BLADES MUST CONFORM TO ES-40000-5007, EXCEPT FOR SPECULAR REFLECTIVITY - SECTION 6.0
 - ANY PROCESS LUBRICANT REMAINING ON THE TERMINAL MUST NOT VARNISH OR DEGRADE ITS ELECTRICAL PERFORMANCE UP TO A MAXIMUM CLASS AMBIENT TEMPERATURE PER SAE USCAR-2 FOR 1008 HOURS, PROCESS LUBRICANTS SHOULD BE APPROVED BY THE RESPONSIBLE ENGINEER
 - INFORMATION FOR BLADE DESIGN WAS DEVELOPED FROM EWCAP DWG: EWCAP-001
- GEOMETRY:
 - 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.
 - GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5M - 1994
 - GENERAL TOLERANCES: SEE TITLE BLOCK
 - EDGES AND UNDIMENSIONED DETAILS PER ISO13715
- MANUFACTURING:
 - 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.
 - ALLOWABLE FLASH MAX 0.20 HIGH BY MAX 0.13 THICK.
 - ALLOWABLE SPLIT/PARTING LINE MISMATCH 0.2 MAX.
 - VISUAL DEFECTS SHALL MEET COSMETIC STANDARD PS-45499-002 (Class B)
 - NO EXTERNAL MOLD RELEASE AGENT ALLOWED DURING MANUFACTURING
 - NO PARTING LINES, NO DRAFT, MISMATCHES OR EJECTOR MARKS PERMISSIBLE WITHIN SEALING SURFACE. SEALING SURFACE TOOLING TO BE PROCESSED ON A SURFACE FINISH OF NITRA 70 (200 PAPER) MINIMUM.



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

SYMBOLS	DIMENSION UNITS	SCALE
	mm	1:1
	GENERAL TOLERANCES (UNLESS SPECIFIED)	
	ANGULAR TOL	± 1.0°
	4 PLACES	±
	3 PLACES	±
	2 PLACES	± 0.1
	1 PLACE	± 0.2
	0 PLACES	±
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

CURRENT REV DESC.			
EC NO:	171650		
DRWN:	DDEB	2018/01/19	
CHK'D:	MVANSAMBROU	2018/02/16	
APPR:	MVANSAMBROU	2018/02/16	
INITIAL REVISION:			
DRWN:	APROFFITT	2014/05/14	
APPR:	VKOSHY	2014/06/27	
THIRD ANGLE PROJECTION	DRAWING	SERIES	
	A1-SIZE	33472	

molex			
MX150 RCPT DUAL ROW SEALED ASSEMBLY MAT SEAL			
PRODUCT CUSTOMER DRAWING			
DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
SD-33472-0001	PSD	001	C2
MATERIAL NUMBER	CUSTOMER	SHEET NUMBER	
	GENERAL MARKET	11 OF 11	

DETAIL C

SCALE 20:1

APPLIES 2X
SEE KEYING OPTION VIEWS
FOR POSITIONS

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
P/N	OPTION	MATING CONNECTOR COLOR
DOCUMENT STATUS	P1	RELEASE DATE
		2018/02/16 22:02:25

TABLE OF CONTENTS	
SHEET NO.	SHEET DESCRIPTION
1	NOTES
2	KEY CONFIGURATIONS
3	RECEPTACLE SEALED ASSEMBLY
4	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-004-2-202, AVAILABLE AT <<http://ewcap.uscorporate.com/>>.

-DESIGNED TO MATE WITH BLADE SEALED ASSEMBLY AS SPECIFIED IN DRAWING SD-33482-041

-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 14 mm TO 2.69 mm.

-ASSEMBLY SHIPPED WITH PLR AND CPA IN PRE-LOCK POSITION (SEE SECTION 2-2 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/J596-2 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.

PLR INSERTION FROM PRE-LOCK TO FINAL LOCK WITH TERMINALS SHALL NOT EXCEED 90N.

PLR REMOVAL FROM FINAL LOCK TO PRE-LOCK POSITION SHALL NOT EXCEED 90N.

b. PRODUCT SPECIFICATION SEE: PS-33472-000

-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. HOUSING, GROMMET CAP, PLR: SPS/NYLON BLEND, 20% GLASS FILLED

b. RING SEAL, MAT SEAL: INHERENTLY LUBRICATED SILICONE

c. CPA: PBT, 20% GLASS FILLED

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

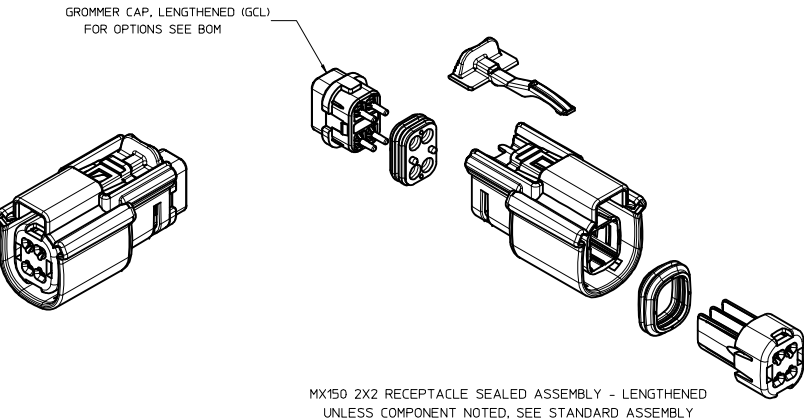
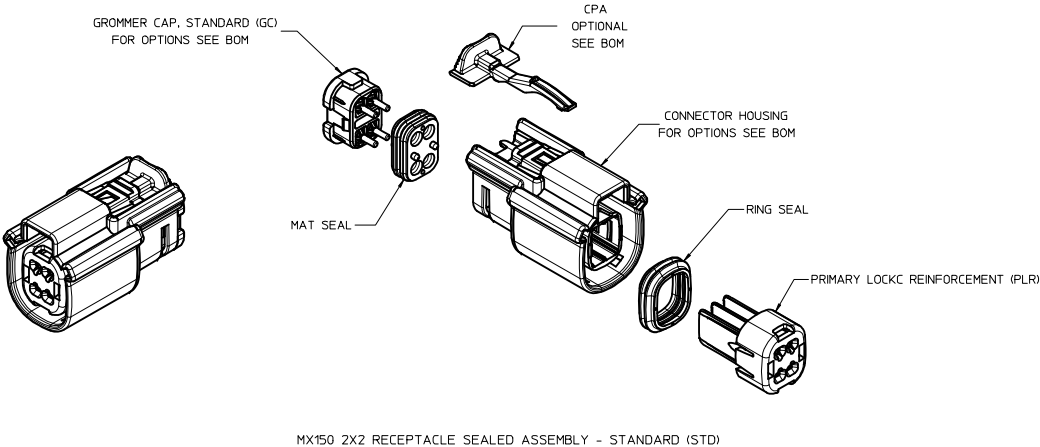
c. EDGES AND UNDIMENSIONED DETAILS PER ISO1375

d. CORNERS SHOWN AS SHARP TO BE 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



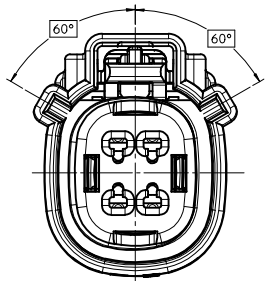
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LAST NUMBER USED:
ADDED:
REMOVED:

ENTER DESCRIPTION EC NO: UAU2016-0465 DRAWN BY: CHYKORUSZENSK 2015/10/06 CHECKED BY: APPR: WOSHY 2015/10/07	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ±.--- ±.--- 3 PLACES ±.--- ±.--- 2 PLACES ±0.10 ±.--- 1 PLACE ±0.3 ±.--- 0 PLACE ± ±. ANGULAR ± 3 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DIMENSION STYLE MM ONLY DRAWN BY: MYANSLAMBROU 05-03-06 CHECKED BY: DGRIFITHS 06-22-06 APPROVED BY: SMARCEAU 06-22-06 MATERIAL NO. SIZE D	SCALE 2:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE MX150 2X2 RECEPTACLE SEALED ASSEMBLY MAT SEAL molex SD-33472-041 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	DOCUMENT NO. SD-33472-041	SHEET NO. 1 OF 5

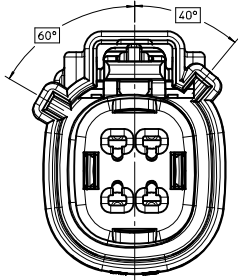
U	UPDATED STATUS AND COMMENTS COLUMNS
T7	FIX TYPO ON RING SEAL COLOR
T6	UPDATE 33472-4405 THRU 33472-4412 CAP
T5	ADD NEW P/N 33472-0455 33472-0456
T4	UPDATE THE BOM TO THE LATEST TEMPLATE
T3	ADD NEW P/N 33472-0454
T2	ADD NEW P/N 33472-0453
T1	UPDATED NOTES
T	REDRAWN
REV	DESCRIPTION

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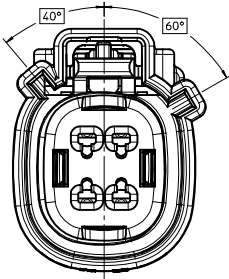
KEY CONFIGURATIONS



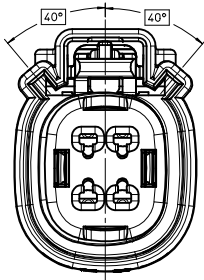
KEY A



KEY B



KEY C



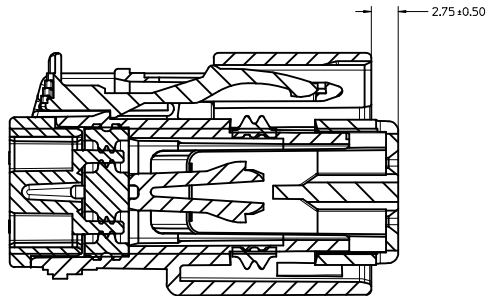
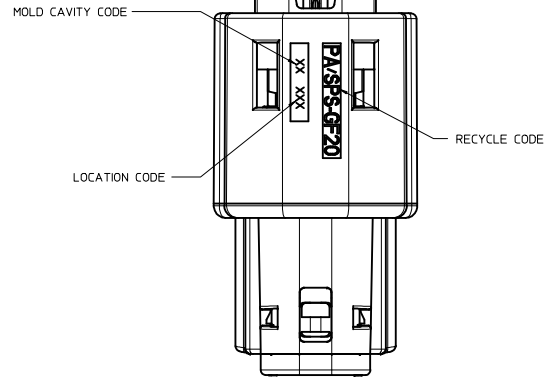
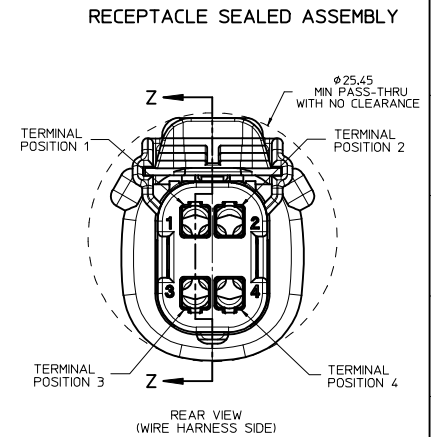
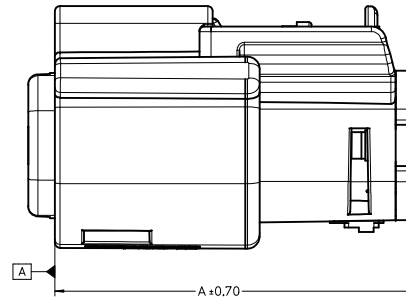
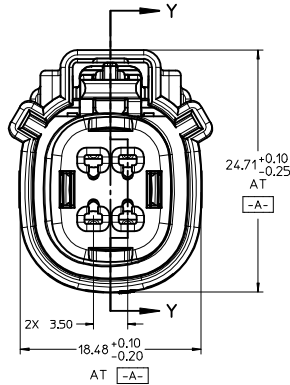
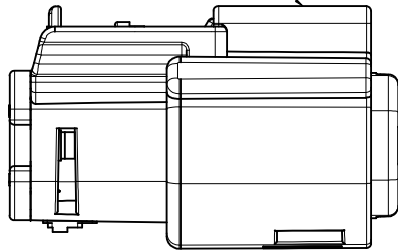
KEY D

ENTER DESCRIPTION IEC NO: UAU2016-0465 DRAWN BY: ITT 2015/10/06 CHKD BY: BORISZEK 2015/10/06 APPR: VKOSHY 2015/10/07	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE		SCALE	DESIGN UNITS	 THIRD ANGLE PROJECTION
			MM ONLY		4:1	METRIC	
					TITLE		
					MX150 2X2 RECEPTACLE SEALED ASSEMBLY MAT SEAL		
					molex		
DECISION		4 PLACES ± --- ± ---	DRAWN BY	DATE			
		3 PLACES ± --- ± ---	MYANSLAMBROU	05-03-06			
		2 PLACES ± 0.10 ± ---	CHECKED BY	DATE			
REVISION		1 PLACE ± 0.3 ± ---	DGRIFITHS	06-22-06			
		0 PLACE ± ± ---	APPROVED BY	DATE			
			SMARCEAU	06-22-06			
		ANGULAR ± 3 °	MATERIAL NO.	DOCUMENT NO.			SHEET NO.
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE BOM	SD-33472-041			2 OF 5
			SIZE D	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

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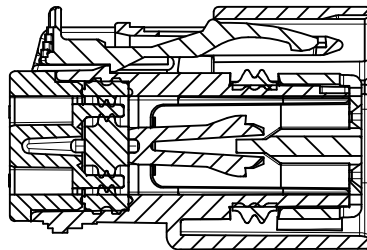
20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

LASER MARKING ON THIS SURFACE
SEE NOTE 3g.



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

SECTION Z-Z



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

SECTION Y-Y

CHARTED DIMENSIONS		
PART NUMBERS	CONFIGURATION	A
33472-0401 THRU 33472-0452	MX150 2X2 RECEPTACLE CONN - STANDARD	36.95
33472-4401 THRU 33472-4412	MX150 2X2 RECEPTACLE CONN - LENGTHENED	4155

ENTER DESCRIPTION IEC NO: UAU2016-0465 DRAWN BY: CHYKX80RUSZEK 2015/10/06 CHECKED BY: APPR: WOSHY 2015/10/07 REV: U	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.10 ± --- 1 PLACE ± 0.3 ± --- 0 PLACE ± ± ANGULAR ± 3 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DIMENSION STYLE MM ONLY DRAWN BY: MYANSLAMBROU 05-03-06 CHECKED BY: DATE DGRIFITHS 06-22-06 APPROVED BY: DATE SMARCEAU 06-22-06 MATERIAL NO. SEE BOM	SCALE 4:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE MX150 2X2 RECEPTACLE SEALED ASSEMBLY MAT SEAL molex	DOCUMENT NO. SD-33472-041	SHEET NO. 3 OF 5

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

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Rev. G 2012/01/11

Mouser Electronics

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Molex:

33472-1399