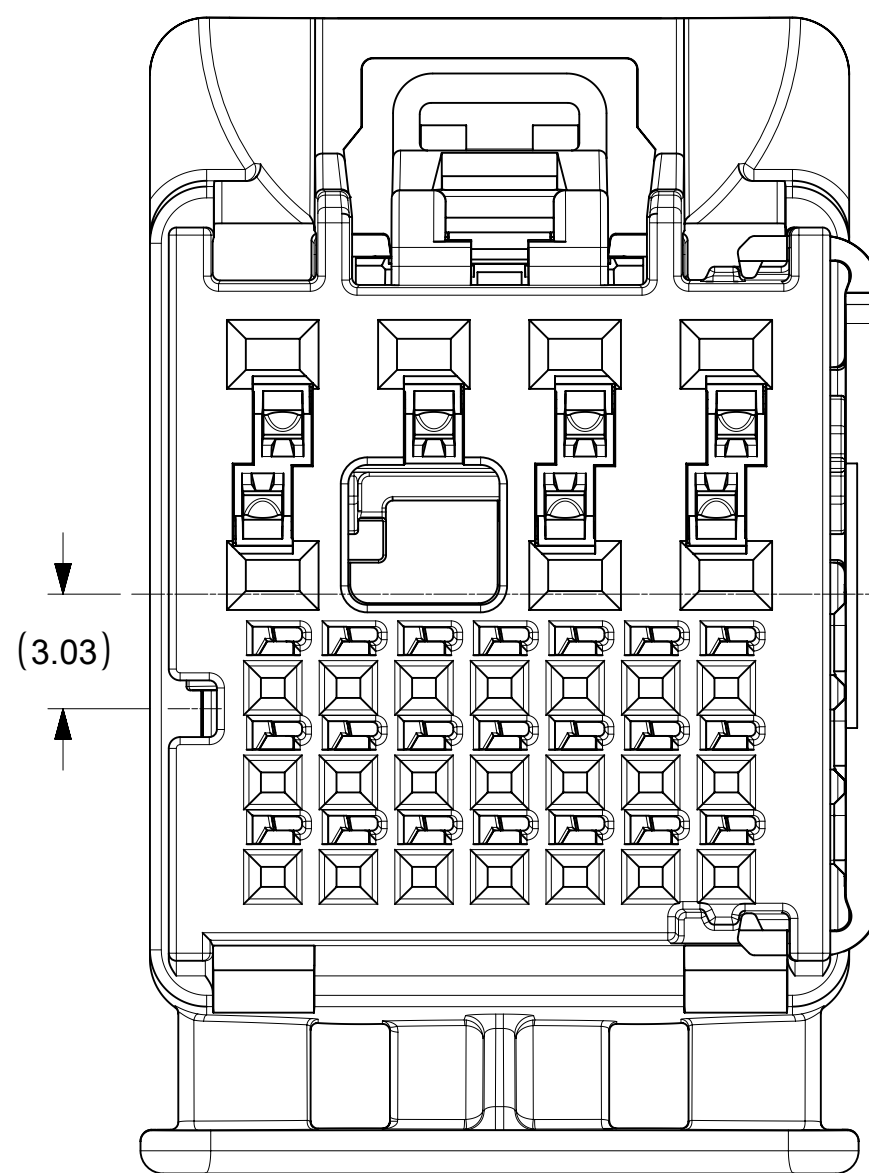
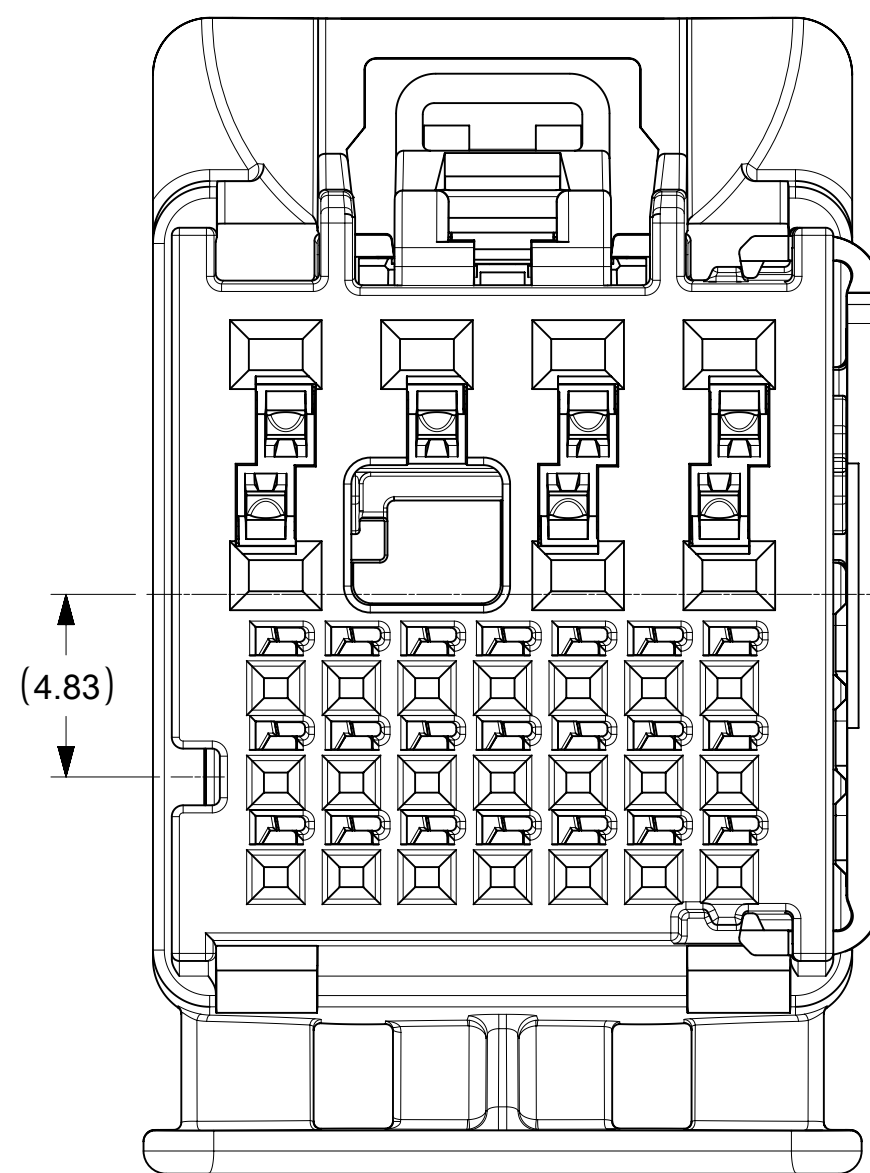


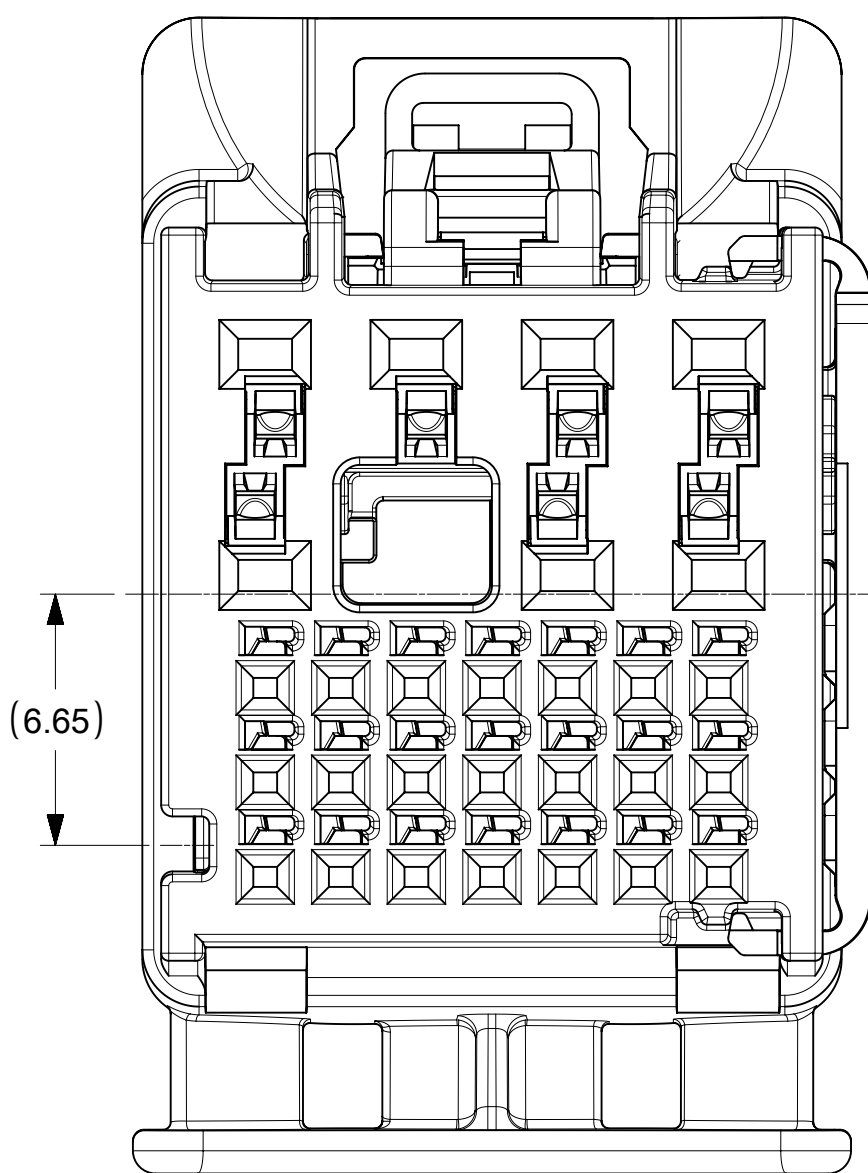
28 WAY CONNECTOR ASSY
KEY 1
P/N 1600140011



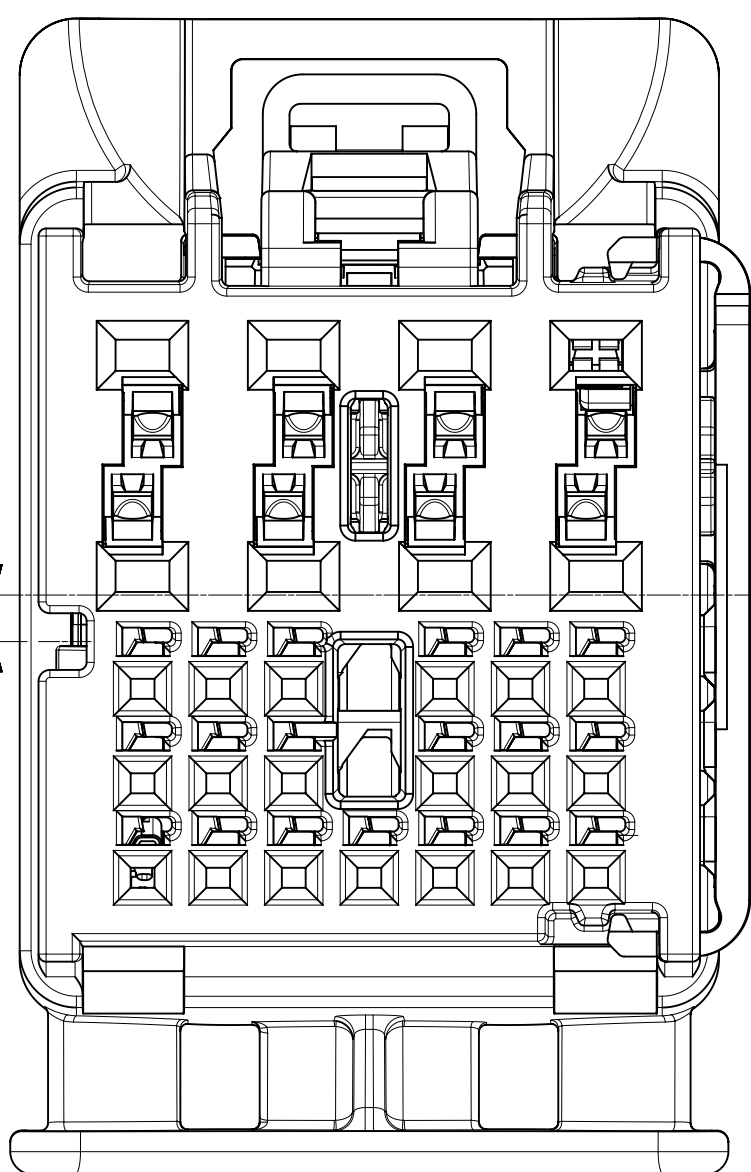
28 WAY CONNECTOR ASSY
KEY 2
P/N 1600140012



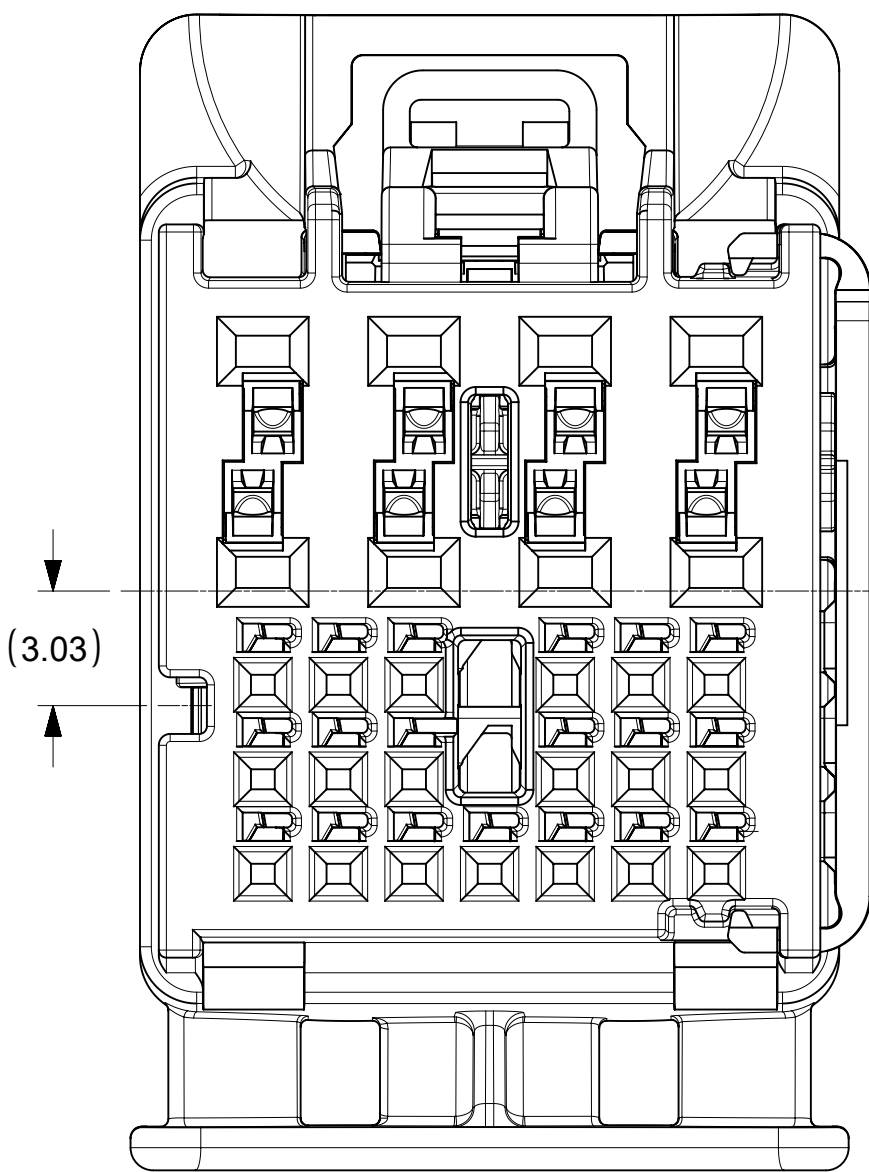
28 WAY CONNECTOR ASSY
KEY 3
P/N 1600140013



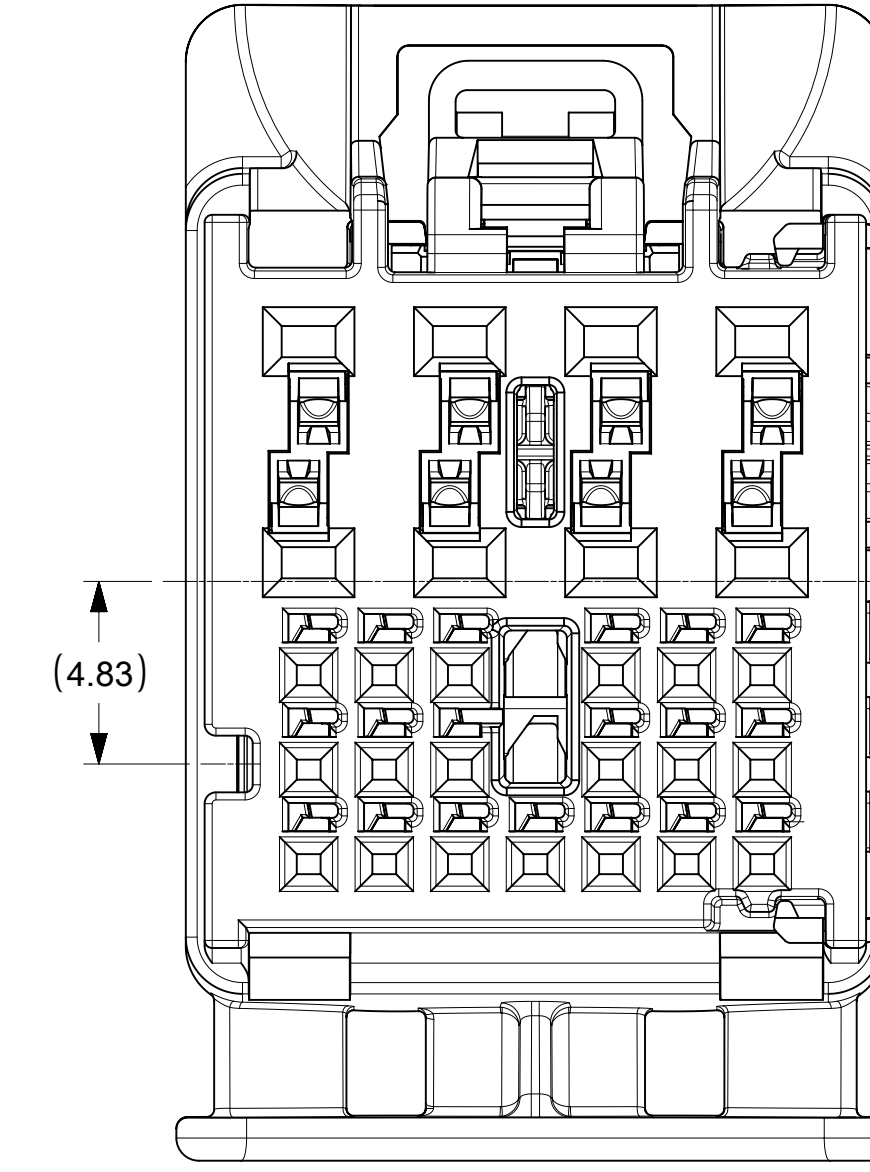
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KEY 4
P/N 1600140014



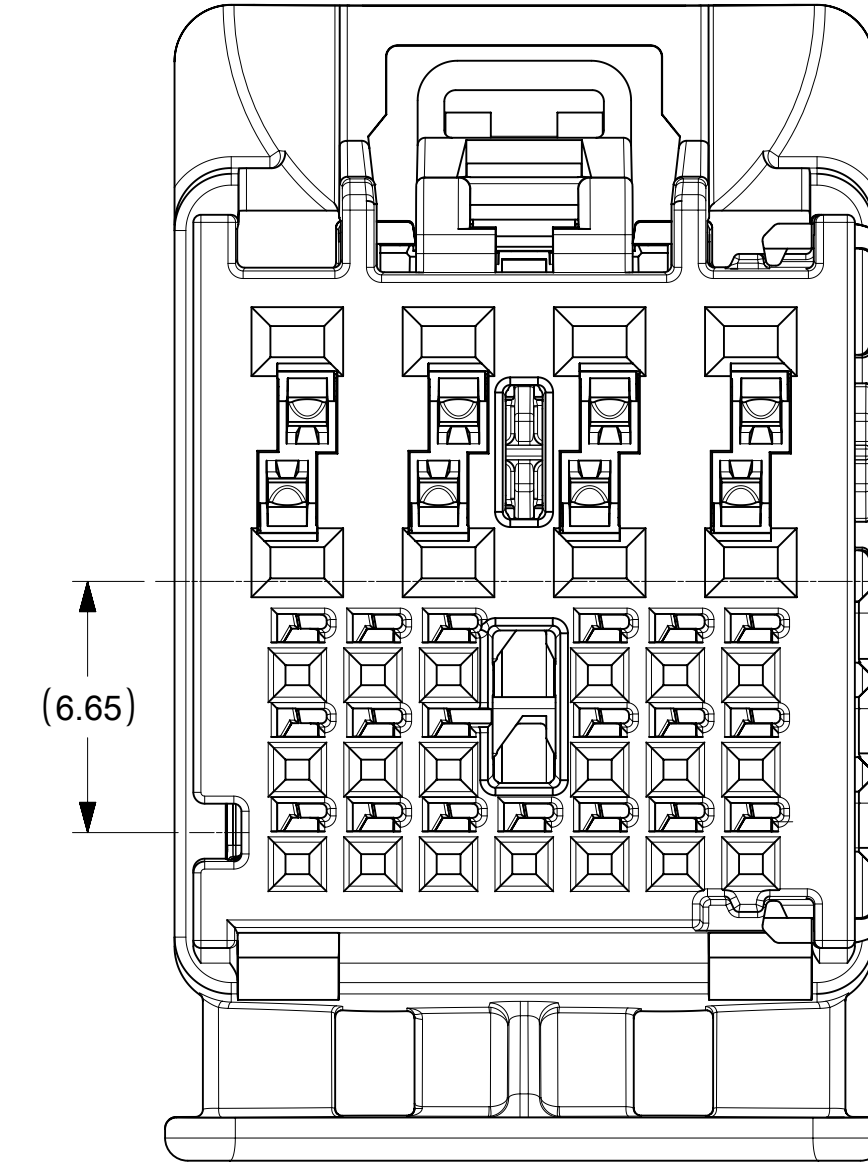
27 WAY CONNECTOR ASSY
KEY 1
P/N 1600290011



27 WAY CONNECTOR ASSY
KEY 2
P/N 1600290012



27 WAY CONNECTOR ASSY
KEY 3
P/N 1600290013



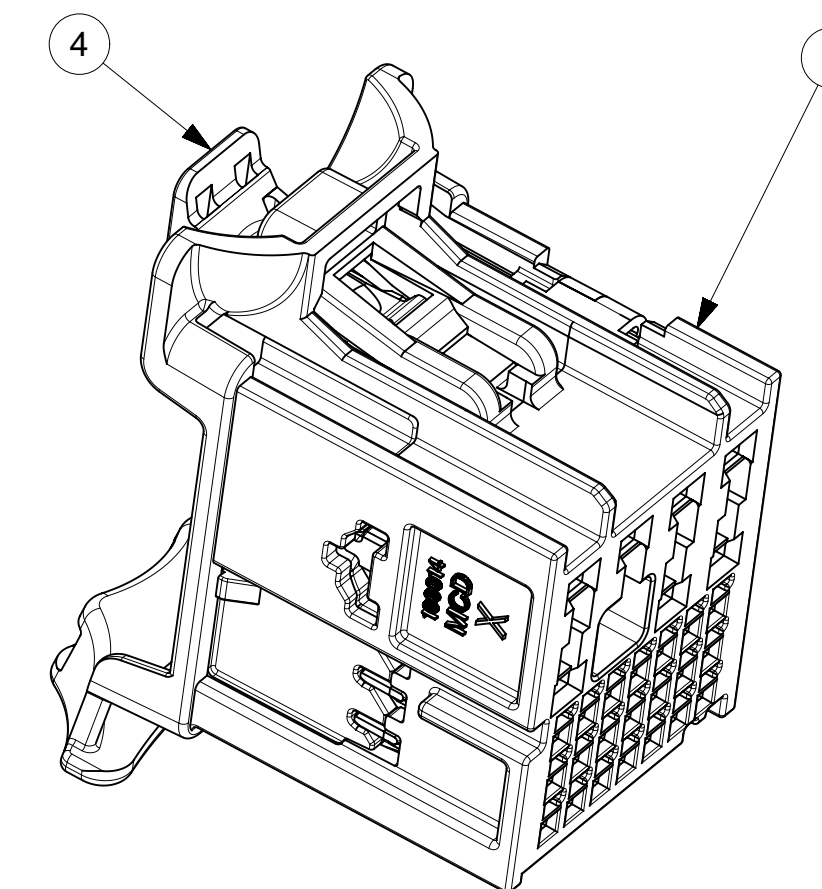
27 WAY CONNECTOR ASSY
KEY 4
P/N 1600290014

PART NUMBER	PLATING	SUPPLIER	WIRE GAGE (mm2)	TERMINAL FAMILY	WIRE SPECIFICATION
200096-0101	TIN PLATING	MOLEX	0.35	TAK FAMILY (0.5 mm)	VW 60306 or GMW 15626 (SEE APPLICATION SPECIFICATION FOR MORE DETAILS)
200096-0201	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)	
35072403	TIN PLATING	DELPHI	0.35 - 0.5	TAXI TERM OCS 1.2	
35072404	TIN PLATING	DELPHI	0.75 - 0.8		
35072405	TIN PLATING	DELPHI	0.8 - 1.0		
35072406	TIN PLATING	DELPHI	1.25 - 1.5		GMW 15626 INSULATION TYPE FLR (REGULAR THIN WALL)
SMSA-A031T-M1.2	TIN PLATING	JST	0.5 - 0.75	MSA 1.2mm TERMINAL	
SMSA-A041T-M1.2	TIN PLATING	JST	1.0 - 1.5	MSA 1.2mm TERMINAL	

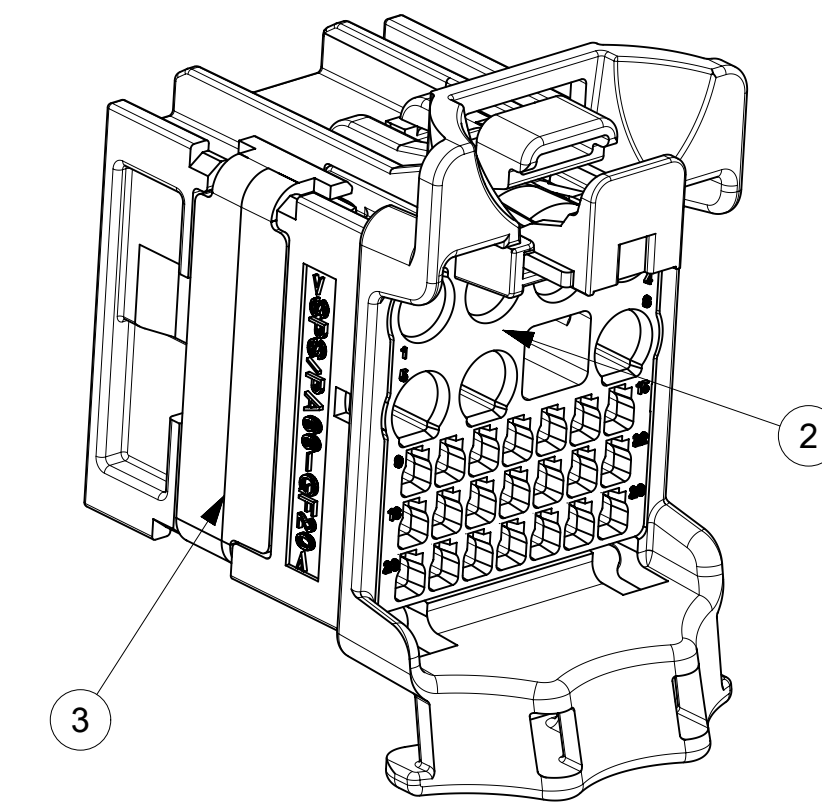
NOTES: VALID UNLESS OTHERWISE SPECIFIED

27WAY/28WAY ARE DEPOPULATED VARIANTS OF THE 29WAY

- GENERAL:
 - APPLICATION SPECIFICATION SEE: AS-160014-001
 - PRODUCT SPECIFICATION SEE: PS-160014-001
 - PACKAGING SPECIFICATION PER MOLEX DRAWING: PK-31302-266
 - PARTS MUST BE IN COMPLIANCE TO MOLEX CHEMICAL SUBSTANCES FOR PRODUCTS AND PACKAGING SPECIFICATION: ES-40000-5016
 - DATA MUST BE SUBMITTED UNDER THE MOLEX PART NUMBER TO IMDS (COMPANY ID#13255)
- DESIGN - MATERIALS:
 - SEE BOM TABLE
- DESIGN - GEOMETRY:
 - ALL GRAPHIC DATA IS BASIC (NO TOLERANCE) AND MUST BE TAKEN FROM THE DATA FILE AT ITS LATEST REVISION.
 - PRODUCT DESIGN MODEL NUMBER(S): SEE BOM TABLE
 - GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5-2009
 - EDGES AND UNDIMENSIONED DETAILS PER ISO13715
 - CORNERS SHOWN AS SHARP TO BE R 0.2 MAX.
 - MARKED TEXT TO INCLUDE RECYCLING CODE, CAVITY ID, VENDOR IDENTIFICATION, AND CUSTOMER MATERIAL NUMBER.
 - 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
- DESIGN - MANUFACTURING:
 - VISUAL DEFECTS SHALL MEET COSMETIC STANDARD PS-45499-002 (Class B)



SCALE 3:1



SCALE 3:1

MOLEX ASSEMBLY PART NO.'S	CIRCUIT COUNT	KEY	OUTER SHROUD COLOR	COMPONENTS						
				ITEM 1				ITEM 2	ITEM 3	ITEM 4
				OUTER SHROUD KEY 1	OUTER SHROUD KEY 2	OUTER SHROUD KEY 3	OUTER SHROUD KEY 4	INNER HOUSING	ISL	CPA
1600140011	28	1	DARK GRAY	SPS/PA66-GF20 1600140511	SPS/PA66-GF20 1600140512	SPS/PA66-GF20 1600140513	SPS/PA66-GF20 1600140514	SPS/PA66-GF20 1600140701	SPS-GF30 1600140601	PA66-GF50 1600140703
1600140012	28	2	LT GREEN A	1	1			STONE GRAY 1	1	1
1600140013	28	3	LT GRAY			1		STONE GRAY 1	1	1
1600140014	28	4	BLACK				1	STONE GRAY 1	1	1
1600290011	27	1	BLACK	1600290511	1600290512	1600290513	1600290514	1600290701	1600290601	1600140703
1600290012	27	2	LT GREEN B	1	1			DARK GRAY 1	1	1
1600290013	27	3	LT BLUE B			1		DARK GRAY 1	1	1
1600290014	27	4	PURPLE C				1	DARK GRAY 1	1	1

INSPECTION BALLOON NUMBER LOG
PER DRAWING REVISION : A5
LAST BALLOON NUMBER: 2
ADDED BALLOON NUMBER: NONE
DELETED BALLOON NUMBER: NONE

A5	UPDATED DELPHI 1.2 TERMINAL PNS 10-Apr-2020 YPENG47 ECN 635661
A4	UPDATED ISL TO PRE-LOCK(SHIPMENT) STATUS 31-Mar-2020 YPENG47 ECN 635045
REVISION	DESCRIPTION

FUNCTIONAL SYMBOLS FA = 0 FE = 0 FP = 0	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: UPDATED DELPHI 1.2 TERMINAL PNS		
	DIMENSION UNITS: mm	SCALE: 5:1	GENERAL TOLERANCES (UNLESS SPECIFIED)		
DIVISIONAL SYMBOLS	ANGULAR TOL ± 3.0°		4 PLACES ±		
	3 PLACES ±		2 PLACES ± 0.3		
1 PLACE ± 0.3		0 PLACES ± 0.3			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS
THIRD ANGLE PROJECTION		DRAWING SERIES: D-SIZE 160014			
MATERIAL NUMBER: 1600140011		CUSTOMER: GENERAL MARKET		SHEET NUMBER: 1 OF 2	

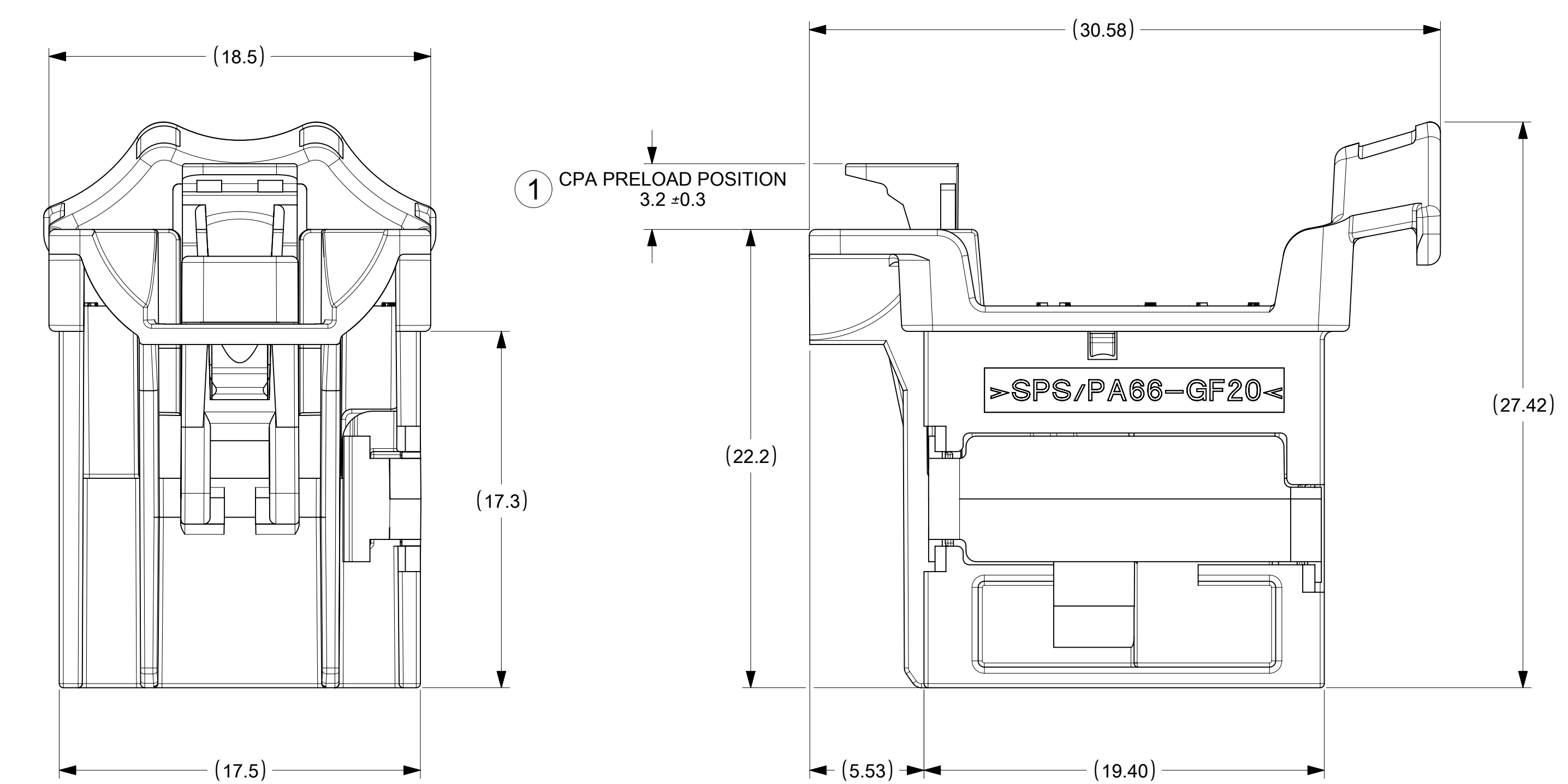
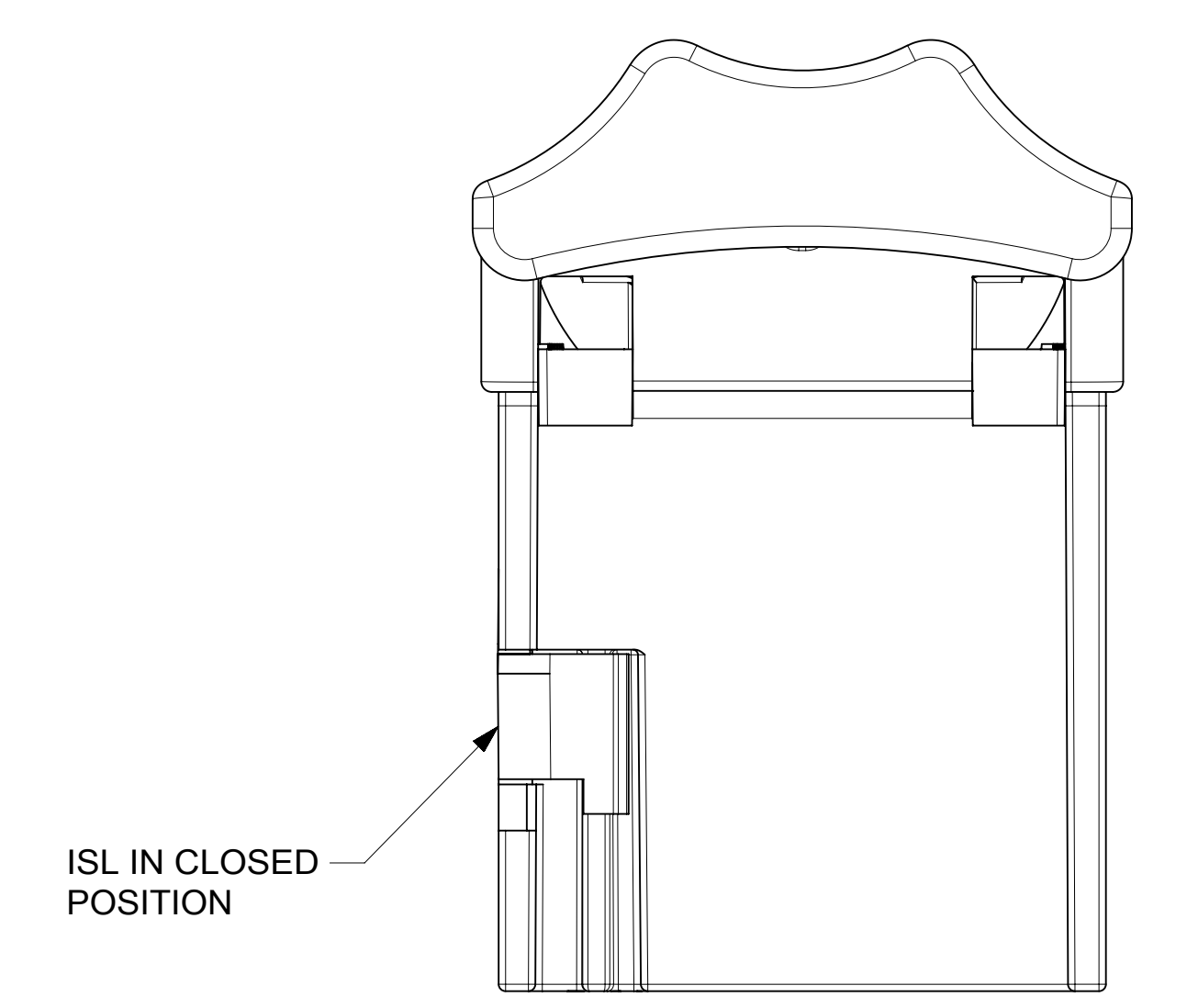
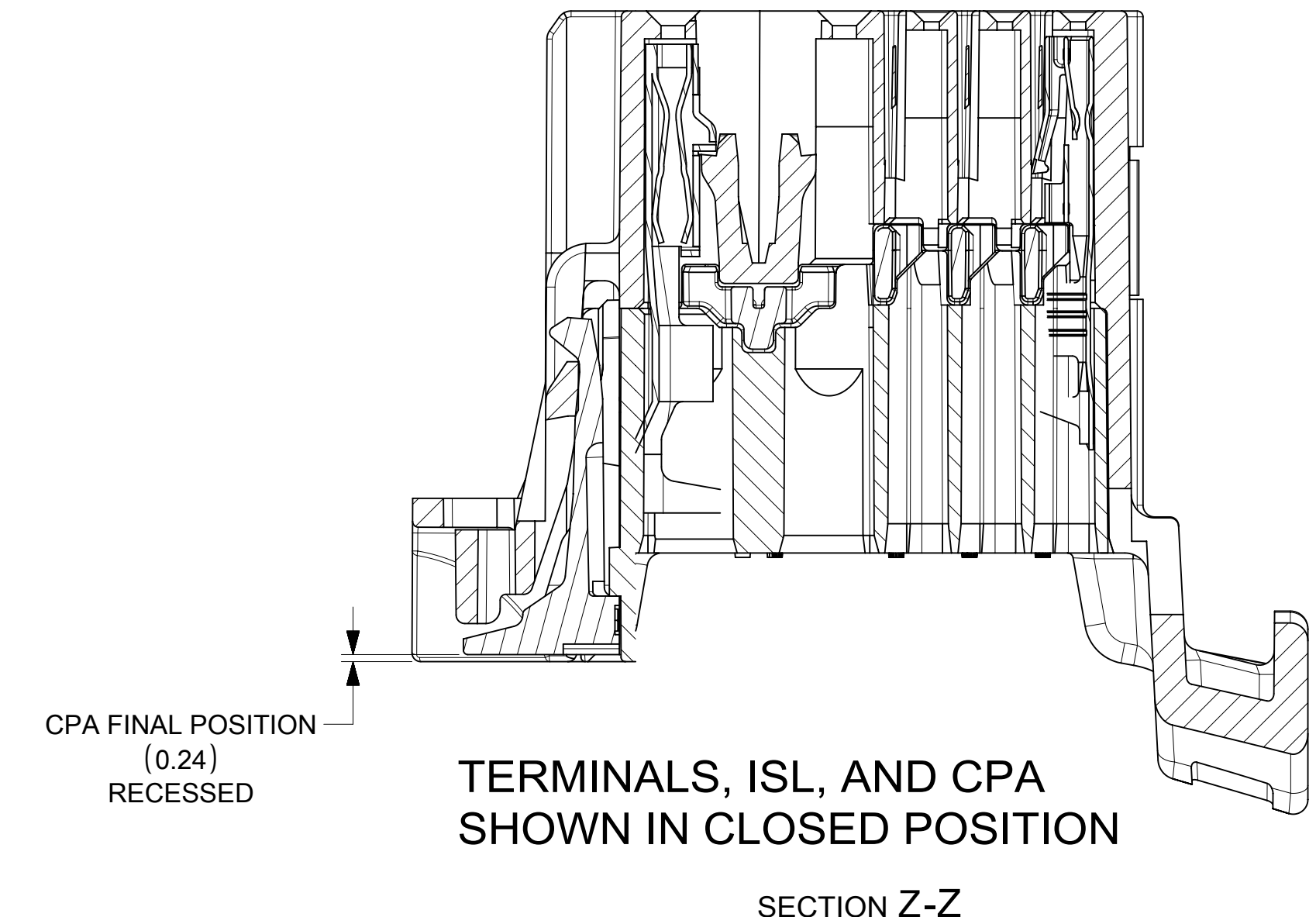
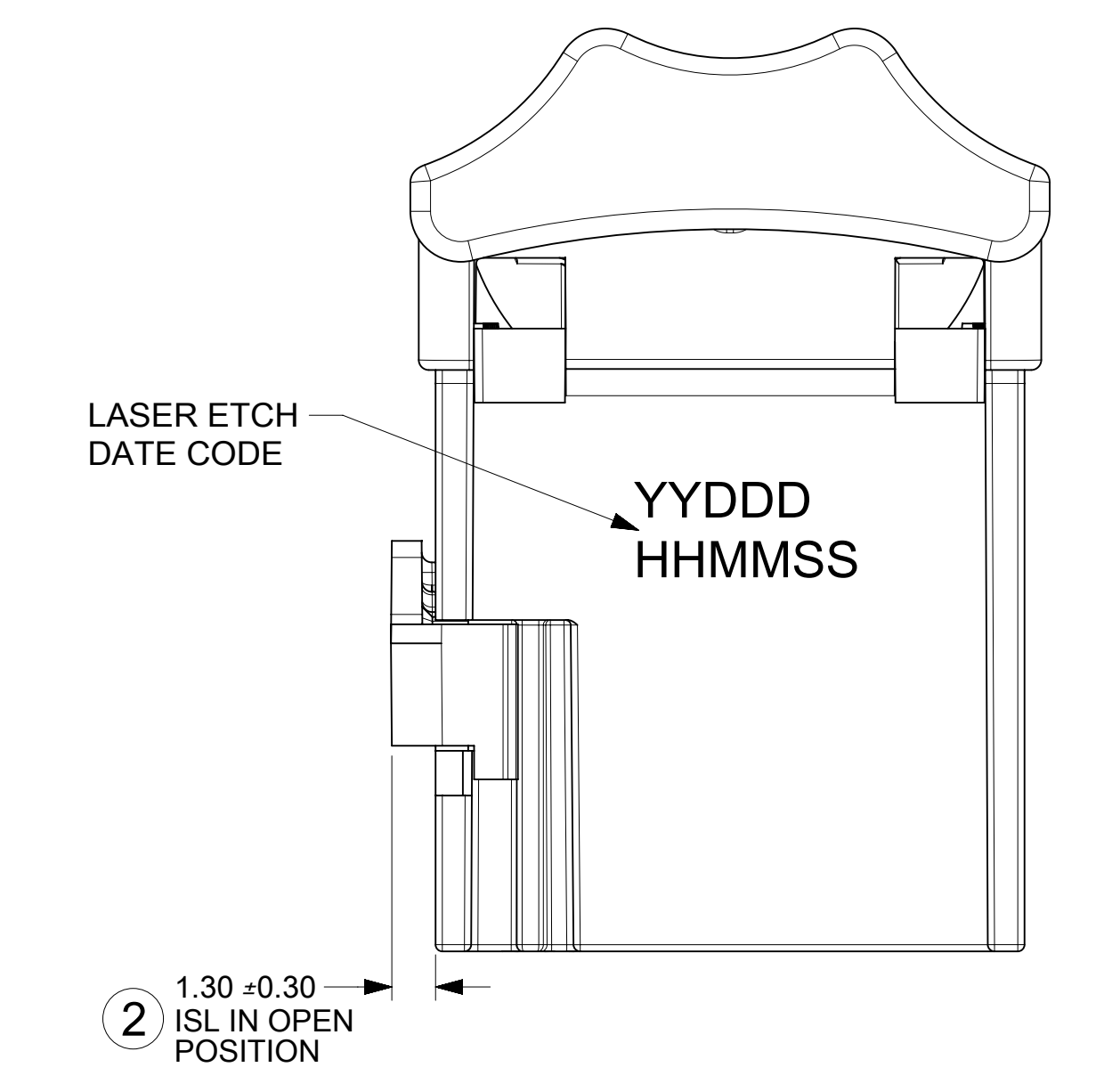
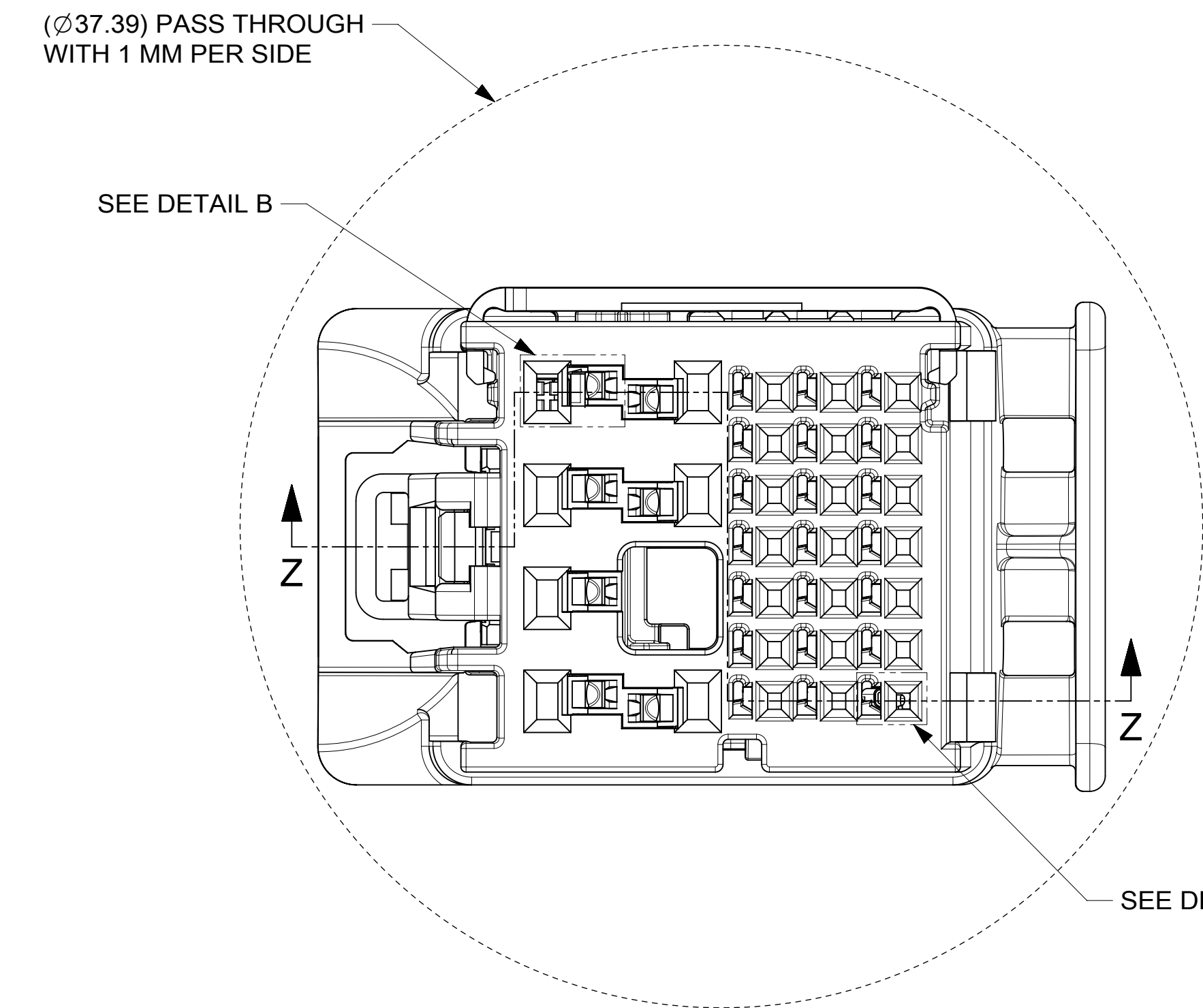
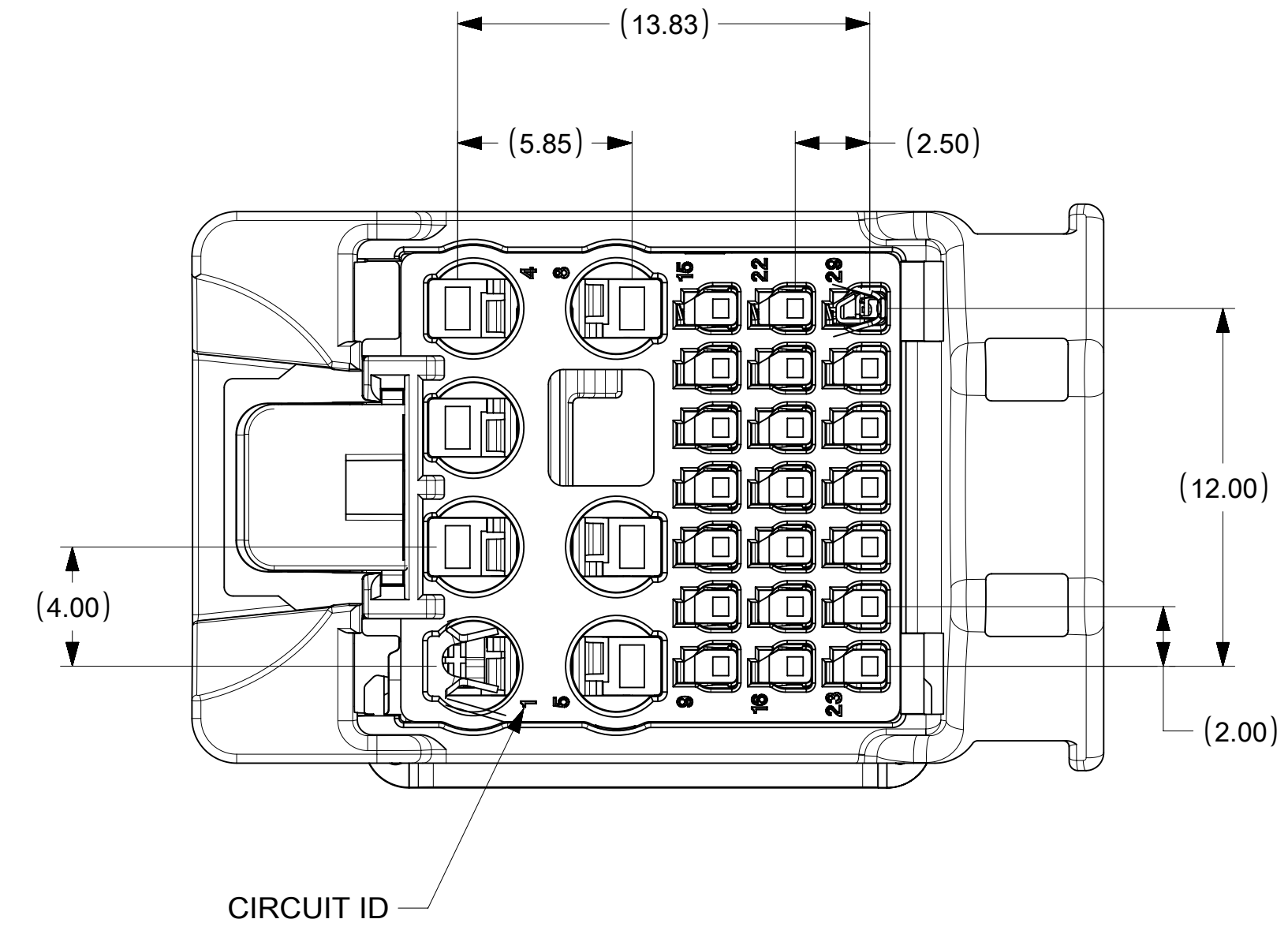
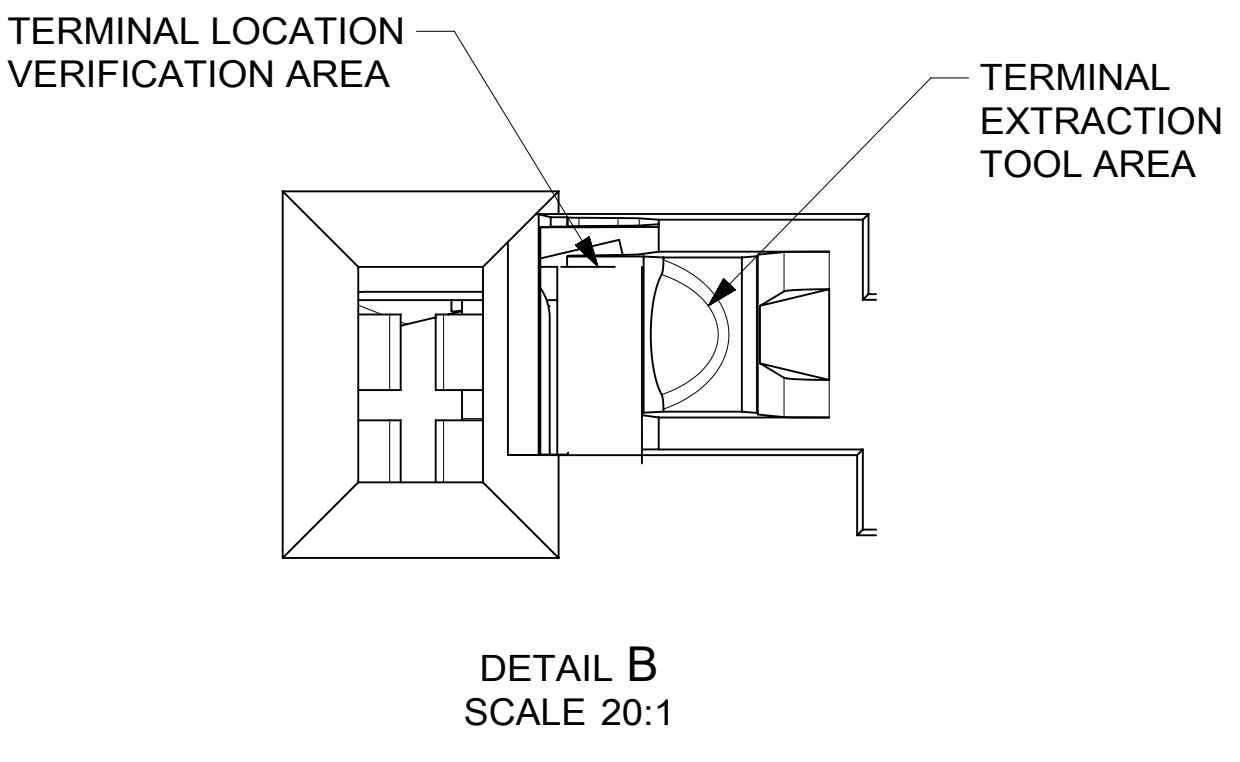
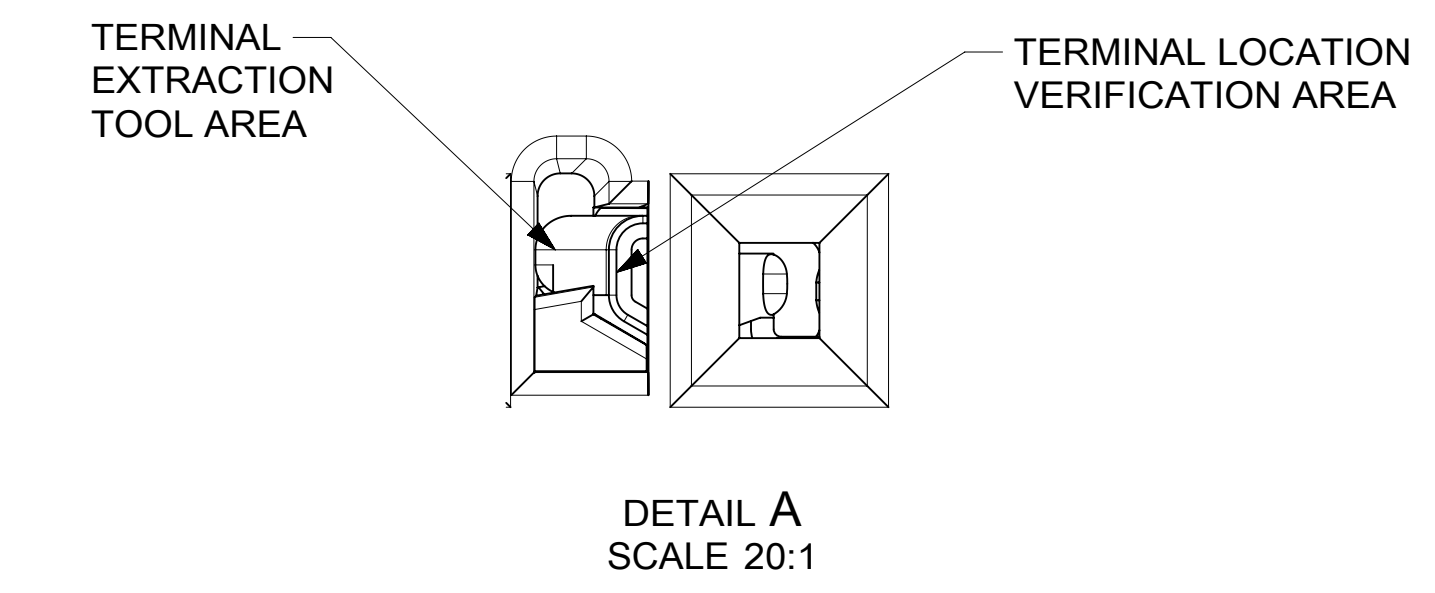
molex

28 WAY STAK50H HYBRID ASSEMBLY
CONNECTOR ASSEMBLY

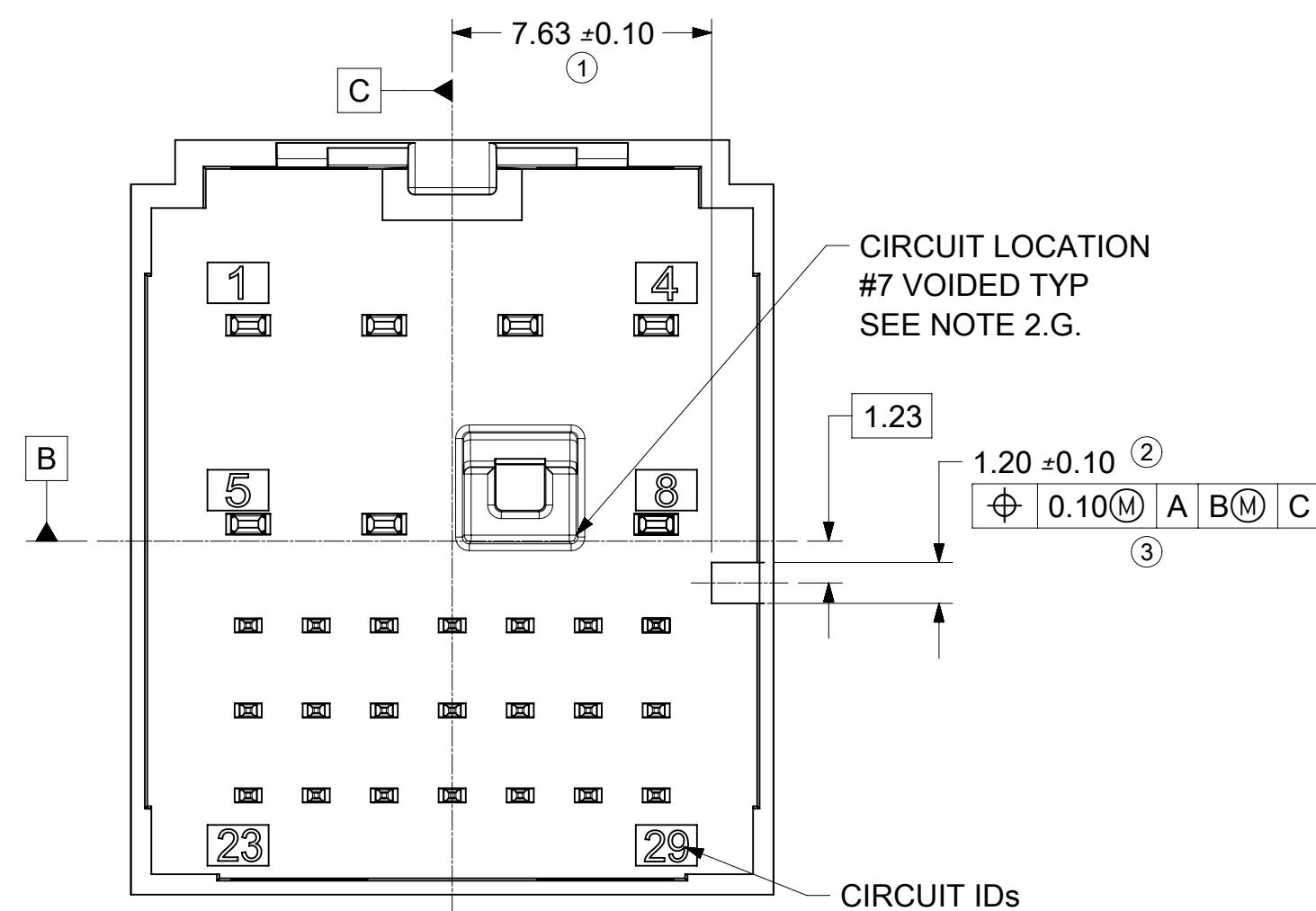
PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
1600140011	PSD	000	A5

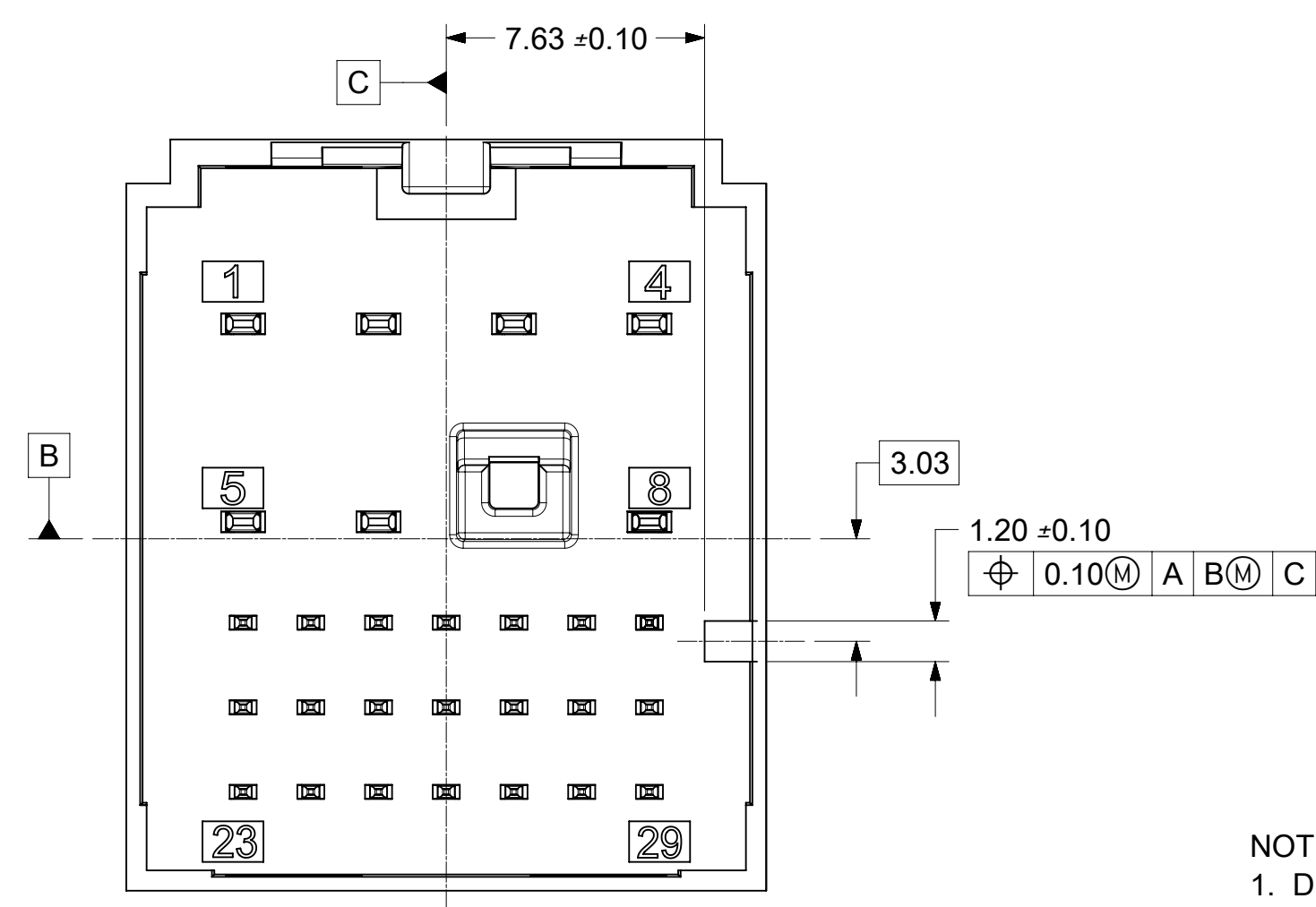
NOTE: 28 WAY CONNECTOR VARIANT SHOWN.
DIMENSIONS APPLY TO ALL CONNECTOR VARIANTS OF 29 WAY



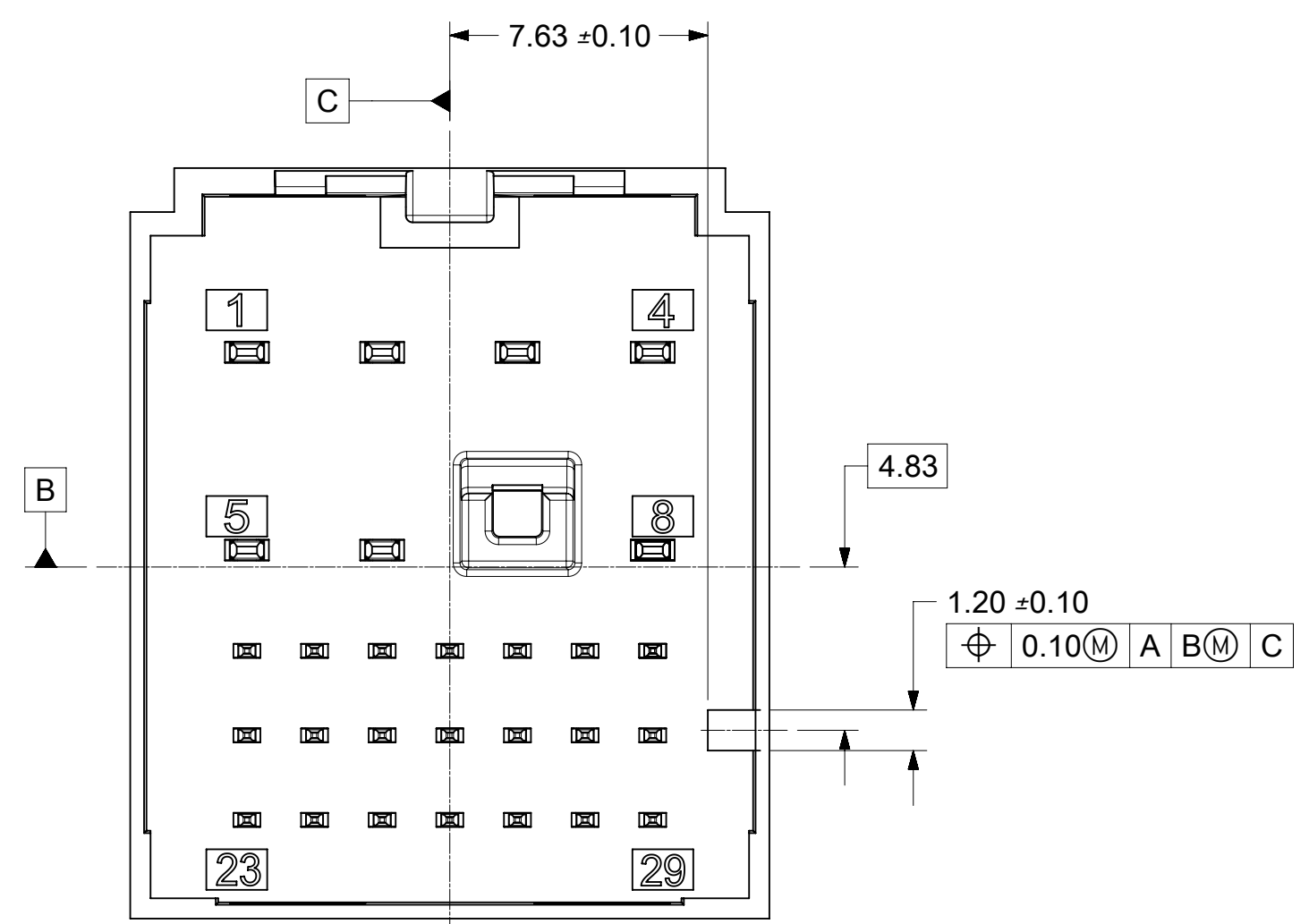
FUNCTIONAL SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
	DIMENSION UNITS	SCALE	CURRENT REV DESC: UPDATED DELPHI 1.2
$F_A = 0$	mm	5:1	TERMINAL PINS
$F_E = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		
$F_P = 0$	ANGULAR TOL $\pm 3.0^\circ$		
DIVISIONAL SYMBOLS	4 PLACES	\pm	EC NO: 635661
	3 PLACES	\pm	DRWN: YPENG47 2020/04/10
	2 PLACES	± 0.3	CHK'D: JCONDON 2020/04/15
	1 PLACE	± 0.3	APPR: JCONDON 2020/04/15
	0 PLACES	± 0.3	INITIAL REVISION:
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRWN: RCARLSON 2019/02/14
		DRAWING	APPR: JCONDON 2019/02/25
		SERIES	160014
DOCUMENT STATUS		P1	RELEASE DATE
2020/04/15		04:21:22	
DOCUMENT NUMBER		DOC TYPE	DOC PART
1600140011		PSD	000
MATERIAL NUMBER		CUSTOMER	REVISION
160014		GENERAL MARKET	A5
SHEET NUMBER		2 OF 2	



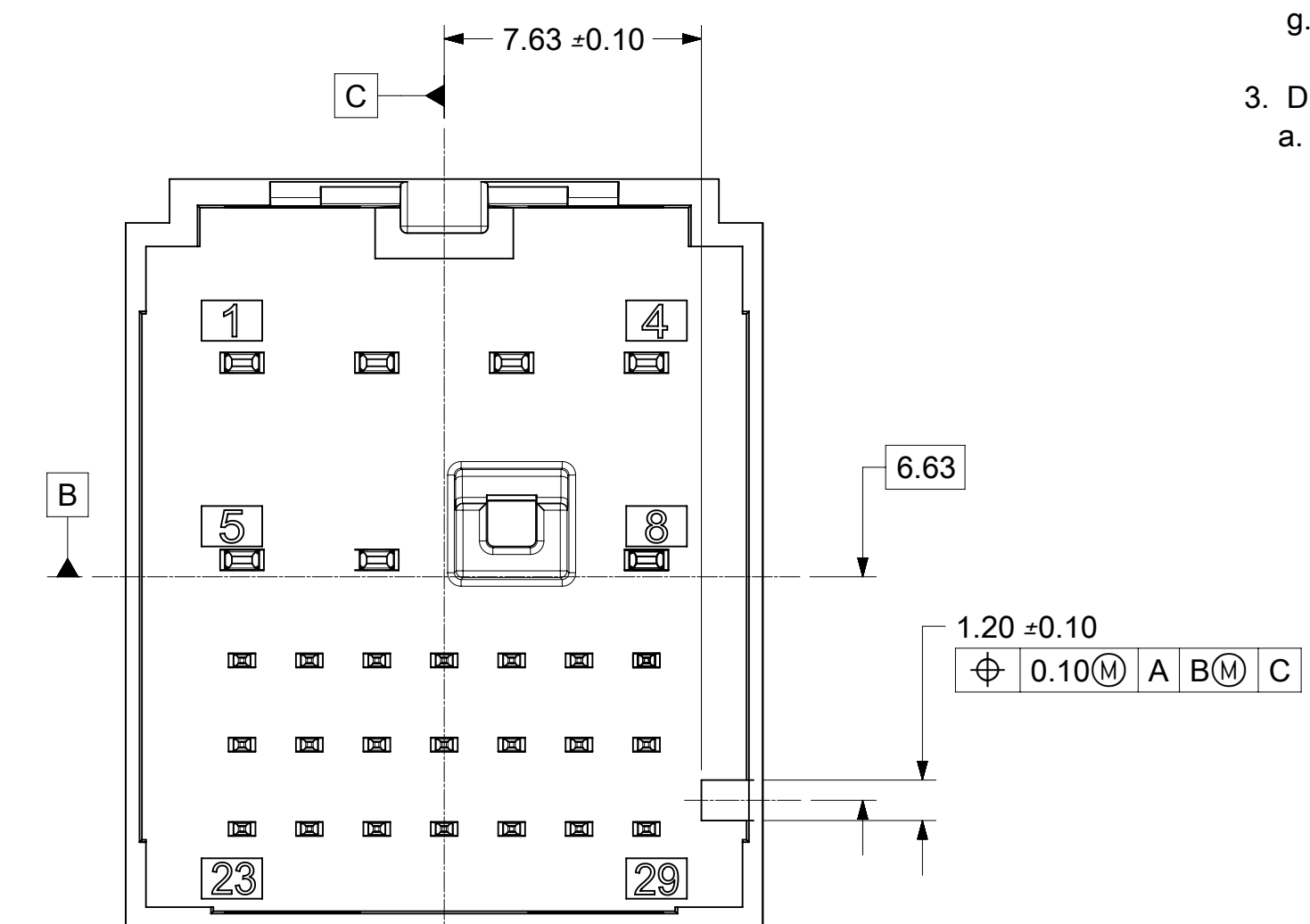
INTERFACE KEY #1
MATING CONNECTOR COLOR; DARK GRAY



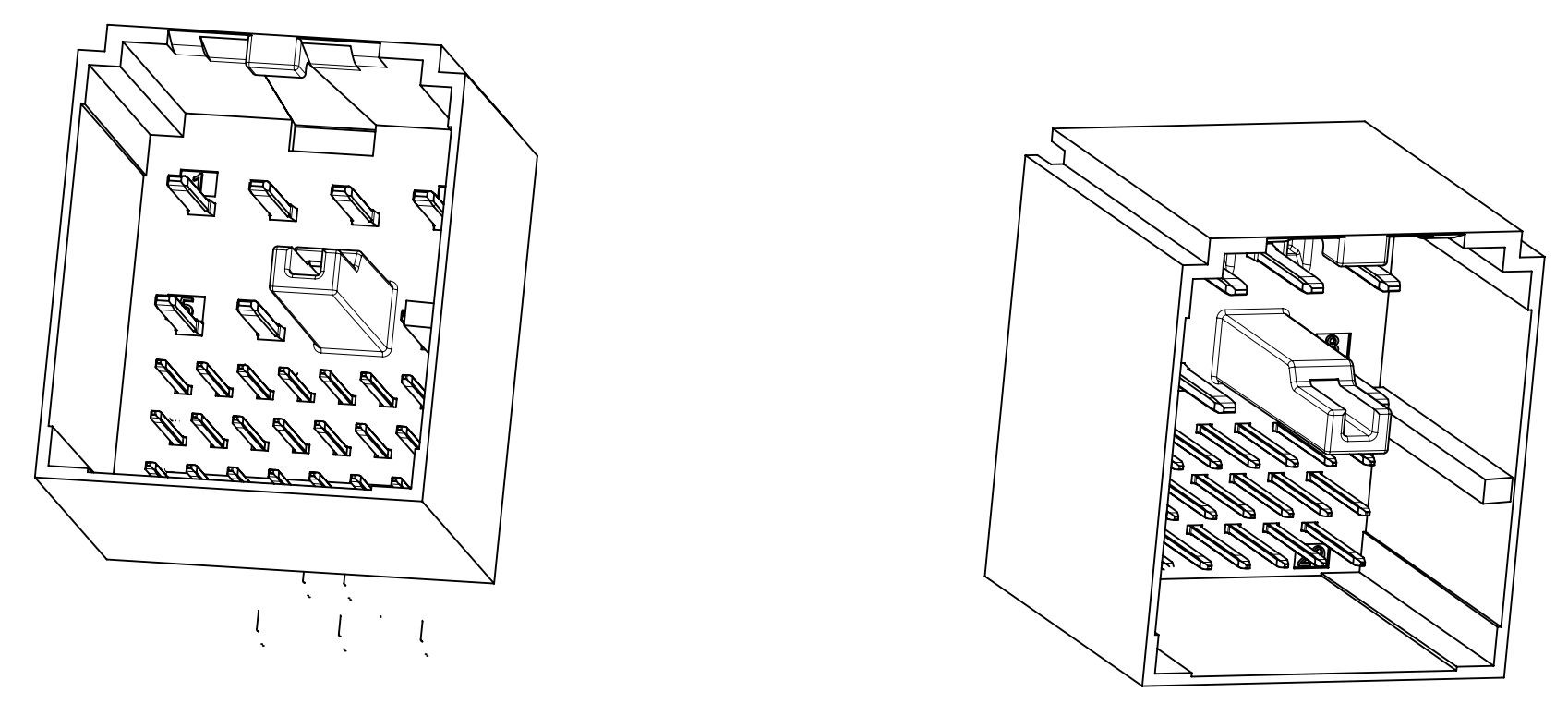
INTERFACE KEY #2
MATING CONNECTOR COLOR; LT GREEN A



INTERFACE KEY #3
MATING CONNECTOR COLOR; LIGHT GRAY



INTERFACE KEY #4
MATING CONNECTOR COLOR; BLACK



- NOTES: VALID UNLESS OTHERWISE SPECIFIED
- DESIGN - MATERIALS:
 - RESIN MATERIAL: PBT+GF30 OR SPS+GF30 OR EQUIVALENT
 - PIN/BLADE MATERIAL: ACCORDING TO USCAR DRAWING EWCAP-001 NOTE B2.
 - PLATING: ACCORDING TO USCAR DRAWING EWCAP-001 TIN REFLOW WITH UNDERPLATE.
 - PIN GEOMETRY ACCORDING TO USCAR DRAWING EWCAP-001 (120-T002 & 050-T001)
 - DEVIATION TO EWCAP-001 ACCEPTABLE IF PERFORMANCE (ELECTRICAL/MECHANICAL) IS SHOWN TO BE EQUAL OR BETTER AS REQUIRED BY VALIDATION TESTING.
 - DESIGN - GEOMETRY:
 - ALL GRAPHIC DATA IS BASIC (NO TOLERANCE) AND MUST BE TAKEN FROM THE DATA FILE AT ITS LATEST REVISION.
 - PRODUCT DESIGN MODEL NUMBER(S): SEE BOM TABLE
 - GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5M-2009
 - GENERAL TOLERANCES:
 - LINEAR: PER DIN 16901 LINEAR CODE B FOR PRECISION ENGINEERING
 - ANGULAR: ± 3°
 - EDGES AND UNDIMENSIONED DETAILS PER ISO13715
 - CORNERS SHOWN AS SHARP TO BE R 0.2 MAX.
 - CIRCUIT LOCATION #7 VOIDED FOR 28WAY INTERFACE
 - DESIGN - MANUFACTURING:
 - DRAFT TO BE WITHIN TOLERANCE.

REV	DESCRIPTION
B1	ADDED BALLOONS JCONDON 07/31/2018
B	REMOVED 0.2MM FROM CONNECTOR LOCK TAB FEATURE
A3	NOTE 1.E. ADDED JCONDON 11/13/2017
A2	NX-REMASTERING SAP # 10867412
A1	UAU2016-1133 SAP # 10762453 JCONDON 02/02/2016
A	UAU2015-1973 SAP # 10701371 JCONDON 06/30/2015
6	UAU2015-1446 SAP # 10681629 JCONDON 03/25/2015
5	UAU2015-1212 SAP # 10674908 JCONDON 02/06/2015
4	UAU2015-0634 SAP # 10661788 JCONDON 10/22/2014
3	UAU2014-1679 SAP # XXXXXXXX BSCUDDER 04/28/2014
2	UAU2014-1221 SAP # XXXXXXXX MYOUNG01 01/21/2014
1	UAU2014-0715 SAP # XXXXXXXX MYOUNG01 11/14/2013

SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: ADD DIMENSION BALLOONS	
	DIMENSION UNITS	SCALE		
▽ = 0	mm	5:1		
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)			
▽ = 0	ANGULAR TOL ± °			
▽ = 0	4 PLACES	±		
▽ = 0	3 PLACES	±		
▽ = 0	2 PLACES	±		
▽ = 0	1 PLACE	±		
▽ = 0	0 PLACES	±		
■ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING
▽ = 0			D-SIZE	SERIES
				160014
DOCUMENT STATUS		P1	RELEASE DATE	2018/08/03 19:41:28

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28WAY STAK50H
INTERFACE DRAWING

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER

SD-160014-002

DOC TYPE

PSD

DOC PART

001

REVISION

B1

MATERIAL NUMBER

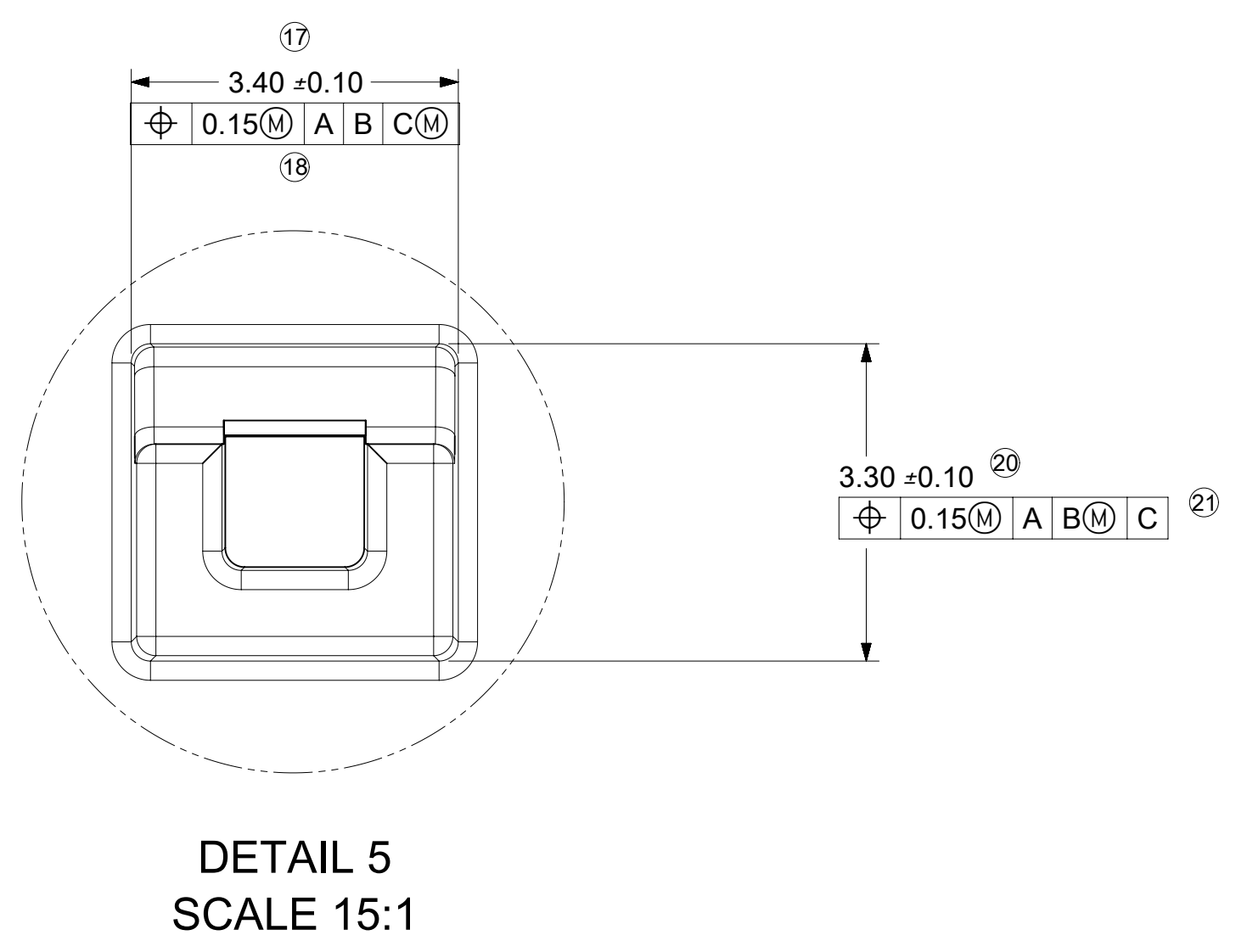
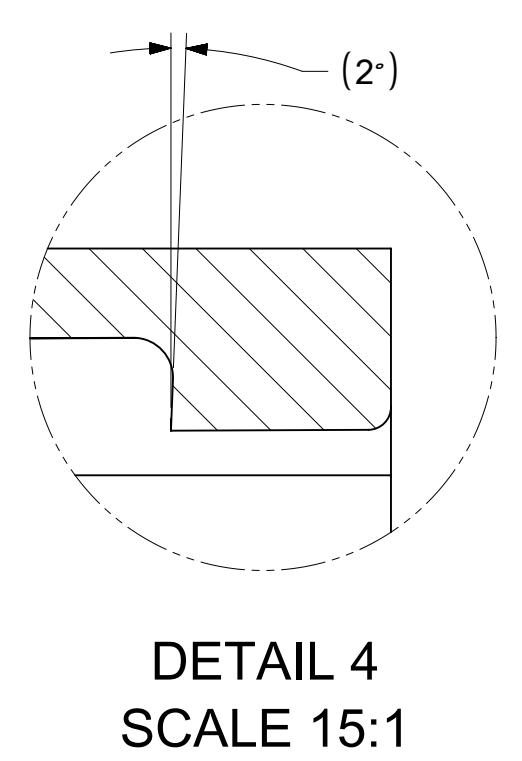
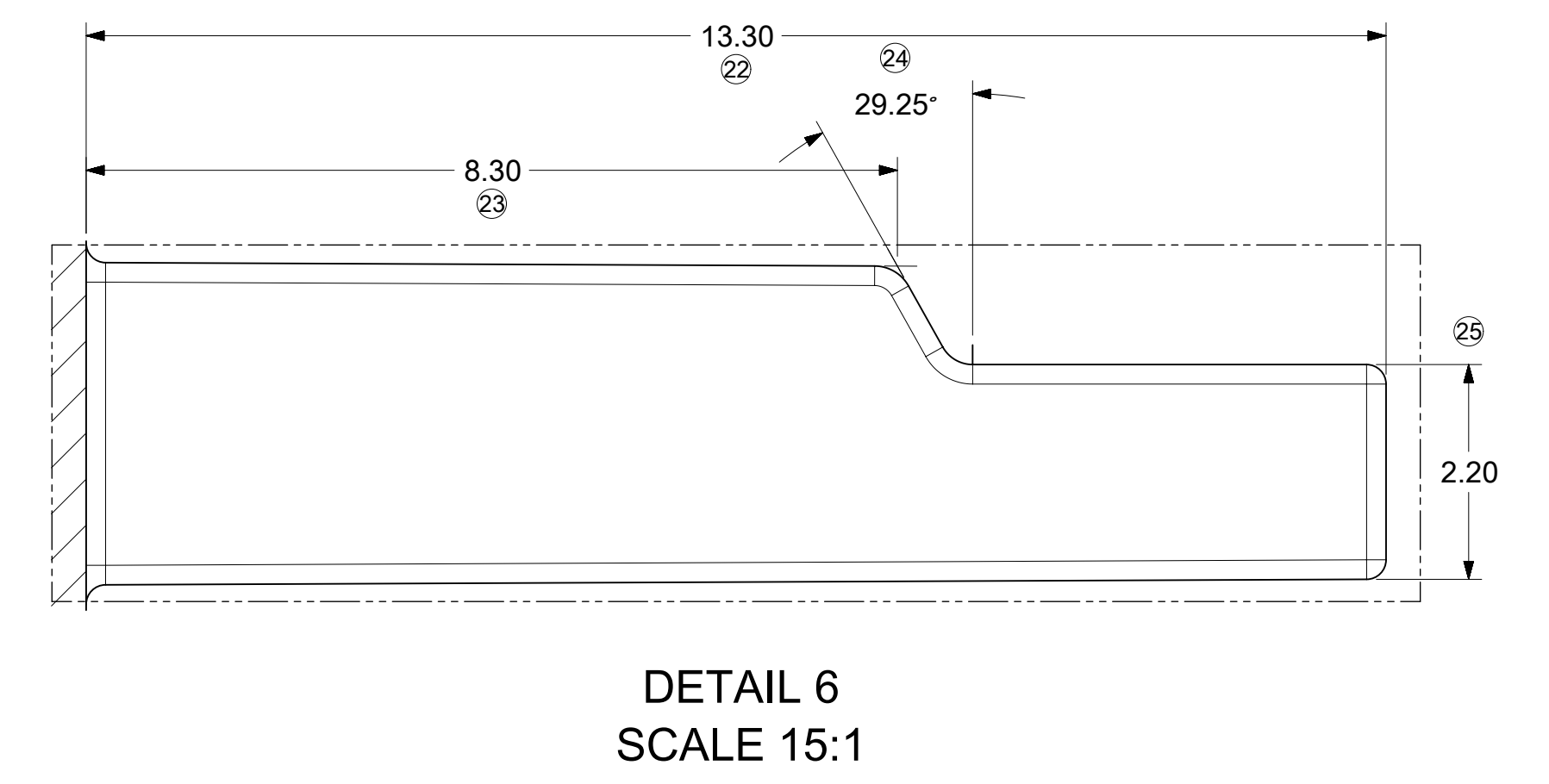
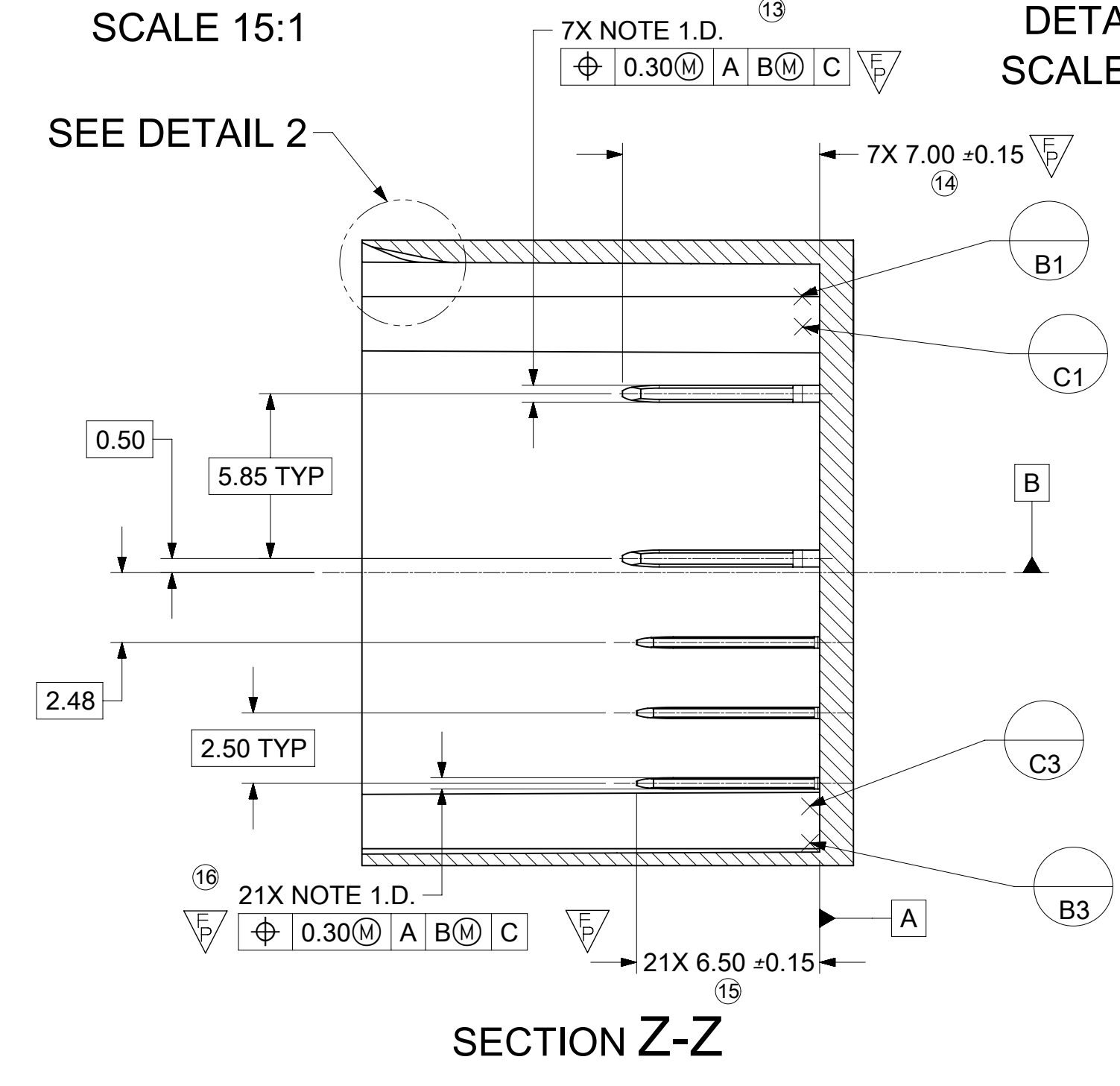
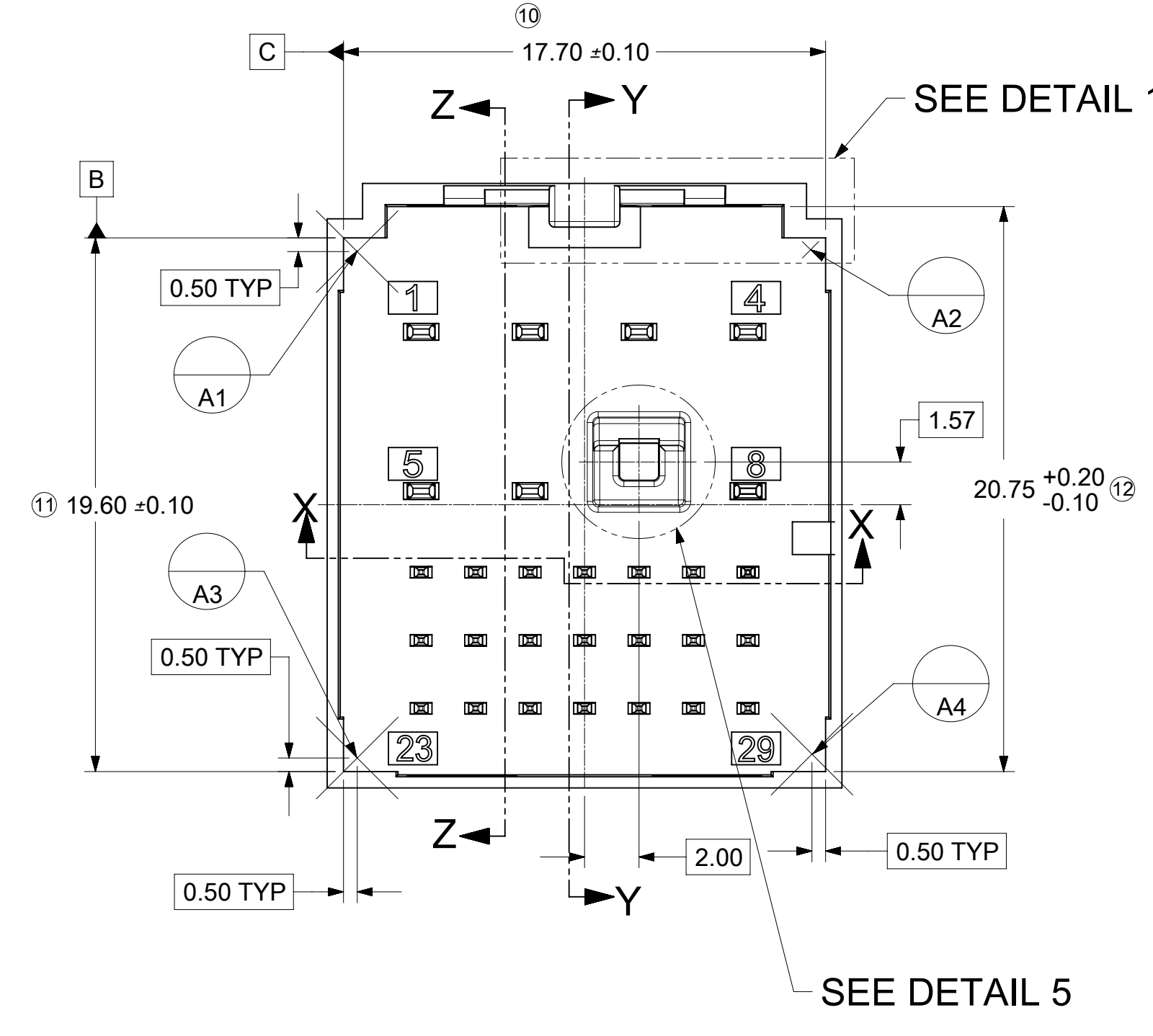
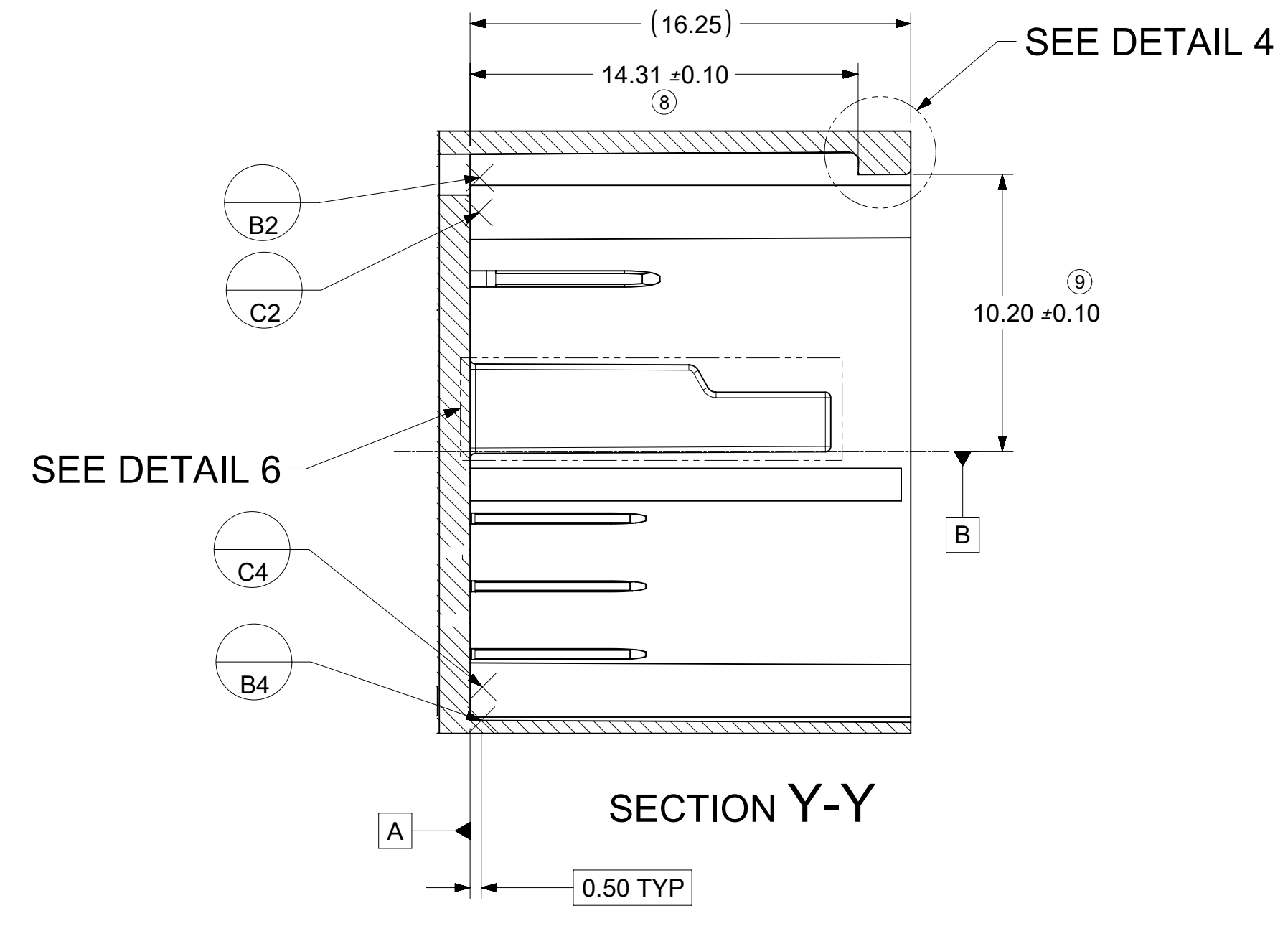
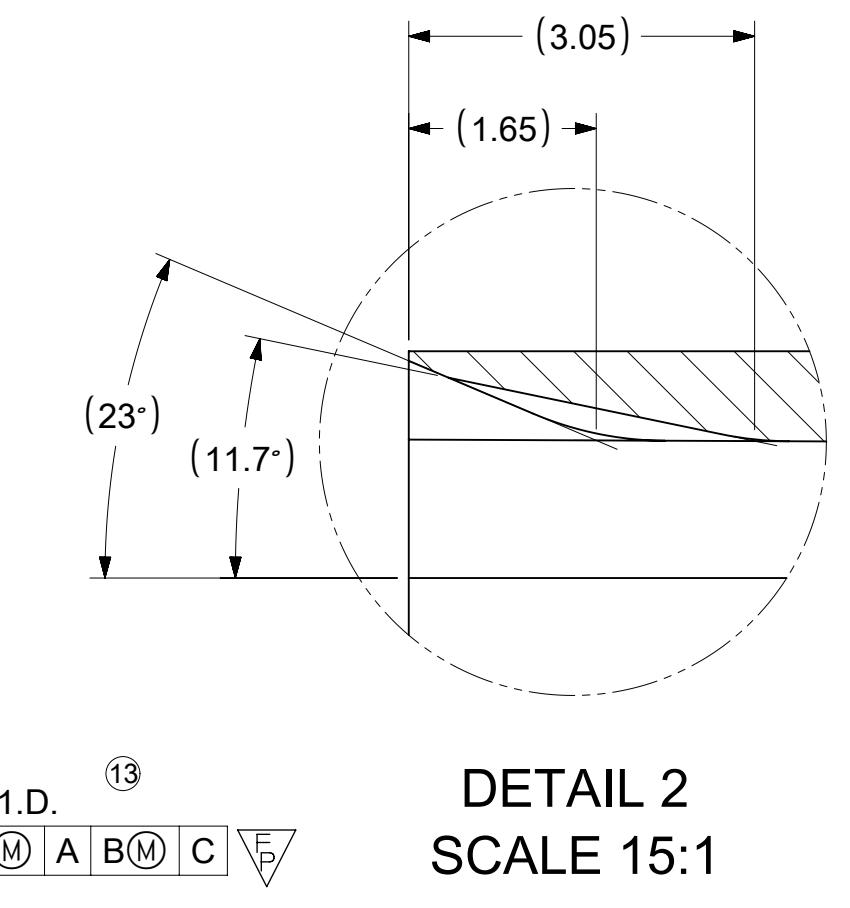
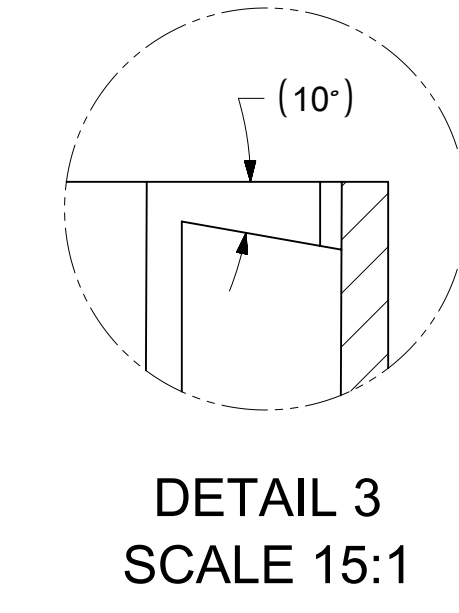
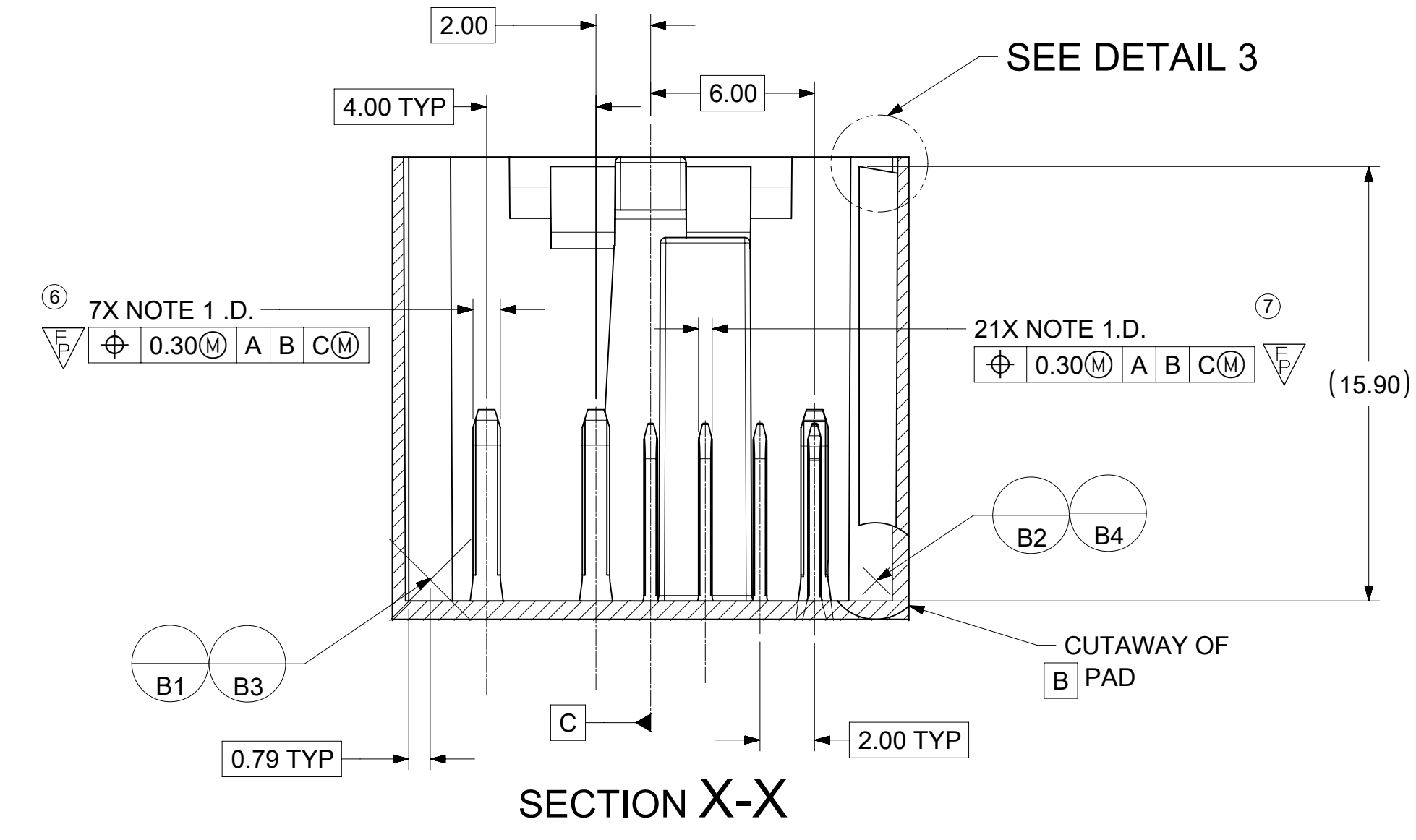
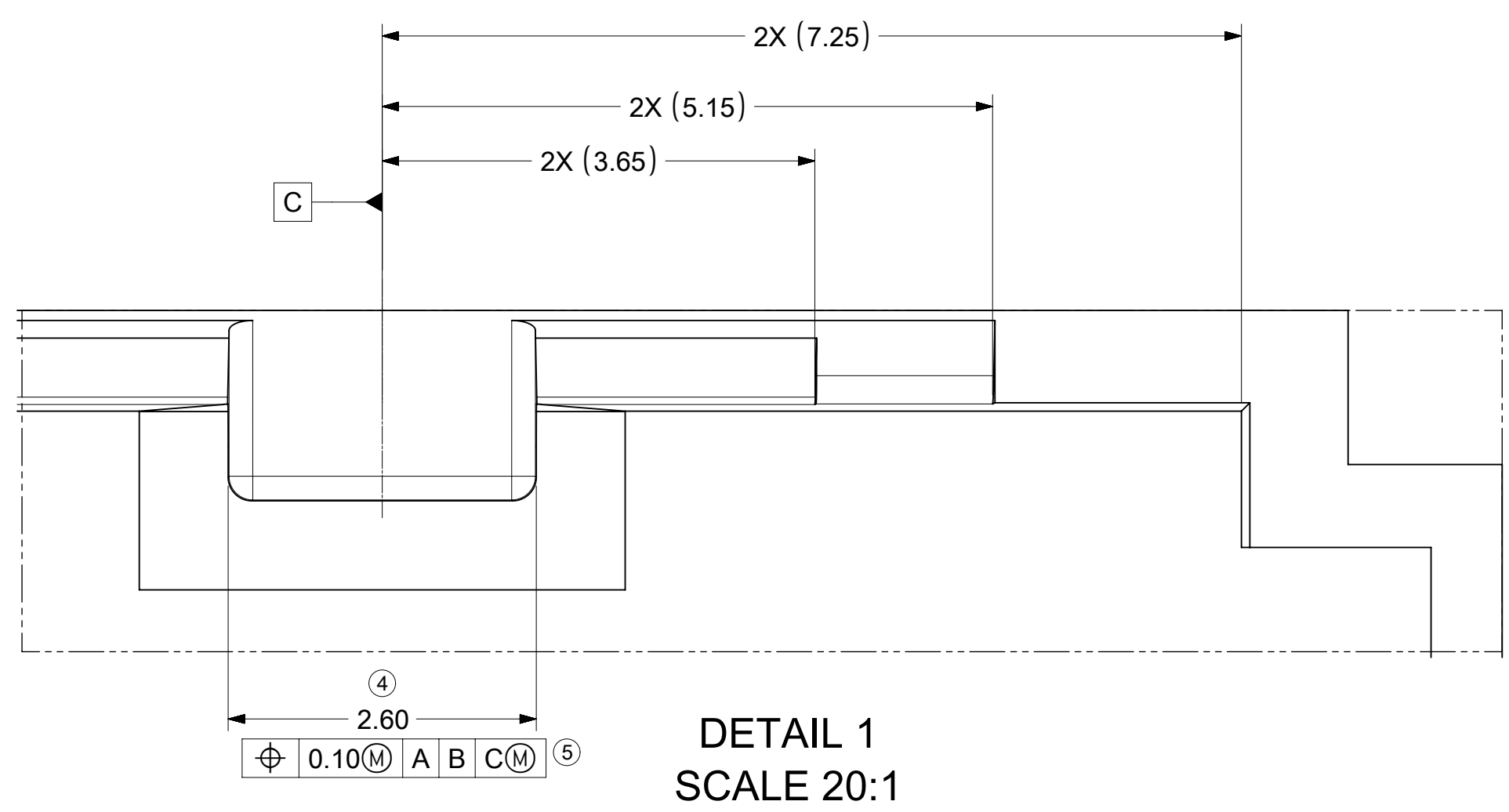
160014

CUSTOMER

GENERAL MARKET

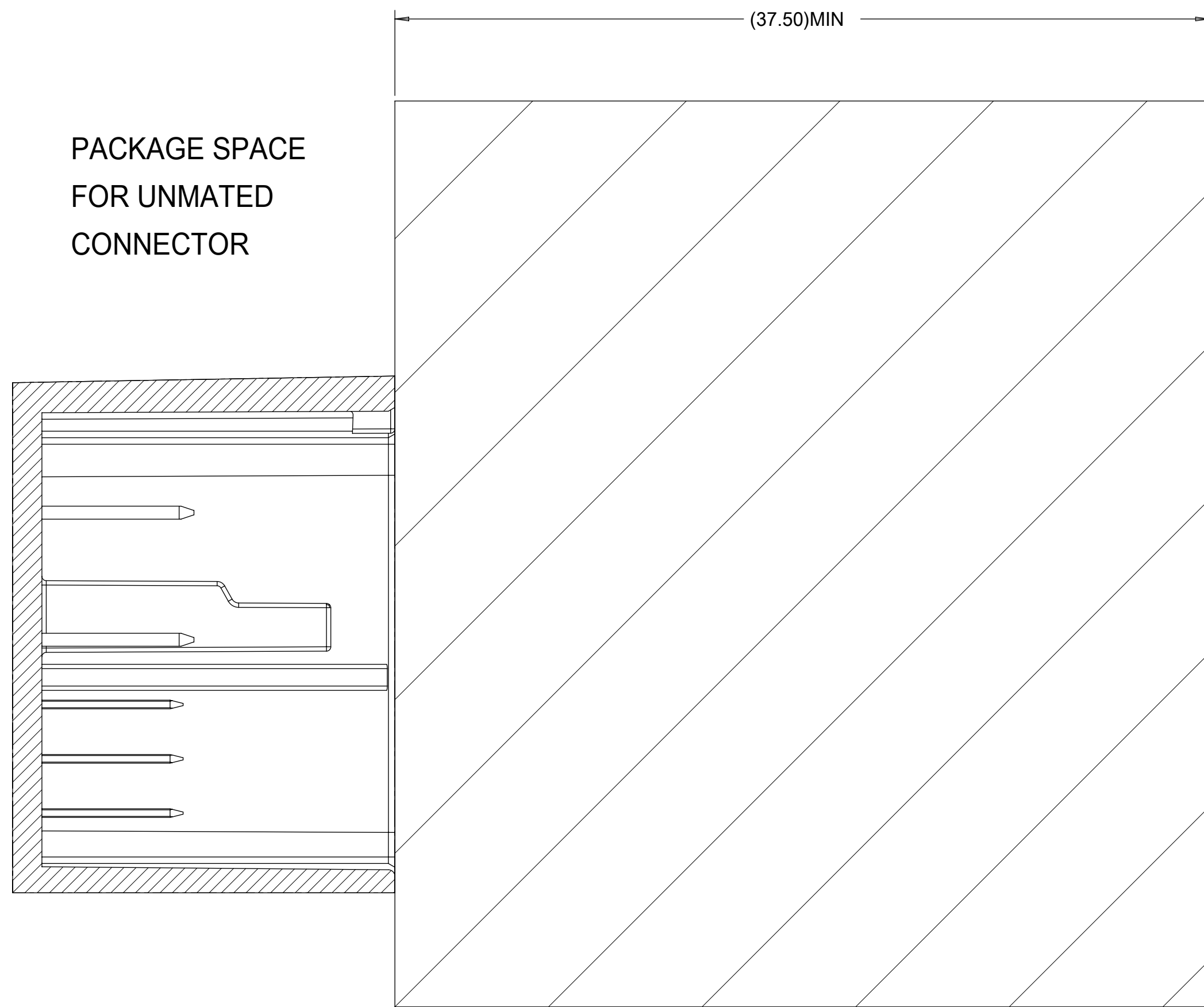
SHEET NUMBER

1 OF 3

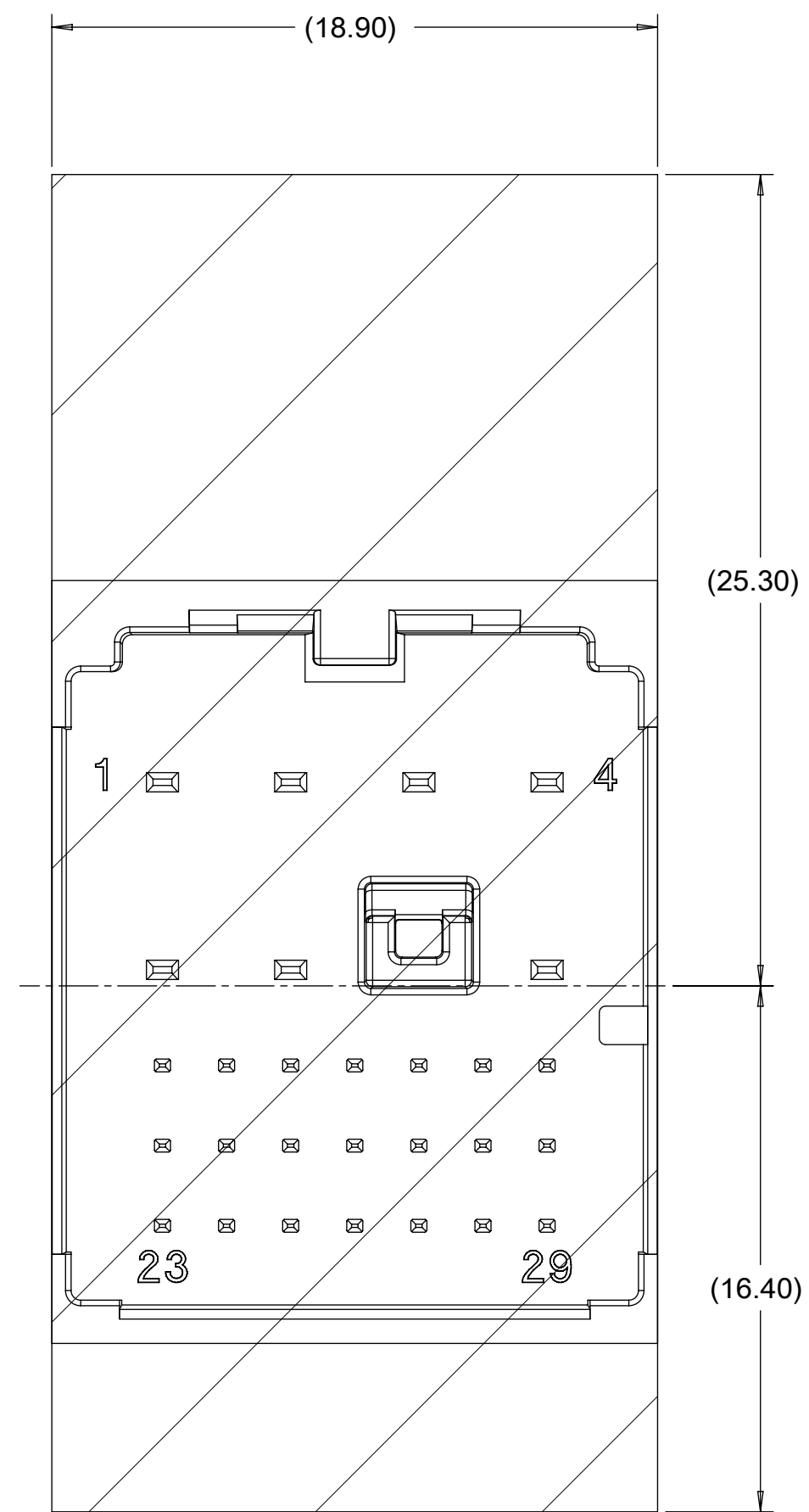


SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
	DIMENSION UNITS	SCALE	CURRENT REV DESC: ADD DIMENSION BALLOONS
▽ = 0	mm	5:1	
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		
▽ = 0	ANGULAR TOL ± °		
▽ = 0	4 PLACES	±	
▽ = 0	3 PLACES	±	
▽ = 0	2 PLACES	±	
▽ = 0	1 PLACES	±	
▽ = 0	0 PLACES	±	
■ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		
▽ = 0	THIRD ANGLE PROJECTION	DRAWING	SERIES
		D-SIZE	160014
EC NO: 602204		DRWN: JCONDON	2018/07/31
CHK'D: JCONDON		APPR: MVANSLAMBROU	2018/08/03
INITIAL REVISION:		DRWN: MYOUNG01	2013/11/14
		APPR: KDEKOSKI	2014/01/02
DOCUMENT NUMBER		DOC TYPE	DOC PART
SD-160014-002		PSD	001
REVISION		B1	
MATERIAL NUMBER		CUSTOMER	SHEET NUMBER
		GENERAL MARKET	2 OF 3

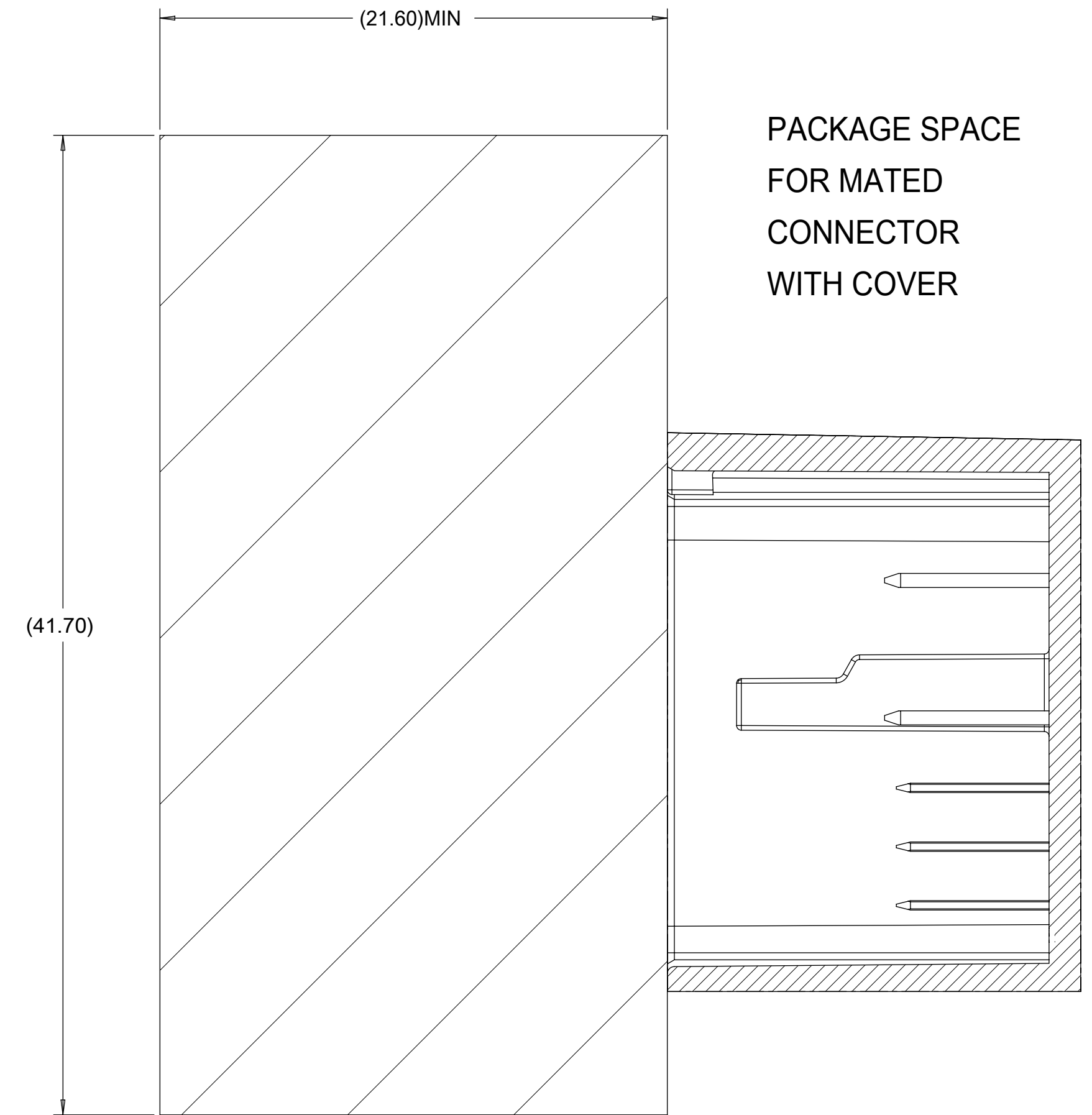
PACKAGE SPACE
FOR UNMATED
CONNECTOR



PACKAGE SPACE
FOR CONNECTOR



PACKAGE SPACE
FOR MATED
CONNECTOR
WITH COVER



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: ADD DIMENSION BALLOONS
▽ = 0	mm	5:1	
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		
▽ = 0	ANGULAR TOL ± °		
▽ = 0	4 PLACES	±	EC NO: 602204
▽ = 0	3 PLACES	±	DRWN: JCONDON 2018/07/31
▽ = 0	2 PLACES	±	CHK'D: JCONDON 2018/08/03
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▽ = 0	0 PLACES	±	INITIAL REVISION:
□ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DRWN: MYOUNG01 2013/11/14
□ = 0	THIRD ANGLE PROJECTION		APPR: KDEKOSKI 2014/01/02
	DRAWING		SERIES
	D-SIZE		160014
DOCUMENT STATUS		DOC TYPE	DOC PART
P1	PSD	001	B1
RELEASE DATE	CUSTOMER		SHEET NUMBER
2018/08/03 19:41:28	GENERAL MARKET		3 OF 3

molex

28WAY STAK50H
INTERFACE DRAWING

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER: SD-160014-002