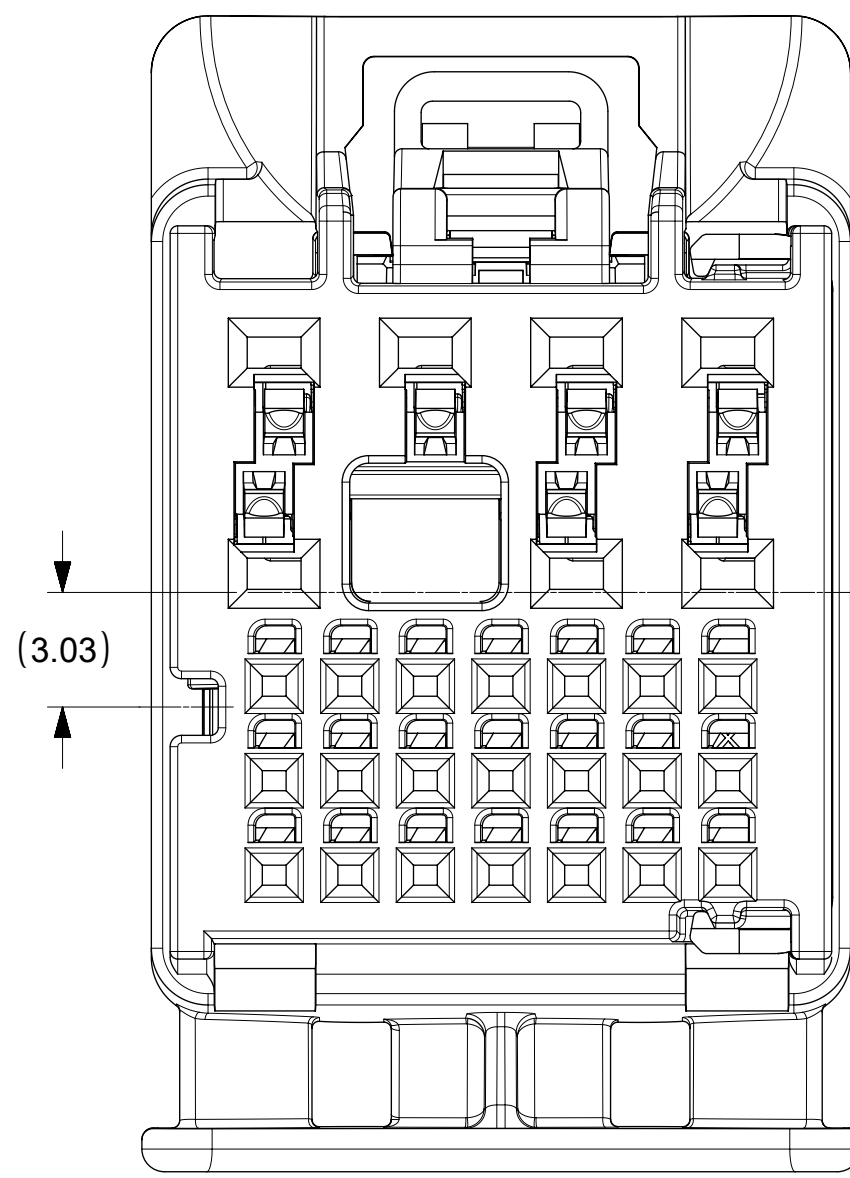
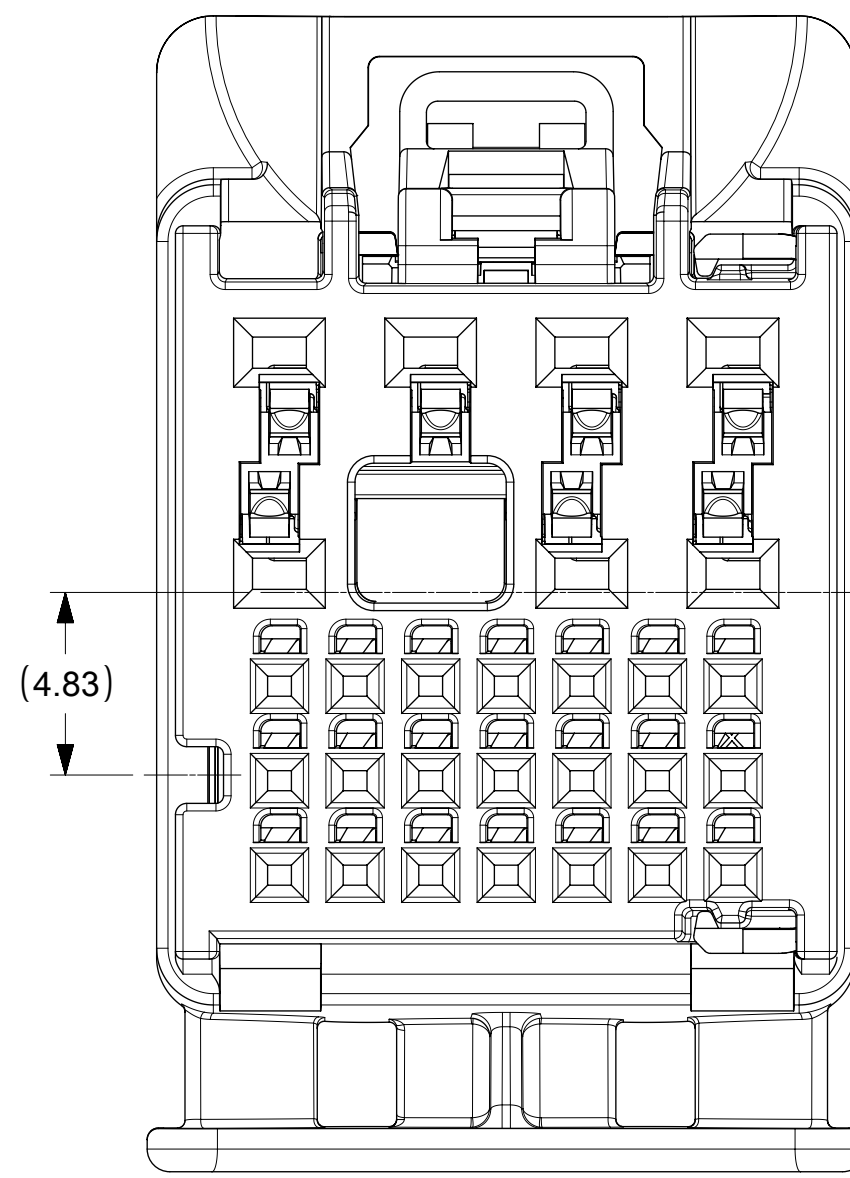


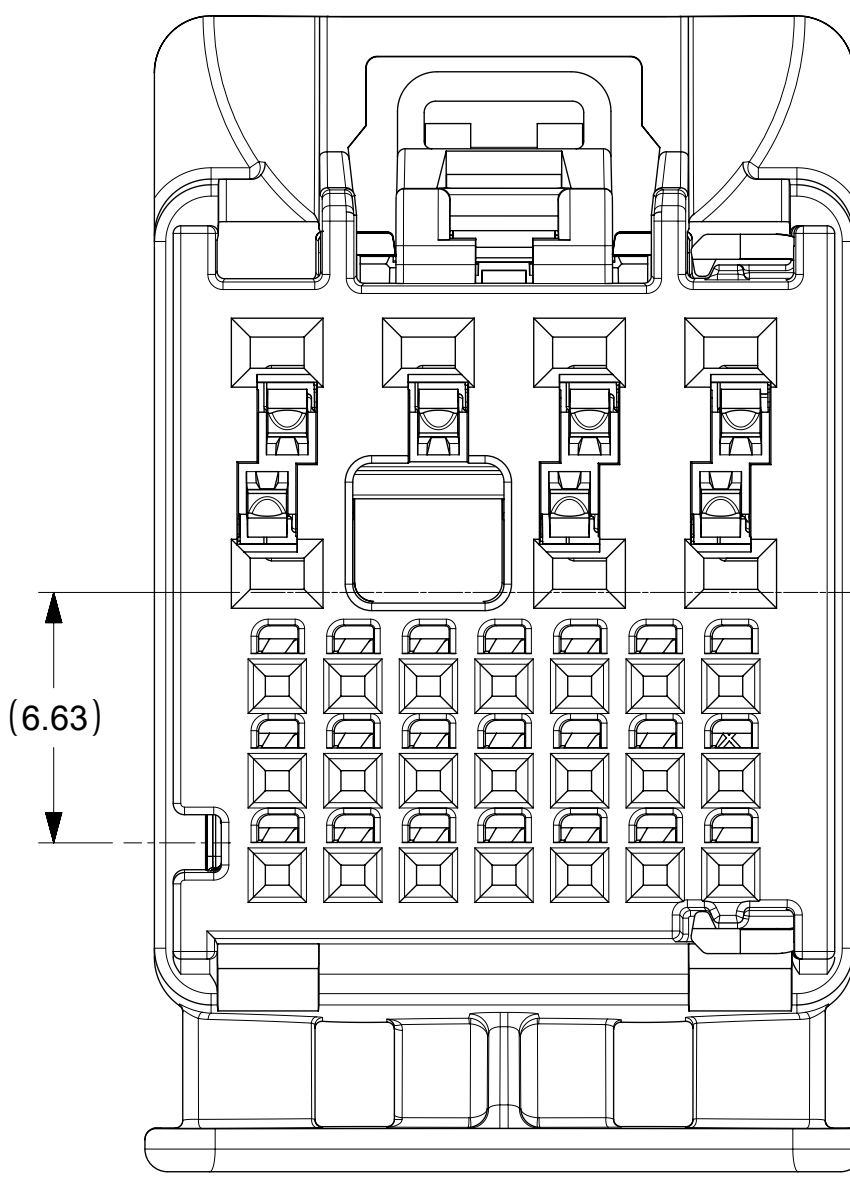
28WAY CONNECTOR ASSY  
KEY 1  
P/N 1600140001



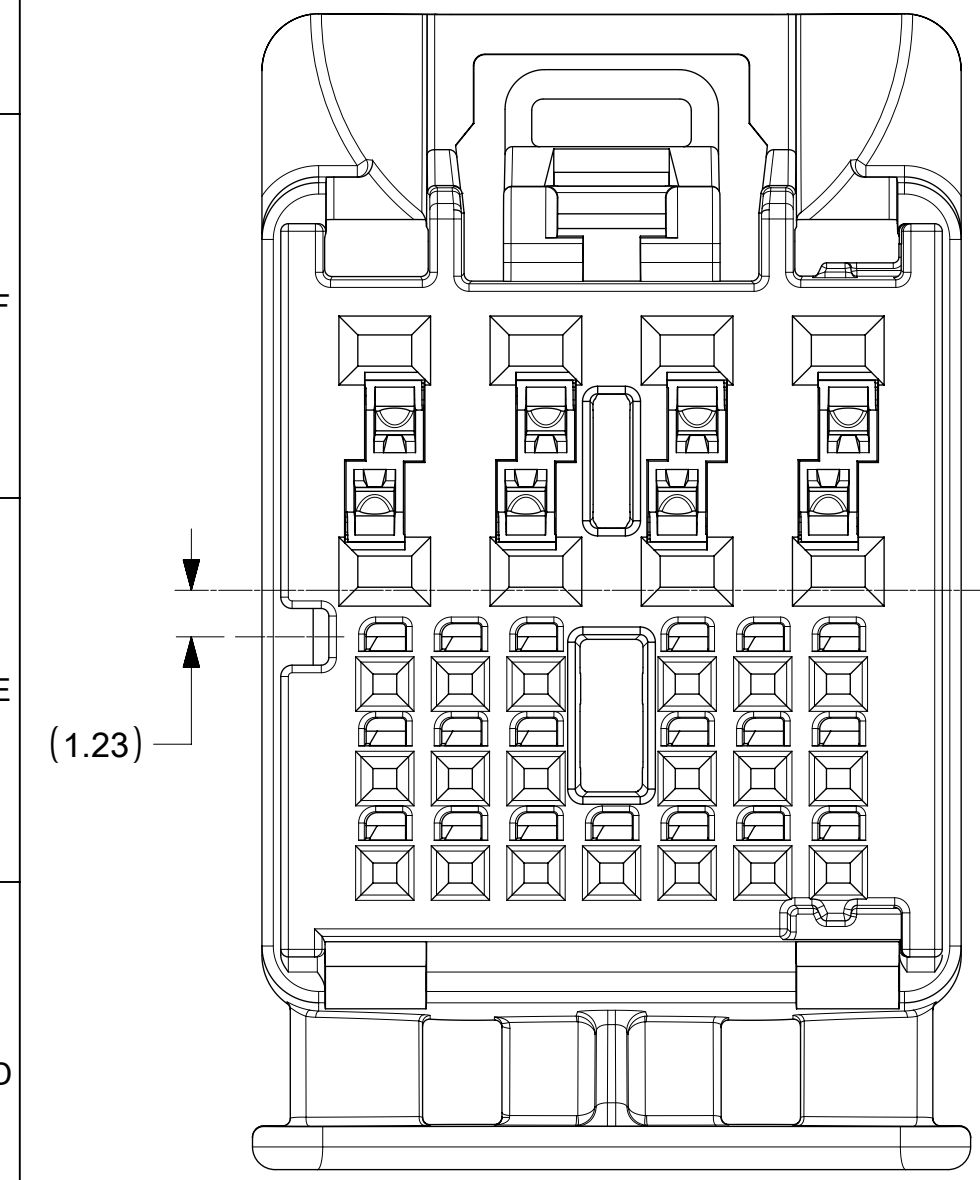
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KEY 2  
P/N 1600140002



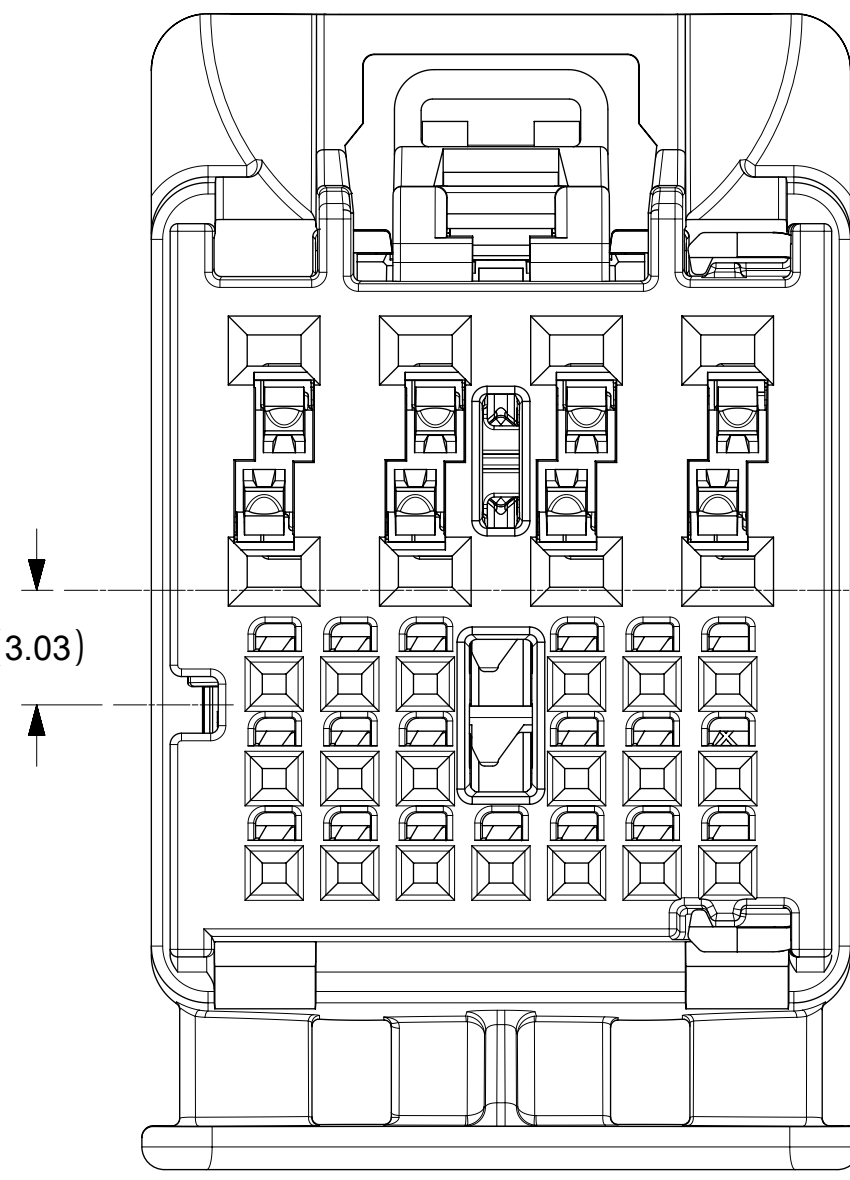
28WAY CONNECTOR ASSY  
KEY 3  
P/N 1600140003



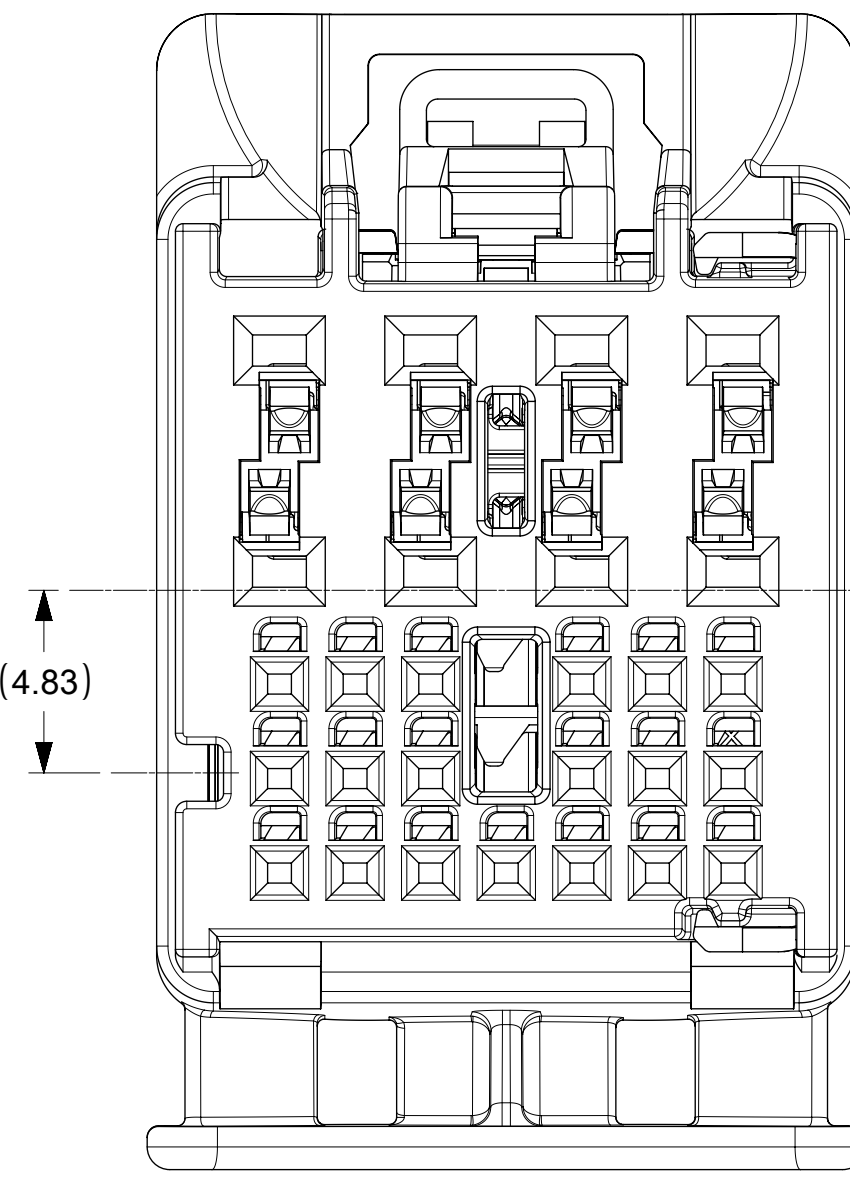
28WAY CONNECTOR ASSY  
KEY 4  
P/N 1600140004



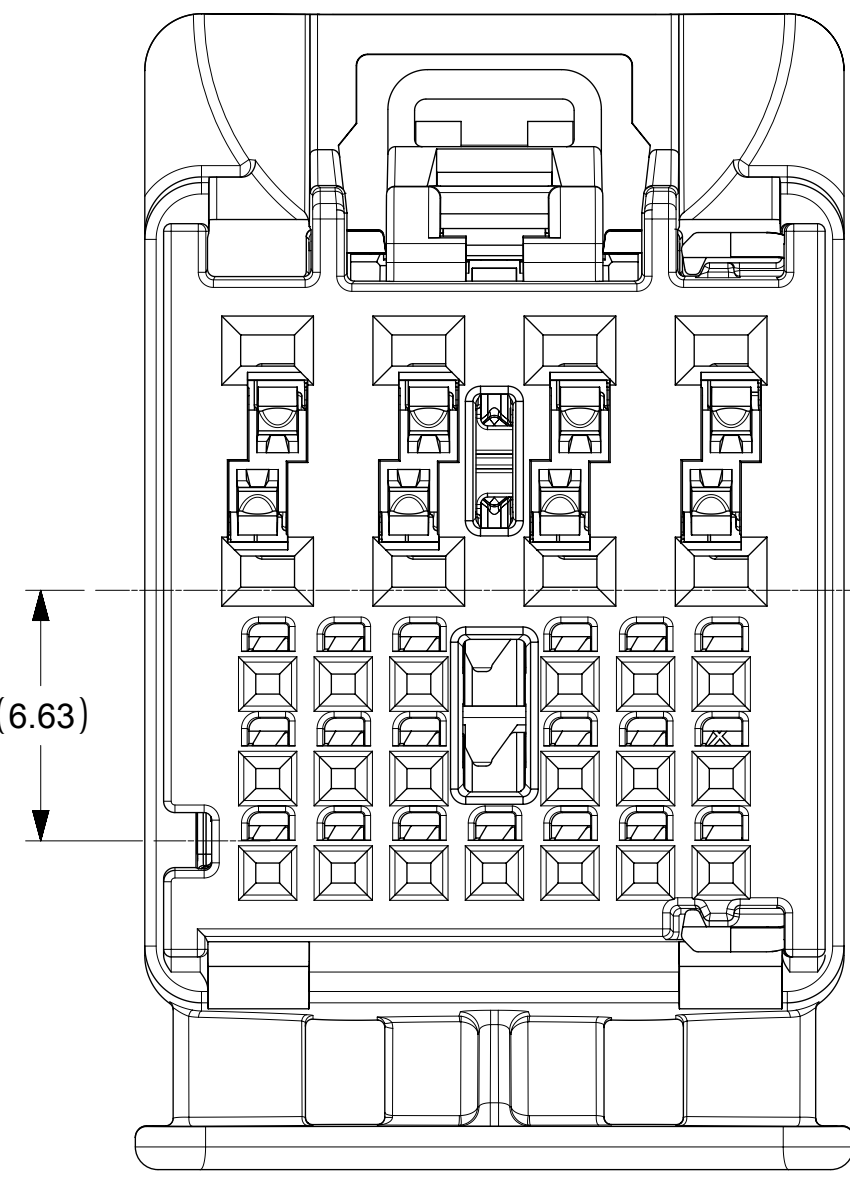
27WAY CONNECTOR ASSY  
KEY 1  
P/N 1600290001



27WAY CONNECTOR ASSY  
KEY 2  
P/N 1600290002

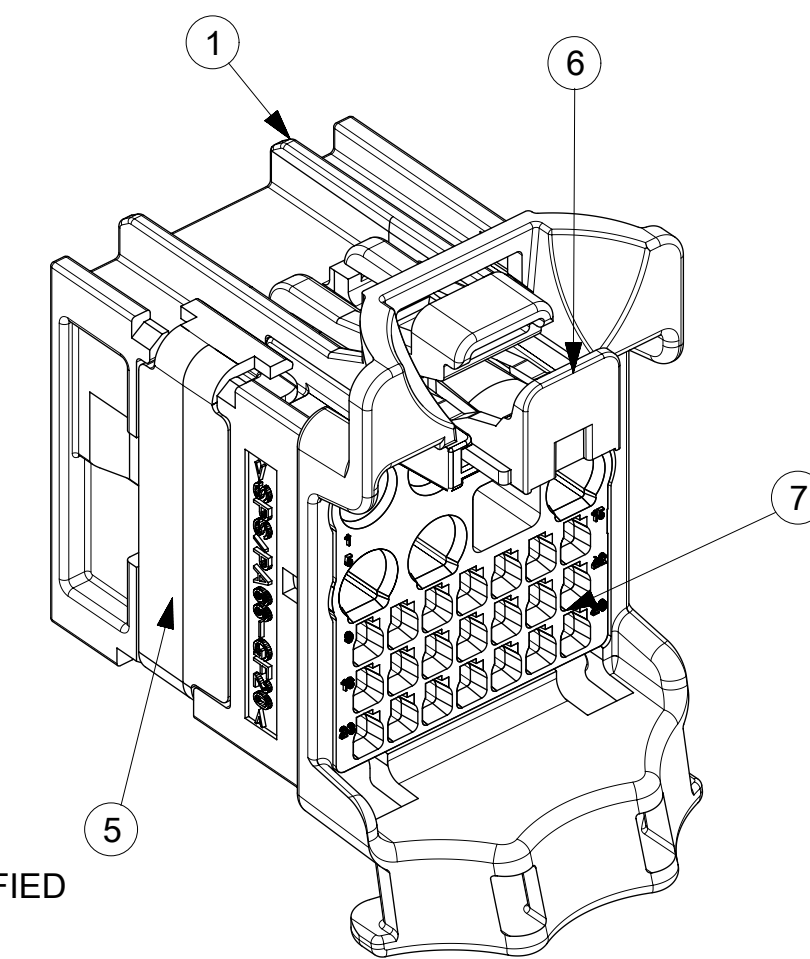
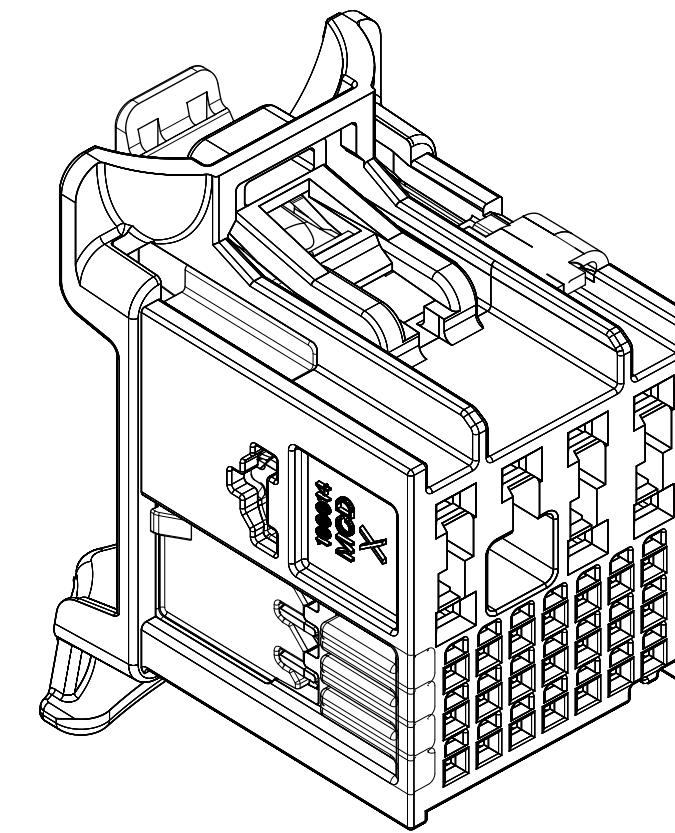


27WAY CONNECTOR ASSY  
KEY 3  
P/N 1600290003



27WAY CONNECTOR ASSY  
KEY 4  
P/N 1600290004

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)	
13881789	TIN PLATING	DELPHI	0.35 - 0.5	TAXI TERM OCS 1.2	GMW 15626 INSULATION TYPE FLR (REGULAR THIN WALL)
13881788	TIN PLATING	DELPHI	0.75 - 0.8	TAXI TERM OCS 1.2	
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

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 Y14.5M-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)

B1	REV BLOCK CORRECTION JJOYA 1/22/2018
B	ADDED VIEWS FOR 27WAY AND UPDATED BOM JJOYA 12/19/2017
A1	SAP # 10816434 VYARAPPA 03/23/2017
A	UAU2017-0137 SAP # 10789287 JCONDON 08/13/2016
7	UAU2016-1182 SAP # 10762453 JCONDON 02/08/2016
6	UAU2015-1899 SAP # 10698159 JCONDON 06/17/2015
5	UAU2015-1606 SAP # 10685685 JCONDON 04/23/2015
4	UAU2015-0824 SAP # XXXXXX JCONDON 12/05/2014
3	UAU2014-1923 SAP # XXXXXXXX BSCUDDER 05/19/2014
2	UAU2014-1726 SAP # XXXXXXXX CBOWDEN 10/22/2013
1	UAU2014-0633 SAP # XXXXXXXX KDEKOSKI 10/09/2013

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

MOLEX ASSEMBLY PART NO.'S	CIRCUIT COUNT	KEY	OUTER SHROUD COLOR	COMPONENTS						
				OUTER SHROUD KEY 1	OUTER SHROUD KEY 2	OUTER SHROUD KEY 3	OUTER SHROUD KEY 4	INNER HOUSING	ISL	CPA
				SPS/PA66-GF20 1600140501	SPS/PA66-GF20 1600140502	SPS/PA66-GF20 1600140503	SPS/PA66-GF20 1600140504	SPS/PA66-GF20 1600140701	SPS-GF30 1600140601	PA66-GF50 1600140703
1600140001	28	1	DARK GRAY	1				STONE GRAY	1	1
1600140002	28	2	LT GREEN A		1			STONE GRAY	1	1
1600140003	28	3	LT GRAY			1		STONE GRAY	1	1
1600140004	28	4	BLACK				1	STONE GRAY	1	1
1600290001	27	1	BLACK	1600290501	1600290502	1600290503	1600290504	1600290701	1600290601	1600140703
1600290002	27	2	LT GREEN B		1			DARK GRAY	1	1
1600290003	27	3	LT BLUE B			1		DARK GRAY	1	1
1600290004	27	4	PURPLE C				1	DARK GRAY	1	1

EC NO: 171181 DRWN: JJOYA CHKD: JCONDON REV APPR: JCONDON	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION UNITS	SCALE
	2018/01/23	2018/01/23	2018/01/23	mm
ANGULAR TOL ± 3.0 °	4 PLACES ±	3 PLACES ±	DRWN BY	DATE
2 PLACES ± 0.3	1 PLACE ± 0.3	0 PLACES ± 0.3	KDEKOSKI	2013/10/09
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			CHKD BY	DATE
			JCONDON	2013/12/06
			APPR BY	DATE
				2017/03/23
			DRAWING SIZE	THIRD ANGLE PROJECTION
			D	
			SERIES	MATERIAL NUMBER
			160014	CHARTED
			CUSTOMER	GENERAL MARKET
			DOCUMENT NUMBER	DOC TYPE
			SD-160014-0001	PSD
			CUSTOMER	000
			SHEET NUMBER	1 OF 2

**molex**

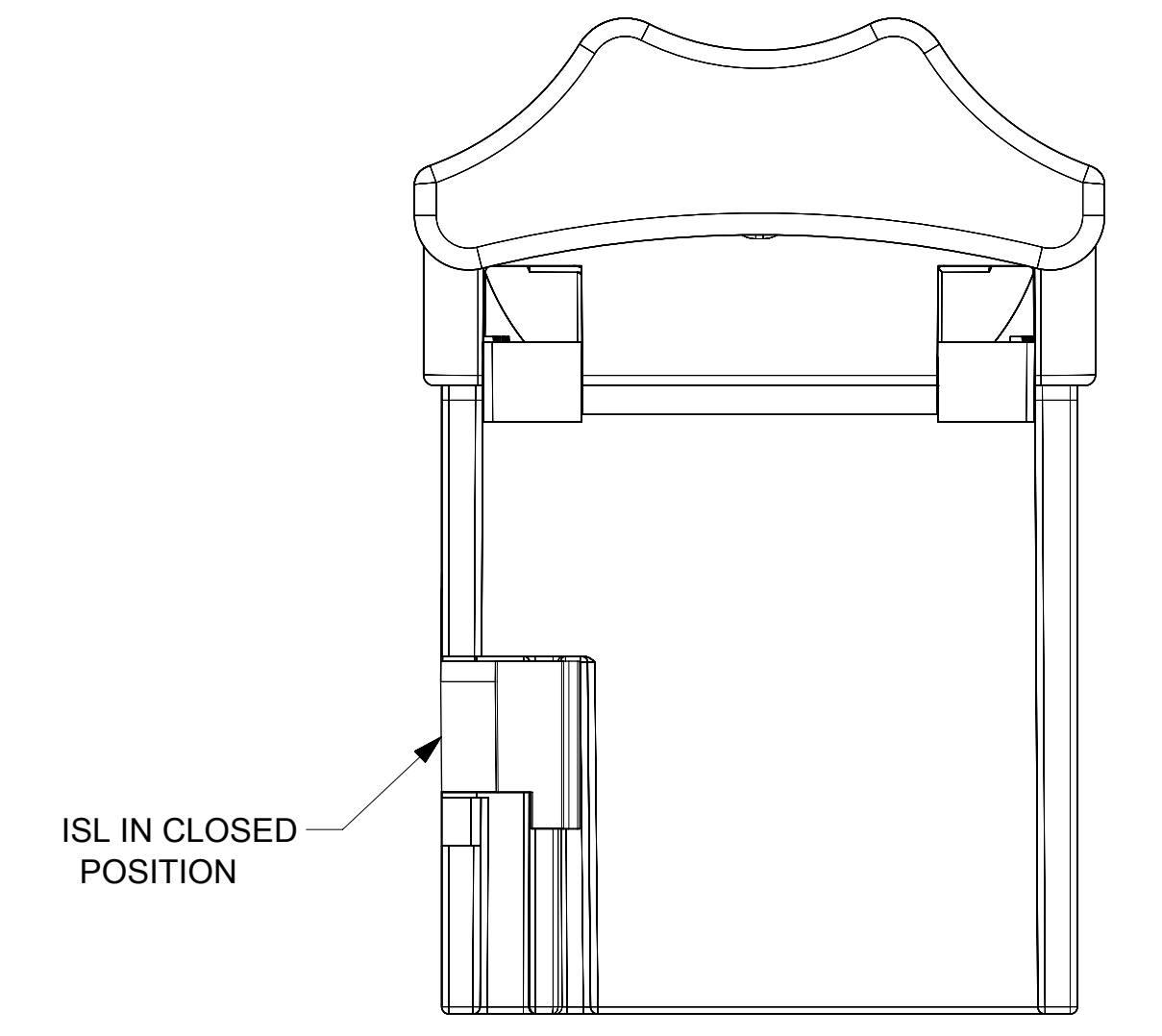
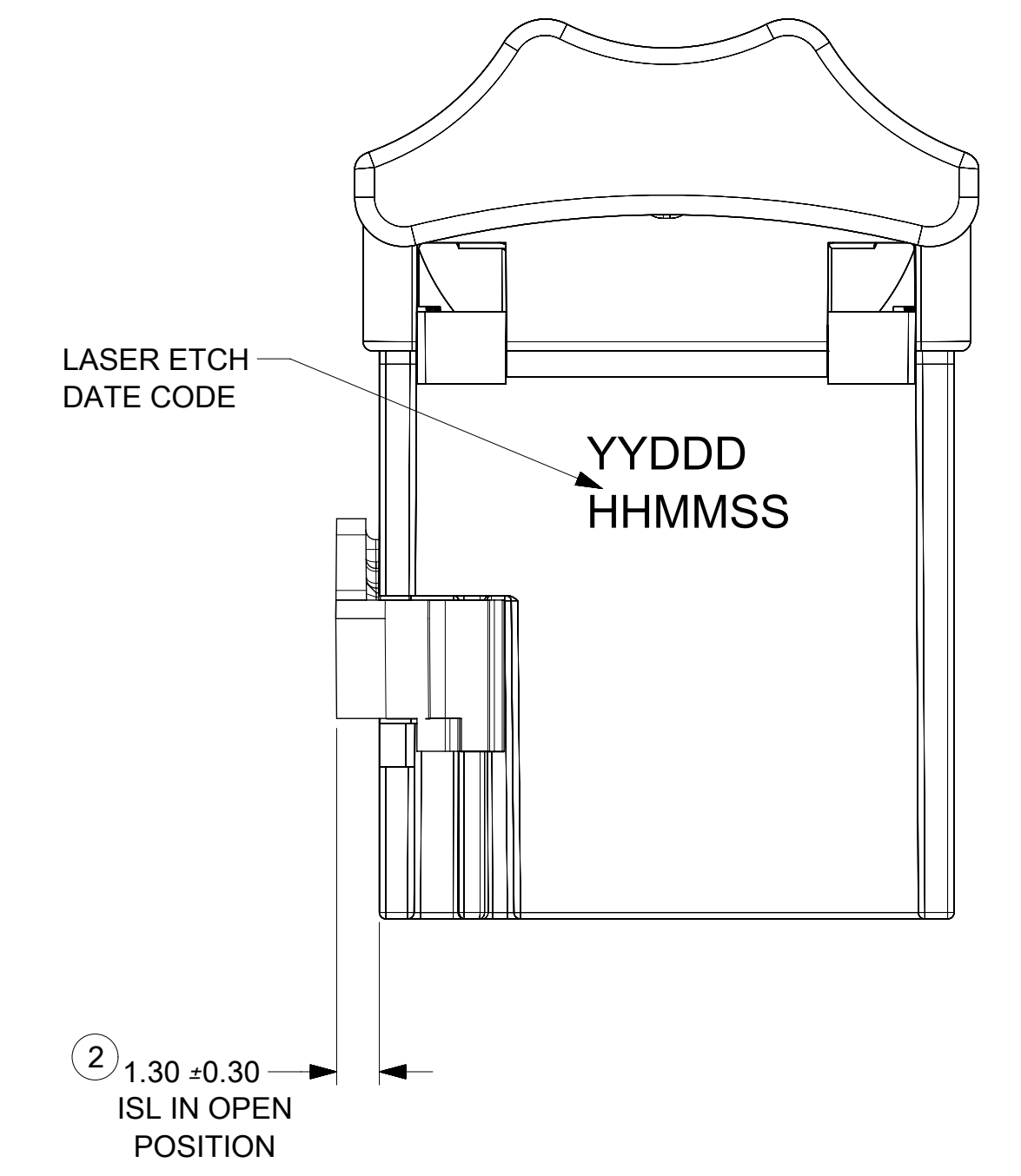
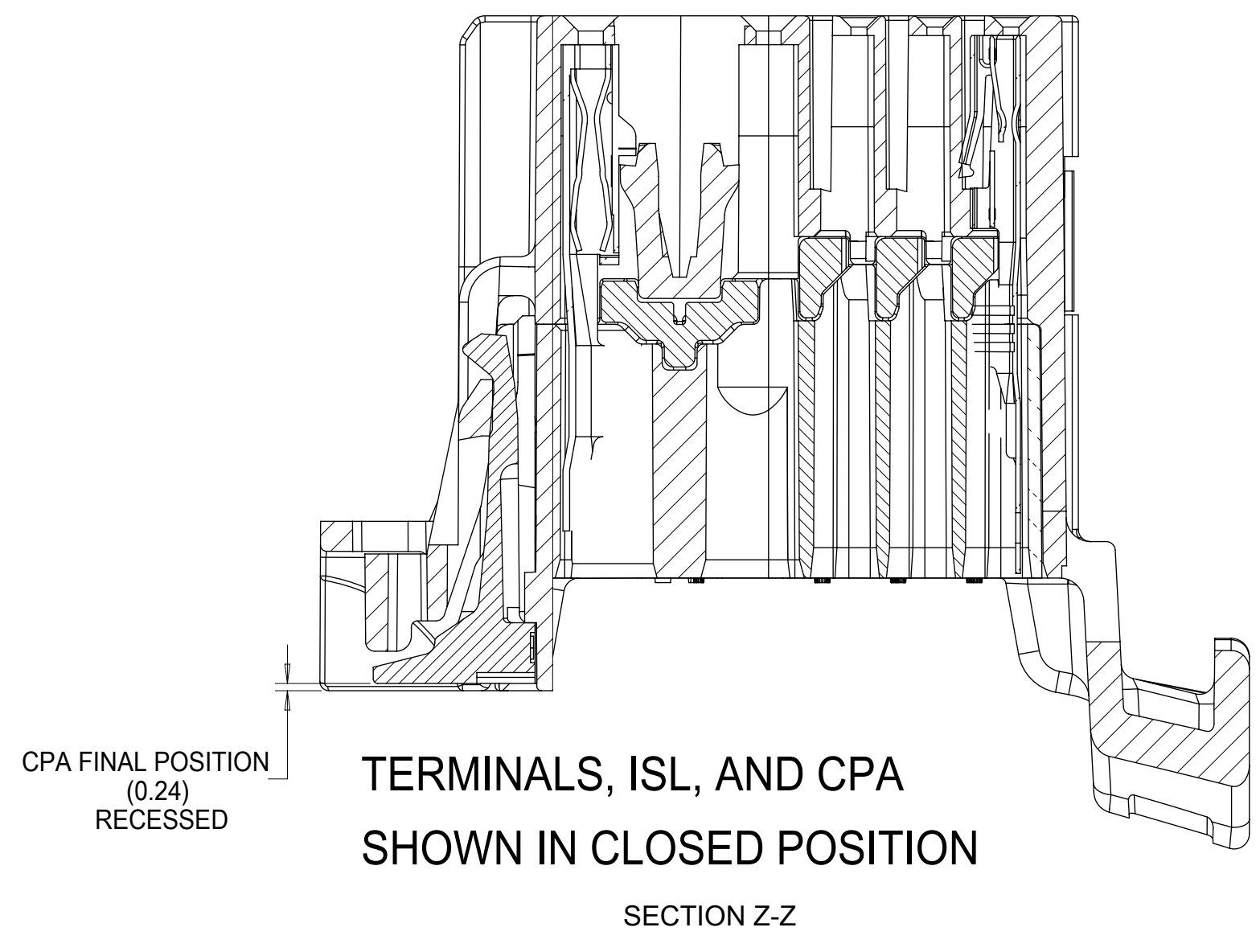
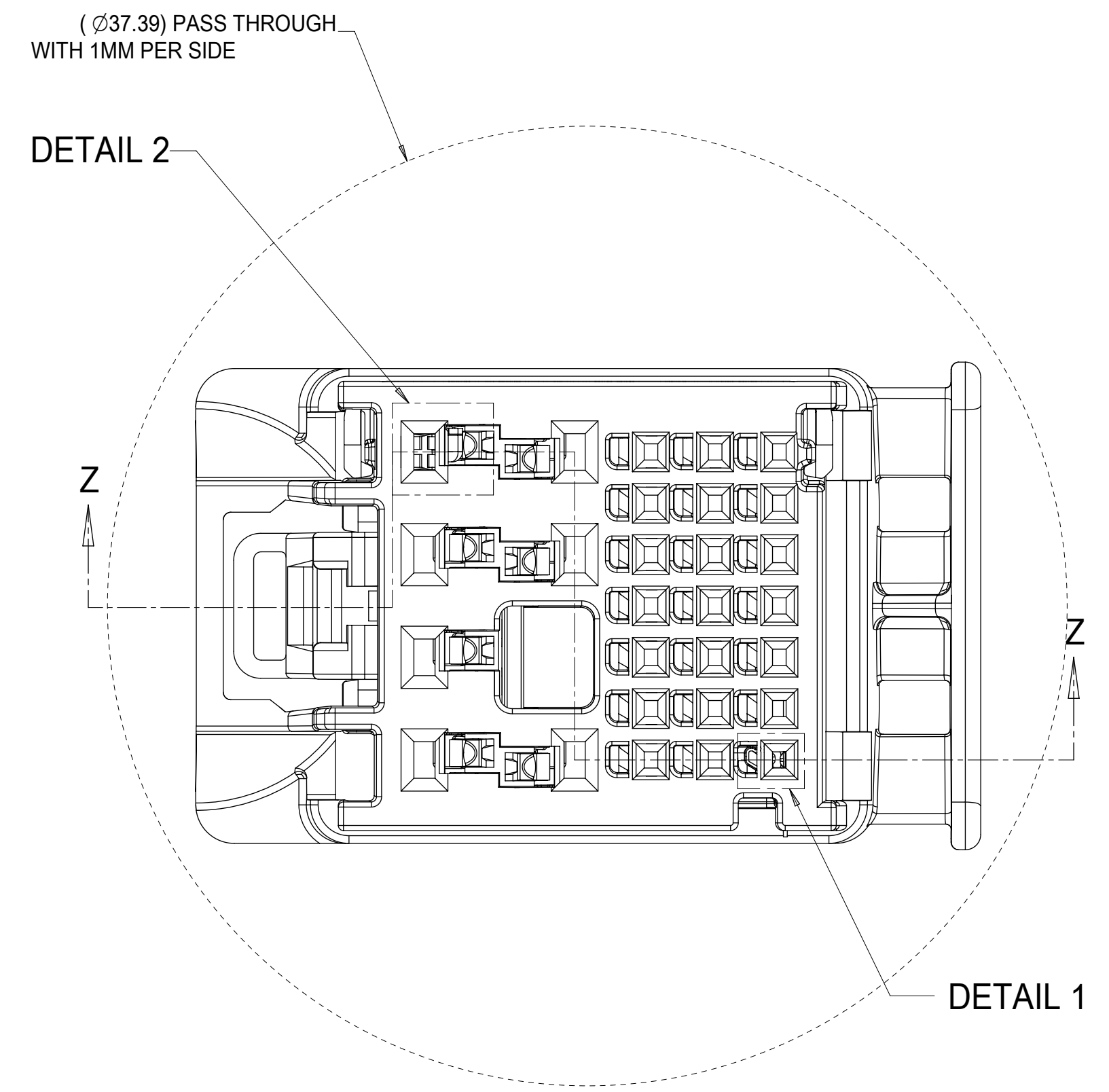
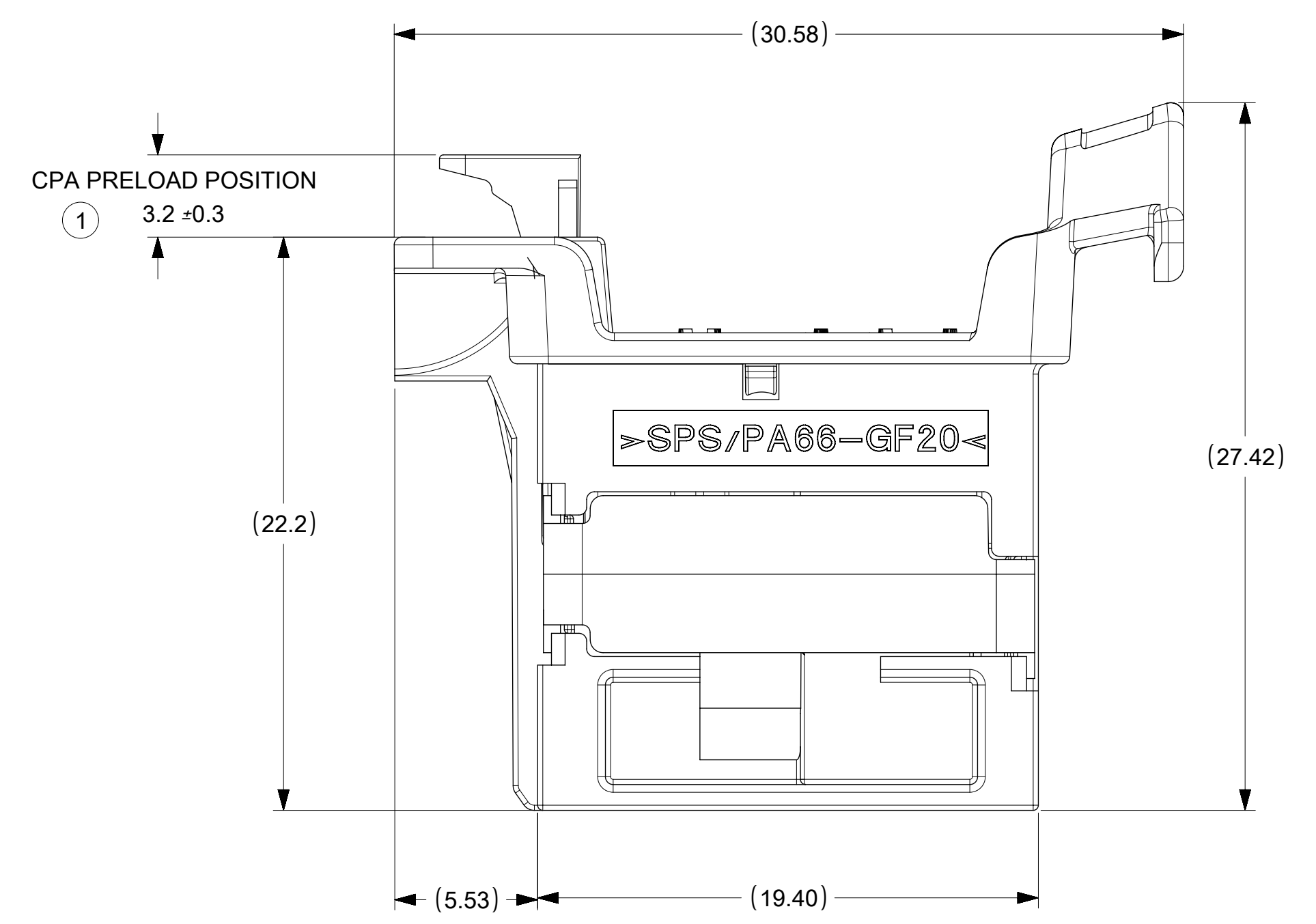
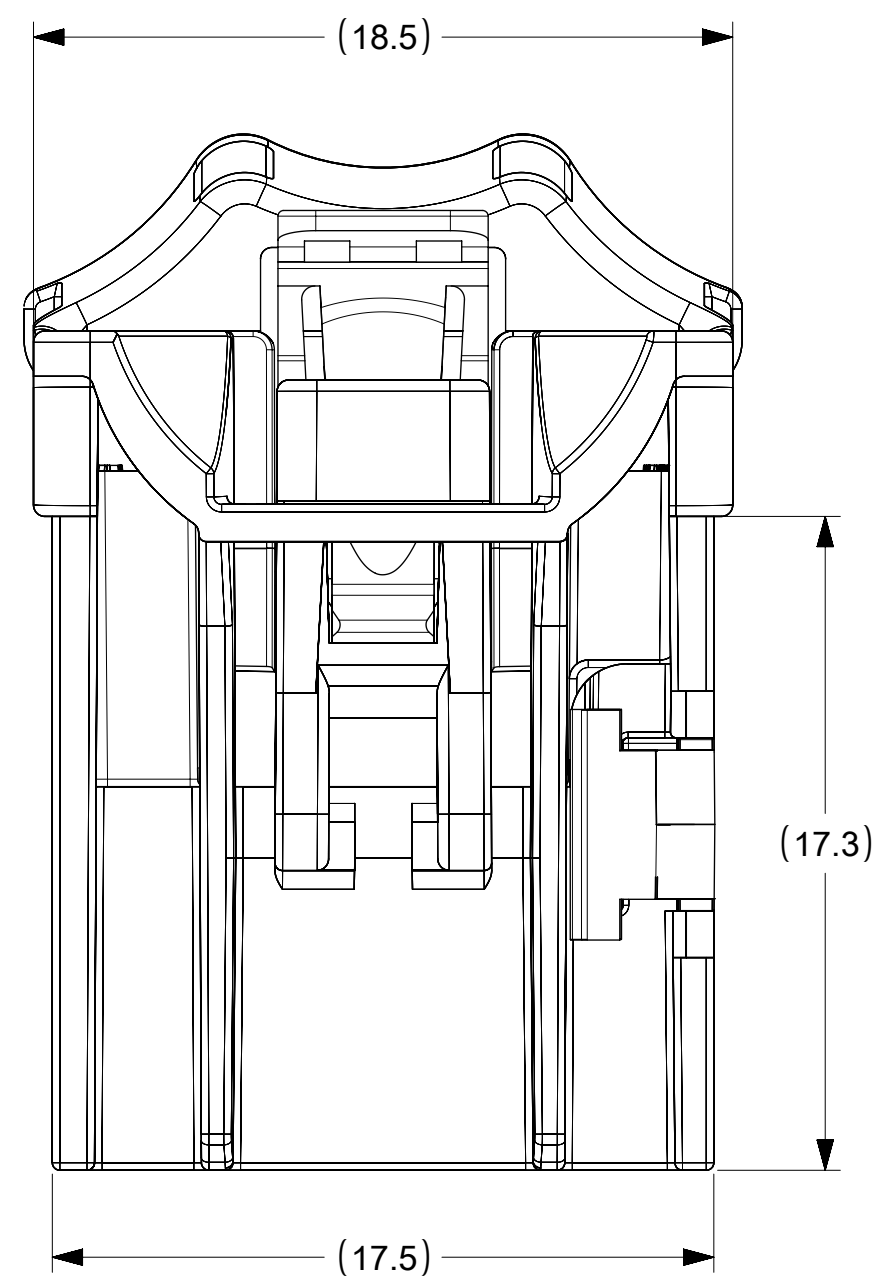
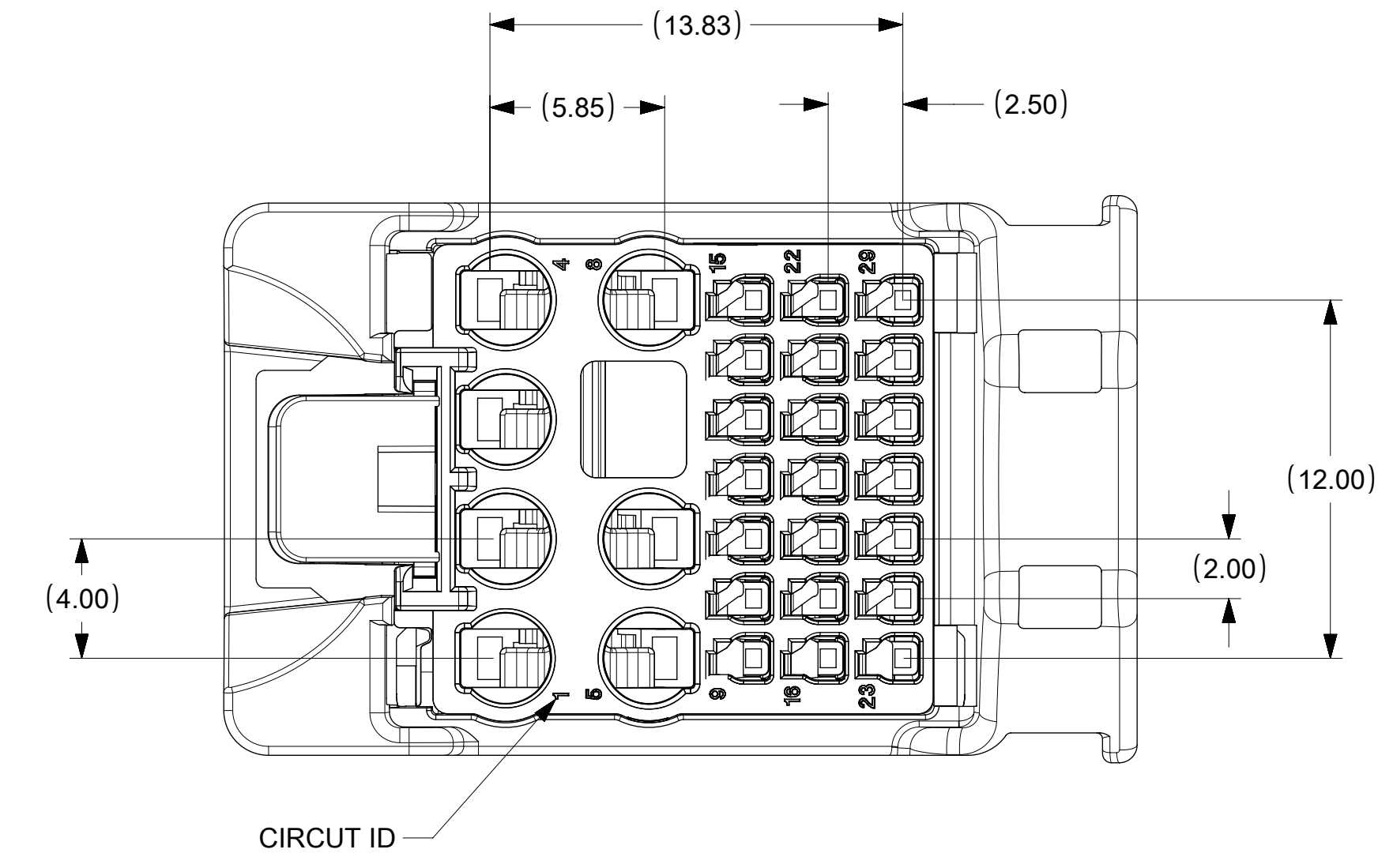
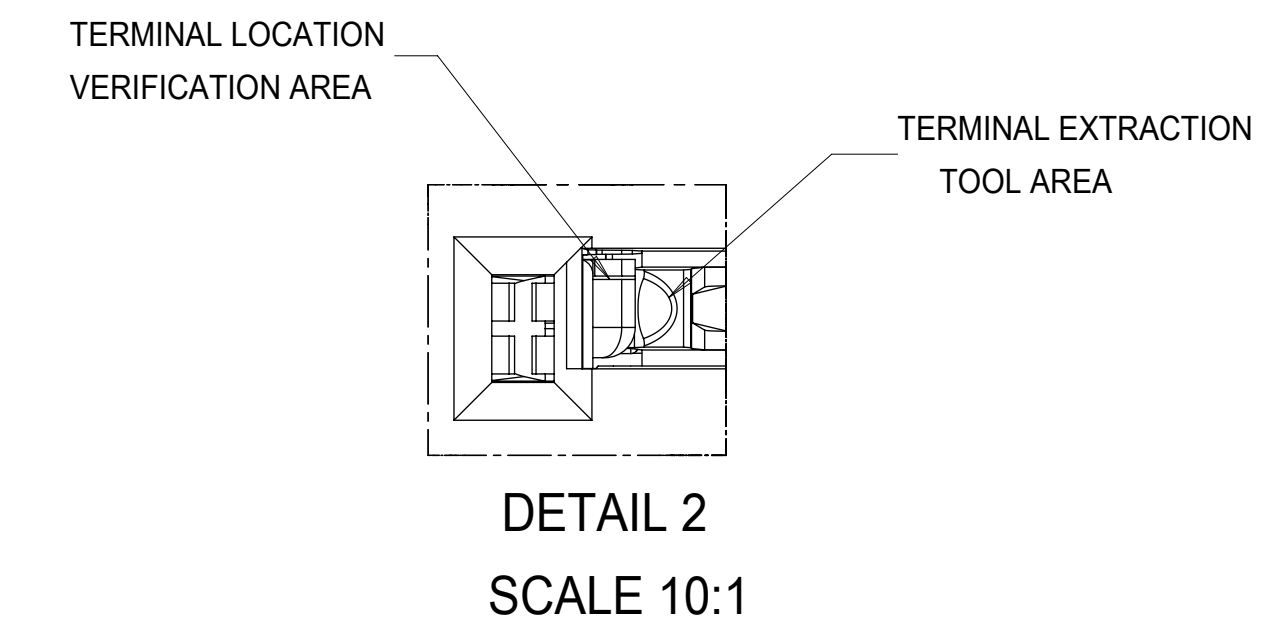
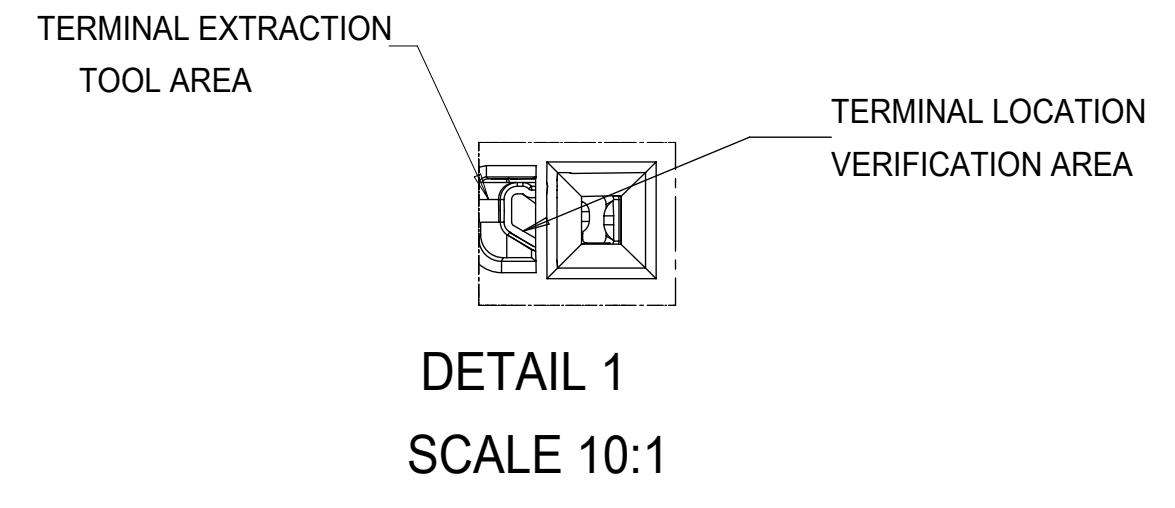
29WAY STAK50H HYBRID  
CONNECTOR ASSEMBLY

PRODUCT CUSTOMER DRAWING

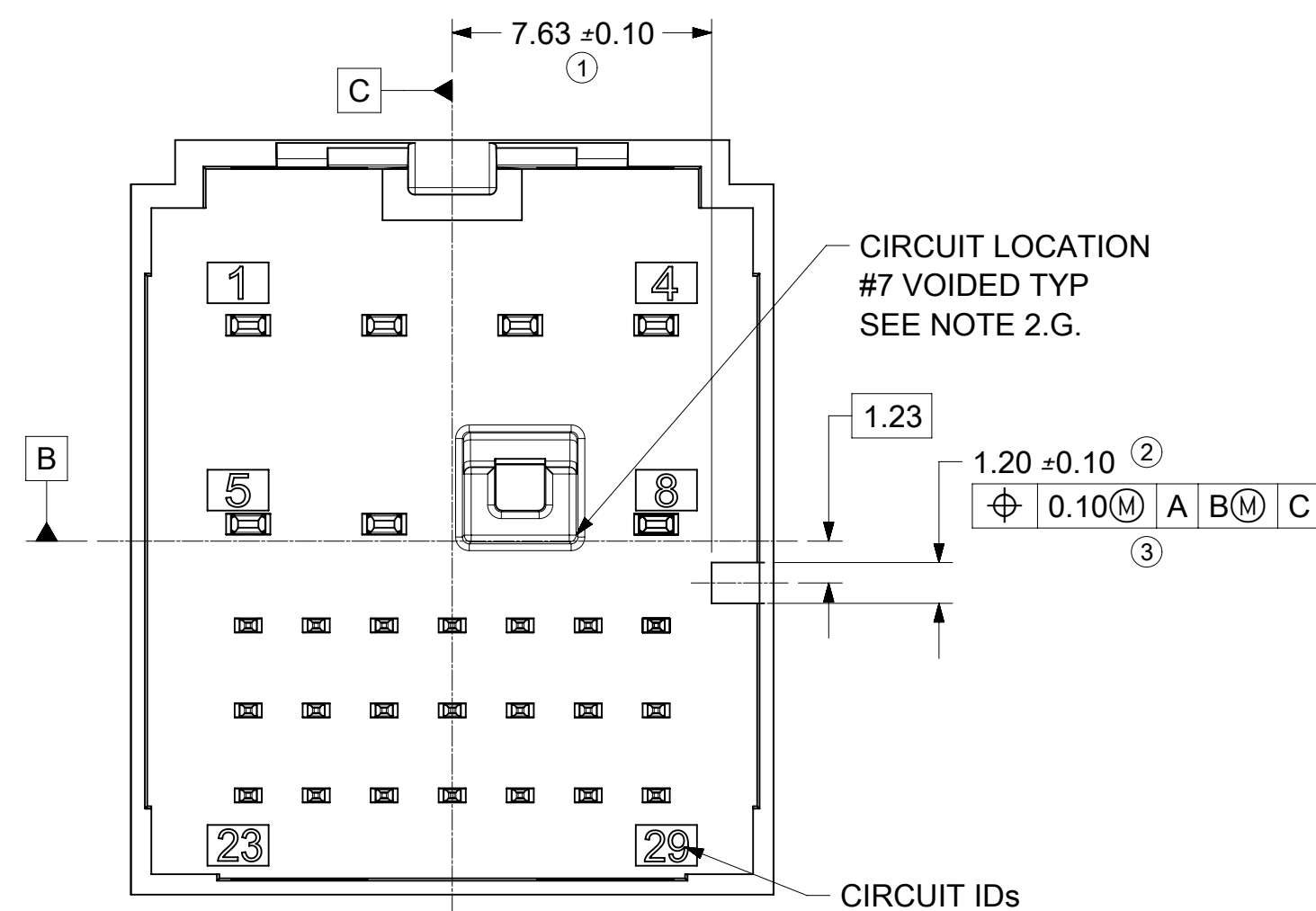
SERIES: 160014 MATERIAL NUMBER: CHARTED CUSTOMER: GENERAL MARKET

DOCUMENT NUMBER: SD-160014-0001 DOC TYPE: PSD 000 SHEET NUMBER: 1 OF 2

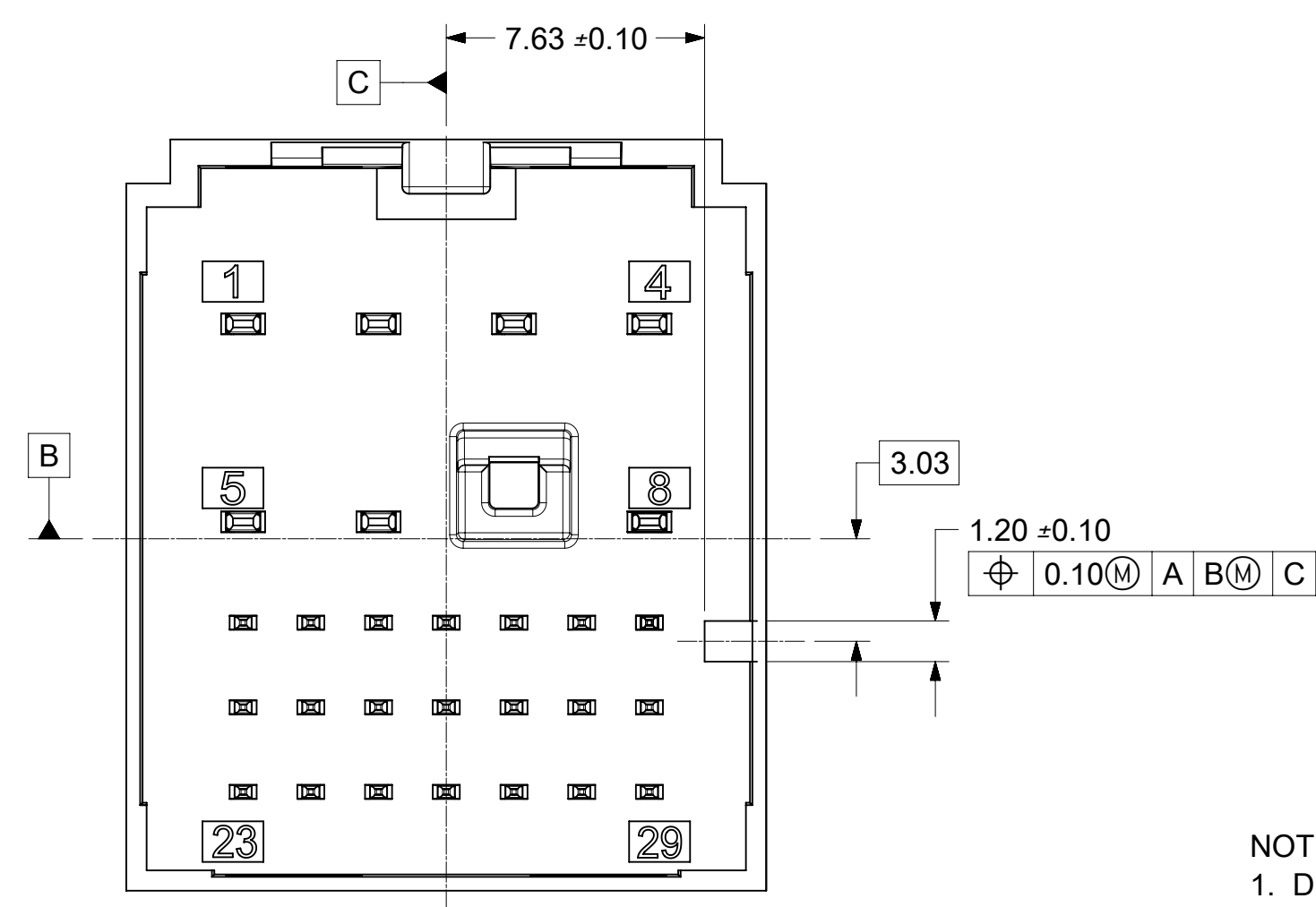
NOTE: 28WAY CONNECTOR VARIANT SHOWN.  
DIMENSIONS APPLY TO ALL CONNECTOR VARIANTS OF 29WAY



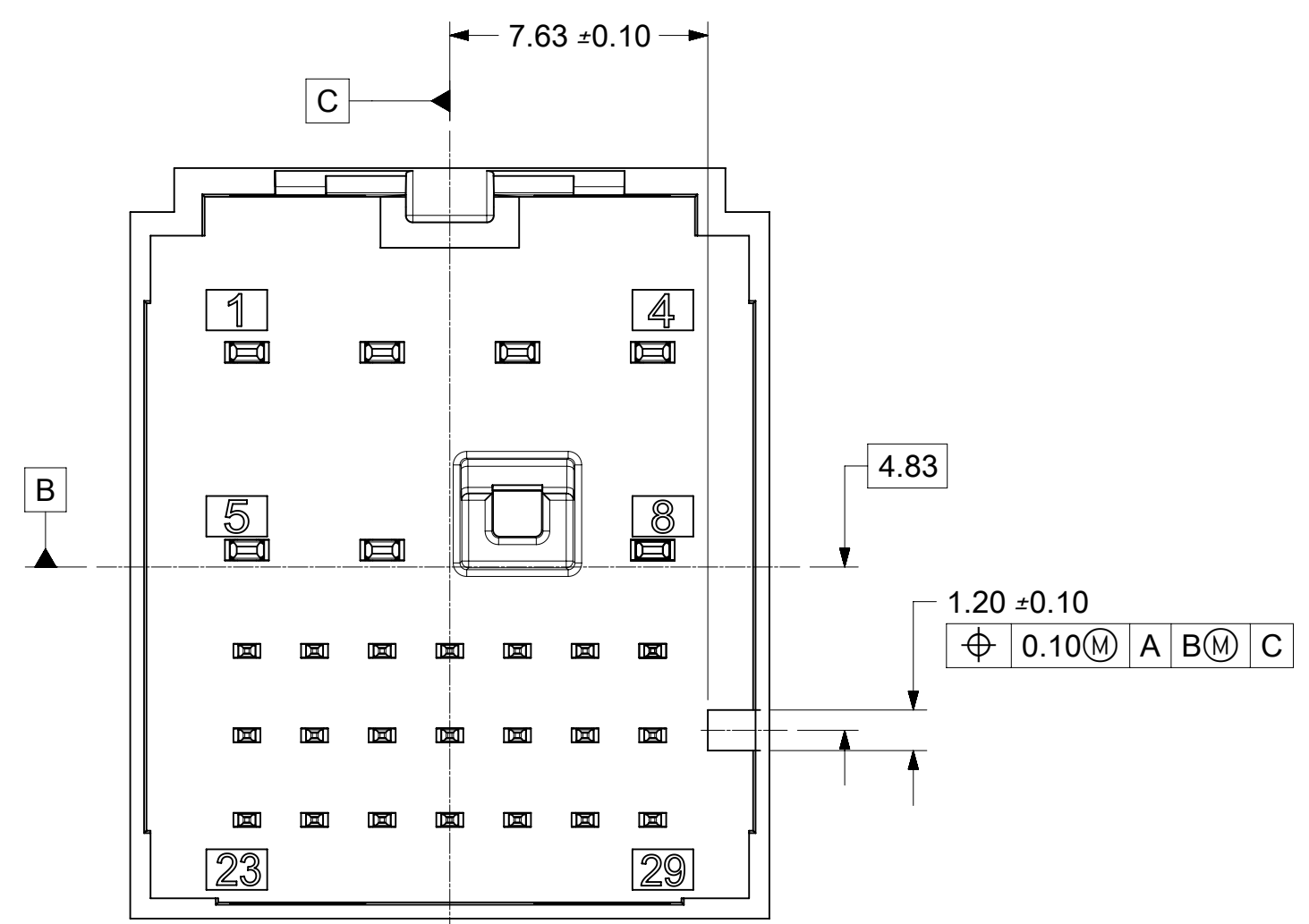
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
EC NO: 171181 DRWN: JOYA CHKD: JCONDON REV APPR: JCONDON	2018/01/22	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION UNITS
	2018/01/23	ANGULAR TOL ±	mm
	2018/01/23	4 PLACES ±	SCALE
		3 PLACES ±	5:1
		2 PLACES ± 0.3	DRWN BY
		1 PLACE ± 0.3	KDEKOSKI
	0 PLACES ± 0.3	DATE	2013/10/09
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	CHKD BY	JCONDON
		DATE	2013/12/06
		APPR BY	KDEKOSKI
		DATE	2014/06/16
		DRAWING SIZE	D
		THIRD ANGLE PROJECTION	☺
B1		SERIES	
		160014	MATERIAL NUMBER
		SEE SHEET 1	CUSTOMER
		GENERAL MARKET	
RELEASE STATUS		RELEASE DATE	
SD-160014-0001		DOC TYPE	PSD
2 OF 2		DOC PART	000
		SHEET NUMBER	2 OF 2



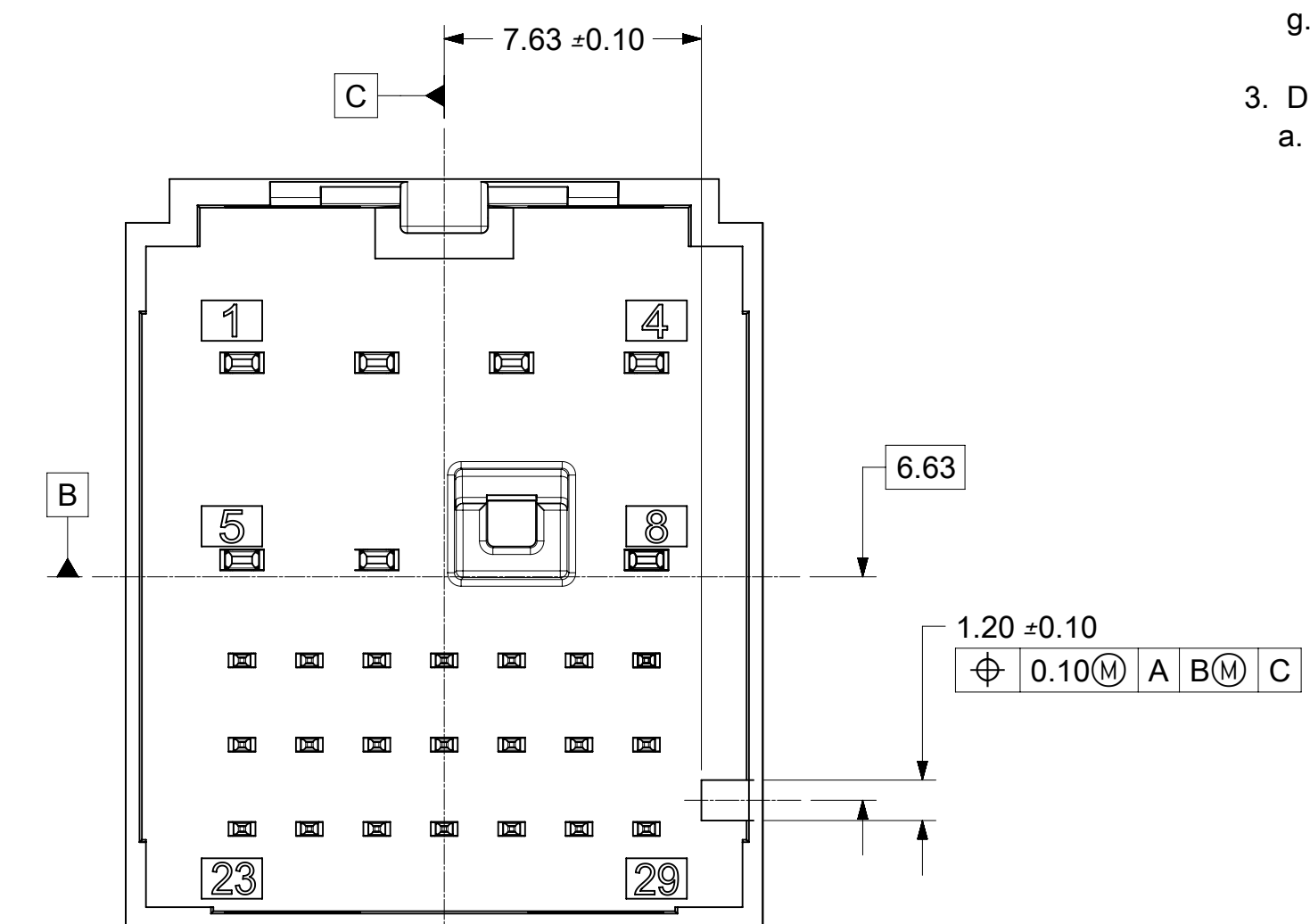
INTERFACE KEY #1  
MATING CONNECTOR COLOR; DARK GRAY



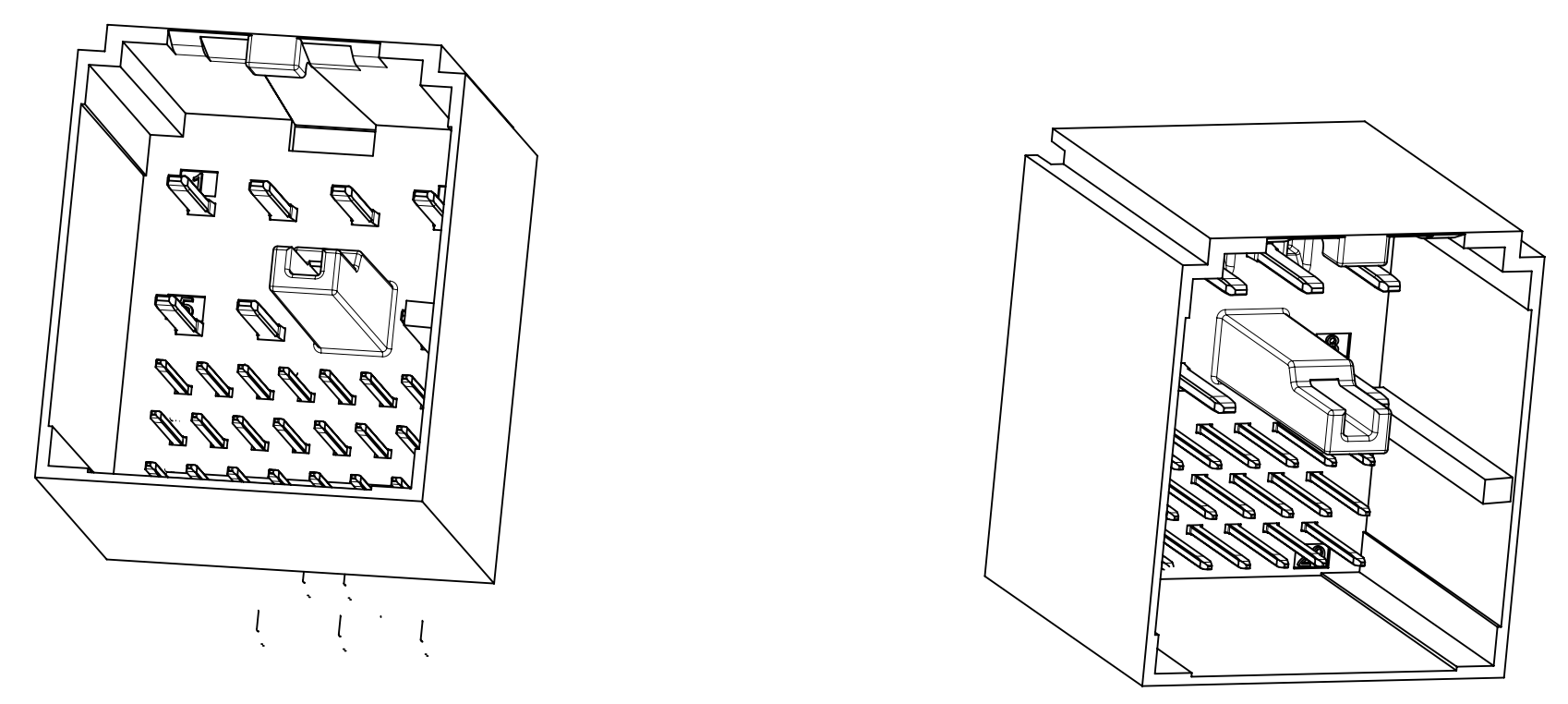
INTERFACE KEY #2  
MATING CONNECTOR COLOR; LT GREEN A



INTERFACE KEY #3  
MATING CONNECTOR COLOR; LIGHT GRAY



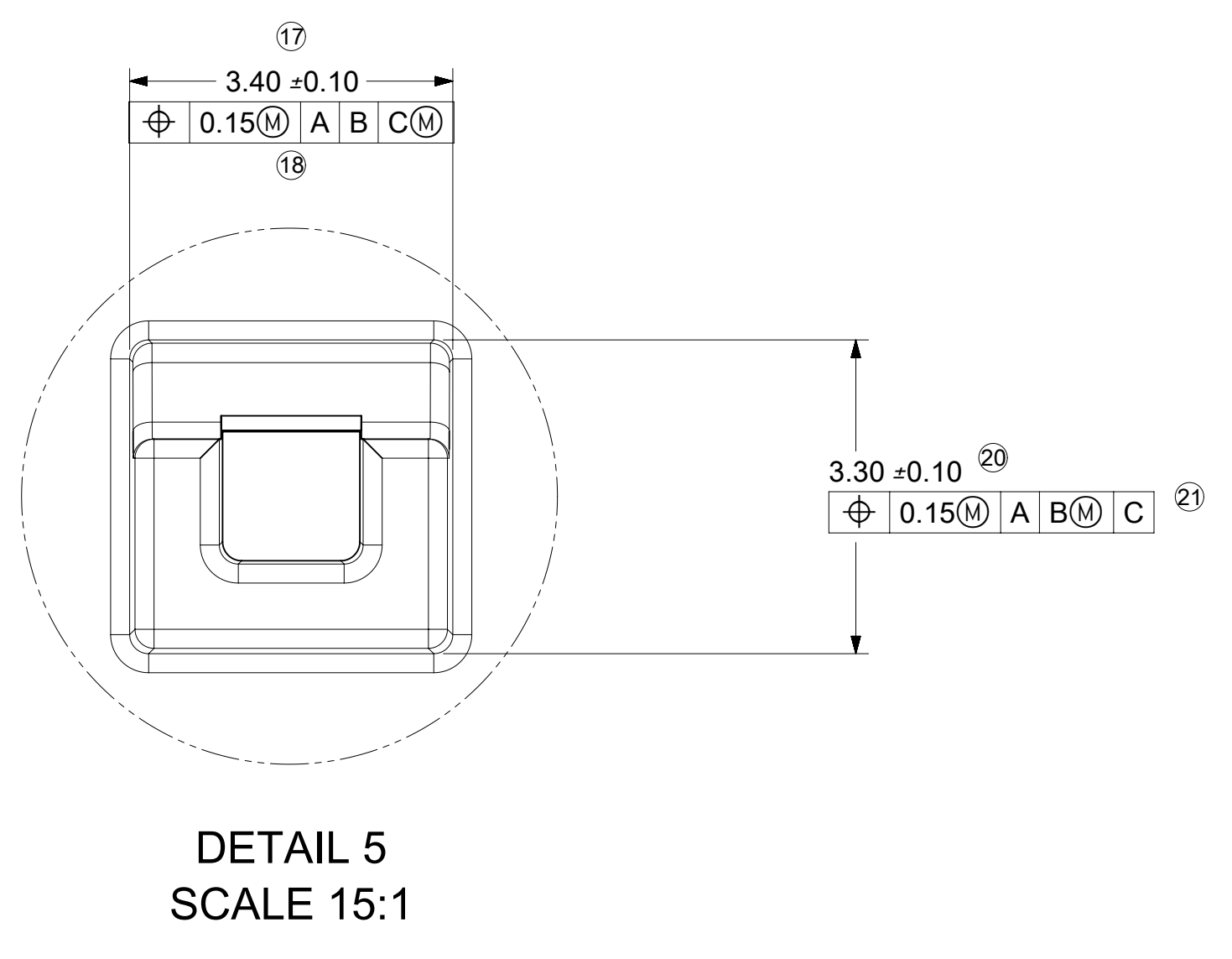
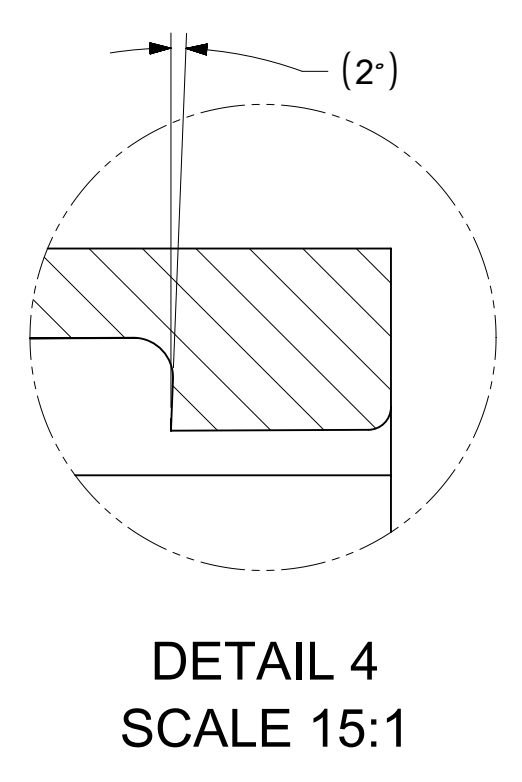
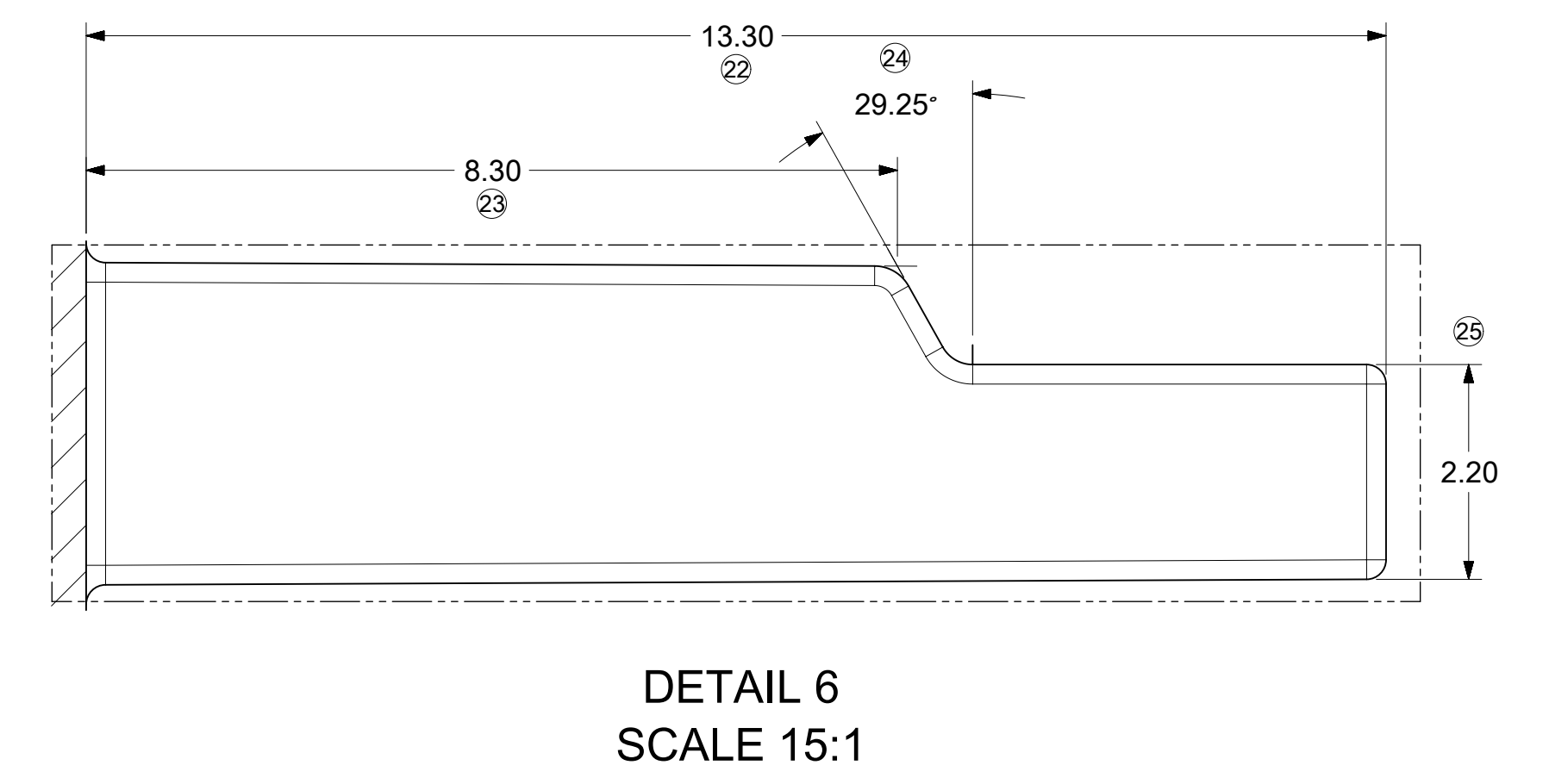
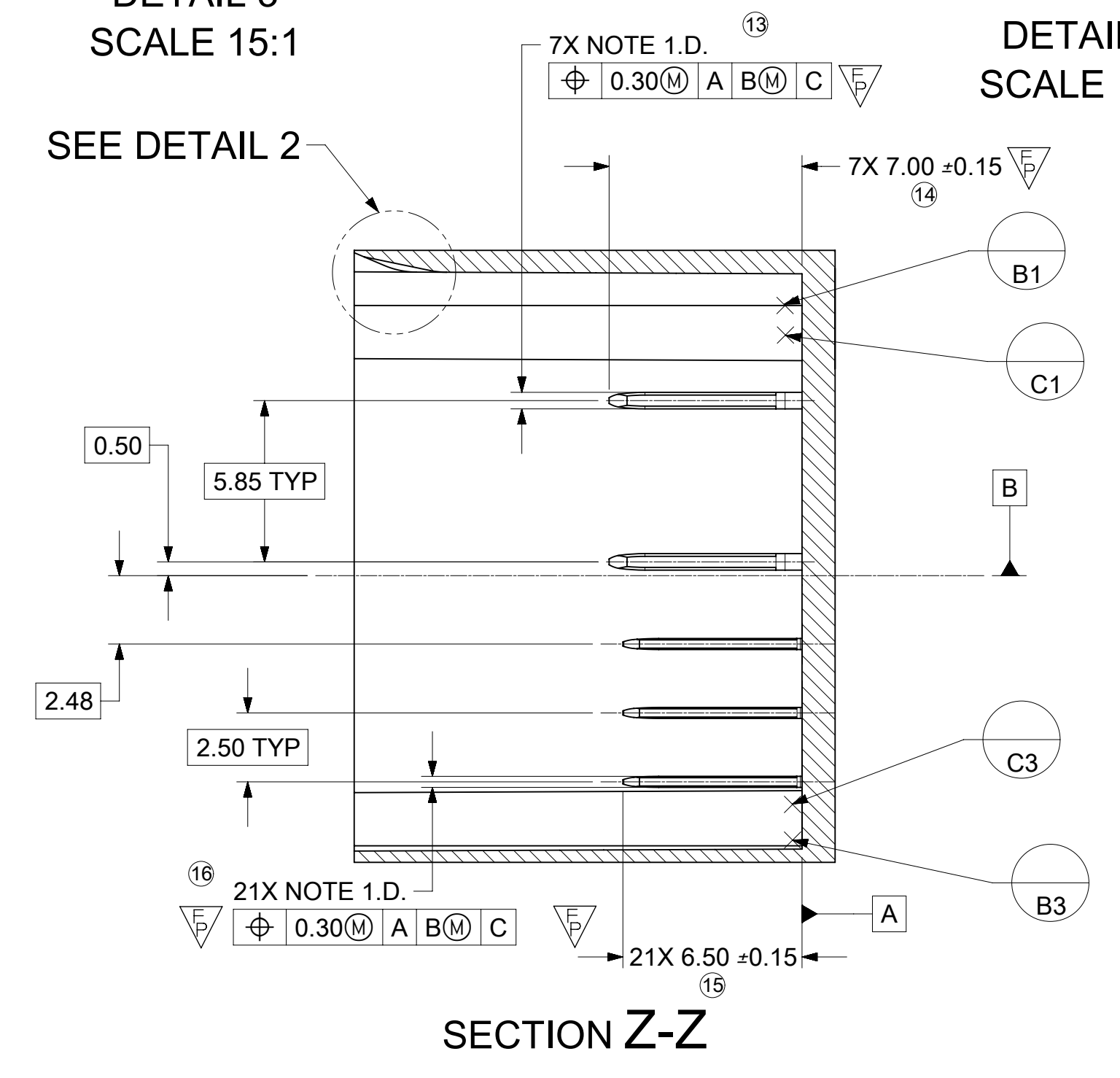
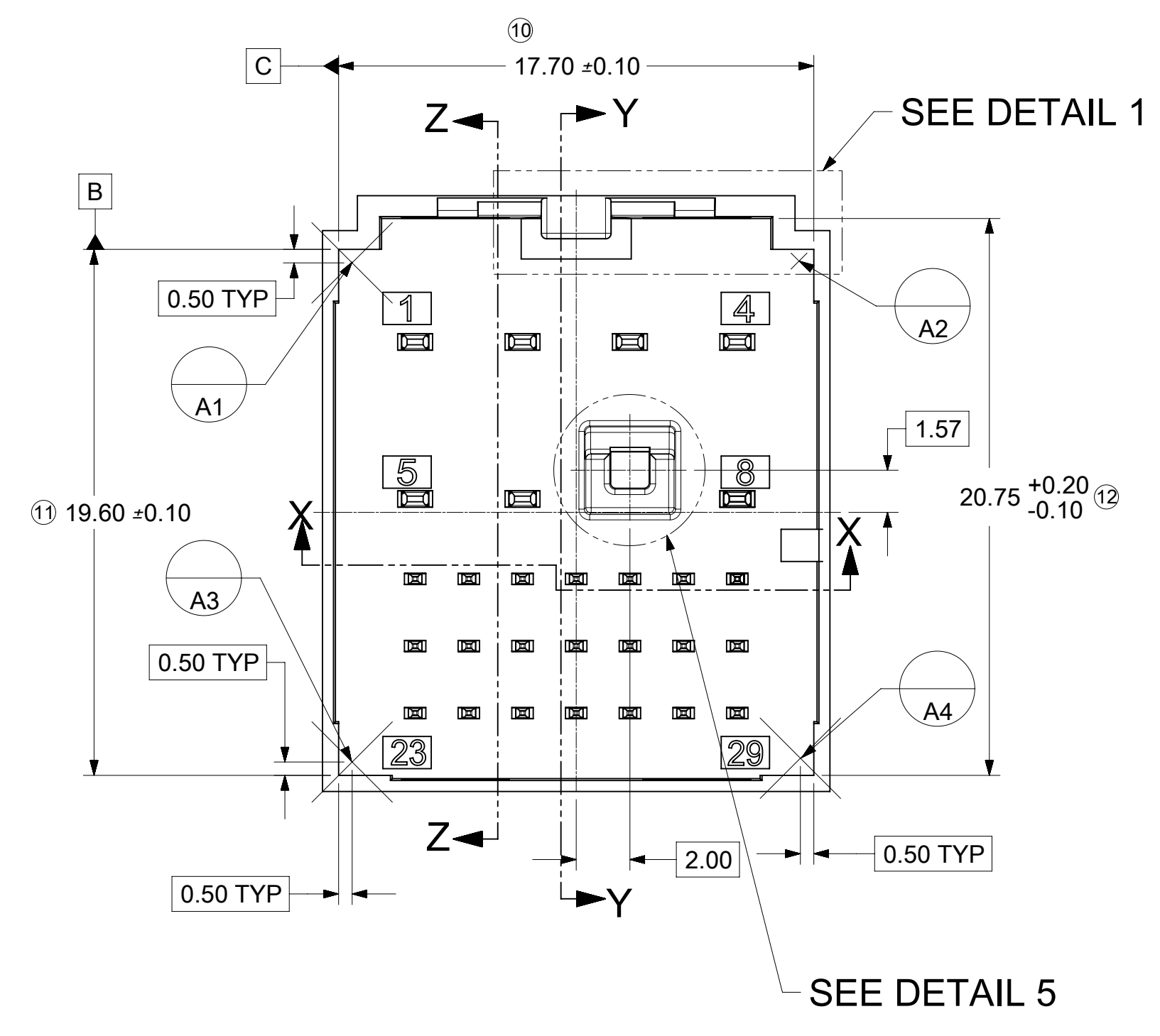
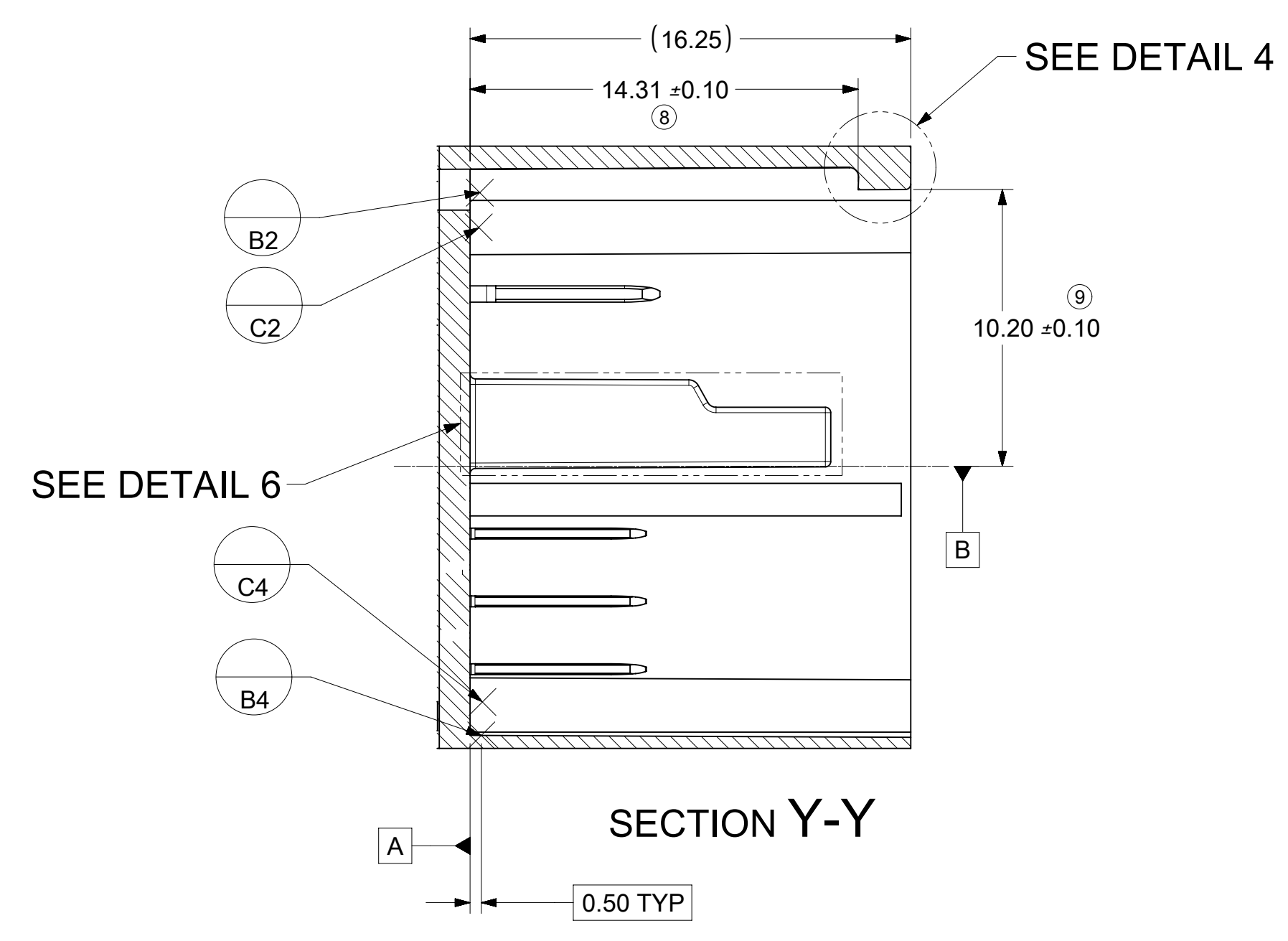
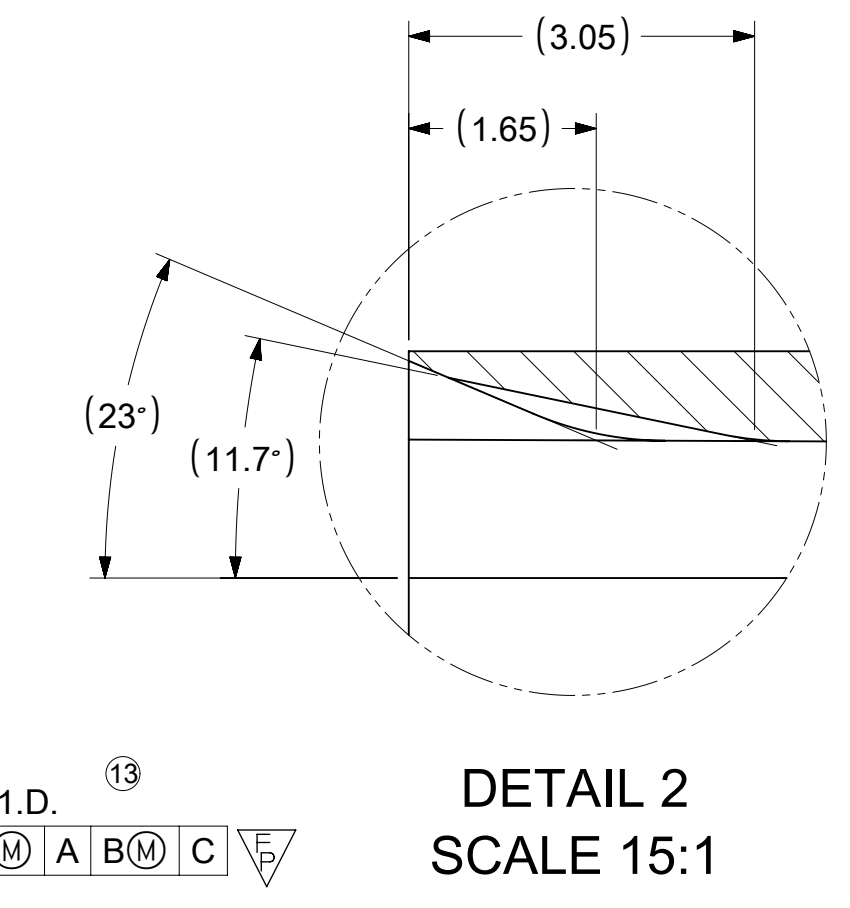
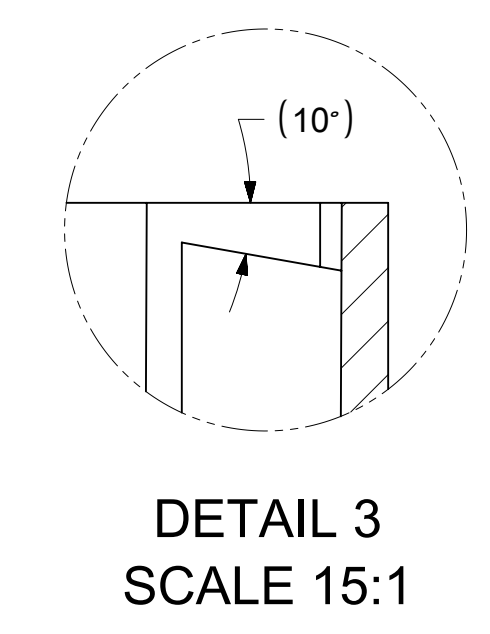
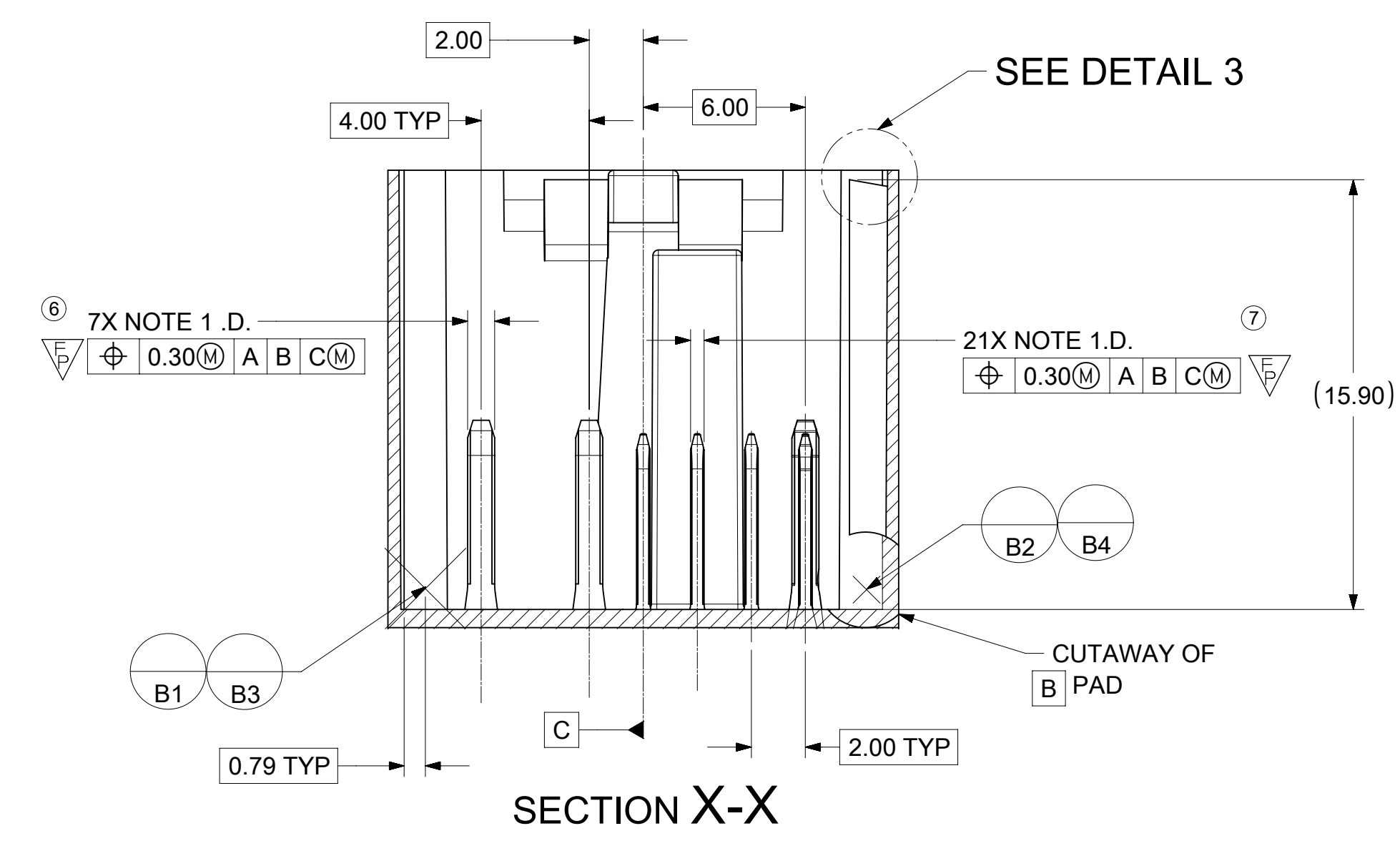
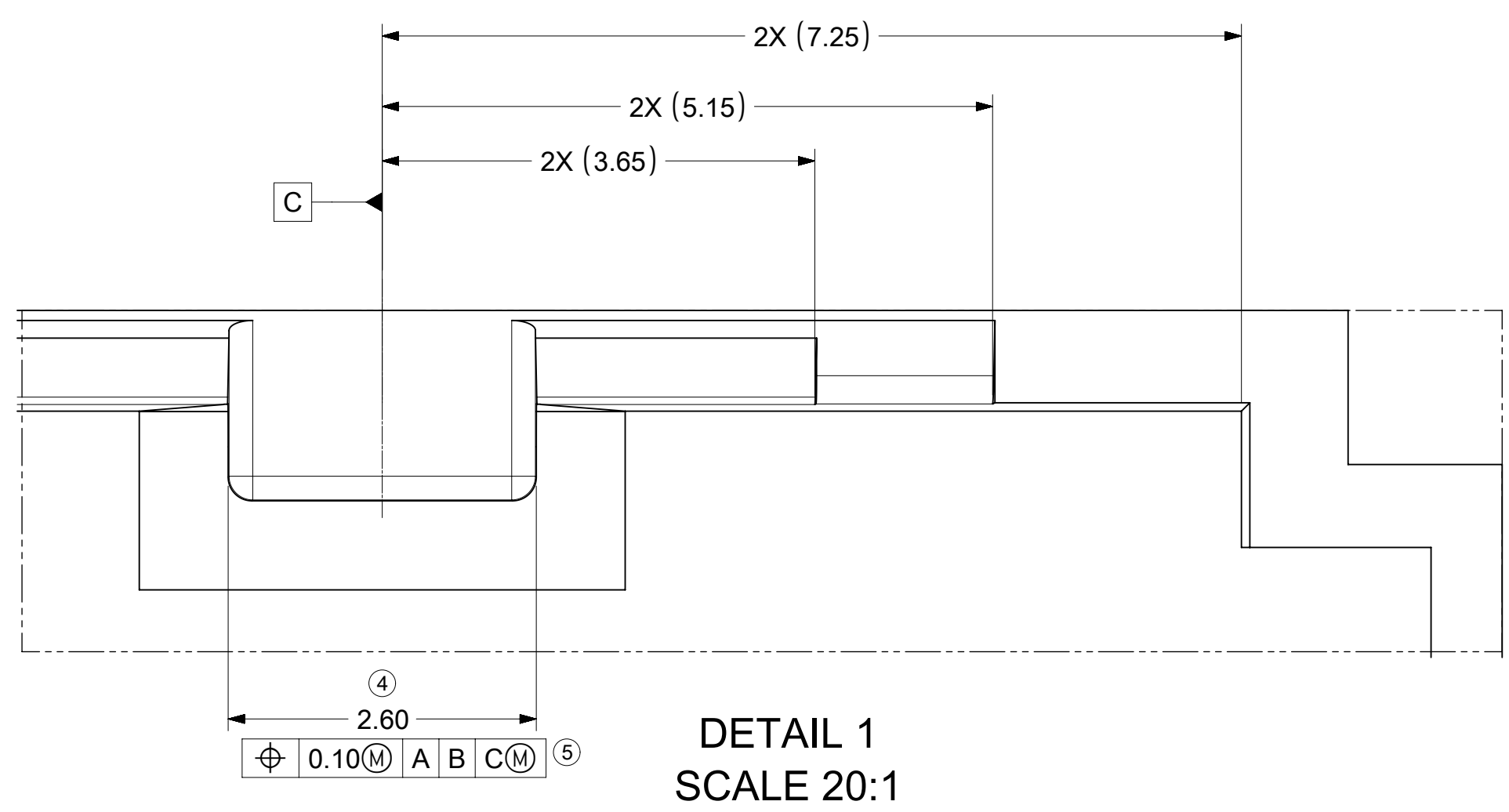
INTERFACE KEY #4  
MATING CONNECTOR COLOR; BLACK



- 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.

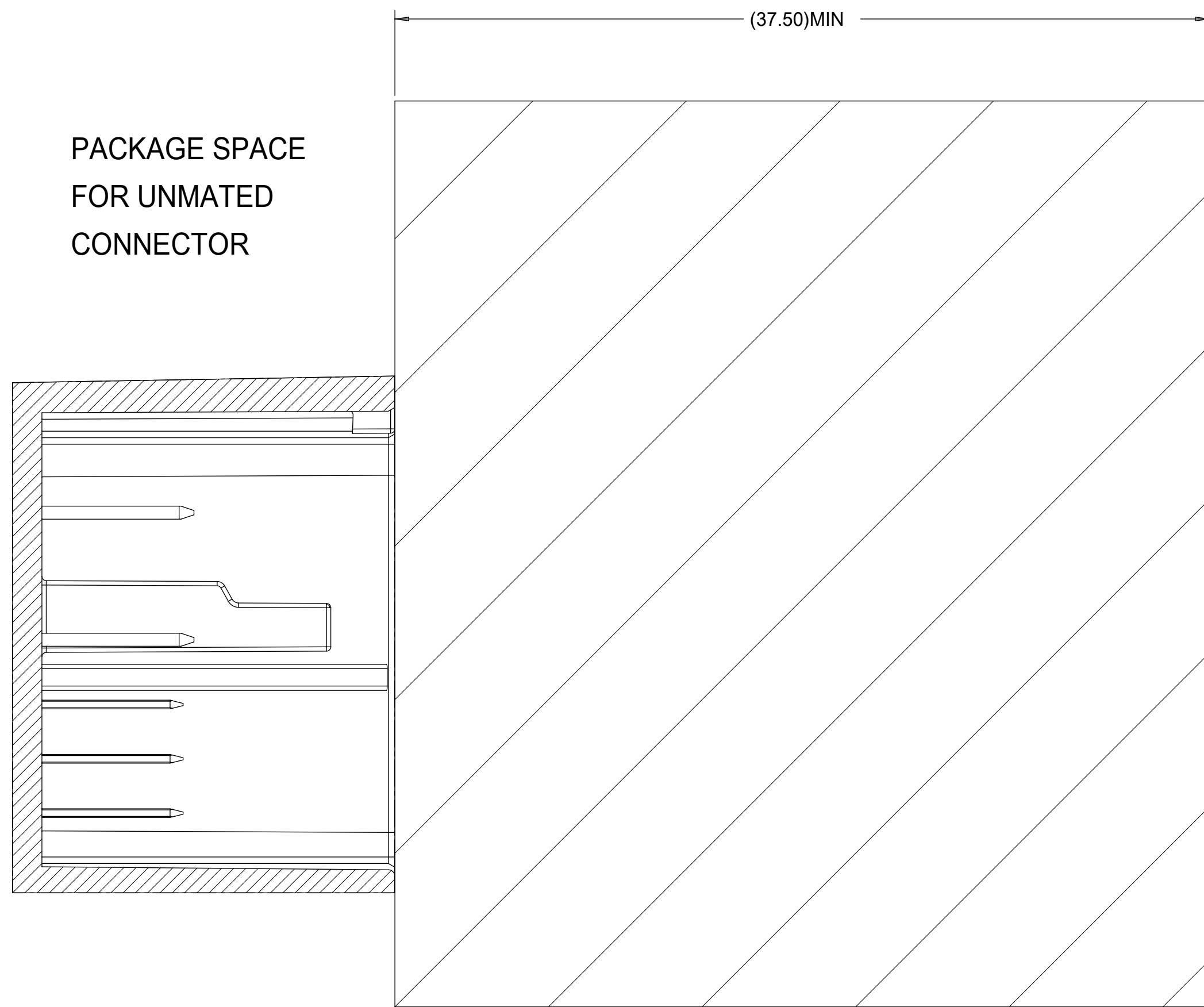
REV	DESCRIPTION
B1	ADDED BALLOONS JCONDON 07/31/2018
B	REMOVED 0.2MM FROM CONNECTOR LOCK TAB FEATURE
A3	NOTE 1.E. ADDED JCONDON 11/13/2017
A2	NX-REMASTERING SAP # 10867412
A1	UAU2016-1133 SAP # 10762453 JCONDON 02/02/2016
A	UAU2015-1973 SAP # 10701371 JCONDON 06/30/2015
6	UAU2015-1446 SAP # 10681629 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		<b>molex</b>
	DIMENSION UNITS	SCALE			
▽ = 0	mm	5:1			28WAY STAK50H INTERFACE DRAWING
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)				
▽ = 0	ANGULAR TOL ± °		EC NO: 602204		PRODUCT CUSTOMER DRAWING
▽ = 0	4 PLACES		DRWN: JCONDON 2018/07/31		
▽ = 0	3 PLACES		CHK'D: JCONDON 2018/08/03		DOCUMENT NUMBER
▽ = 0	2 PLACES		APPR: MVANSLAMBROU 2018/08/03		
▽ = 0	1 PLACE		INITIAL REVISION:		DOC TYPE
▽ = 0	0 PLACES		DRWN: MYOUNG01 2013/11/14		
☒ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPR: KDEKOSKI 2014/01/02		DOC PART
☒ = 0	THIRD ANGLE PROJECTION		DRAWING		REVISION
☒ = 0	D-SIZE		SERIES		SD-160014-002
			MATERIAL NUMBER		PSD
			CUSTOMER		001
			SHEET NUMBER		B1
			GENERAL MARKET		
			1 OF 3		

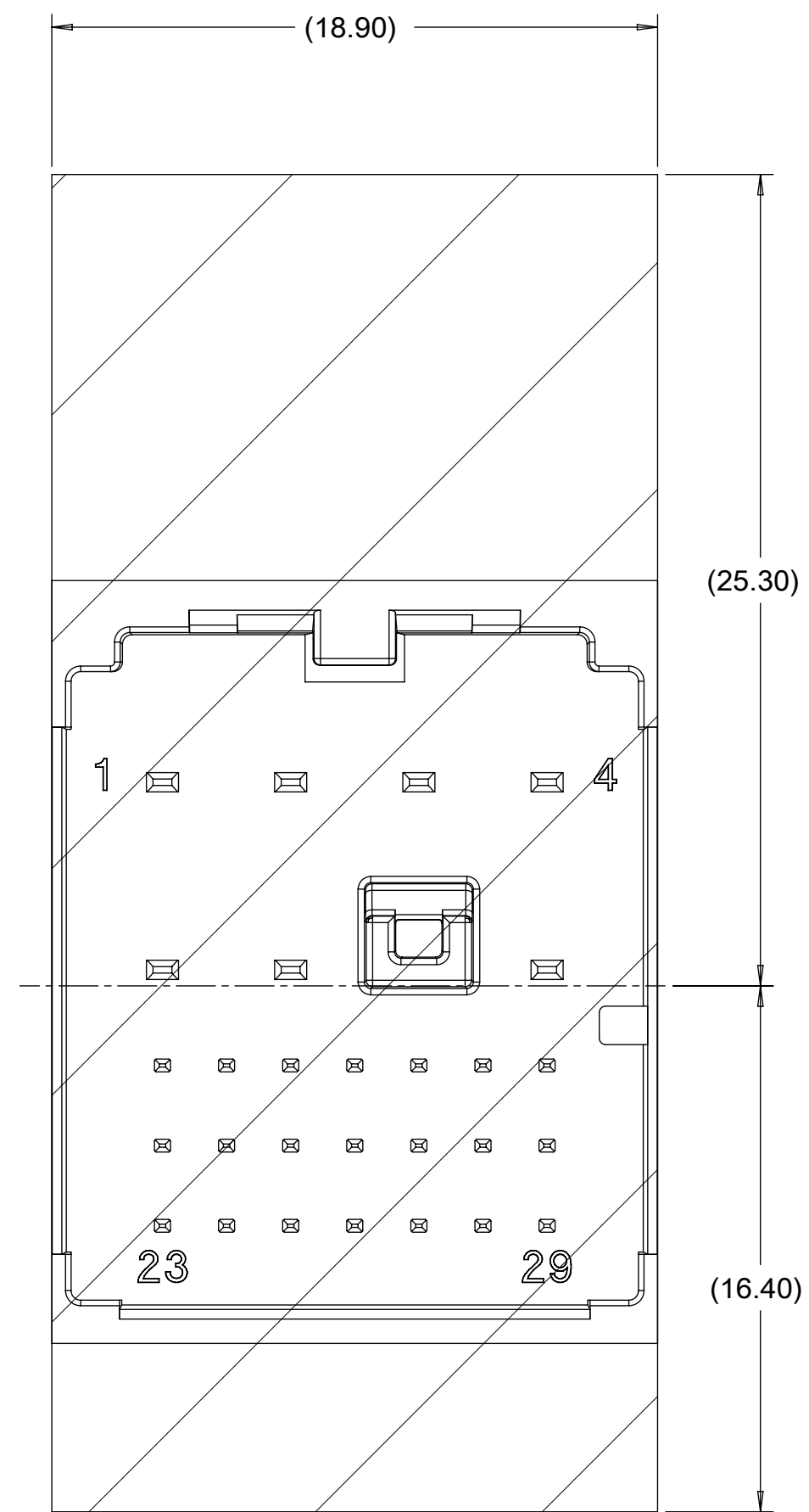


SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: ADD DIMENSION BALLOONS		<b>molex</b>		
	DIMENSION UNITS	SCALE					
▽ = 0	mm	5:1	EC NO: 602204		28WAY STAK50H INTERFACE DRAWING		
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DRWN: JCONDON 2018/07/31		PRODUCT CUSTOMER DRAWING		
▽ = 0	ANGULAR TOL ± °		CHK'D: JCONDON 2018/08/03		DOCUMENT NUMBER		
▽ = 0	4 PLACES ±		APPR: MVANSLAMBROU 2018/08/03		DOC TYPE DOC PART REVISION		
▽ = 0	3 PLACES ±		INITIAL REVISION:		SD-160014-002 PSD 001 B1		
▽ = 0	2 PLACES ±		DRWN: MYOUNG01 2013/11/14		MATERIAL NUMBER		
▽ = 0	1 PLACES ±		APPR: KDEKOSKI 2014/01/02		CUSTOMER		
▽ = 0	0 PLACES ±		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SHEET NUMBER		
▽ = 0	THIRD ANGLE PROJECTION		DRAWING		GENERAL MARKET		
▽ = 0	D-SIZE		SERIES		2 OF 3		
▽ = 0	160014						

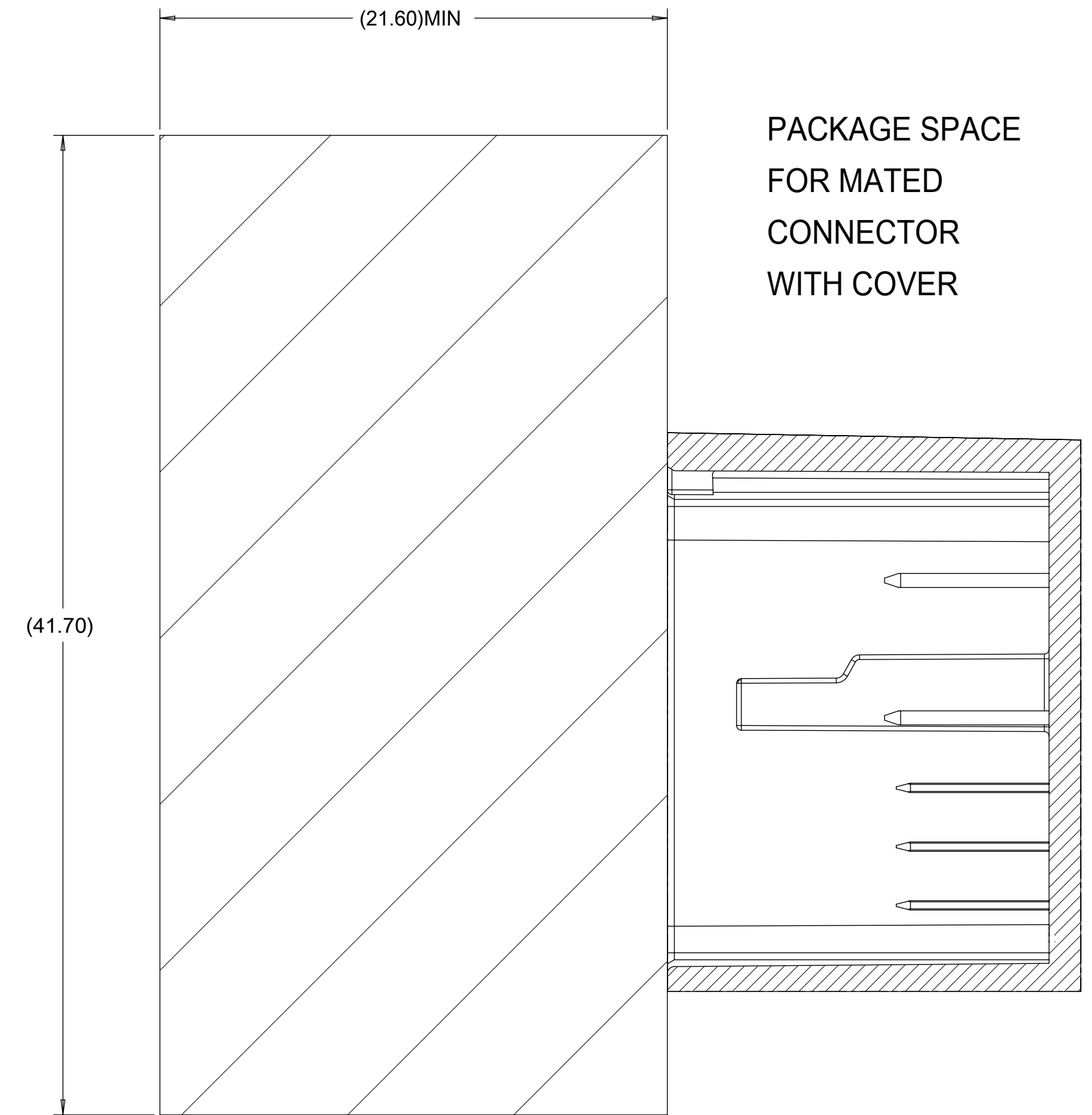
PACKAGE SPACE  
FOR UNMATED  
CONNECTOR



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
▽ = 0	1 PLACE	±	APPR: MVANSLAMBROU 2018/08/03
□ = 0	0 PLACES	±	INITIAL REVISION:
■ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		
▽ = 0	THIRD ANGLE PROJECTION	DRAWING	SERIES
		D-SIZE	160014

<b>molex</b>			
28WAY STAK50H INTERFACE DRAWING			
PRODUCT CUSTOMER DRAWING			
DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
SD-160014-002	PSD	001	B1
MATERIAL NUMBER	CUSTOMER	SHEET NUMBER	
	GENERAL MARKET	3 OF 3	