

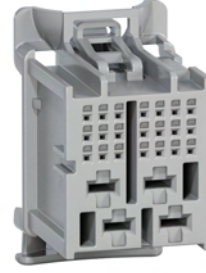
产品编号 : [1600270018](#)

Product Description : stAK50h Hybrid  
Receptacle, 25 Circuits, Key 8, Rib Option  
B, Light Gray, Bag

系列号 : 160027

状态 : Active

Product Category : Connector Housings



## 文件和资源

### 图纸

[图纸 1600270018\\_sd.pdf](#)

### 3D 模型和设计文件

[3D模型 1600270018\\_stp.zip](#)


### 规格

[应用规格 AS-160014-001-001.pdf](#)

[测试摘要 1600140000-TS-000.pdf](#)

## 产物环境合规

### 合规

GADSL/IMDS	Compliant
China RoHS	
EU ELV	Compliant per 2000/53/EC
Low-Halogen Status	Low-Halogen per IEC 61249-2-21
REACH SVHC	Not Contained per D(2023)3788-DC (14 Jun 2023)
EU RoHS	Compliant per EU 2015/863

### 多部分产品合规性声明

- Eu RoHS
- REACH SVHC
- Low-Halogen

### 多部分行业合规性文件

- IPC 1752A Class C
- IPC 1752A Class D

- Molex Product Compliance Declaration

- IEC-62474

- chemSHERPA (xml)

欧盟 RoHS 合格证书

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## 产品详情

### 常规

状态	活动
类别	Connector Housings
系列	160027
说明	stAK50h Hybrid Receptacle, 25 Circuits, Key 8, Rib Option B, Light Gray, Bag
应用	Automotive, Power, Signal, Wire-to-Board
产品系列	stAK50h Connection System
产品名称	stAK50h
UPC	193264073566

### 物理

电路数（最多）	25
颜色-树脂	Gray (Light)
性别	Receptacle
符合灼热丝规范	否
插接极性	是
锁定插接部位	是
材料 - 树脂	SPS
净重	5.774/g
行数	5
包装形式	Bag
面板安装式	否
间距 - 插配接口	2.00mm, 3.20mm, 7.20mm
间距 - 终端界面	2.00mm, 3.20mm, 7.20mm
有极性的插配件	是
端口	1
可堆叠的	否

运行温度范围	-40° to +105° C LV-214, -40° to +85° C GMW3191 June2012
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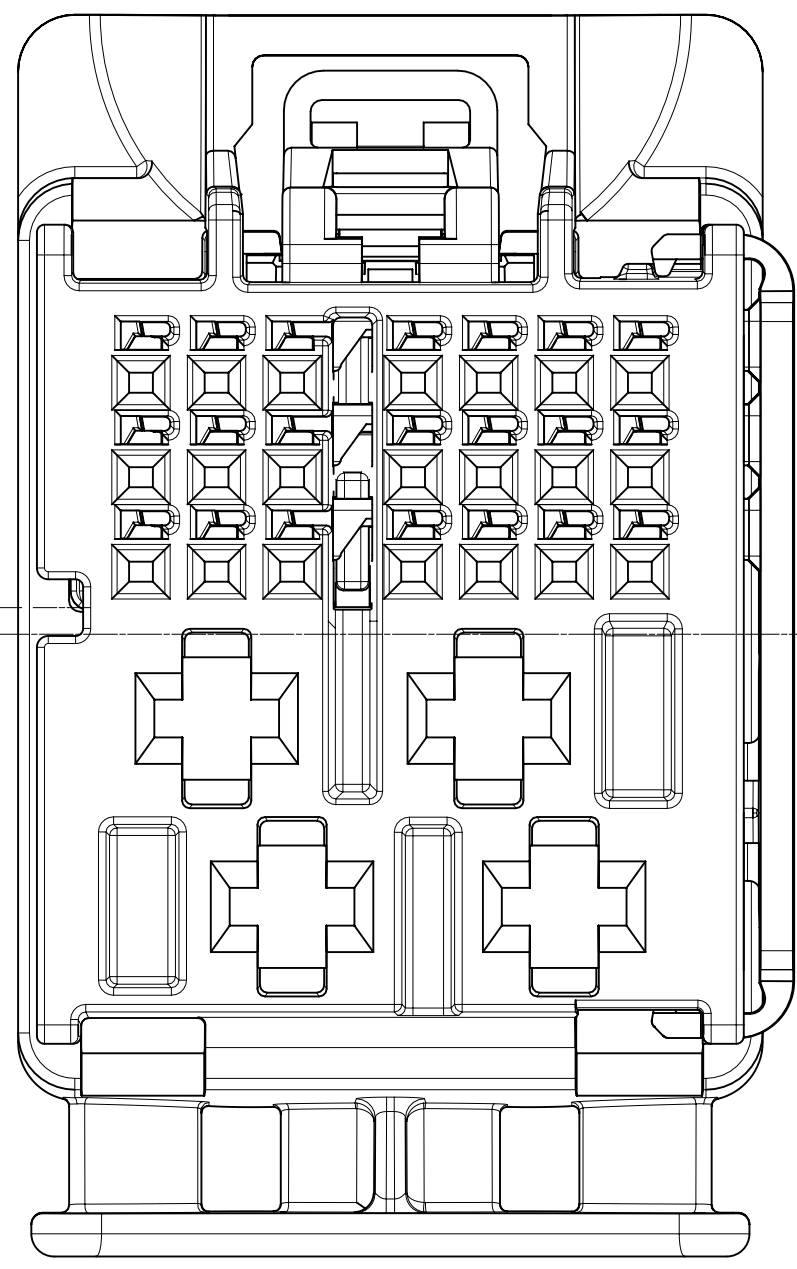
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可连接使用部件

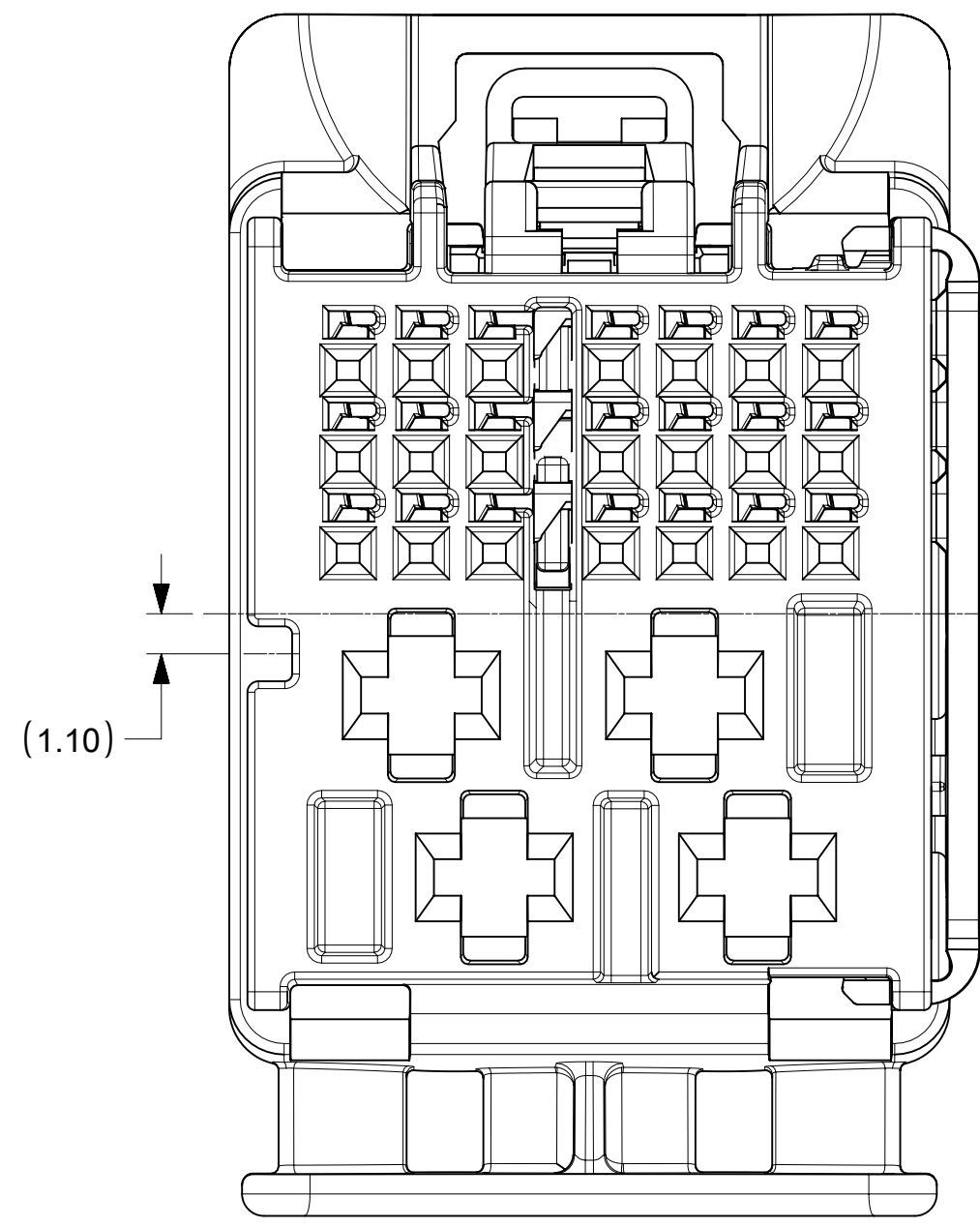
描述	产品编号
TAK50 Unsealed Receptacle Terminals	<u>200096</u>
可装的端子等部件	TE AMP MPC 2.80mm Terminal or Aptiv CTS 2.80mm Terminal

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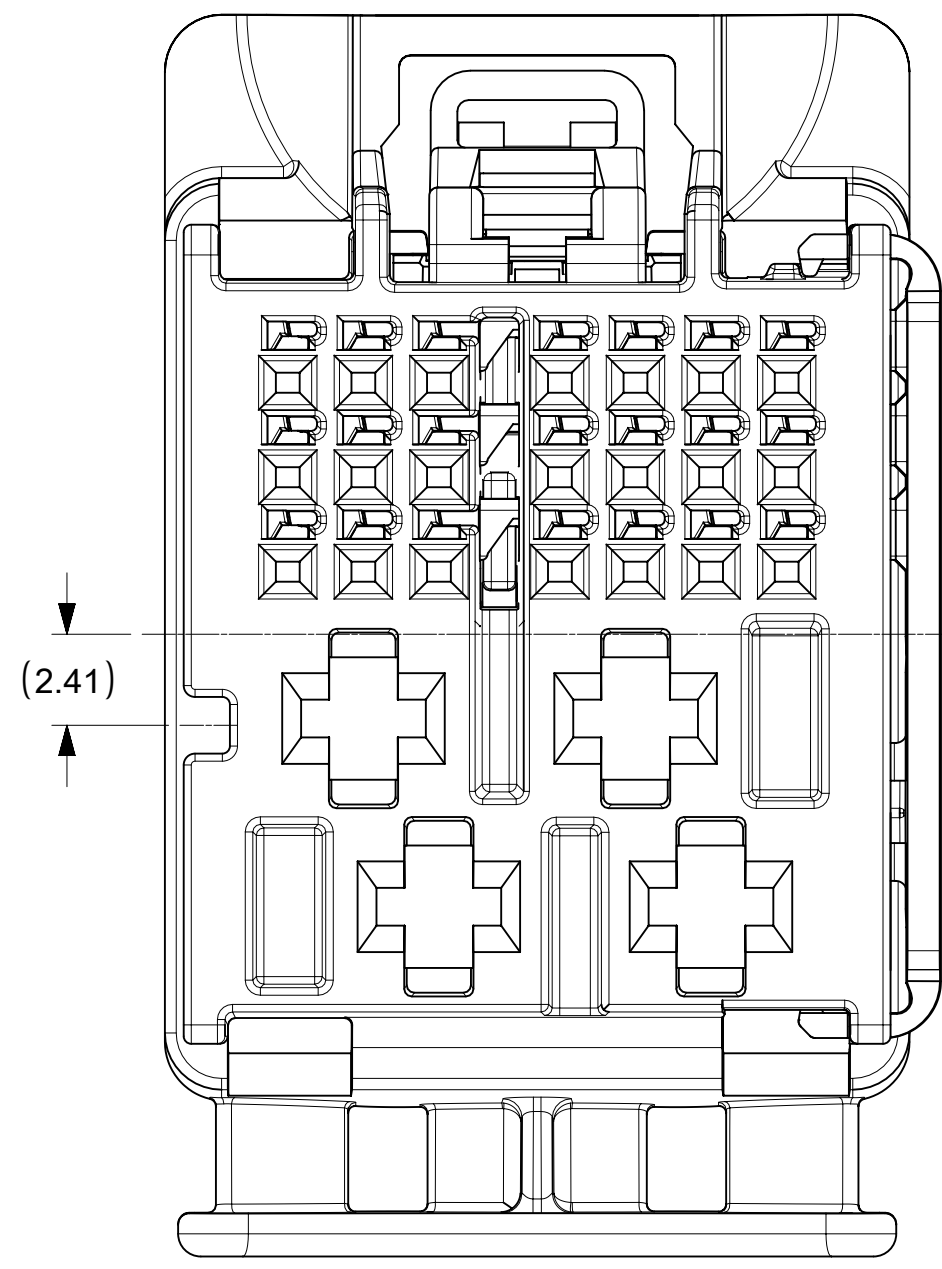
This document was generated on Jan 02, 2024



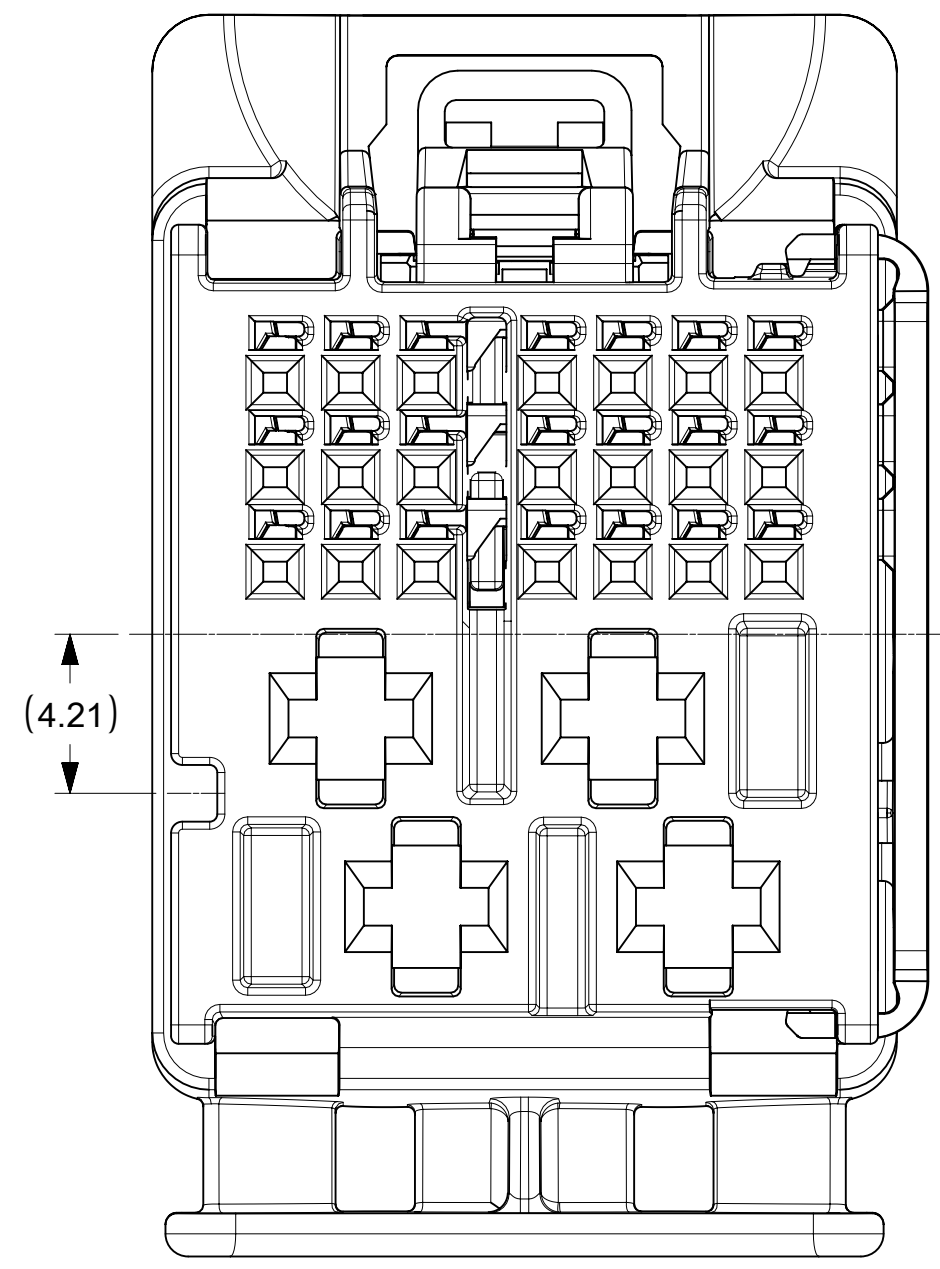
25 WAY CONNECTOR ASSEMBLY  
KEY 1 & KEY 5



25 WAY CONNECTOR ASSEMBLY  
KEY 2 & KEY 6



25 WAY CONNECTOR ASSEMBLY  
KEY 3 & KEY 7



25 WAY CONNECTOR ASSEMBLY  
KEY 4 & KEY 8

NOTES: VALID UNLESS OTHERWISE SPECIFIED

1. GENERAL:
- a. APPLICATION SPECIFICATION SEE: AS-160014-001
  - b. PRODUCT SPECIFICATION SEE: PS-160014-001
  - c. PACKAGING SPECIFICATION PER MOLEX DRAWING: PK-31302-266
  - 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

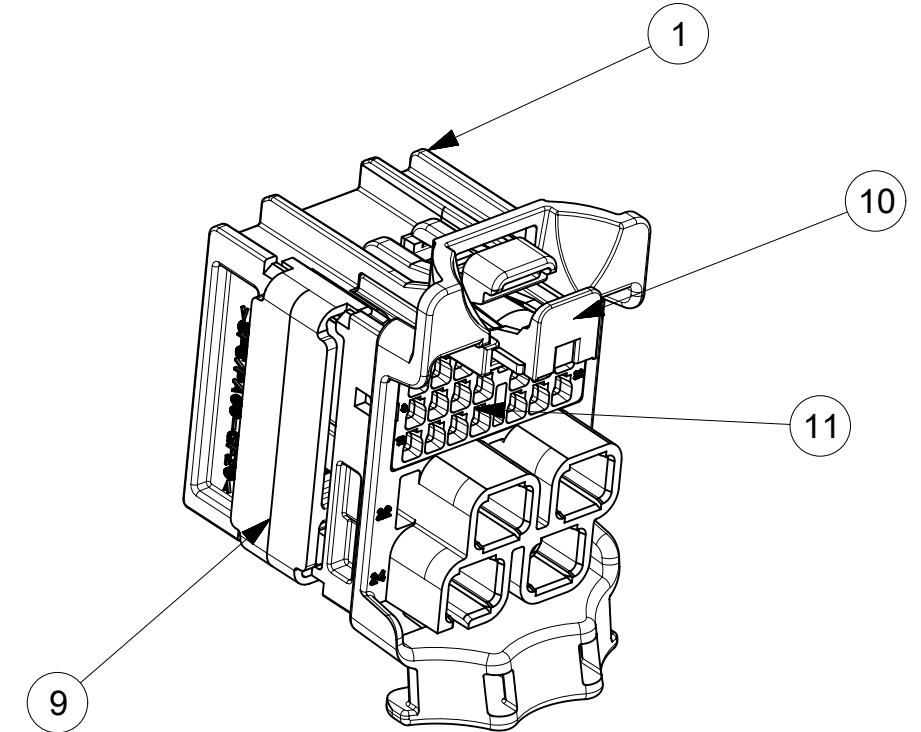
3. DESIGN - GEOMETRY:
- a. ALL GRAPHIC DATA IS BASIC (NO TOLERANCE) AND MUST BE TAKEN FROM THE DATA FILE AT ITS LATEST REVISION.
  - b. PRODUCT DESIGN MODEL NUMBER(S): SEE BOM TABLE
  - c. GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5-2009
  - d. EDGES AND UNDIMENSIONED DETAILS PER ISO13715
  - e. CORNERS SHOWN AS SHARP TO BE R 0.2 MAX.
  - f. MARKED TEXT TO INCLUDE RECYCLING CODE, CAVITY ID, VENDOR IDENTIFICATION AND CUSTOMER MATERIAL NUMBER.
    - 1. LASER ETCHED DATE CODE
    - 1ST THROUGH 2ND DIGIT = CALENDAR YEAR
    - 3RD THROUGH 5TH DIGIT = "DAY #" OF YEAR
    - 6TH THROUGH 7TH DIGIT = HOUR OF DAY
    - 8TH THROUGH 9TH DIGIT = MINUTE OF HOUR
    - 10TH THROUGH 11TH DIGIT = SECOND OF MINUTE

4. DESIGN - MANUFACTURING:
- a. VISUAL DEFECTS SHALL MEET COSMETIC STANDARD PS-45499-002 (Class B)

PART NUMBER	PLATING	SUPPLIER	WIRE GAGE (mm2)	TERMINAL FAMILY	WIRE SPECIFICATION
200096-3101	TIN PLATING	MOLEX	0.35	TAK FAMILY (0.5 mm)	VW 60306 OR GMW 15626 (SEE APPLICATION SPECIFICATION FOR MORE DETAILS)
200096-3201	TIN PLATING	MOLEX	0.13	TAK FAMILY (0.5 mm)	
2272196-2	TIN PLATING	TE	0.35	Generation 50 Locking Lance (0.5mm)	SAE/ J1128 THIN WALL INSULATION
2272196-1	TIN PLATING	TE	0.13	Generation 50 Locking Lance (0.5mm)	
1-968851-1	TIN PLATING	TE	1.0 - 2.5	AMP MCP 2.8	GMW 15626 INSULATION TYPE FLR (REGULAR THIN WALL)
1-968849-1	TIN PLATING	TE	0.5 - 1.0	AMP MCP 2.8	
15457849	TIN PLATING	DELPHI	1.5 - 2.5	CTS 2.8mm	
15457848	TIN PLATING	DELPHI	0.5 - 1.0	CTS 2.8mm	

ITEM	DESCRIPTION	COLOR	RECYCLING CODE	WEIGHT (GRAMS)	RIB OPTION	NO OF ITEMS REQUIRED															
1	OUTER SHROUD - KEY 1	LIGHT GREEN B	SPS/PA66-GF20	4.1	A	1															
2	OUTER SHROUD - KEY 2	STONE GRAY	SPS/PA66-GF20	4.1	A		1														
3	OUTER SHROUD - KEY 3	BLACK	SPS/PA66-GF20	4.1	A			1													
4	OUTER SHROUD - KEY 4	DARK GRAY	SPS/PA66-GF20	4.1	A				1												
5	OUTER SHROUD - KEY 5	DK PURPLE A	SPS/PA66-GF20	4.1	B					1											
6	OUTER SHROUD - KEY 6	TBD	SPS/PA66-GF20	4.1	B						1										
7	OUTER SHROUD - KEY 7	TBD	SPS/PA66-GF20	4.1	B							1									
8	OUTER SHROUD - KEY 8	LT GRAY	SPS/PA66-GF20	4.1	B								1								
9	ISL	NATURAL	SPS-GF30	0.37	N/A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	CPA	NATURAL	PA66-GF50	0.08	N/A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	INNER HOUSING	STONE GRAY	SPS/PA66-GF20	1.04	N/A	1	1	1	1												
12	INNER HOUSING	STONE GRAY	SPS/PA66-GF20	1.04	N/A							1	1	1	1	1	1	1	1	1	1

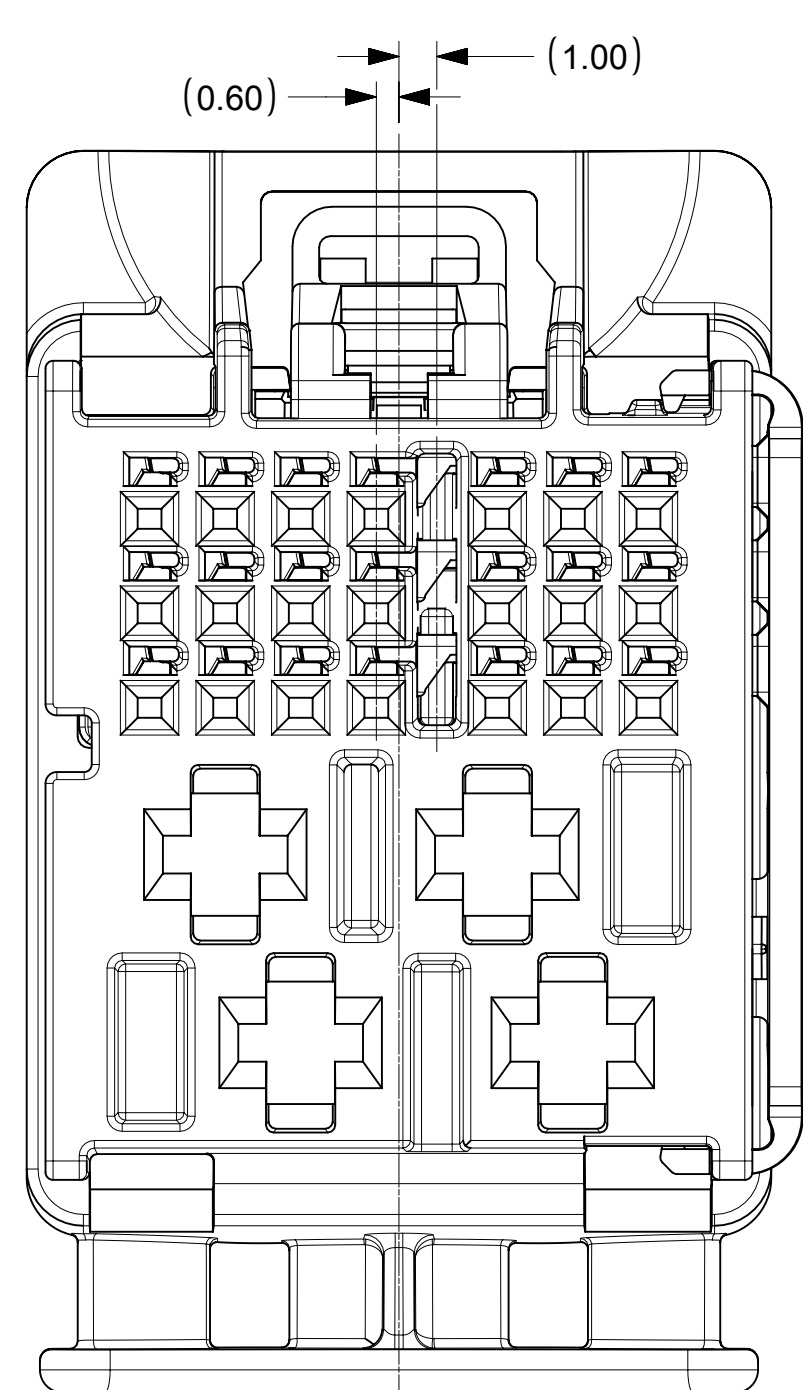
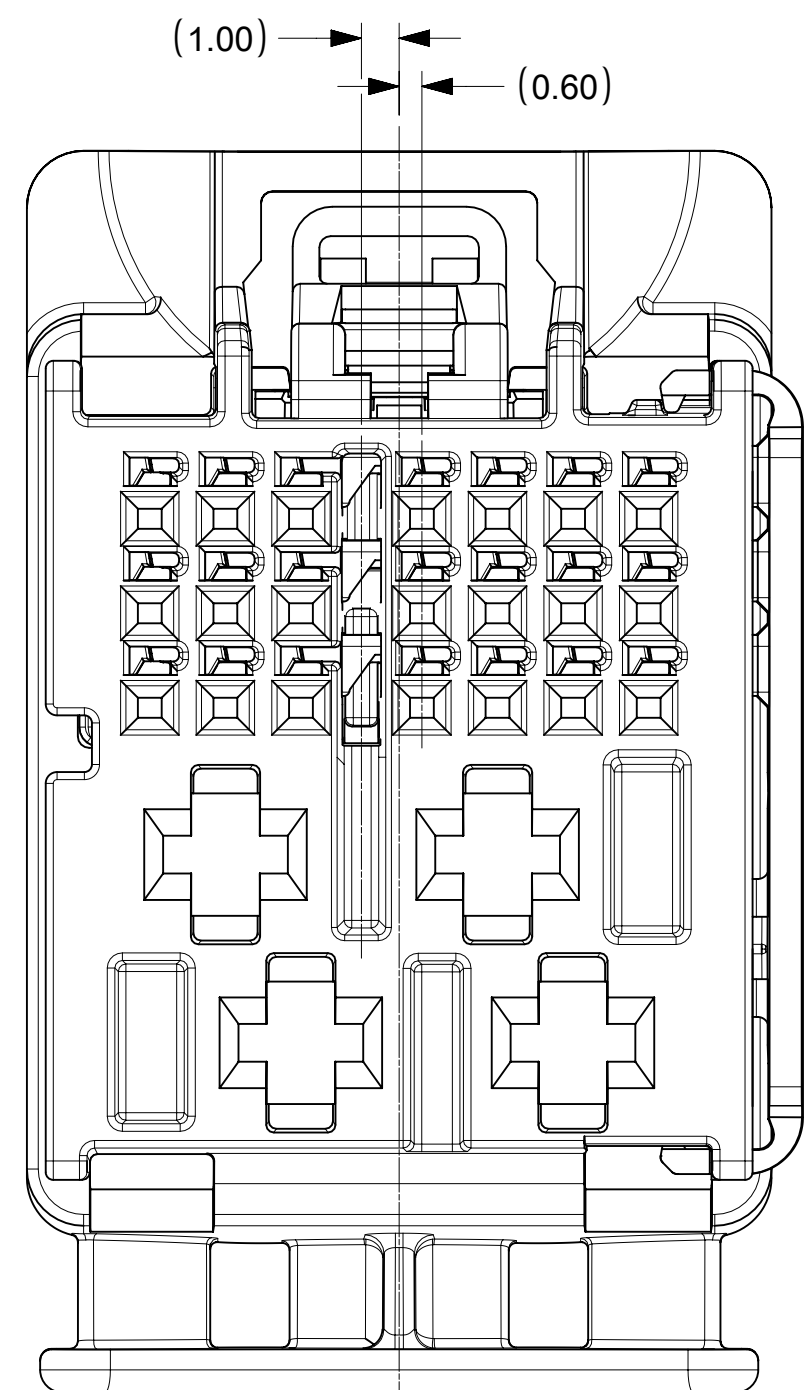
MOLEX ASSEMBLY PART NO.'S	
1600270011	KEY 1
1600270012	KEY 2
1600270013	KEY 3
1600270014	KEY 4
1600270015	KEY 5
1600270016	KEY 6
1600270017	KEY 7
1600270018	KEY 8



SCALE 2:1

RIB OPTION A

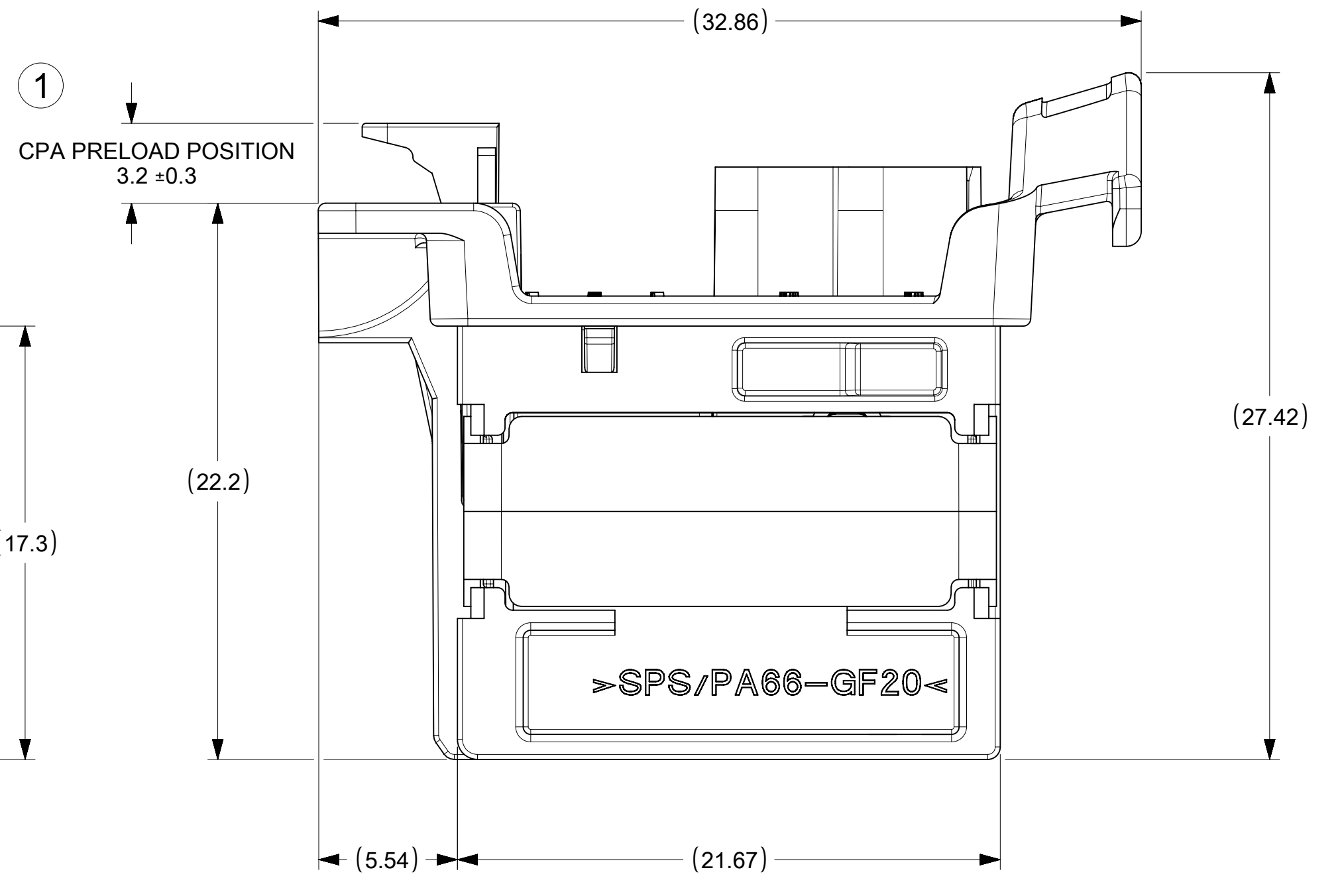
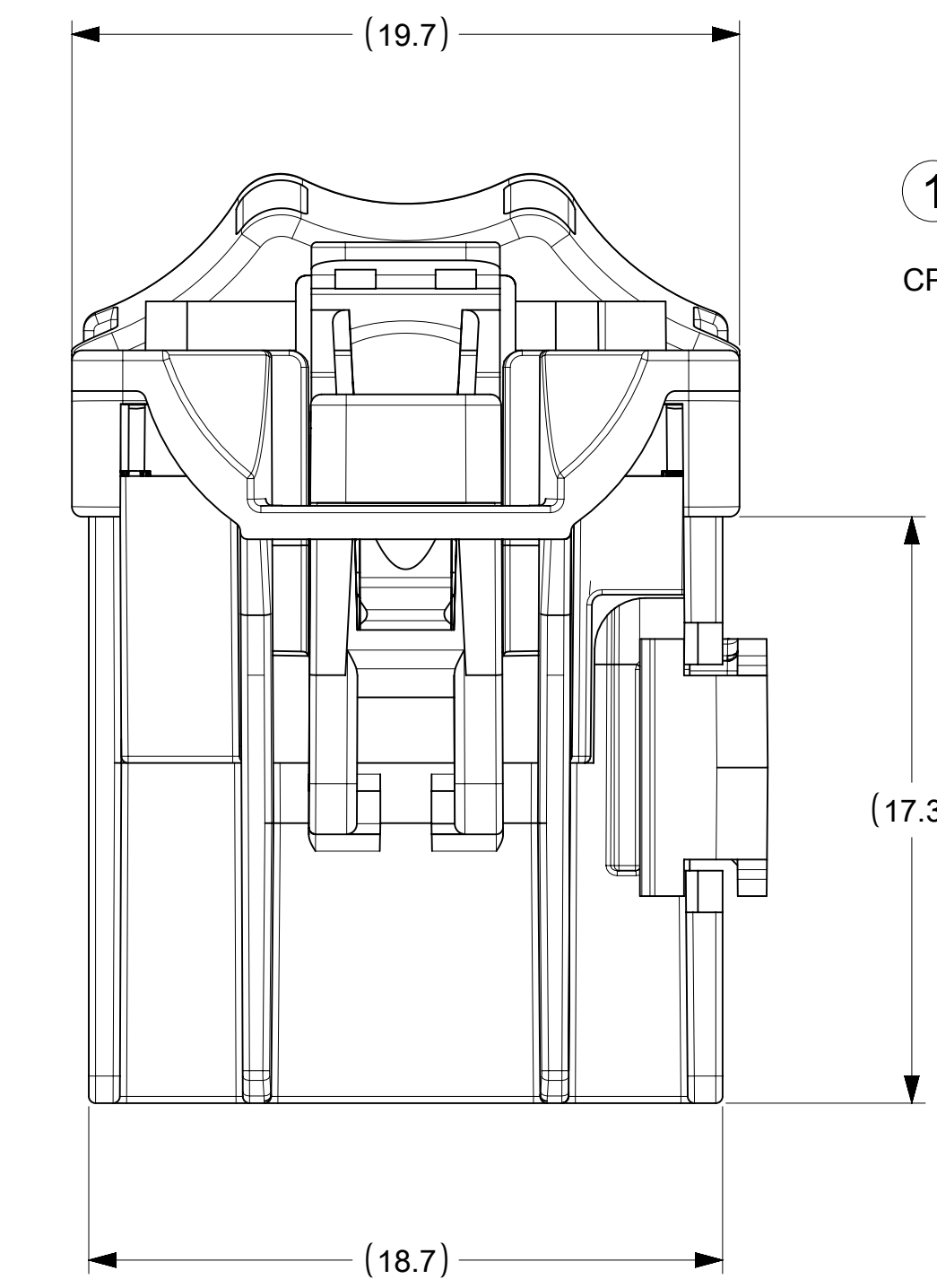
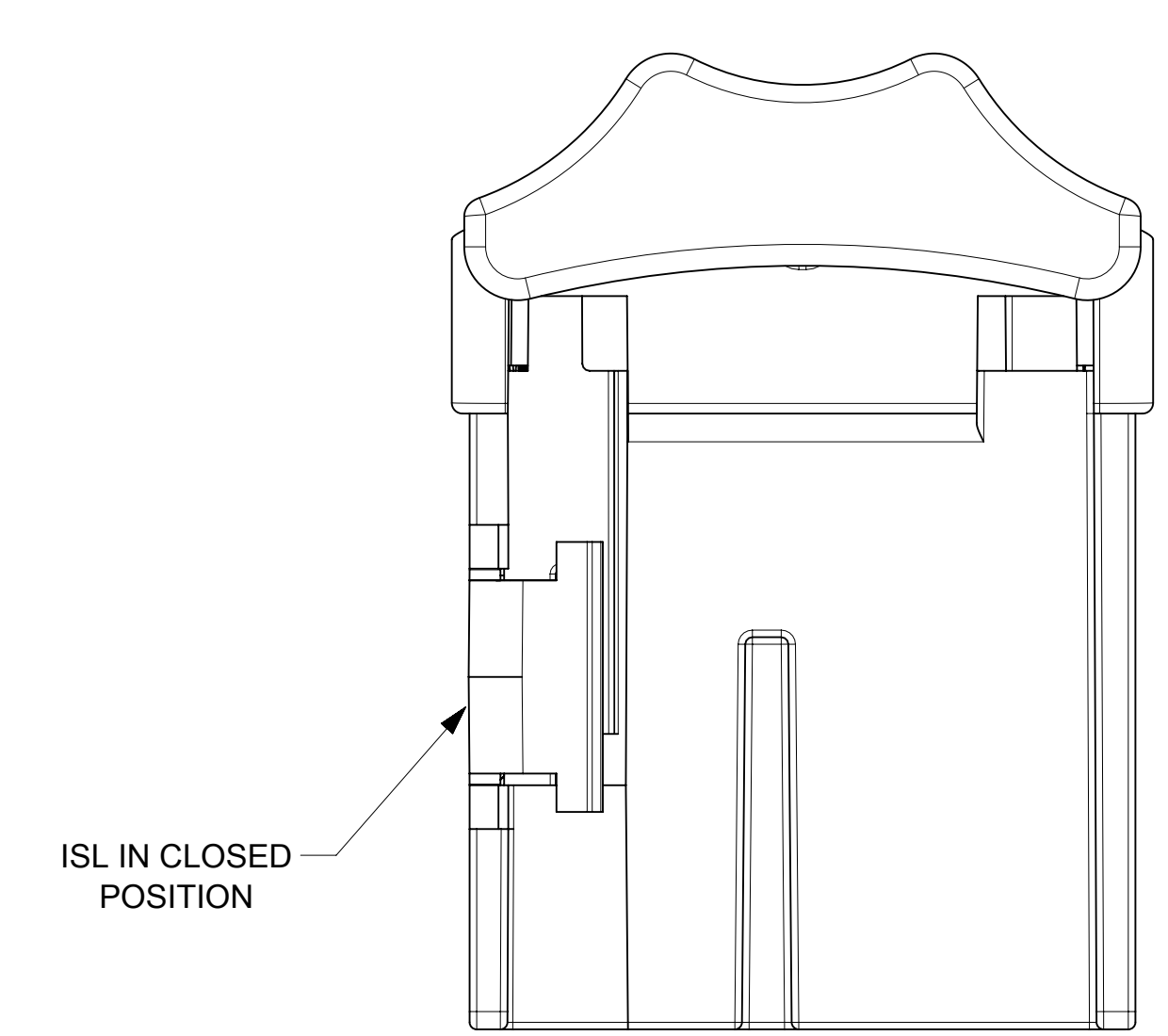
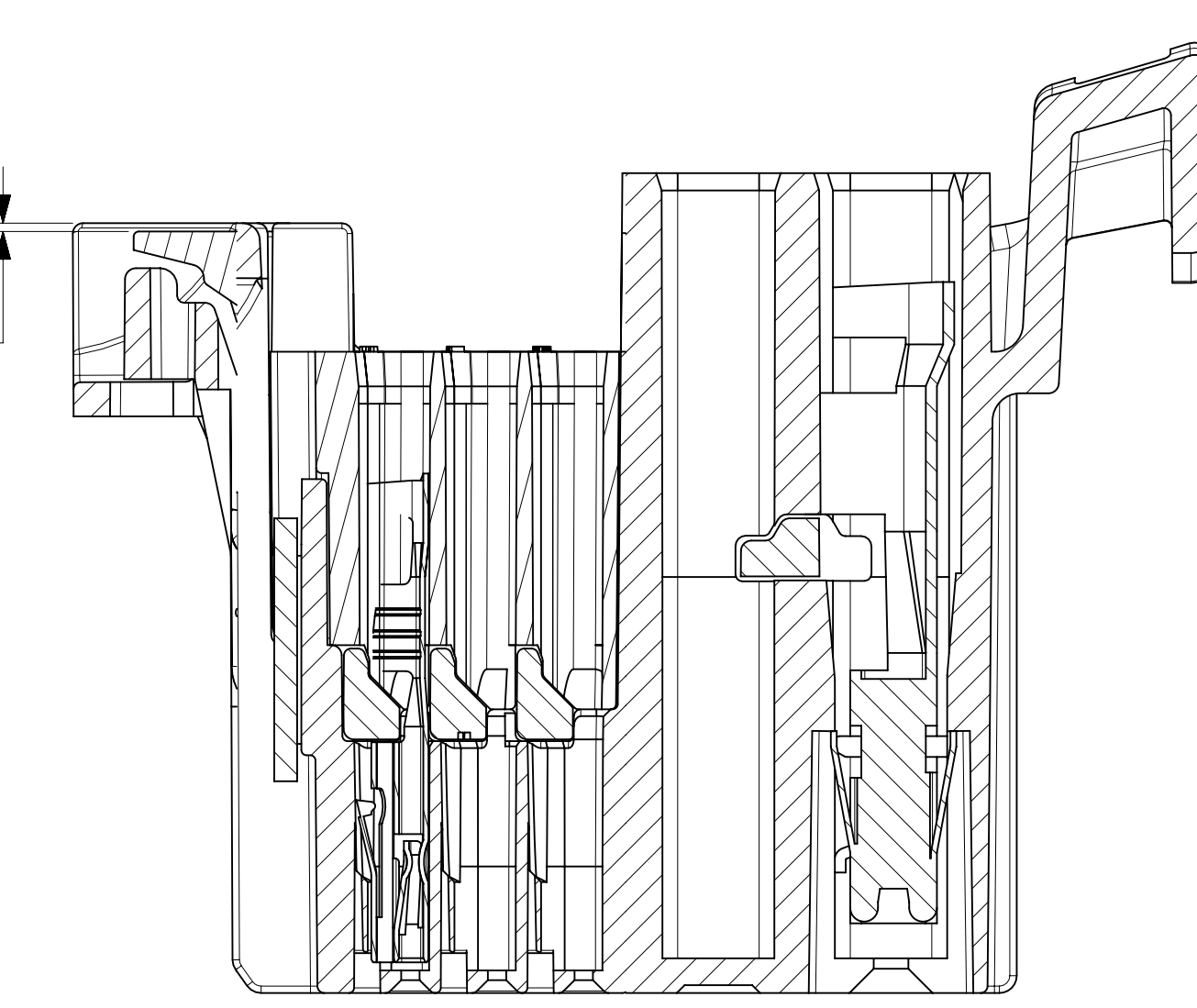
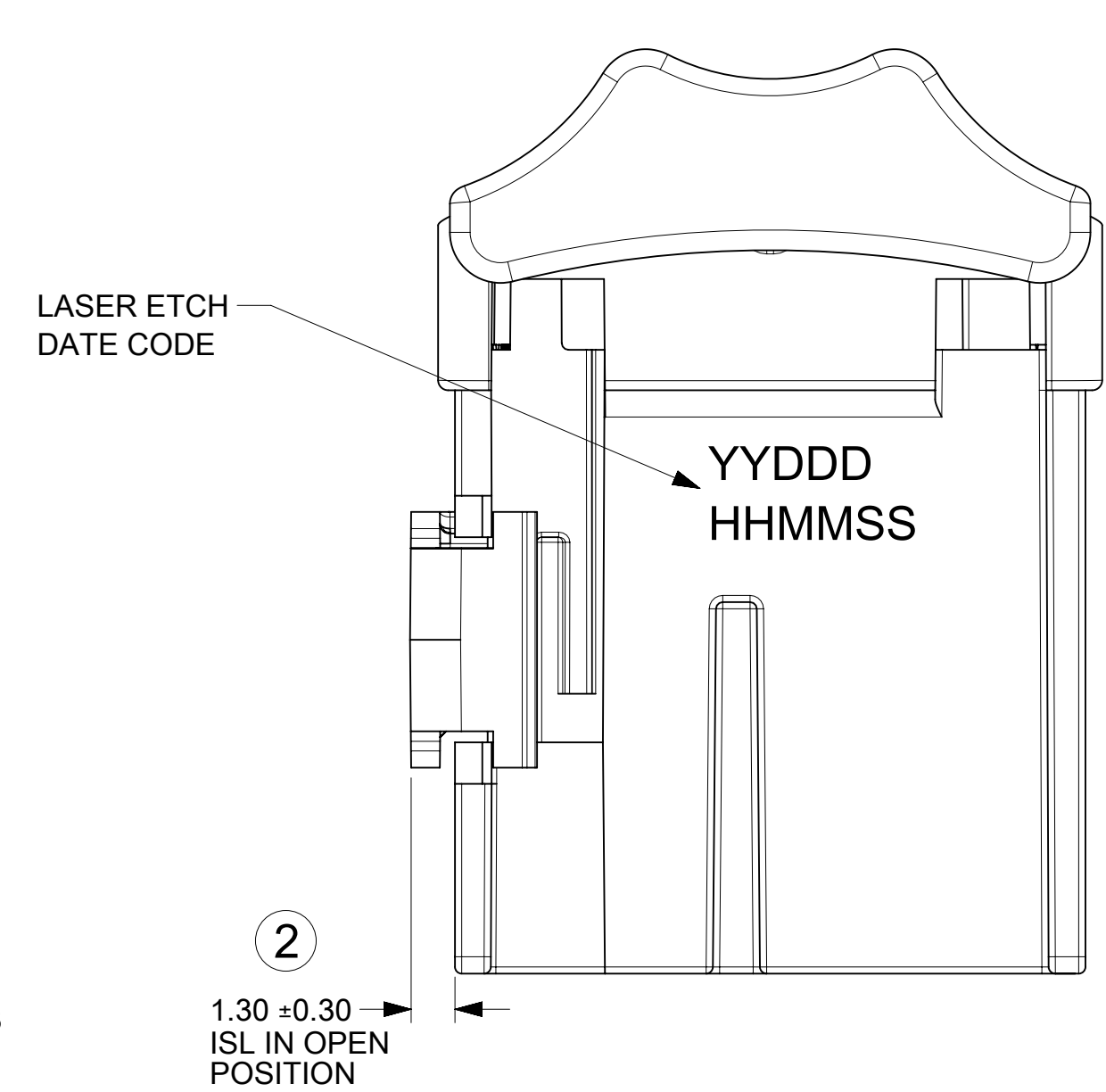
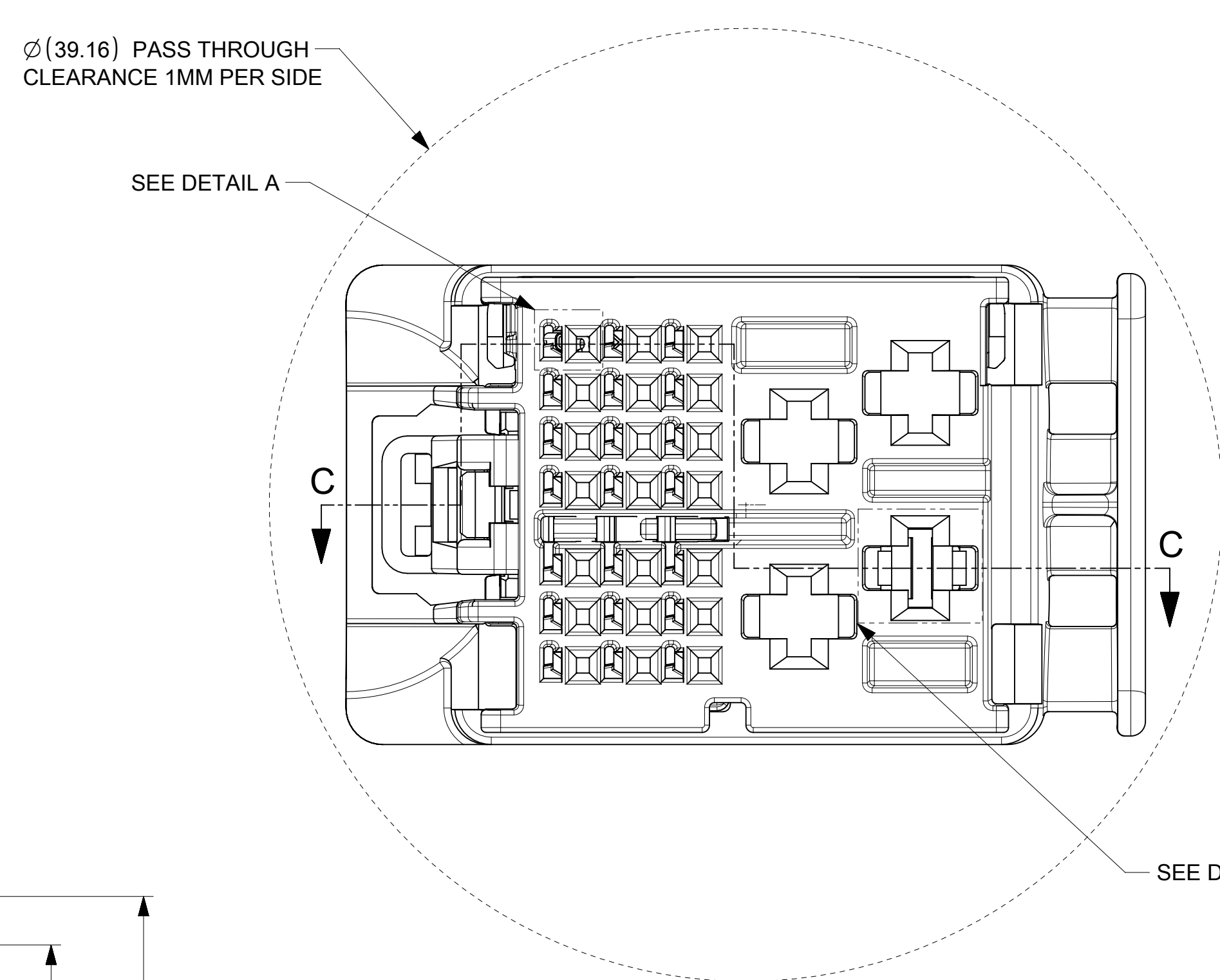
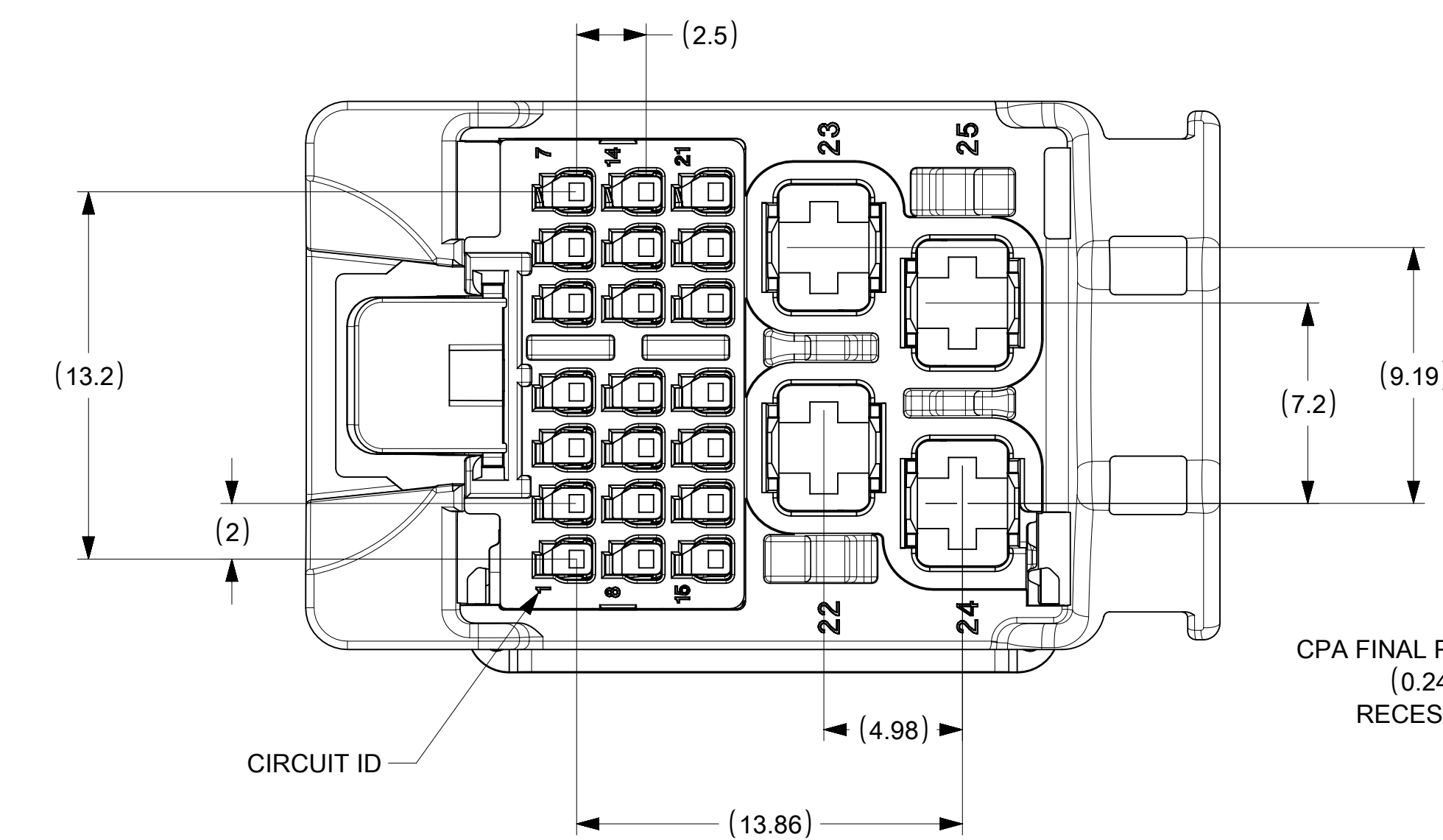
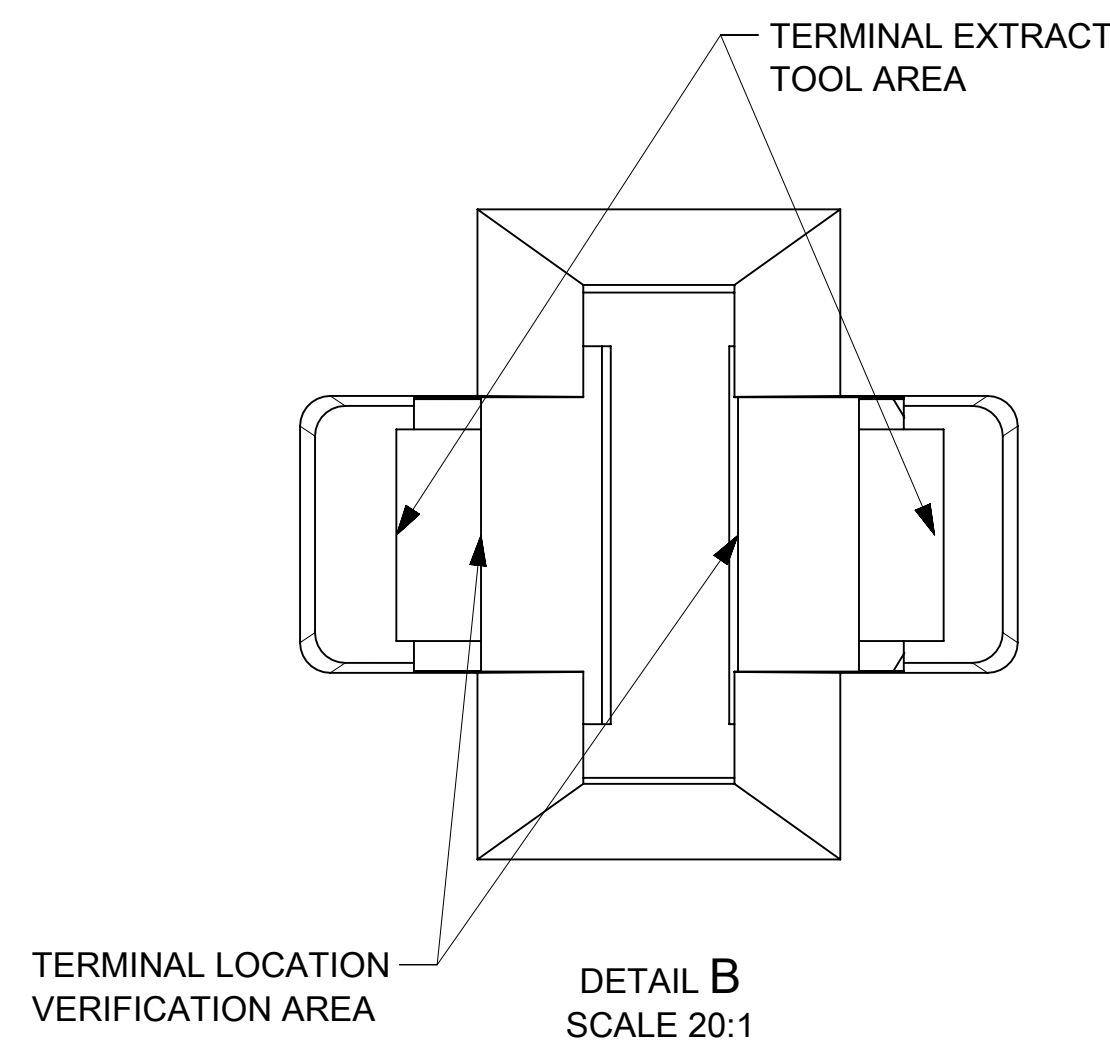
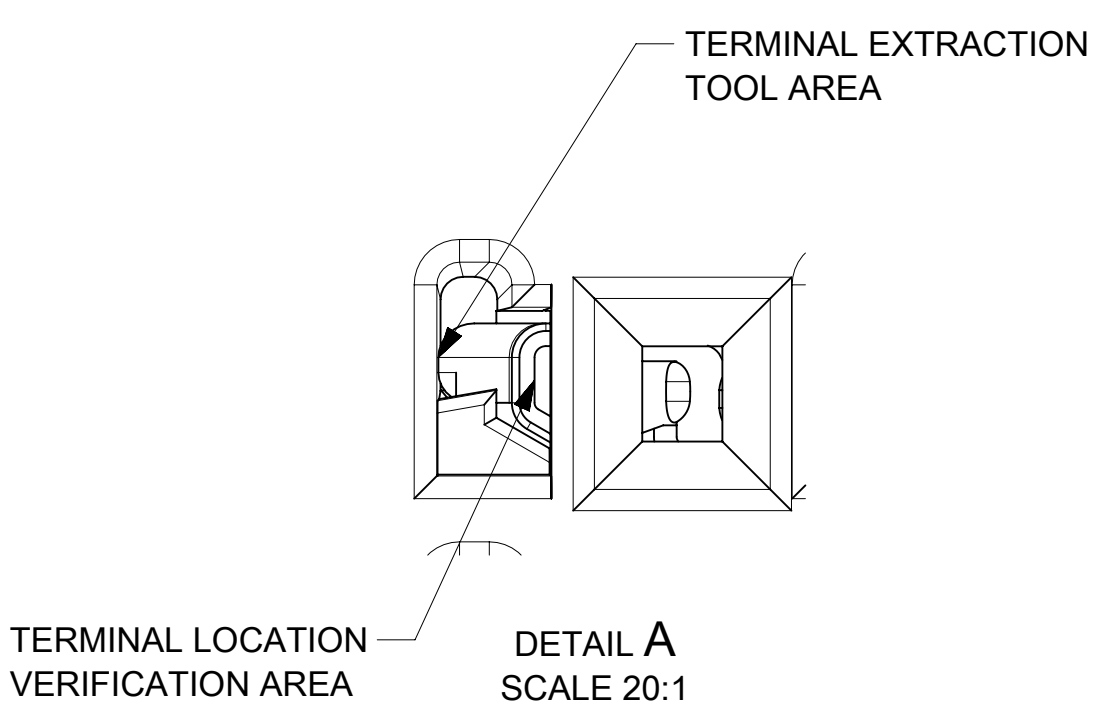
RIB OPTION B



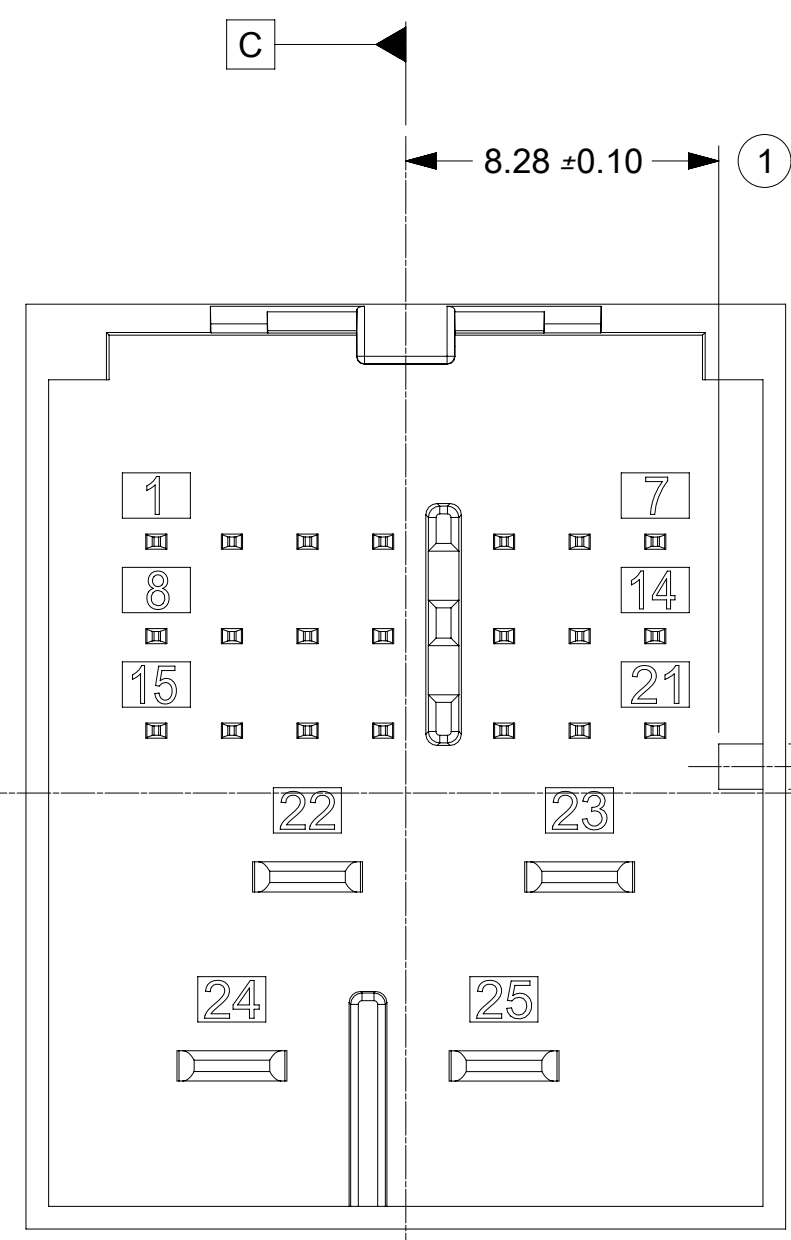
INSPECTION BALLOON NUMBER LOG	
PER DRAWING REVISION :	A3
LAST BALLOON NUMBER :	2
ADDED BALLOON NUMBER :	NONE
DELETED BALLOON NUMBER :	NONE

A4	UPDATED TAK50 TERMINAL PINS 21-July-2021 YPENG47 ECN 648438
REVISION	DESCRIPTION

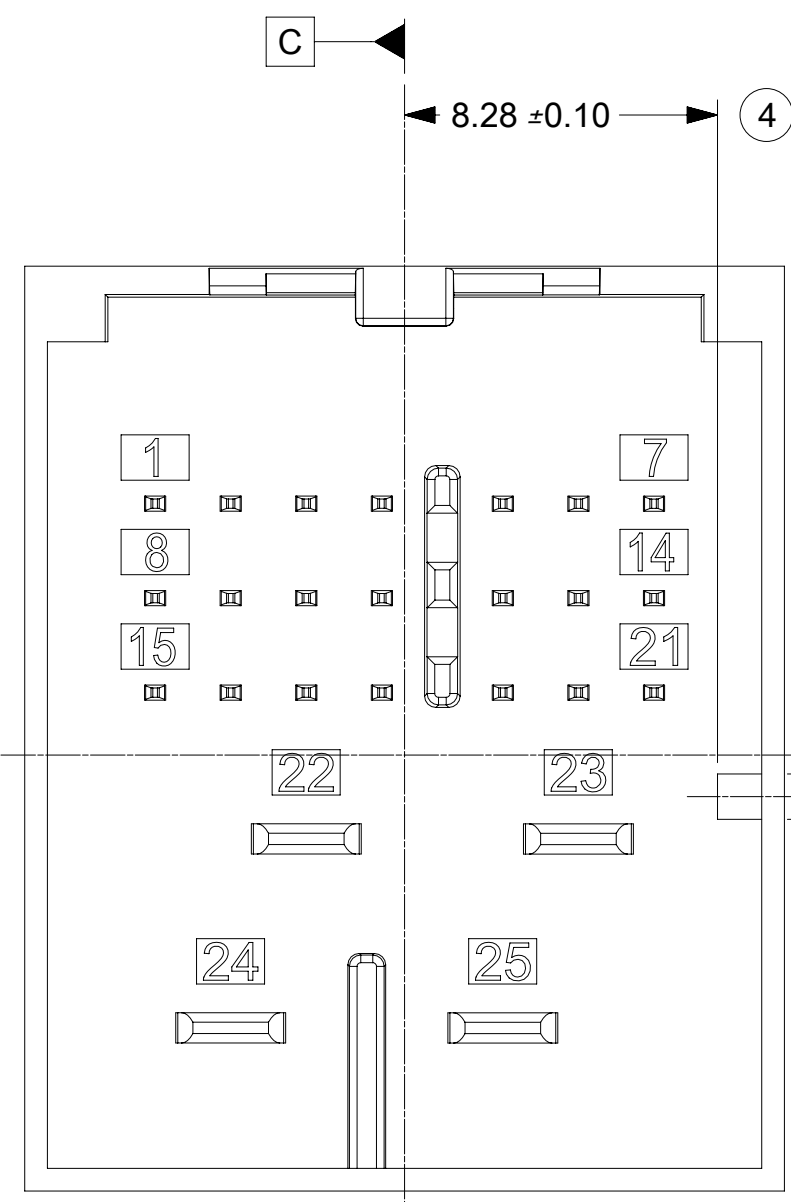
SYMBOLS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
▽ = 0	DIMENSION UNITS	SCALE	CURRENT REV DESC: UPDATED TAK50
▽ = 0	mm	5:1	TERMINAL PINS
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		EC NO: 648438 DRWN: YPENG47 2021/07/21 CHK'D: RCARLSON 2021/07/29 APPR: JCONDON 2021/08/02
▽ = 0	ANGULAR TOL ± 3.0°		
▽ = 0	4 PLACES ±		INITIAL REVISION: DRWN: RCARLSON 2019/02/18 APPR: JCONDON 2019/02/25
▽ = 0	3 PLACES ±		
▽ = 0	2 PLACES ± 0.3		DOCUMENT NUMBER <b>1600270011</b>
▽ = 0	1 PLACE ± 0.3		
▽ = 0	0 PLACES ± 0.3		DOC TYPE PSD
☒ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DOC PART 000
☒ = 0	THIRD ANGLE PROJECTION	DRAWING	REVISION A3
☒ = 0	D-DRAWING	SERIES	
		<b>160027</b>	MATERIAL NUMBER SEE CHART
			CUSTOMER GENERAL MARKET
			SHEET NUMBER 1 OF 2



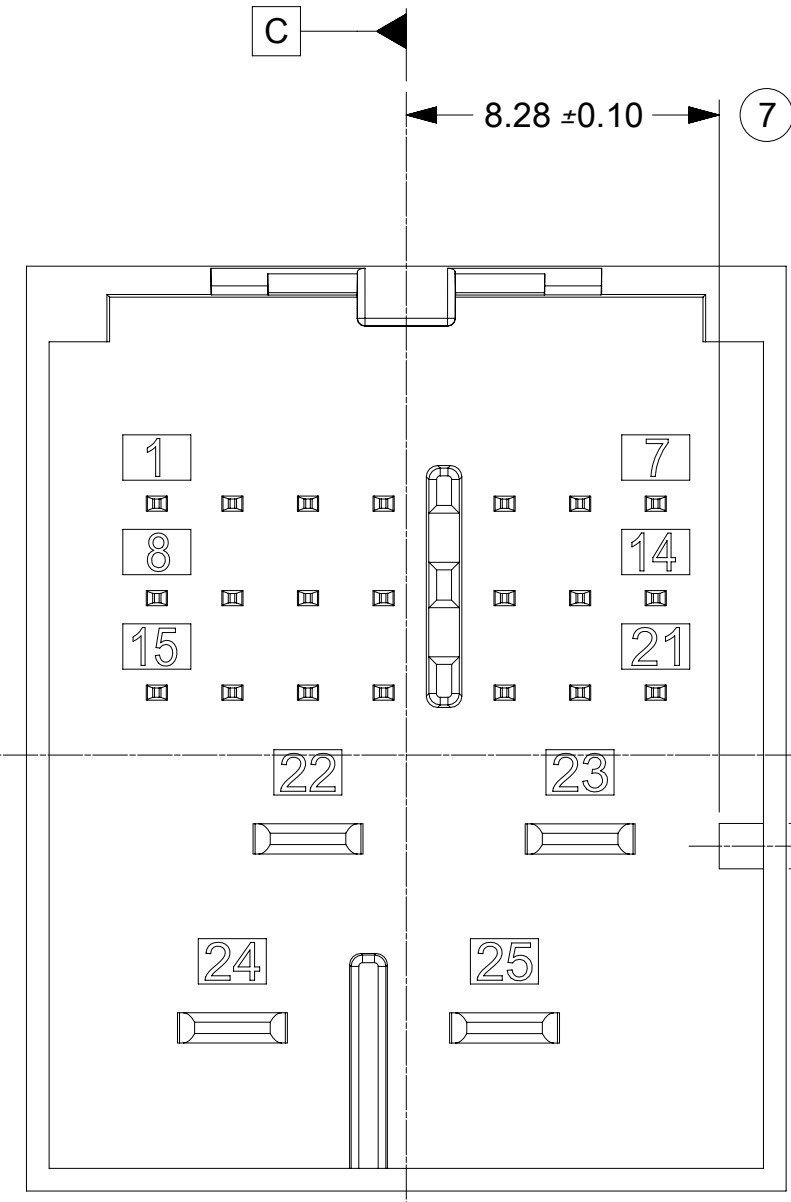
SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
	DIMENSION UNITS	SCALE
▽ = 0	mm	5:1
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)	
▽ = 0	ANGULAR TOL	± 3.0°
▽ = 0	4 PLACES	±
▽ = 0	3 PLACES	±
▽ = 0	2 PLACES	± 0.3
▽ = 0	1 PLACE	± 0.3
▽ = 0	0 PLACES	± 0.3
■ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	
▽ = 0	THIRD ANGLE PROJECTION	
CURRENT REV DESC: UPDATED TAK50 TERMINAL PNS		
EC NO: 648438		
DRWN: YPENG47		2021/07/21
CHK'D: RCARLSON		2021/07/29
APPR: JCONDON		2021/08/02
INITIAL REVISION:		
DRWN: RCARLSON		2019/02/18
APPR: JCONDON		2019/02/25
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		
DRAWING		SERIES
D-SIZE		160027
MATERIAL NUMBER		CUSTOMER
SEE SHEET 1		GENERAL MARKET
DOCUMENT NUMBER		DOC TYPE   DOC PART   REVISION
1600270011		PSD   000   A3
SHEET NUMBER		
2 OF 2		



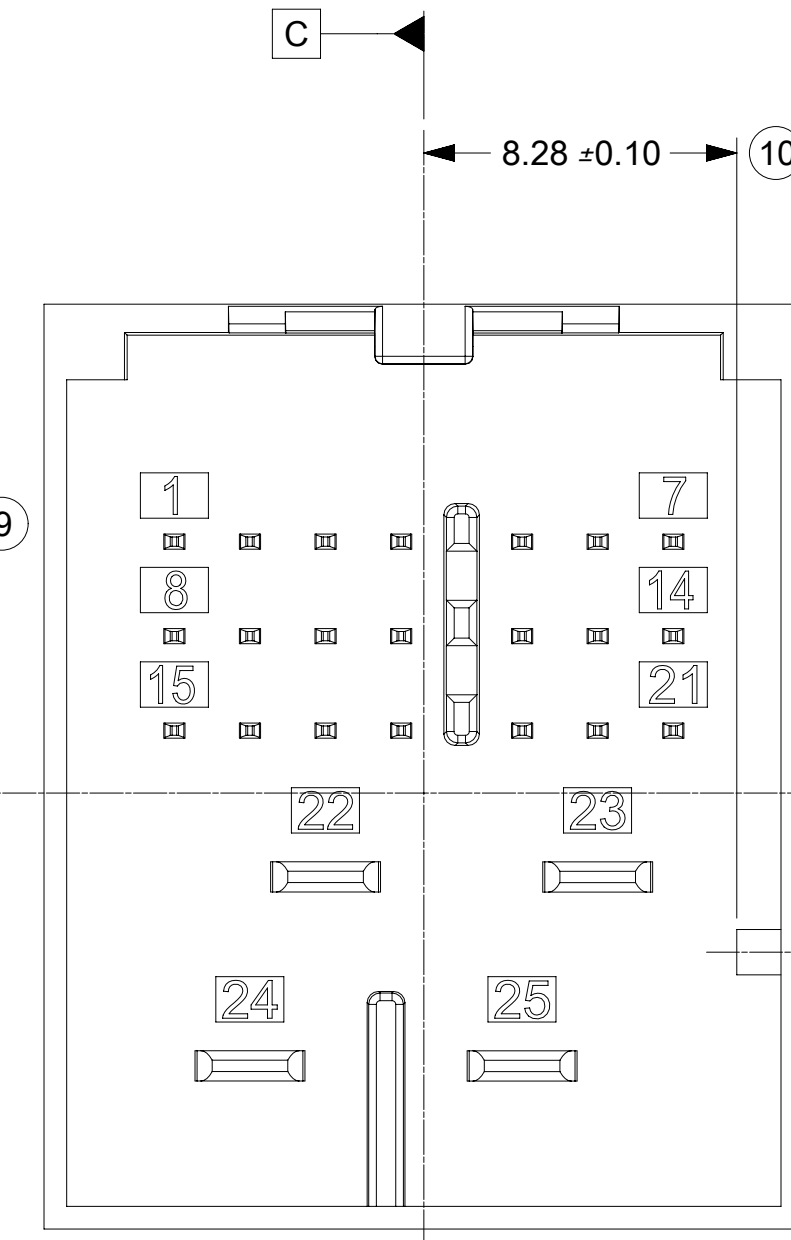
INTERFACE KEY 1 & KEY 5



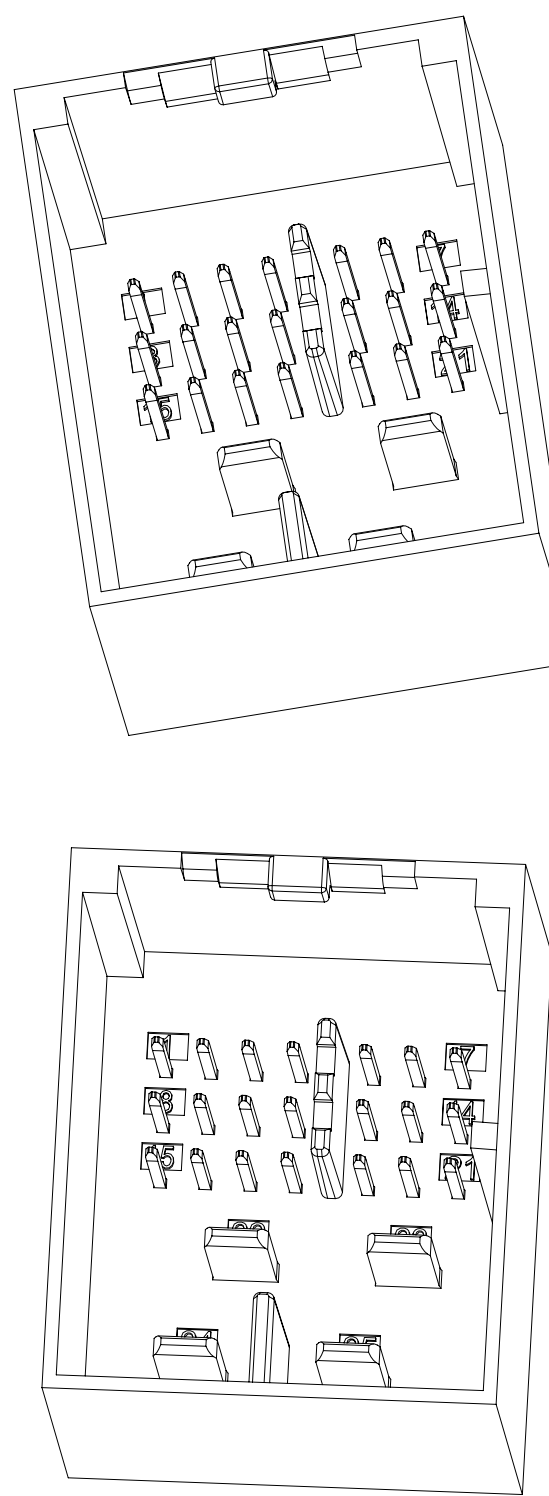
INTERFACE KEY 2 & KEY 6



INTERFACE KEY 3 & KEY 7



INTERFACE KEY 4 & KEY 8



INTERFACE OPTIONS		
KEY	RIB OPTION	MATING CONNECTOR COLOR
1	OPTION A	LIGHT GREEN B
2	OPTION A	STONE GRAY
3	OPTION A	BLACK
4	OPTION A	DARK GRAY
5	OPTION B	DARK PURPLE A
6	OPTION B	TBD
7	OPTION B	TBD
8	OPTION B	LIGHT GRAY

NOTES: VALID UNLESS OTHERWISE SPECIFIED

1. DESIGN - MATERIALS:

- a. RESIN MATERIAL : PBT+GF30 OR SPS+GF30 OR EQUIVALENT
- b. PIN/BLADE MATERIAL : ACCORDING TO USCAR DRAWING EWCAP-001 NOTE B2
- c. PLATING: ACCORDING TO USCAR DRAWING EWCAP-001 TIN REFLOW WITH UNDERPLATE
- d. PIN TIPS ACCORDING TO USCAR DRAWING EWCAP-001 (050-T001 & 280-T001)
- e. DEVIATION TO EWCAP-001 ACCEPTABLE IF PERFORMANCE (ELECTRICAL/MECHANICAL) IS SHOWN TO BE EQUAL OR BETTER AS REQUIRED BY VALIDATION TESTING.
- Ⓢ 1. DEVIATION TO TIN PLATING THICKNESS AS NECESSARY TO MEET MATING FORCE AND ALL VALIDATION REQUIREMENTS

2. DRAWING - GEOMETRY:

- a. ALL GRAPHIC DATA IS BASIC (NO TOLERANCE) AND MUST BE TAKEN FROM THE DATA FILE AT ITS LATEST REVISION.
- b. GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5M-2009.
- c. GENERAL TOLERANCES:  
 LINEAR : PER DIN 16901 LINEAR CODE B FOR PRECISION ENGINEERING  
 ANGULAR : ±3°
- d. EDGES AND UNDIMENSIONED DETAILS PER ISO13715
- e. CORNERS SHOW AS SHARP TO BE R 0.2 MAX.
- f. LETTERS SHALL BE 0.2 MAX RAISED IN 0.25 MAX RECESSED PAD.  
 THIS INCLUDES RECYCLING CODE, CAVITY ID, VENDOR IDENTIFICATION, AND CUSTOMER MATERIAL NUMBER.

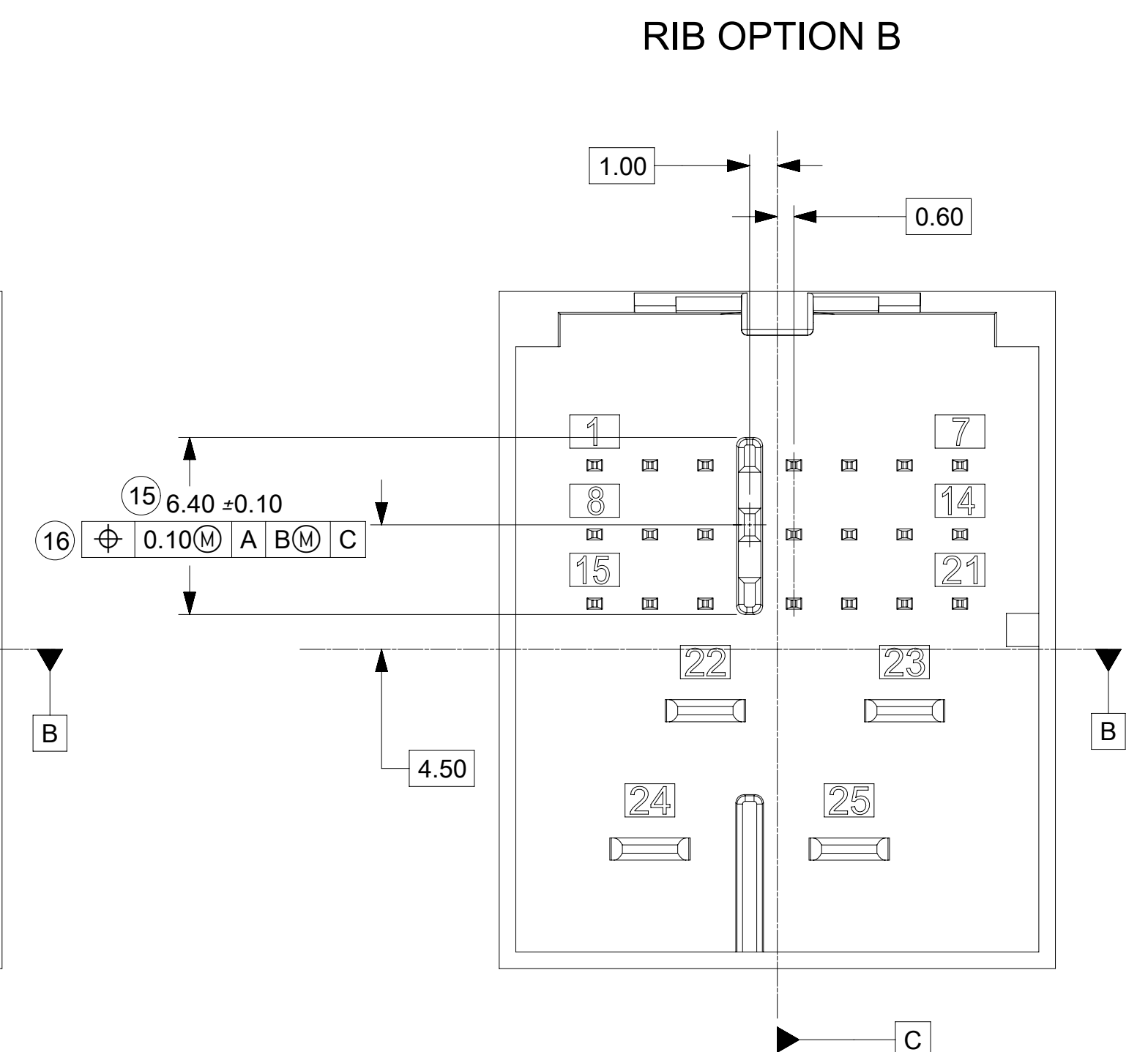
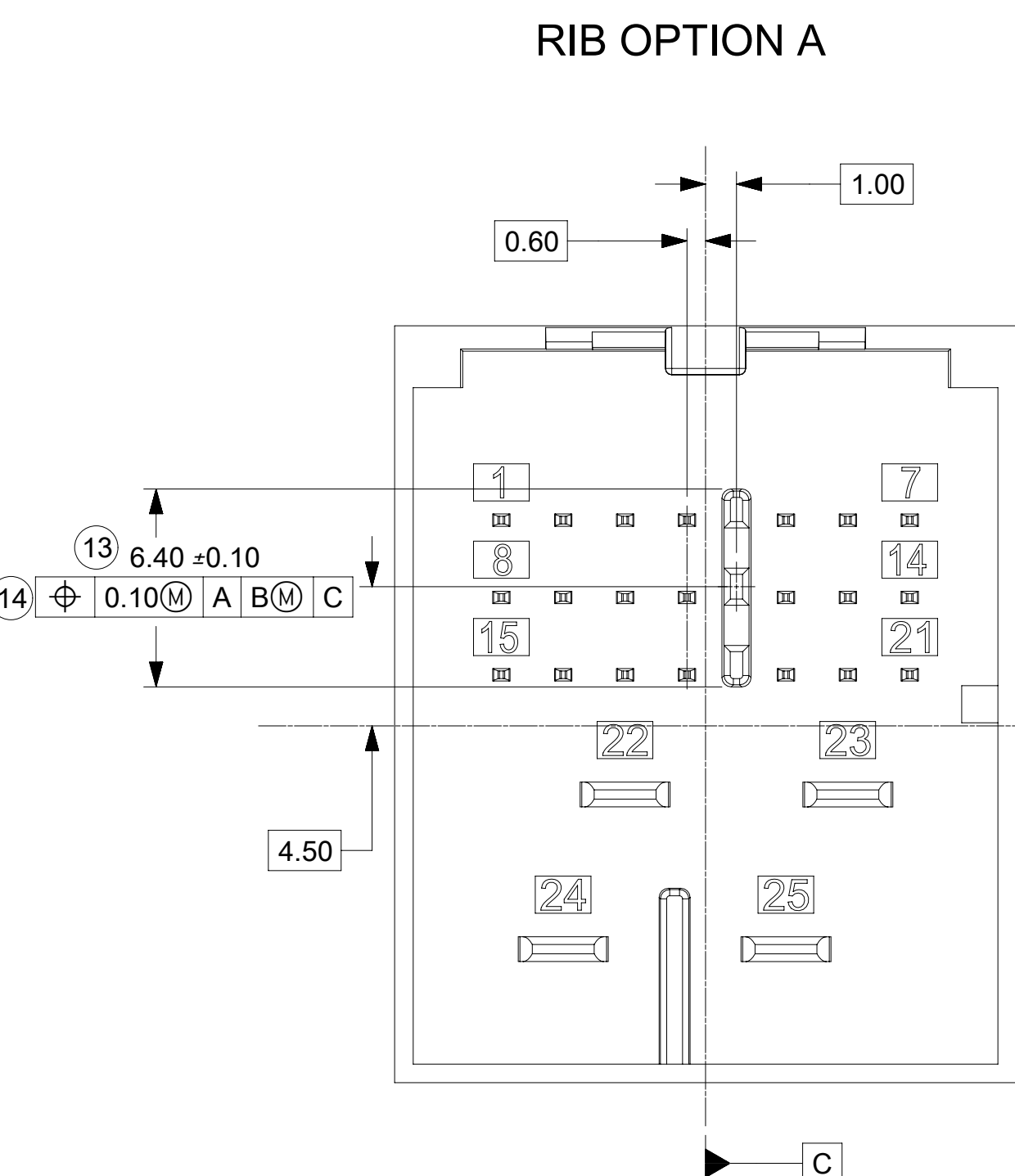
3. DESIGN - MANUFACTURING:

- a. DRAFT TO BE WITHIN TOLERANCE.

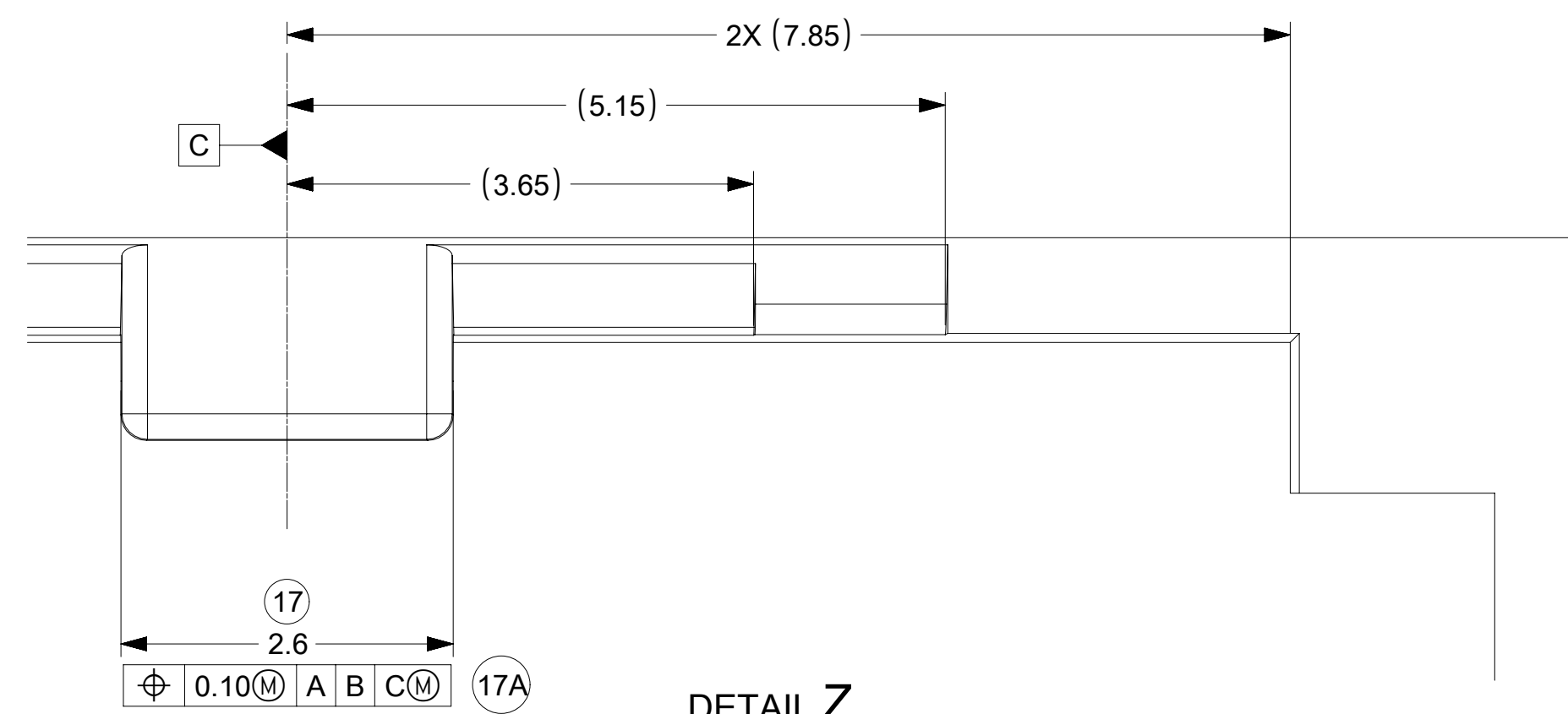
C1	UPDATED BASIC DIMENSIONS IN SECTION B-B ON SHEET 2 ECN: 649575 11/19/2020 YPENG47
C	ADDED 2.8MM BLADE LENGTH VARIANT FOR MATE FORCE REQUIREMENT ADDED NOTE 1.E.1 CHANGE RECORD: 626144 JPATE 10/22/2019
B1	ADDED BALLOONS JCONDON 08/02/2018
B	REMOVED 0.2MM FROM CONNECTOR LOCK TAB FEATURE
A2	ADDED CIRCUIT IDs
A1	ADDED NOTE 1e, MKOWALSKY 7/7/2017
8	GEOMETRY UPDATED , SPEMMARAJU 02/18/2016
7	UAU2016-1146 SAP # 10681629 JCONDON 03/25/2015

INSPECTION BALLOON NUMBER LOG	
PER DRAWING REVISION:	C1
LAST BALLOON NUMBER:	63
DELETED BALLOON NUMBER:	NONE
DELETED BALLOON NUMBER:	NONE

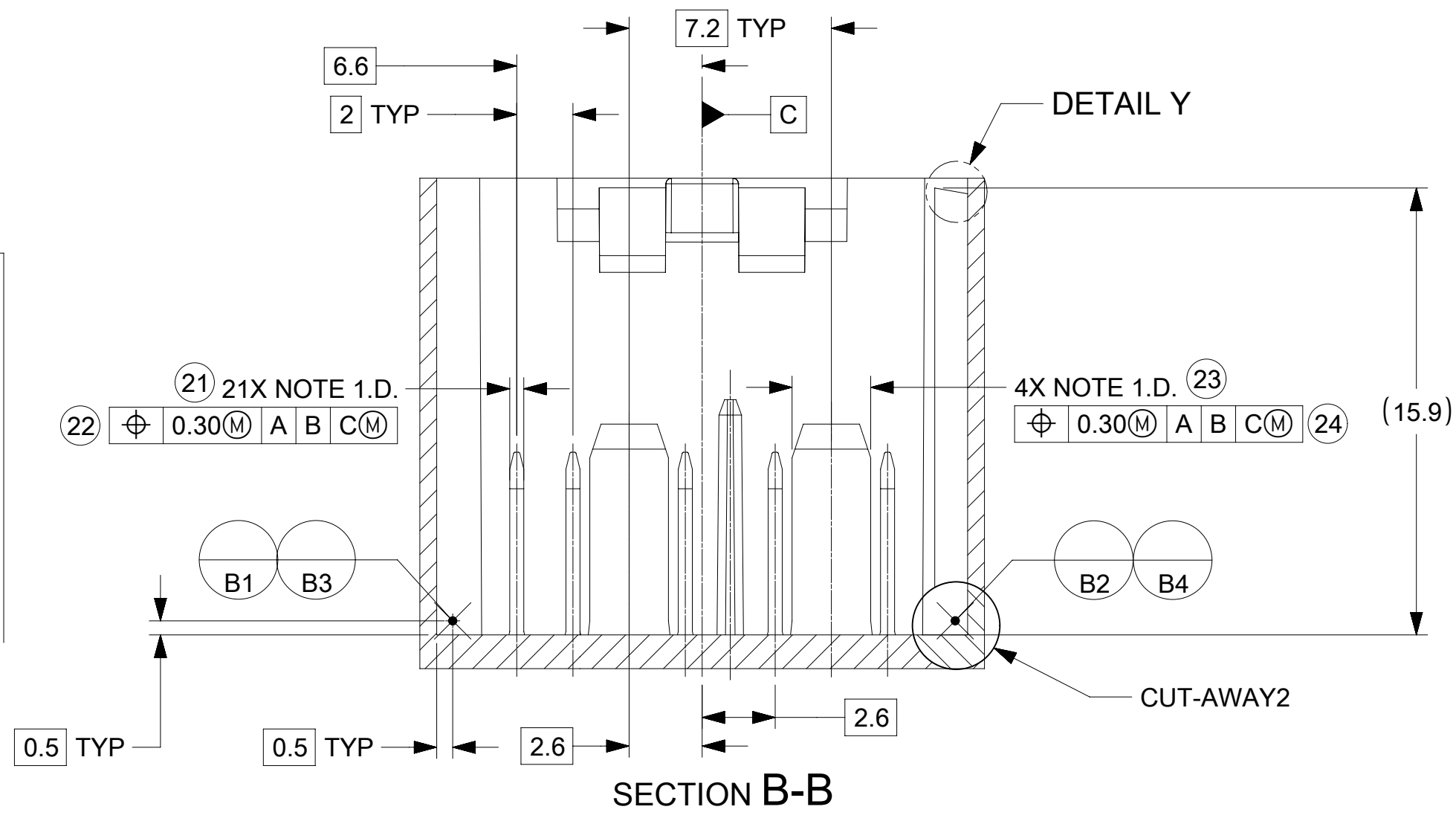
FUNCTIONAL SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION
FA = 0	DIMENSION UNITS: mm SCALE: 5:1
FE = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)
FP = 0	ANGULAR TOL ± °
DIVISIONAL SYMBOLS	4 PLACES ±
	3 PLACES ±
	2 PLACES ±
	1 PLACE ±
	0 PLACES ±
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	THIRD ANGLE PROJECTION
	DRAWING: D-SIZE SERIES: 160027
	CURRENT REV DESC: UPDATED BASIC DIMENSIONS IN SECTION B-B ON SHEET 2
	EC NO: 649575
	DRWN: YPENG47 2020/11/19
	CHK'D: JRUTTER 2020/11/23
	APPR: MVANSLAMBROU 2020/11/25
	INITIAL REVISION:
	DRWN: SPEMMARAJU 2015/11/03
	APPR: KDEKOSKI 2016/03/24
	DOCUMENT NUMBER: SD-160027-002
	DOC TYPE: PSD DOC PART: 000 REVISION: C1
	MATERIAL NUMBER: CUSTOMER: GENERAL MARKET SHEET NUMBER: 1 OF 3



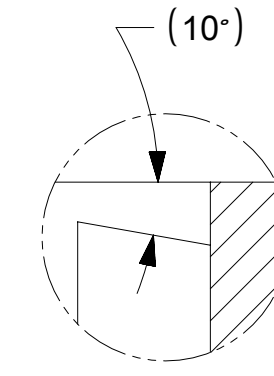




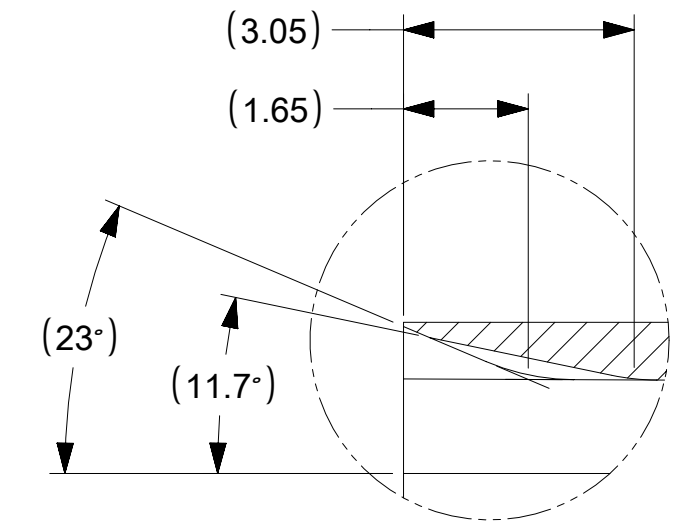
DETAIL Z  
SCALE 20:1



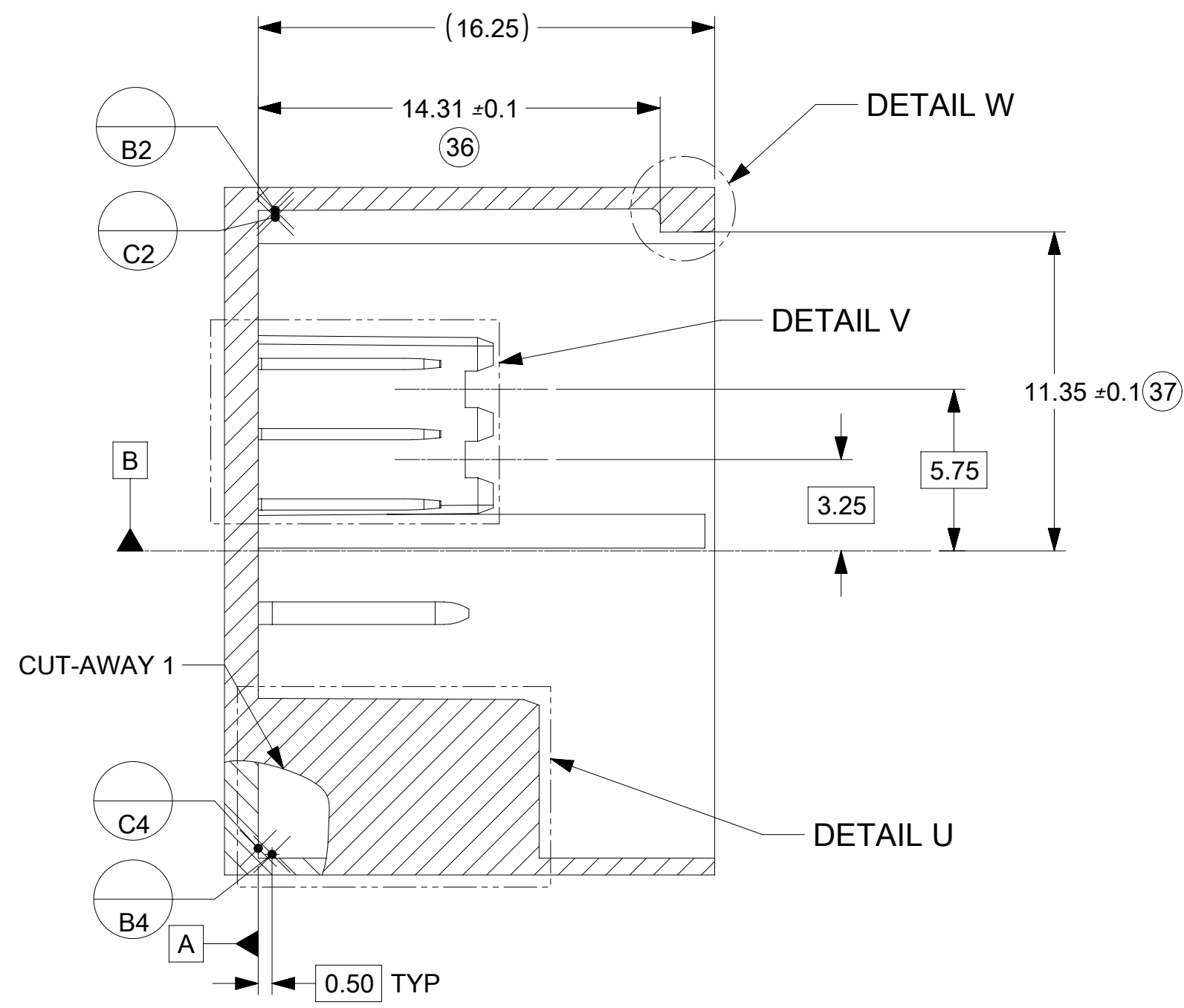
SECTION B-B



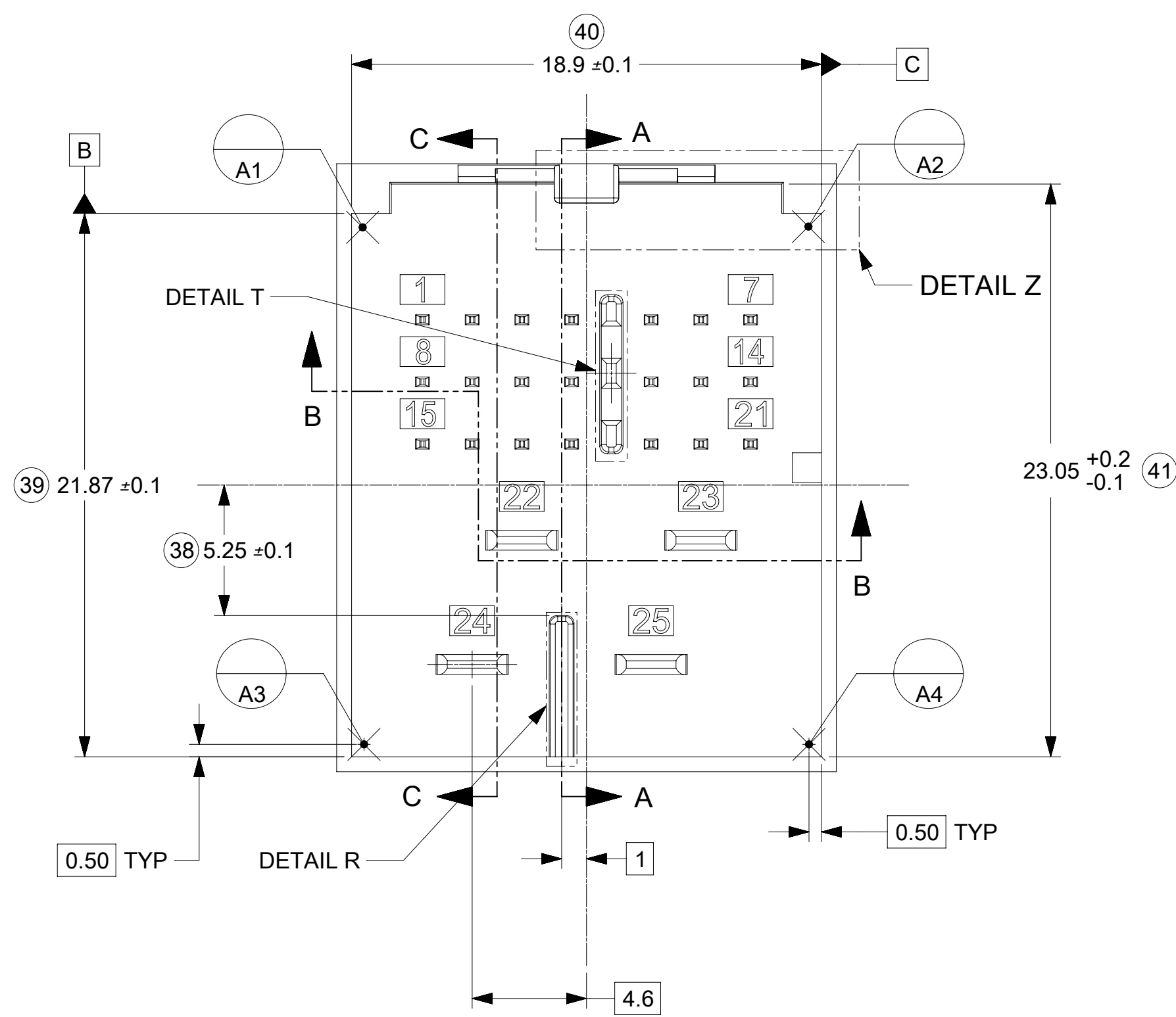
DETAIL Y  
SCALE 15:1



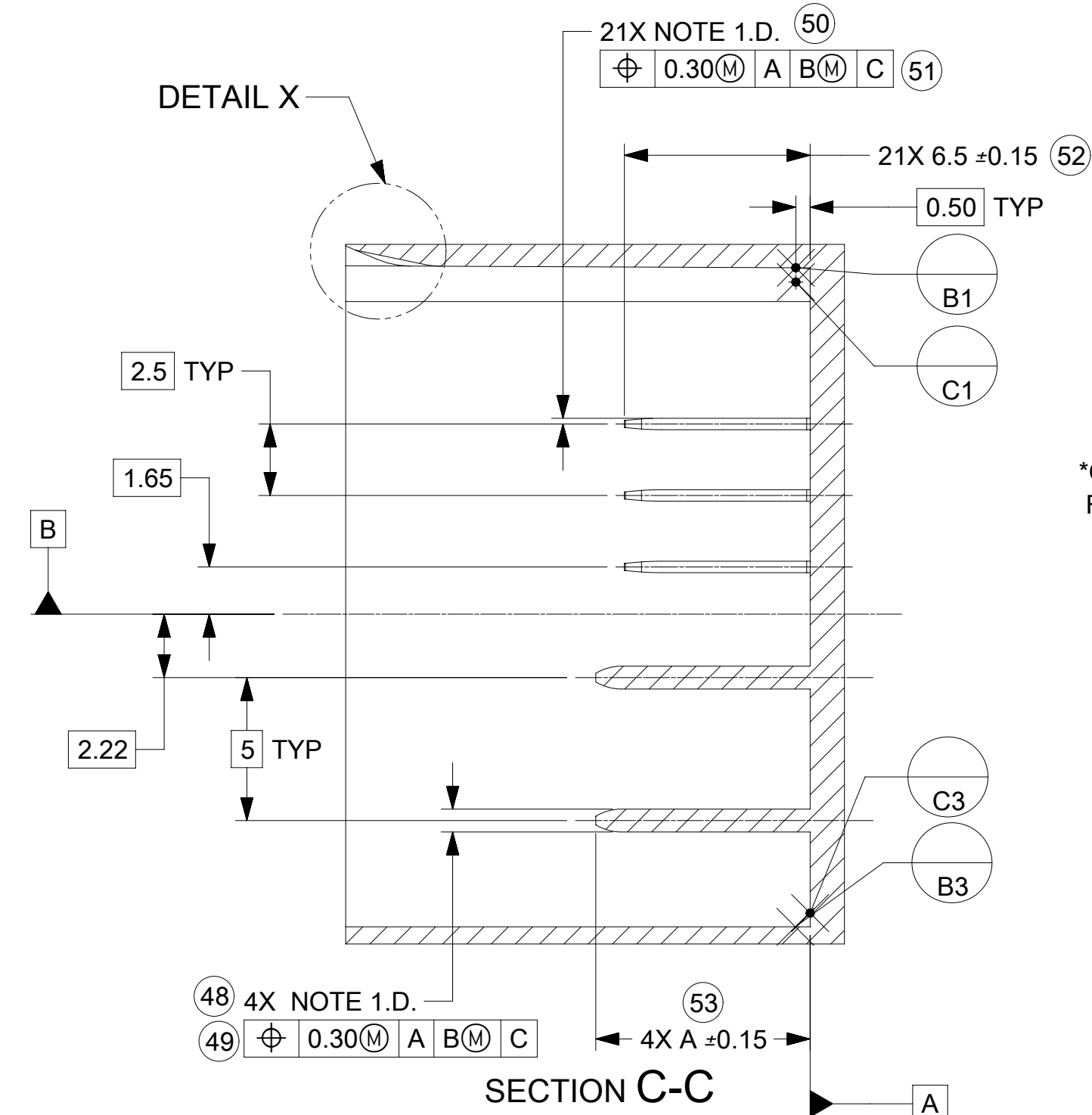
DETAIL X  
SCALE 10:1



SECTION A-A



SECTION C-C

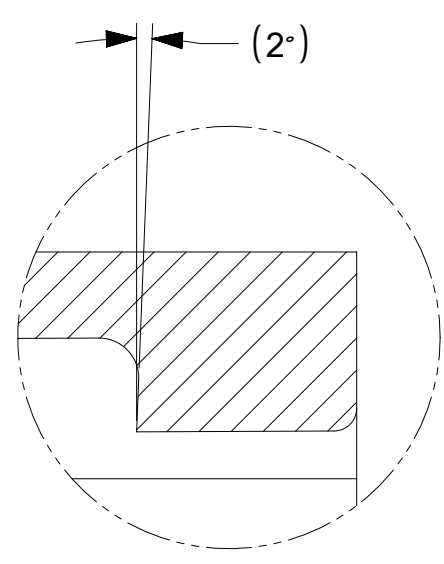


DETAIL T  
SCALE 10:1

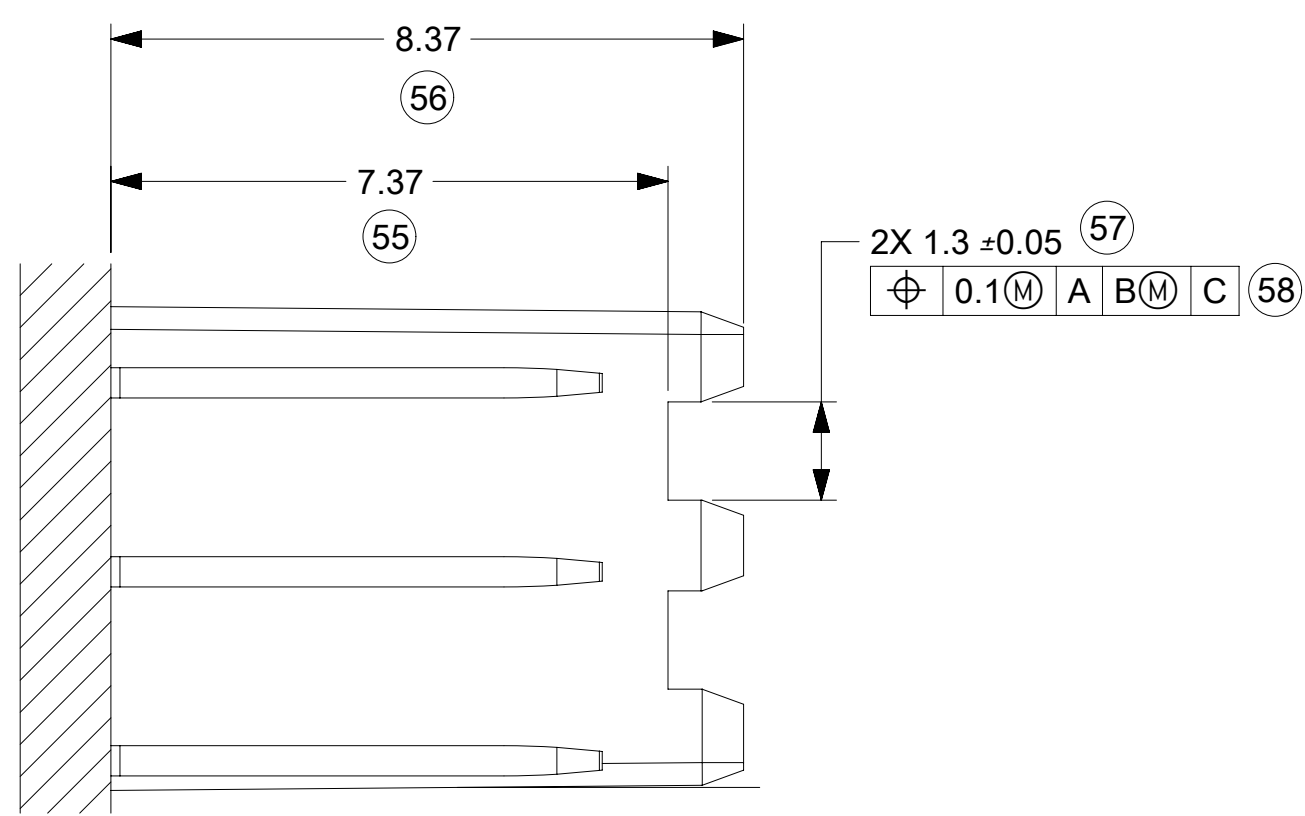
DETAIL R  
SCALE 10:1

CONSTRUCTION	DIM. A (mm)	STATUS
OPTION A	7.5	REVISION B
OPTION B	6.5	REVISION C

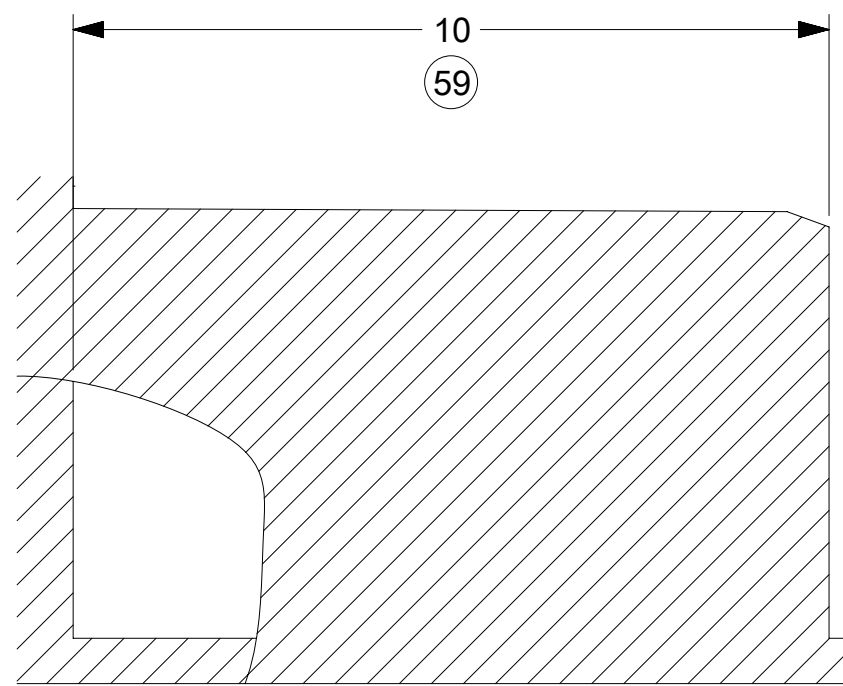
\*OPTION B IS THE PREFERRED CONSTRUCTION FOR ALL NEW HEADERS



DETAIL W  
SCALE 15:1



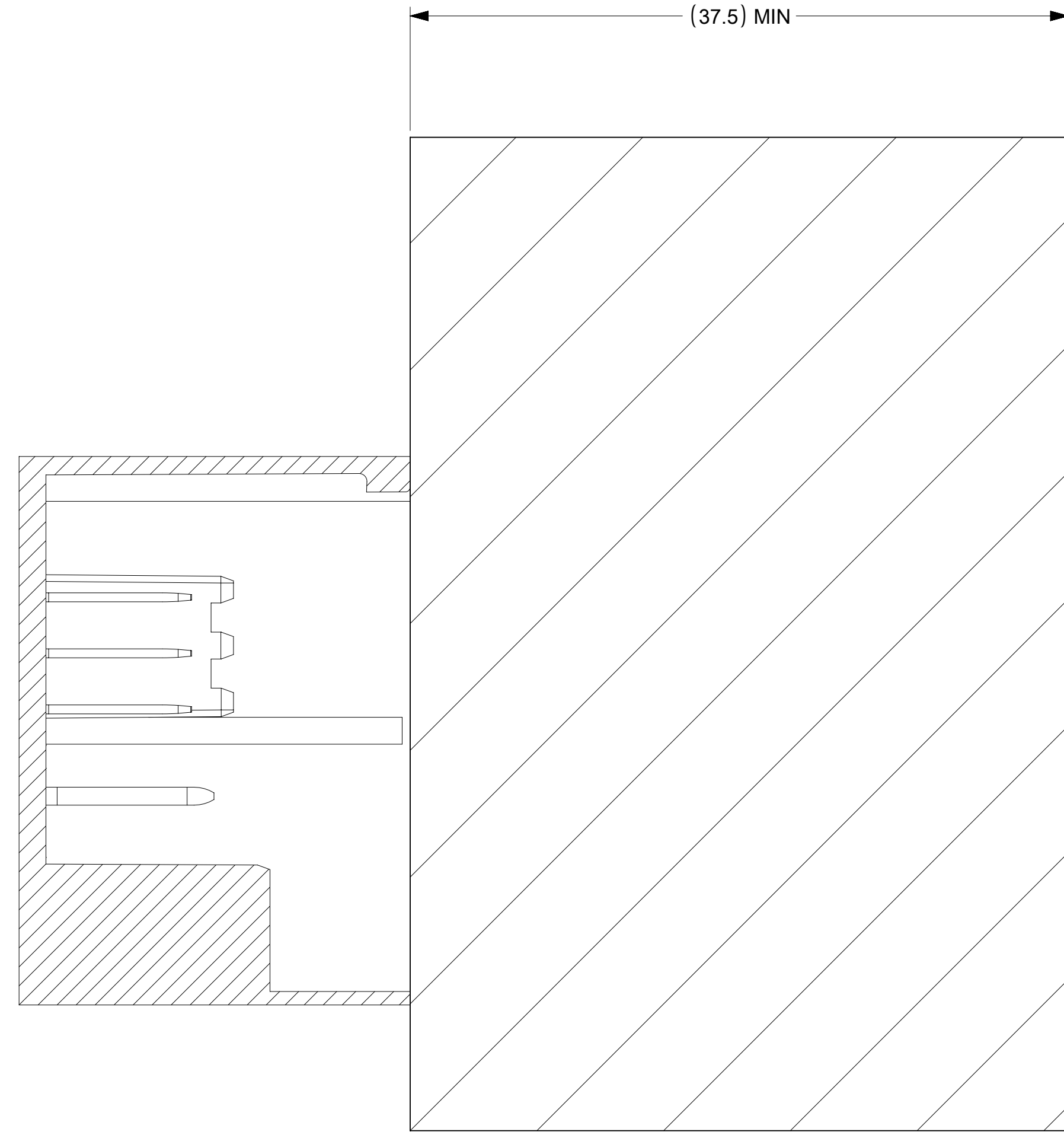
DETAIL V  
SCALE 10:1



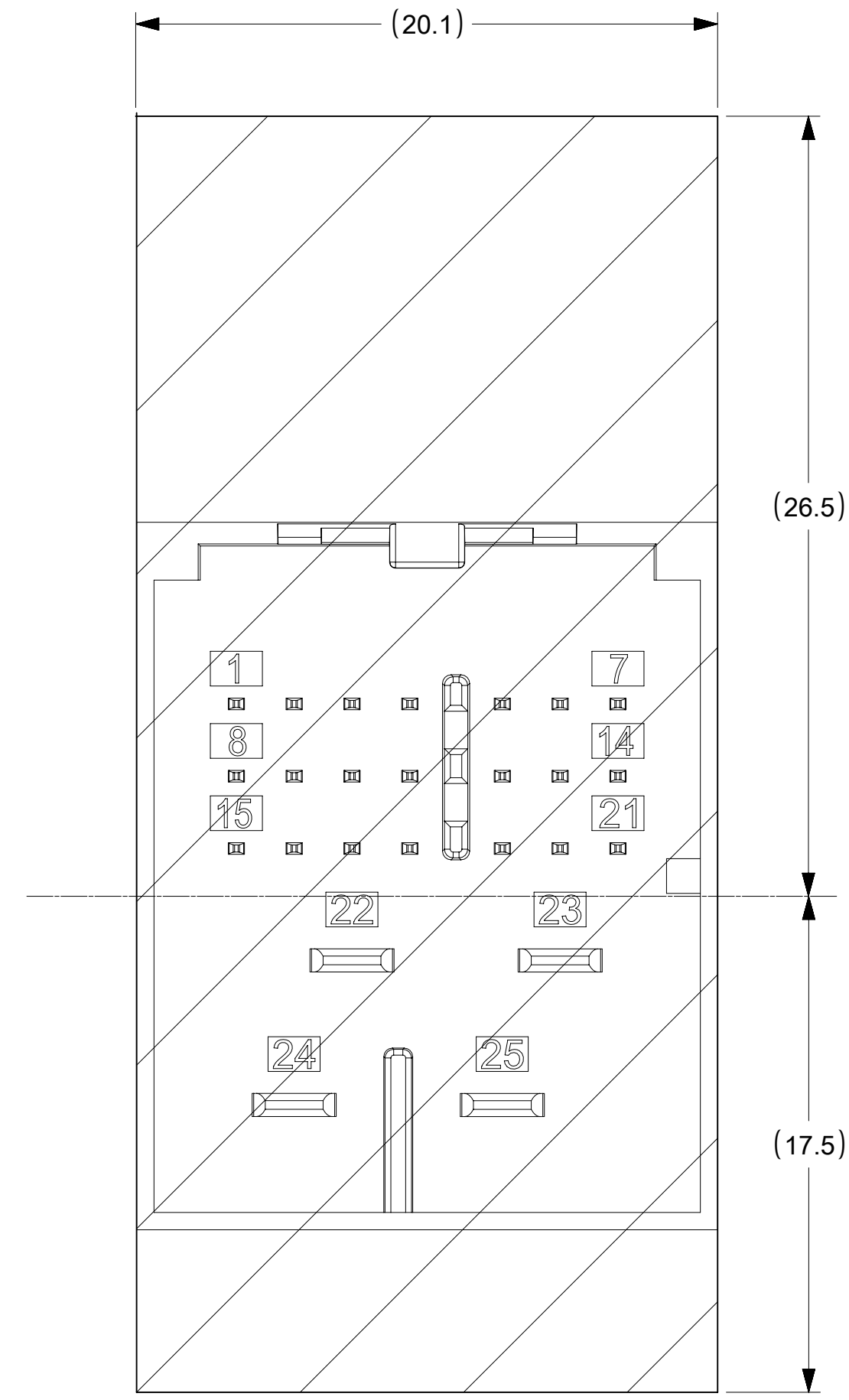
DETAIL U  
SCALE 10:1

FUNCTIONAL SYMBOLS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: UPDATED BASIC DIMENSIONS IN SECTION B-B ON SHEET 2	
$F_A = 0$	mm	SCALE	5:1		
$F_C = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED)				
$F_D = 0$	ANGULAR TOL		±	°	
DIVISIONAL SYMBOLS		4 PLACES	±		
		3 PLACES	±		
		2 PLACES	±		
		1 PLACE	±		
		0 PLACES	±		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	SERIES	
			D-SIZE	160027	
DOCUMENT STATUS		P1		RELEASE DATE	2020/11/25 23:16:39
EC NO:		649575		DRWN:	YPENG47 2020/11/19
CHK'D:		JRUTTER		2020/11/23	
APPR:		MVANSLAMBROU		2020/11/25	
INITIAL REVISION:		DRWN: SPEMMARAJU		2015/11/03	
		APPR: KDEKOSKI		2016/03/24	
DOCUMENT NUMBER		SD-160027-002		DOC TYPE	PSD
DOC PART		000		REVISION	C1
MATERIAL NUMBER		GENERAL MARKET		SHEET NUMBER	
				2 OF 3	

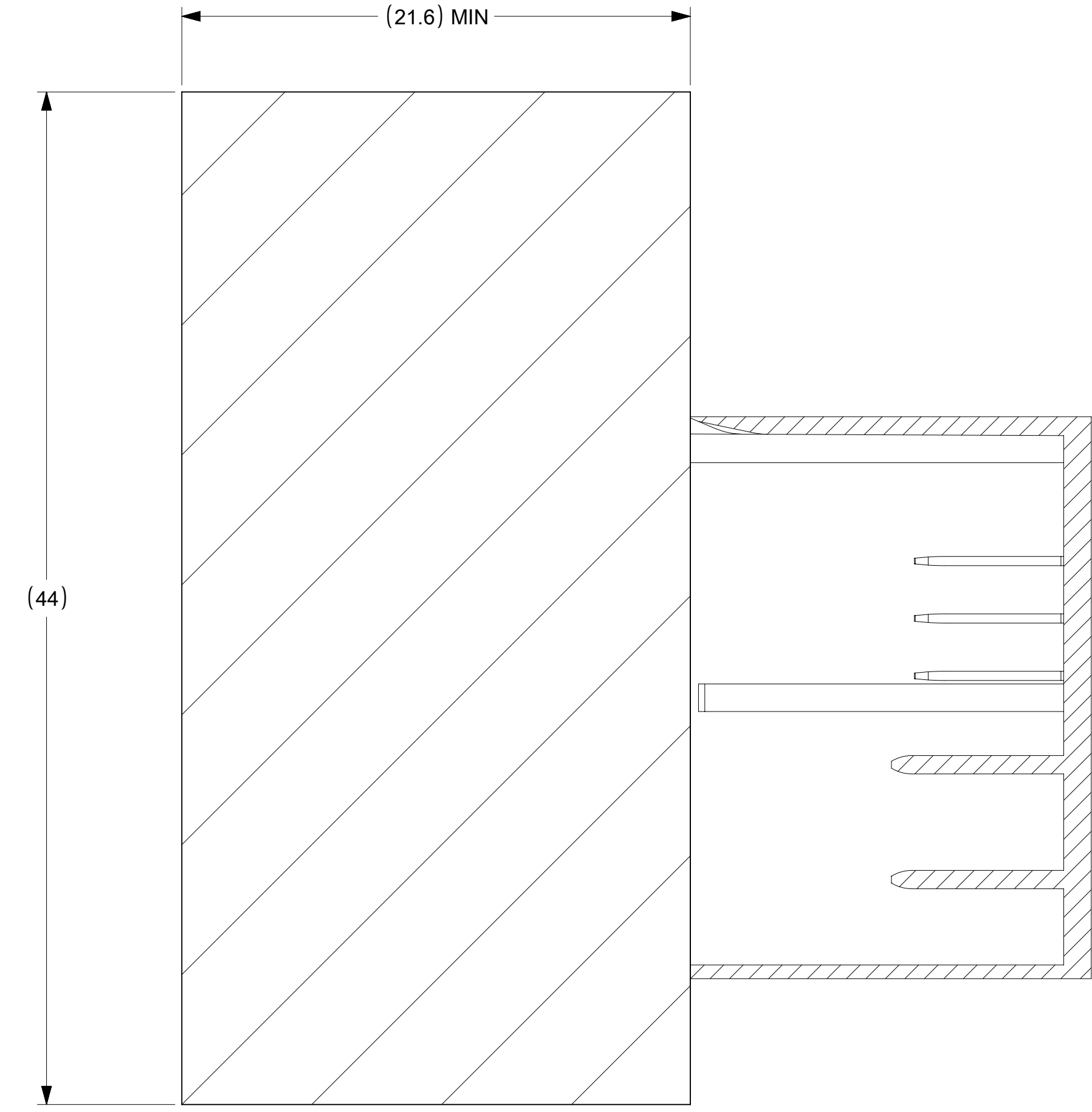
PACKAGE SPACE  
FOR UNMATED  
CONNECTOR



PACKAGE SPACE  
FOR CONNECTOR



PACKAGE SPACE FOR  
MATED CONNECTOR  
WITH COVER



<b>FUNCTIONAL SYMBOLS</b> $F_A = 0$ $F_C = 0$ $F_P = 0$ <b>DIVISIONAL SYMBOLS</b>	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: UPDATED BASIC DIMENSIONS IN SECTION B-B ON SHEET 2		<p>25WAY STAK50H INTERFACE DRAWING</p> <p>PRODUCT CUSTOMER DRAWING</p>	
	DIMENSION UNITS <b>mm</b>	SCALE <b>1:1</b>	EC NO: 649575 DRWN: YPENG47 2020/11/19 CHK'D: JRUTTER 2020/11/23 APPR: MVANSLAMBROU 2020/11/25			DOCUMENT NUMBER <b>SD-160027-002</b>
	GENERAL TOLERANCES (UNLESS SPECIFIED) ANGULAR TOL ± °		INITIAL REVISION: DRWN: SPEMMARAJU 2015/11/03 APPR: KDEKOSKI 2016/03/24			DOC TYPE DOC PART REVISION PSD 000 C1
	4 PLACES ± 3 PLACES ± 2 PLACES ± 1 PLACE ± 0 PLACES ±	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION 		DRAWING SERIES <b>D-SIZE 160027</b>