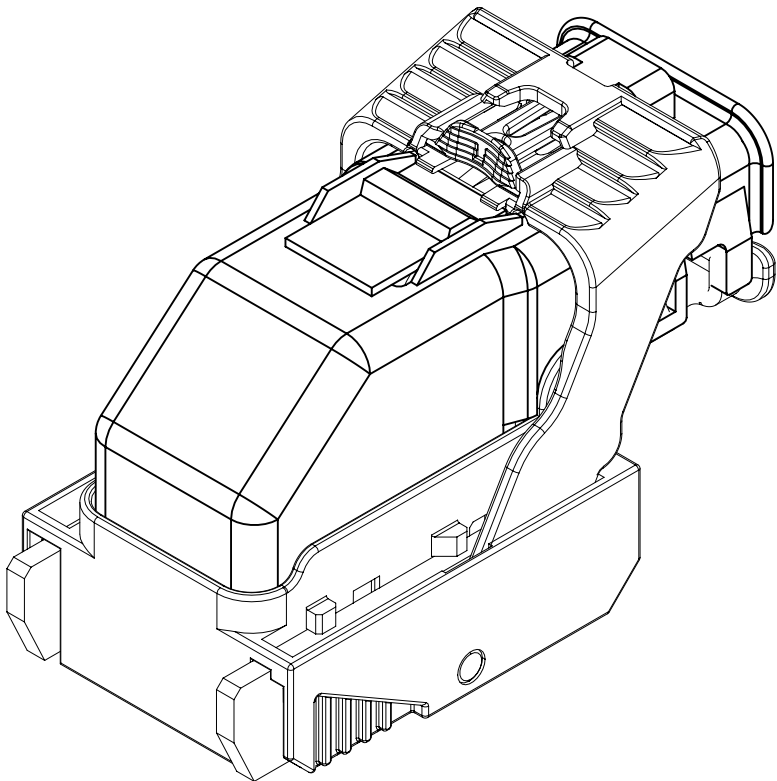


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ISO VIEW

		THIS DOCUMENT IS IN ACCORDANCE WITH ASME Y14.5M-1994 AS AMENDED BY THE GM GLOBAL DIMENSIONING AND TOLERANCING ADDENDUM - 2004.			
		DATE			
 CHANGE RESTRICTED NO MANUAL CHANGES	REFERENCE 12H (MOLEX AUTOMOTIVE)	DRAFTER	D. KOEHLER	28AP15	
		APVD1	M.R. OOSTERINK	29AP15	
APVD2		J. SWARTZ	29AP15		
APVD3		G. FLECK	08MY15		
APVD4					
DO NOT SCALE		APVD5			
METRIC DIMENSIONS SHOWN IN MILLIMETERS UNLESS OTHERWISE SPECIFIED	DRAWING NAME HARNESS CONN ASM-SEALED 18/49/56 CKTS, MX123				
	DRAWING NUMBER 12642694	DWG STATUS			PAGE NUMBER 1 of 22
		ST	REV	PD1	
		R	001		

PAGE	DWG STATUS					REVISION HISTORY	AUTH	DR	CK	ENG
	DATE	ST	REV	CHG	PD I					

PAGE	DWG STATUS					REVISION HISTORY	AUTH	DR	CK	ENG
	DATE	ST	REV	CHG	PD I					
	08MY15	R	001			RELEASED TO PRODUCTION AT DLS A	CRMRJD	DFK	MRO	GF

				KEY PRODUCT CHARACTERISTICS (IN ACCORDANCE WITH QN 1805 OR QN 1050)								
				⊖ SAFETY/COMPLIANCE ◇ FIT/FUNCTION			TOTAL ON DRAWING	5				
							LAST NO. USED	5				
				NO	TYPE	DESCRIPTION	RATIONALE		PAGE/ZONE			
				1	F/F	32.68	IMPROVE CONNECTOR SYSTEM MATING		16			
2	F/F	29.00	INSURE PROPER RELEASE OF LEVER		16							
3	F/F	15.25	INSURE FINAL MATE POSITION		17							
5	F/F	POSITIONAL TOLERANCE (2 PLACES)	INSURE CONNECTOR SYSTEM MATIBILITY		20							
GM		PAGE TITLE KPC BLOCK				DRAWING NUMBER		DWG STATUS		PAGE NUMBER 4 of 22		
						12642694		ST	REV			PDI
								R	001			

					APPLICABLE COMPONENTS					
FIG.	MFG.	MFG. P/N	GM P/N	Effective Date	DESCRIPTION	Key Option	Wire Dress Option	Key Config.	Color	Status
1	Molex	34575-0003	12582679	02JN03	WIRE HARNESS COVER	N/A	NA	N/A	BLACK	AVAILABLE
2	Molex	34576-0103	12666118	31JL15	HARN CONN ASM 49 CKT	A	0	1458	BLACK	ACTIVE
3	Molex	34576-0203	12650786	T.B.D.	HARN CONN ASM 49 CKT	B	0	1468	ST GRAY	NOT ACTIVE
4	Molex	34576-0303	12666120	31JL15	HARN CONN ASM 49 CKT	C	0	2467	BLUE	ACTIVE
5	Molex	34576-0403	12615660	T.B.D.	HARN CONN ASM 49 CKT	D	0	2367	BROWN	NOT ACTIVE
6	Molex	34576-0503	12615661	T.B.D.	HARN CONN ASM 49 CKT	E	0	2468	GREEN	NOT ACTIVE
7	Molex	34576-0603	12615662	T.B.D.	HARN CONN ASM 49 CKT	F	0	1357	NATURAL	NOT ACTIVE
8	Molex	34576-0703	12582680	11JN04	HARN CONN ASM 56 CKT	G	0	1358	BLUE	AVAILABLE
9	Molex	34576-0803	12582681	11JN04	HARN CONN ASM 56 CKT	H	0	2458	ST GRAY	AVAILABLE
10	Molex	34576-0903	12615658	T.B.D.	HARN CONN ASM 56 CKT	J	0	2457	BLACK	NOT ACTIVE
11	Molex	34576-1003	AVA77166	T.B.D.	HARN CONN ASM 56 CKT	K	0	2357	BROWN	NOT ACTIVE
12	Molex	34576-1103	AVA77167	T.B.D.	HARN CONN ASM 56 CKT	L	0	2368	GREEN	NOT ACTIVE
13	Molex	34576-1203	AVA77168	T.B.D.	HARN CONN ASM 56 CKT	M	0	2358	NATURAL	NOT ACTIVE
14	Molex	34576-1303	12666119	31JL15	HARN CONN ASM 49 CKT	A	9	1458	BLACK	ACTIVE
15	Molex	34576-1403	12650787	T.B.D.	HARN CONN ASM 49 CKT	B	9	1468	ST GRAY	NOT ACTIVE
16	Molex	34576-1503	12666121	31JL15	HARN CONN ASM 49 CKT	C	9	2467	BLUE	ACTIVE
17	Molex	34576-1603	12615663	T.B.D.	HARN CONN ASM 49 CKT	D	9	2367	BROWN	NOT ACTIVE
18	Molex	34576-1703	12615664	T.B.D.	HARN CONN ASM 49 CKT	E	9	2468	GREEN	NOT ACTIVE
19	Molex	34576-1803	12615665	T.B.D.	HARN CONN ASM 49 CKT	F	9	1357	NATURAL	NOT ACTIVE
20	Molex	34576-1903	12603600	11JN04	HARN CONN ASM 56 CKT	G	9	1358	BLUE	AVAILABLE
21	Molex	34576-2003	12603601	T.B.D.	HARN CONN ASM 56 CKT	H	9	2458	ST GRAY	NOT ACTIVE
22	Molex	34576-2103	12615659	T.B.D.	HARN CONN ASM 56 CKT	J	9	2457	BLACK	NOT ACTIVE
23	Molex	34576-2203	AVA77192	T.B.D.	HARN CONN ASM 56 CKT	K	9	2357	BROWN	NOT ACTIVE
24	Molex	34576-2303	AVA77193	T.B.D.	HARN CONN ASM 56 CKT	L	9	2368	GREEN	NOT ACTIVE
25	Molex	34576-2403	AVA77143	T.B.D.	HARN CONN ASM 56 CKT	M	9	2358	NATURAL	NOT ACTIVE
26	Molex	34851-0007	12644156	31AU15	HARN CONN ASM 18 CKT	G	0	1358	BLUE	ACTIVE
27	Molex	34851-0008	12644158	31AU15	HARN CONN ASM 18 CKT	H	0	2458	ST GRAY	ACTIVE
28	Molex	34851-0019	12644157	31AU15	HARN CONN ASM 18 CKT	G	9	1358	BLUE	ACTIVE
29	Molex	34851-0020	12644159	31AU15	HARN CONN ASM 18 CKT	H	9	2458	ST GRAY	ACTIVE
30	Molex	34736-2002	12642697	01AU10	MX64 RCPT TERM Ag 18/20 GAGE B (RIGHT PAYOFF)	N/A	N/A	N/A	N/A	AVAILABLE
31	Molex	34736-2001	12642696	01AU10	MX64 RCPT TERM Ag 22 GAGE B (RIGHT PAYOFF)	N/A	N/A	N/A	N/A	AVAILABLE
32	Molex	34586-0001	T.B.D.	11JN04	MX123 0.64MM GROMMET PLUG	N/A	N/A	N/A	NATURAL	AVAILABLE
33	Yazaki	7116-4150-02	12588066	02JN03	2.8mm YESC SEALED FEMALE TERMINAL TIN 20/22 GAGE (CABLE RANGE 0.30mm-0.60mm)	N/A	N/A	N/A	N/A	NOT ACTIVE
34	Yazaki	7116-4151-02	12588067	02JN03	2.8mm YESC SEALED FEMALE TERMINAL TIN 16/18 GAGE (CABLE RANGE 0.75mm-1.40mm)	N/A	N/A	N/A	N/A	NOT ACTIVE
35	Yazaki	7116-4152-02	12582685	02JN03	2.8mm YESC SEALED FEMALE TERMINAL TIN 14 GAGE (CABLE RANGE 1.50mm-2.50mm)	N/A	N/A	N/A	N/A	AVAILABLE
36	Yazaki	7158-3111-60	12588068	02JN03	2.8mm CABLE SEAL (wire O.D. range 1.20mm-1.90mm)	N/A	N/A	N/A	GREEN	NOT ACTIVE
37	Yazaki	7158-3112-70	12588069	02JN03	2.8mm CABLE SEAL (wire O.D. range 1.80mm-2.30mm)	N/A	N/A	N/A	YELLOW	NOT ACTIVE
38	Yazaki	7158-3113-40	12582686	02JN03	2.8mm CABLE SEAL (wire O.D. range 2.18mm-3.00mm)	N/A	N/A	N/A	WHITE	AVAILABLE
39	Yazaki	7158-3114-90	T.B.D.	02JN03	2.8mm YESC CAVITY PLUG	N/A	N/A	N/A	BLUE	AVAILABLE
40	FCI	33140138	12646399	10JA14	6.35mm APEX RCPT TERM Sn/Ag GRIP CODE-10 (6mm2) - Greased	N/A	N/A	N/A	N/A	AVAILABLE
41	FCI	33140135	12654556	10JA14	6.35mm APEX RCPT TERM Sn/Ag GRIP CODE-TBD (1mm2) - Greased	N/A	N/A	N/A	N/A	AVAILABLE
42	QSR	A-0549C	12646688	01SE14	6.35mm CABLE SEAL (FOR 6.0mm2 WIRE SIZE - 3.6 TO 4.2mm INSULATION OD)	N/A	N/A	N/A	WHITE	AVAILABLE
43	QSR	A-0549B	12654557	01SE14	6.35mm CABLE SEAL (FOR 0.75-1.25mm2 WIRE SIZE - 1.8 TO 2.3mm INSULATION OD)	N/A	N/A	N/A	BLUE	AVAILABLE
44	Molex	63811-4200	XX019825	02JN03	MX64 TERM HAND CRIMP TOOL	N/A	N/A	N/A	N/A	AVAILABLE
45	Molex	63813-1400	XX019826	02JN03	MX64 TERM SERVICE TOOL	N/A	N/A	N/A	N/A	AVAILABLE
46	Molex	63865-8000	XX019827	02JN03	MX64 CRIMP APPLICATOR with TOOL KIT 18/20 GAGE PAYOFF DIRECTION D (left payoff) (contact Molex for payoff detail)	N/A	N/A	N/A	N/A	AVAILABLE
47	Molex	63865-8070	XX019828	02JN03	MX64 APPLICATOR TOOL KIT 18/20 GAGE	N/A	N/A	N/A	N/A	AVAILABLE
48	Molex	63865-8100	XX019829	02JN03	MX64 CRIMP APPLICATOR with TOOL KIT 22 GAGE PAYOFF DIRECTION D (left payoff) (contact Molex for payoff detail)	N/A	N/A	N/A	N/A	AVAILABLE
49	Molex	63865-8170	XX019830	02JN03	MX64 APPLICATOR TOOL KIT 22 GAGE	N/A	N/A	N/A	N/A	AVAILABLE
50	SPX	J35616-64	T.B.D.	02JN03	0.64mm PROBE TOOL (for rcpt)	N/A	N/A	N/A	N/A	AVAILABLE
51	SPX	J35616-64A	T.B.D.	02JN03	0.64mm PROBE TOOL WITH EXT (for rcpt)	N/A	N/A	N/A	N/A	AVAILABLE
52	SPX	J35616-65	T.B.D.	02JN03	0.64mm PROBE TOOL WITH EXT (for pin)	N/A	N/A	N/A	N/A	AVAILABLE
53	SPX	J35616-4A	T.B.D.	02JN03	2.8mm PROBE TOOL (for rcpt)	N/A	N/A	N/A	N/A	AVAILABLE
54	YAZAKI	X39899-J374	12094430	02JN03	2.8mm TERM SERVICE TOOL	N/A	N/A	N/A	N/A	AVAILABLE
55	TQI	7000-1001	N/A	01FE15	18CKT PASS THROUGH ADAPTERS	N/A	N/A	N/A	BLACK	AVAILABLE
56	TQI	7000-1004	N/A	01FE15	49CKT PASS THROUGH ADAPTERS	N/A	N/A	N/A	BLACK	AVAILABLE
57	TQI	79917-0060	N/A	02JA08	56CKT PASS THROUGH ADAPTERS	N/A	N/A	N/A	BLACK	AVAILABLE
58	Molex	63813-1500	J-38125-217	01SE14	6.35mm APEX TERM SERVICE TOOL	N/A	N/A	N/A	N/A	AVAILABLE

* MX123 WIRE HARNESS COVER
MATES TO ANY 18/49/56 CKT
MX123 HARN CONN ASSY
SHOWN ON THIS TABLE

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NOTES: UNLESS OTHERWISE SPECIFIED

1. MATERIAL FOR INTERFACE:

- A. RESIN:

1. 30% G.F. PBT; 20% MAX. (BY WEIGHT) REGRIND.

2. MATING CONNECTOR INTERFACE PART COLOR MUST BE SAME AS MATCHING KEYED HARNESS CONNECTOR ASSEMBLY.

3. MUST BE VALIDATED FOR INDIVIDUAL DEVICE APPLICATION REQUIREMENTS.
- B. 0.64MM PINS:

1. BASE MATERIAL: COPPER ALLOY; CONDUCTIVITY >= 28% IACS AT 20°C; TENSILE STRENGTH >= 635 N/mm²; SURFACE ROUGHNESS R_a 6 MAX.

2. PLATING FINISH: SILVER (Ag). PLATING TO BE 1.9-3.3 µm ELECTRODEPOSITED SEMI-BRIGHT SILVER OVER 1.25-2.25 µm DUCTILE SULPHAMATE NICKEL PER NOTE 1(D).

3. ANTI-TARNISH: SYNTHETIC HYDROCARBON CONTACT SURFACE FINISH OR EQUIVALENT APPLIED WITHOUT VOID TO CONTACT AREA (MIN 3.7mm FROM PIN TIP).
- C. 2.8MM BLADE:

1. BASE MATERIAL: COPPER ALLOY; CONDUCTIVITY>= 28% IACS AT 20°C; TENSILE STRENGTH >= 350 N/mm²; SURFACE ROUGHNESS R_a 6 MAX.

2. PLATING FINISH: TIN. PLATING TO BE 2.5-5.0 µm ELECTRODEPOSITED TIN, MATTE FINISH OVER 1.25-2.5µm DUCTILE SULPHAMATE NICKEL PER NOTE 1(D).
- D. 6.3MM BLADE:

1. BASE MATERIAL: COPPER ALLOY; CONDUCTIVITY>= 50% IACS AT 20°C;

2. PLATING FINISH: SILVER (Ag) PLATING TO BE 1.9-3.3 µm ELECTRODEPOSITED SEMI-BRIGHT SILVER, OVER 1.25-2.5µm DUCTILE SULPHAMATE NICKEL PER NOTE 1(D) WITH ENVIRONMENTAL BARRIER OR TIN/SILVER (ELECTRO-DEPOSITED), UNDERPLATE 0.5-2.0 µm NICKEL OR COPPER. TOP PLATING: 1.0-3.0 µm (SILVER RANGE 3.75-X.XX NO ANTI-TARNISH COATING REQUIRED).
- E. PLATING REQUIREMENTS:

1. SILVER PLATING

a. 99.5% PURE SEMI-BRIGHT WITH NO ORGANIC BRIGHTNERS OR CHROMATES.

2. NICKEL PLATING

a. ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL WITH A NON-BRIGHTENED FINISH. NO ORGANIC OR BRIGHTENING AGENTS SHALL BE ALLOWED.

b. SHALL ONLY BE USED AS AN UNDERLYING PLATING AND MAY NOT BE USED AS AN ELECTRICAL CONTACT SURFACE PLATING.

c. SHALL BE NODULE FREE WHEN VIEWED AT 10X MAGNIFICATION IN MEASURED IN CONTACT SURFACE AREA PLUS 0.5MM PERIMETER AROUND THE CONTACT SURFACE AREA.

d. ALL PLATINGS SHALL HAVE A 1.0% MAXIMUM BY WEIGHT IMPURITIES. IMPURITIES ARE DEFINED AS ALL ELEMENTS NOT THE PRIMARY PLATING OR HARDENING AGENT IF APPLICABLE, AS DETERMINED BY WET CHEMICAL ANALYSIS OR AUGER METHOD. NO SINGLE IMPURITY SHALL EXCEED 0.1% MAXIMUM BY WEIGHT.

3. TESTING

a. THICKNESS TO BE MEASURED IN CONTACT SURFACE AREA PLUS 0.5MM PERIMETER AROUND THE CONTACT SURFACE AREA AS DESIGNATED IN THE DRAWING. THICKNESS SHALL BE DETERMINED BY METHOD OF X-RAY (XRF).

b. PLATING ADHESION SHALL BE TESTED BY A BEND TEST FOR ALL METALS. THE TEST SAMPLE SHALL BE BENT 90 DEGREES TO DETERMINE DEPOSIT ADHESION. TESTING SHALL BE COMPLETED IN ACCORDANCE WITH ASTM SPEC B571.

2. DESIGN - GENERAL:

- A. THIS IS A 100% CAD GENERATED PART. THE CAD MATHEMATICAL DATA IS THE MASTER FOR THIS PART. WHERE DIMENSIONS ARE SPECIFIED ON THE DRAWING, THE DRAWING IS THE AUTHORITY FOR DIMENSIONAL VALUES. FOR DIMENSIONAL OR ANY INFORMATION NOT SHOWN ON THIS DRAWING, ANALYZE THE CAD MODEL.
- B. DIMENSIONS OBTAINED FROM THE DIGITAL MODEL ARE BASIC:

1. FOR RELATIONSHIPS BETWEEN FEATURES WHEN ESTABLISHED BY GEOMETRIC TOLERANCES.

2. FOR THE FORM OF A FEATURE WHEN CONTROLLED BY A PROFILE TOLERANCE.

3. FOR THE SIZE, FORM AND/OR RELATIONSHIP BETWEEN FIXED DATUM TARGETS.
- C. DIMENSIONS OBTAINED FROM THE DIGITAL MODEL ARE ROUNDED TO TWO DECIMAL PLACES (PER IEEE/ASTM SI 10-2002)
- D. VIEWS AND SECTIONS ON THIS DRAWING ARE IN ACCORDANCE WITH GM DCS SECTION C3.
- E. THE DIGITAL MODEL MUST CORRESPOND TO THE RELEASE LEVEL SHOWN IN THE PART BLOCK ON THIS DOCUMENT.
- F. TOLERANCES:

1. LINEAR

0.X ± 0.30

0.XX ± 0.10

0.XXX ± 0.10

2. ANGULAR

X° ± 3°

3.

1.0

A

B

C
- G. MINIMUM WALL THICKNESS REQUIRED: 1.3mm.
- H. CORNERS SHOWN AS SHARP TO BE R 0.2 MAX.
- J. LETTERING SHALL BE 0.15 MAX RAISED IN 0.20 MAX RECESS PAD. THIS INCLUDES MATERIAL CODE, RECYCLING CODE, CAVITY ID AND DATE CODE.
- K-1. PARTS MUST BE FREE OF DISCOLORATION, SALT RESIDUE AND OTHER IMPERFECTIONS THAT AFFECT FIT OR FUNCTION.
- K-2. SCRATCHES OR DENTS NOT TO EXCEED 0.013mm IN DEPTH.
- L. FOLLOWING PRODUCTION CODES TO BE PERMANENTLY MARKED & HUMAN READABLE TO A LETTER HEIGHT OF 1.5 ±0.5MM X 0.3 MAX DEEP

1. MATERIAL #: XXXXX-XXXX

2. DATE CODE: JJJY (JULIAN DAY, LAST DIGIT OF YEAR)

3. INSPECTION MACHINE CODE + SERIAL #: X_XXXXX

3. DESIGN - MANUFACTURING:

- A. DRAFT TO BE WITHIN TOLERANCE.
- B. ALLOWABLE FLASH MAX 0.2 HIGH X MAX 0.13 THICK.
- C. ALLOWABLE PARTING LINE MISMATCH 0.2 MAX.
- D. EJECTOR PINS MARK TO BE FLUSH TO 0.25 MAX DEPRESSED.
- E. ALLOWABLE GATE VESTIGE FLUSH TO 0.25 MAX PROTRUSION.
- F. NO EXTERNAL MOLD RELEASE AGENT ALLOWED DURING MANUFACTURING.
- G. STEEL THAT FORMS THE INDICATED SURFACE MUST BE POLISHED WITH A DIAMOND FINISH (SPI A-2) OVER THE FULL PERIPHERY OF THE TOOL. SURFACE MUST HAVE NO MISMATCH.
- H. ANY PROCESS LUBRICANT REMAINING ON THE TERMINAL MUST NOT VARNISH OR DEGRADE IT'S 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.
- J. OPTIONAL FEATURES PROVIDED FOR AUTOMATION.
- K. PART MUST BE FREE FROM BURRS AND SHARP EDGES, WHICH MIGHT BE DETRIMENTAL TO SATISFACTORY ASSEMBLY, SAFE HANDLING OR FUNCTION OF PART.
- L. PARTS AS DELIVERED TO ASSEMBLY SHALL BE CLEAN AND FREE OF DEBRIS, RESIDUAL ABRASIVE MATERIAL AND CORROSION PRODUCTS ADVERESLY AFFECTING FUNCTION OR APPEARENCE.
- M. RESTRICTED AND REPORTABLE SUBSTANCES FOR PARTS PER GMW3059.

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NOTES: UNLESS OTHERWISE SPECIFIED

4. SYSTEM REQUIREMENTS:

- A. HARNESS CONNECTOR IS COMPATIBLE WITH THE FOLLOWING WIRE SIZE NO'S:
SAE 14AWG, MEETING SAE J1128
SAE 18AWG, MEETING SAE J1128, MAX O.D. OF 2.06 MM
SAE 20AWG, MEETING SAE J1128
SAE 22AWG, MEETING SAE J1128, MIN O.D. OF 1.47 MM
ISO 6mm², FLR2X-A/T-125 PER GM 15626 (FEB 2008)
- B. CABLE TIE SPECIFICATIONS:
1. CABLE TIE:
TENSILE RATING: 220N / (50lbs) MIN
TIE LENGTH: 186mm MIN
TIE WIDTH: 4.75mm MAX
MATERIAL: NYLON
2. INSTALLATION:
CABLE TIE TENSION: 190N MIN
3. DRESSED WIRE BUNDLE PACKAGING: SEE FIG. 1
- C. WHEN MATED WITH COMPONENT CONNECTOR INTERFACE AND/OR DRESS COVER, HARNESS CONNECTOR SYSTEM CONFORMS TO THE FOLLOWING:
1. SAE/USCAR-2, REV: 3 APRIL, 2001; CLASS 3
2. FIELD CORRELATED LIFE TEST, SAE/USCAR-20, NOV. 2001
3. GMW #3191 AUGUST 22, 2000 (DRAFT); TEMPERATURE CLASS 3 (145°C), SEALING CLASS 1 (HIGH PRESSURE SPRAY), VIBRATION CLASS 2 (ON BODY)
4. TPA USER FORCES (FULLY POPULATED WITH TERMINALS)
a. REMOVAL FROM LOCK TO PRE-SET: <=120N
- D. WIRE SPECIFICATIONS:
1. WIRE SURFACE MUST BE FREE OF SCRATCHES, GROOVES OR DENTS WHERE FUNCTIONAL

5. TERMINAL CURRENT RATINGS:

ALL TESTING DONE IN ACCORDANCE WITH USCAR-2 REV5 SECTION 5.3

- A. MX64 RCPT TERM
1. MX64 RCPT TERM Ag 18/20 GAGE CRIMPED TO SAE WIRE SIZE NO.18 AND MATED TO MX123 0.64MM PIN: 11.3 AMPS
2. MX64 RCPT TERM Ag 22 GAGE CRIMPED TO SAE WIRE SIZE NO.22 AND MATED TO MX123 0.64MM PIN:8.5 AMPS

WIRE	CURRENT RATING			
	23 deg.C	85 deg.C	105 deg.C	125 deg.C
18AWG	11.3A	11.3A	9.5A	6.6A
20AWG	10.0A	10.0A	8.3A	5.7A
22AWG	8.6A	8.6A	7.1A	5.0A

- B. 2.8MM RCPT TERM
1. 2.8MM RCPT TERM TIN 14 GAGE CRIMPED TO SAE WIRE SIZE NO.14 AND MATED TO MX123 2.8MM BLADE: 25.6 AMPS
- C. 6.3MM RCPT TERM - FCI APEX
1. 6.3MM RCPT TERM TIN/SILVER CRIMPED TO 6.0MM² WIRE AND MATED TO MOLEX 6.3MM² BLADE (Sn/Ag PLATED):36A AT 125°C

6. CONTACT MOLEX AUTOMOTIVE FOR AVAILABLE CUSTOM PATTERNS OF CAVITIES OPEN FOR CIRCUITS

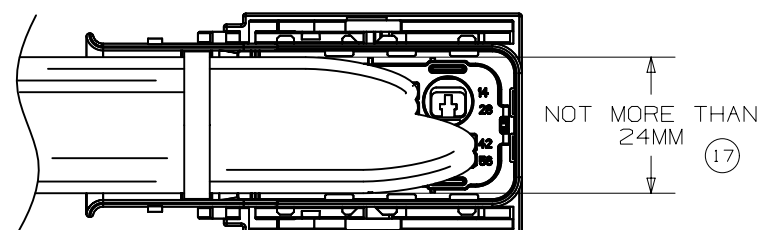
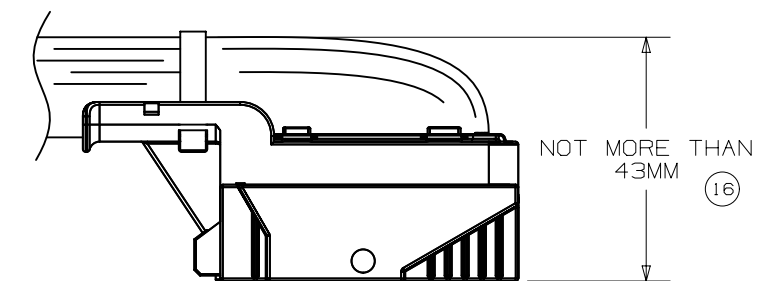
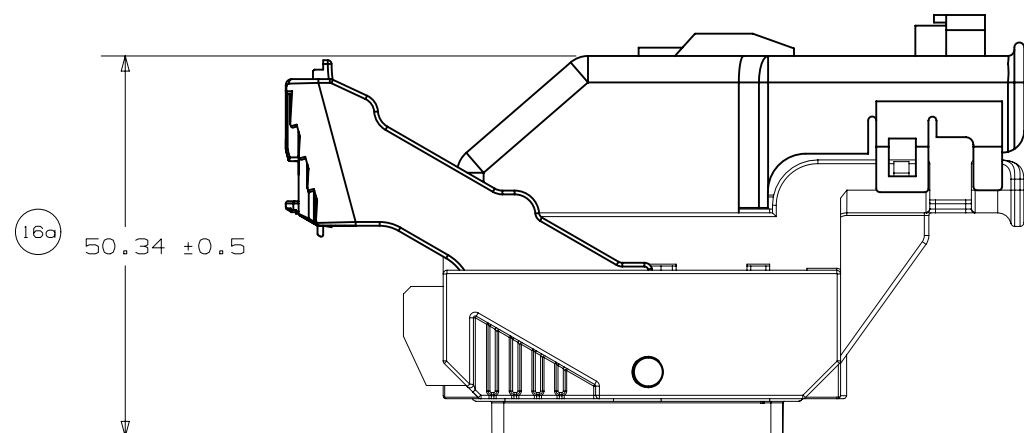
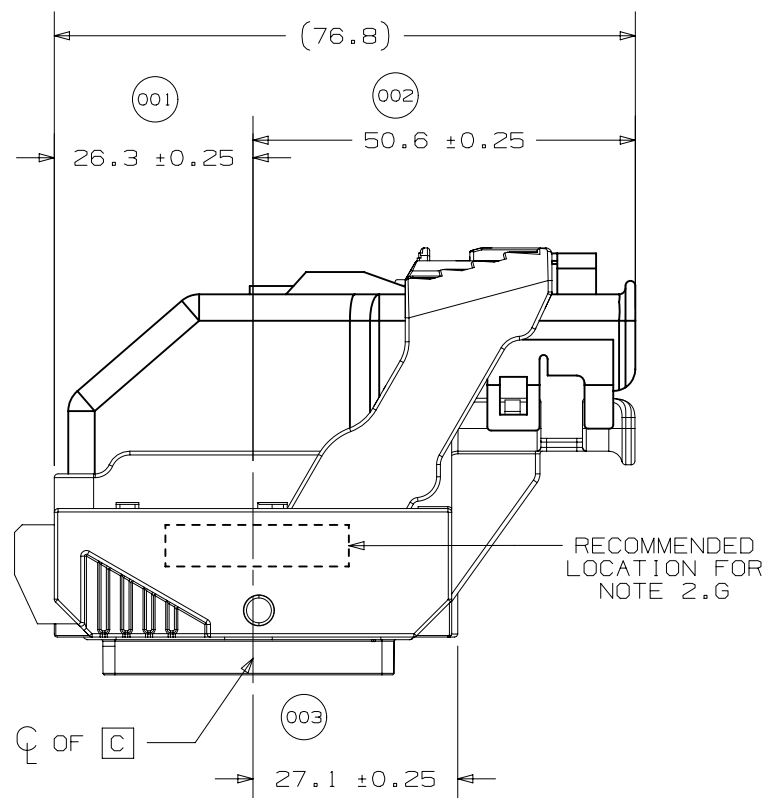
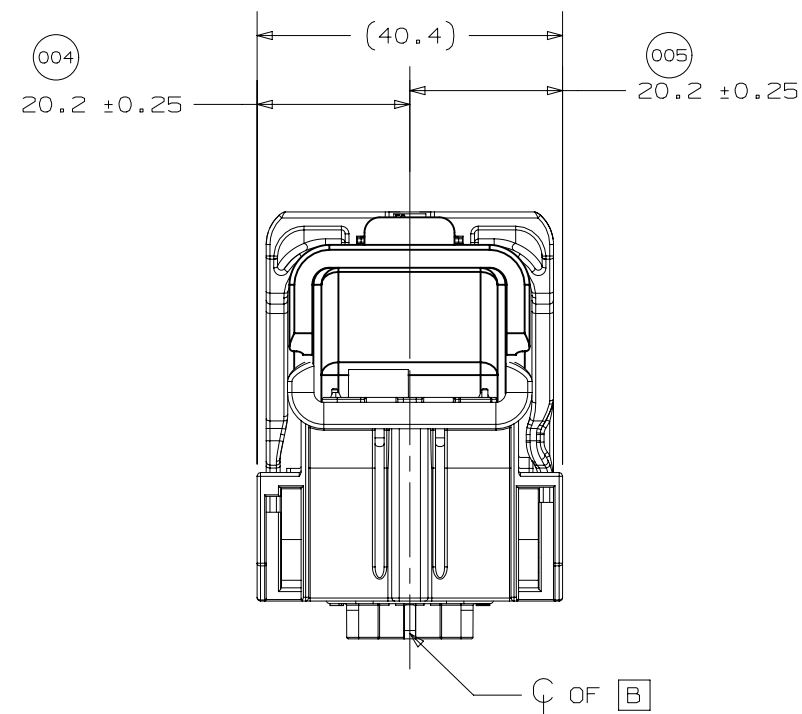


Fig. 1

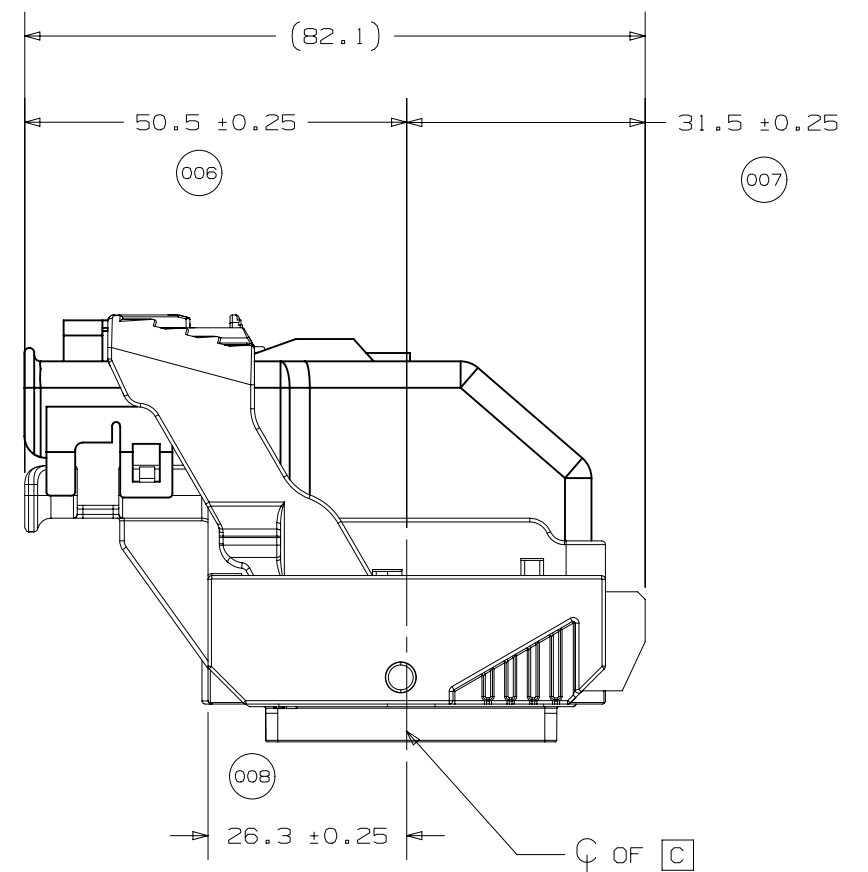




WIRE DRESS OPTION 0 SHOWN



WIRE DRESS OPTION 0 SHOWN



WIRE DRESS OPTION 9 SHOWN



PAGE TITLE
LOCATION AND PACKAGING DIMENSIONS
REFERENCING INTERFACE DATUMS B & C

DRAWING NUMBER

12642694

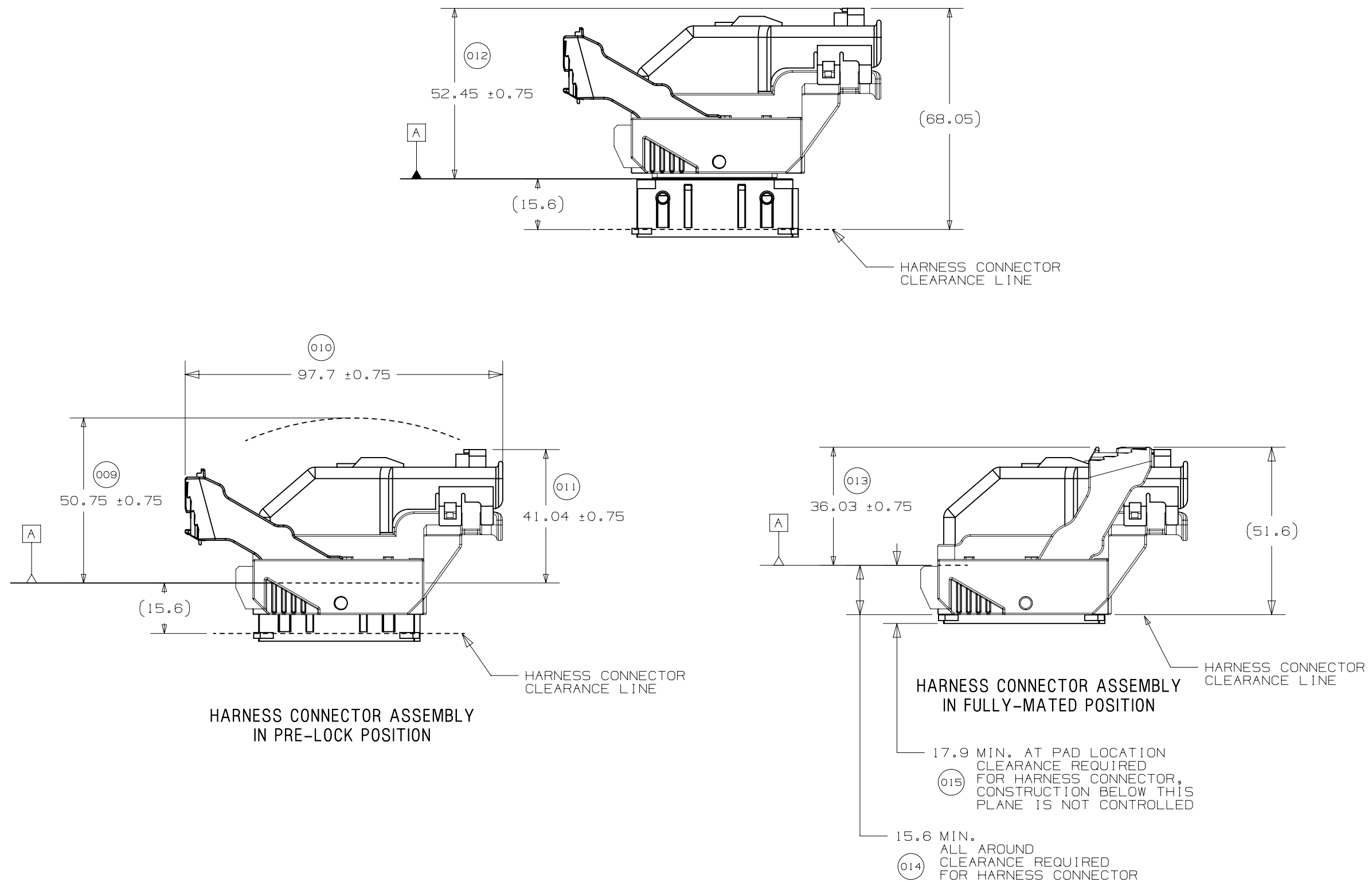
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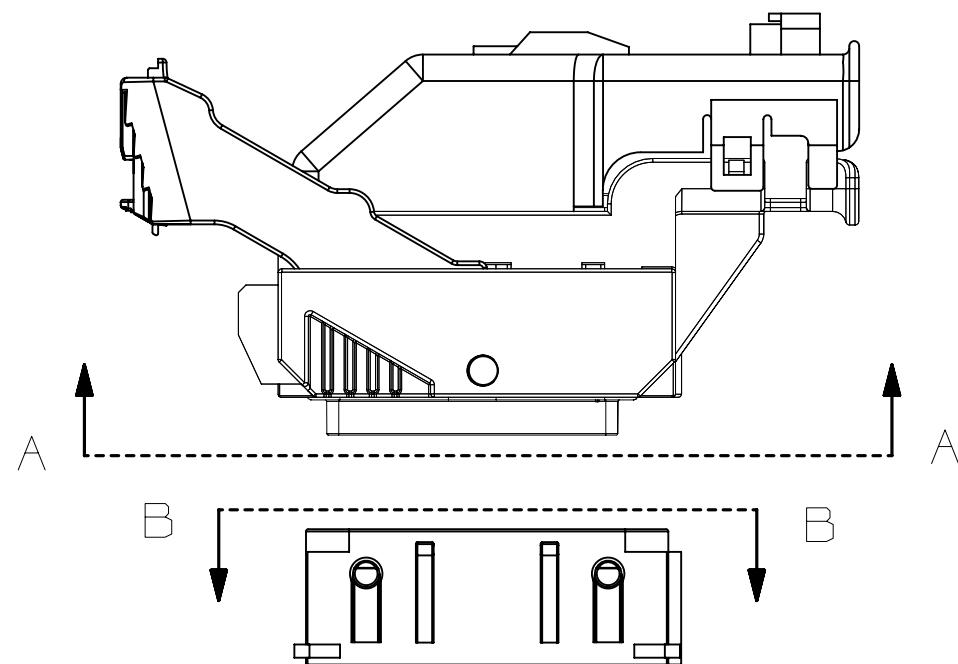
ST REV PDI

R 001

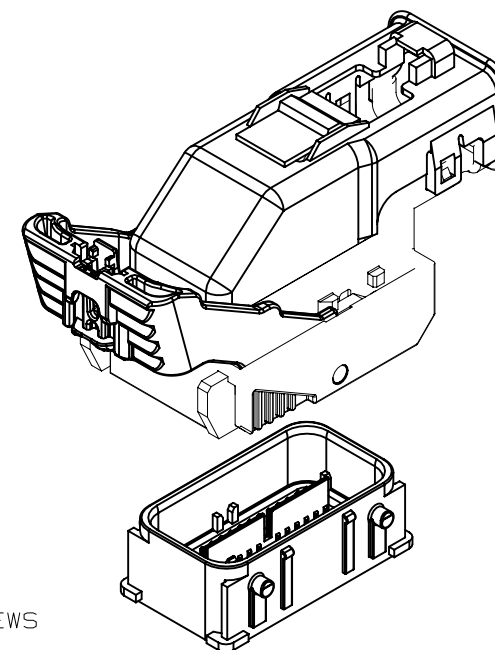
PAGE NUMBER

9 of 22

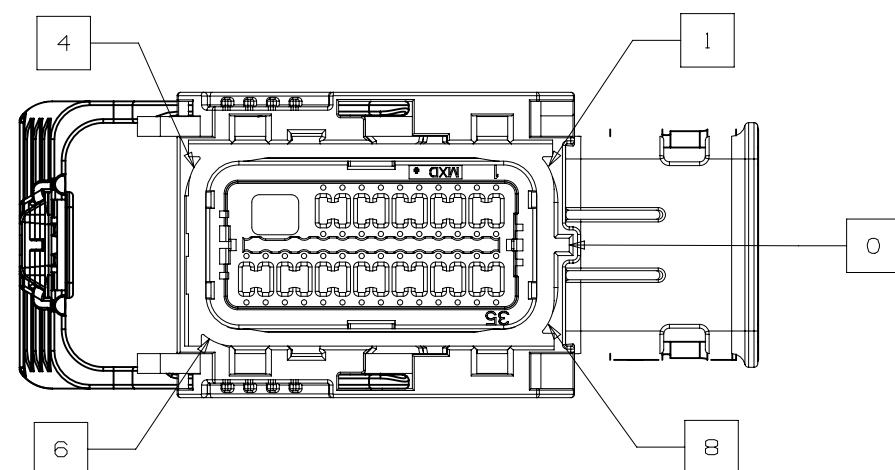




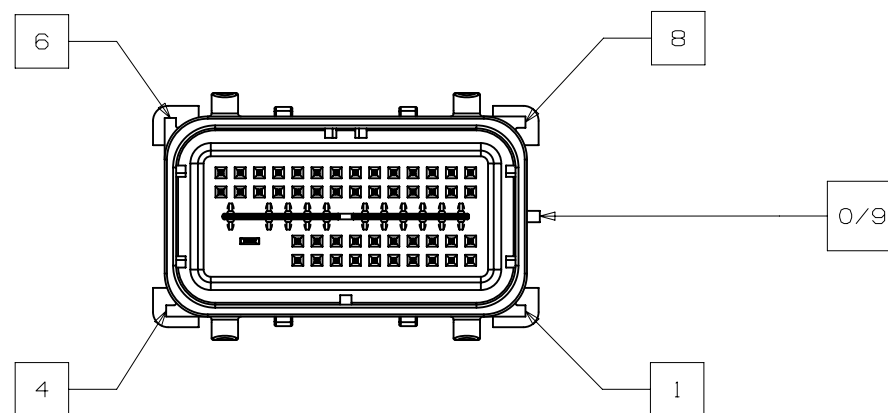
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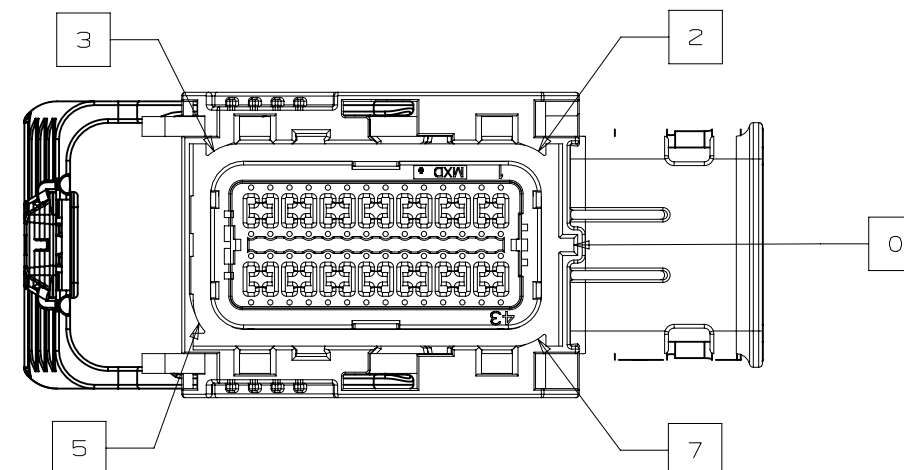
NOTE: REFERENCE THE COMPONENT TABLE
FOR KEY OPTIONS AND CONFIGURATIONS



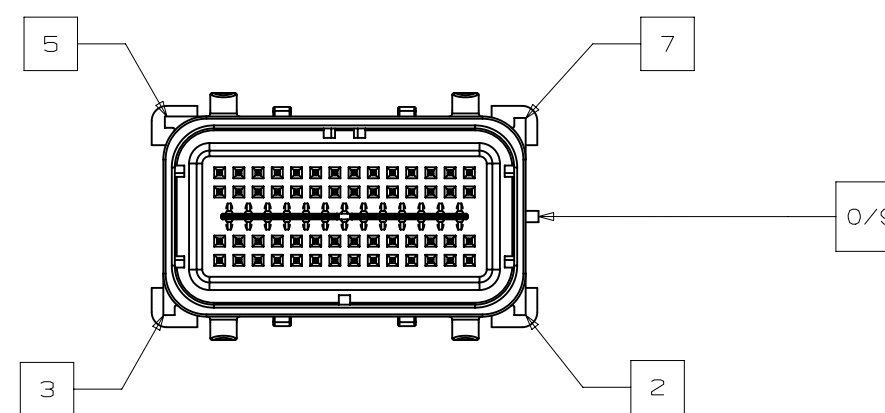
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SECTION B-B
KEY OPTION B SHOWN



SECTION A-A
KEY OPTION K SHOWN



SECTION B-B
KEY OPTION K SHOWN

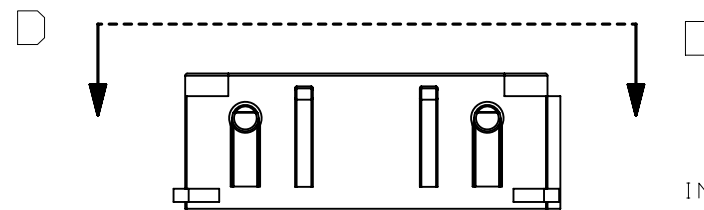
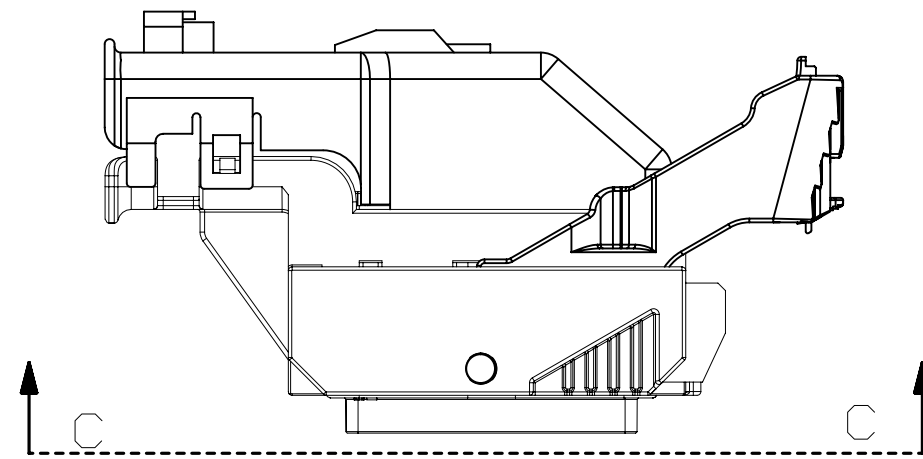


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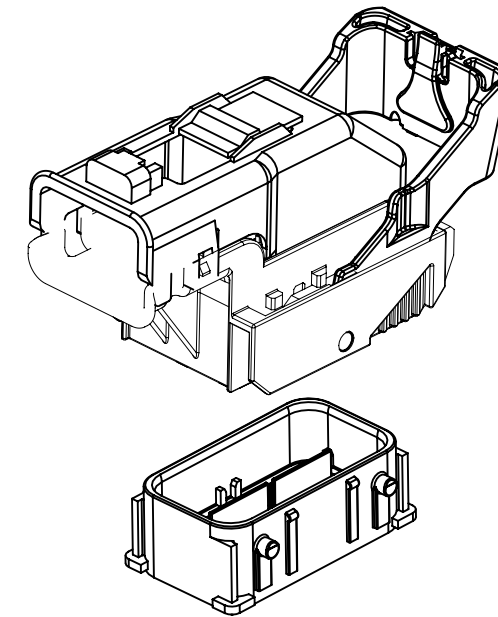
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R	001	

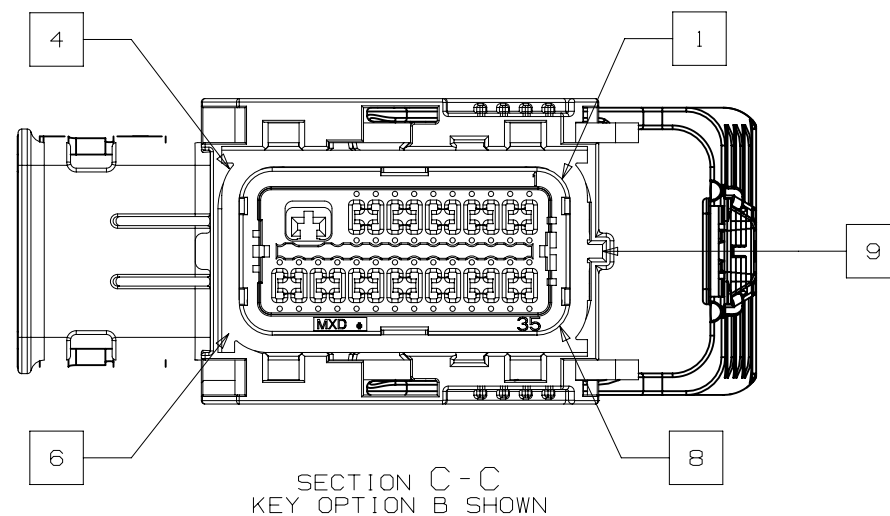
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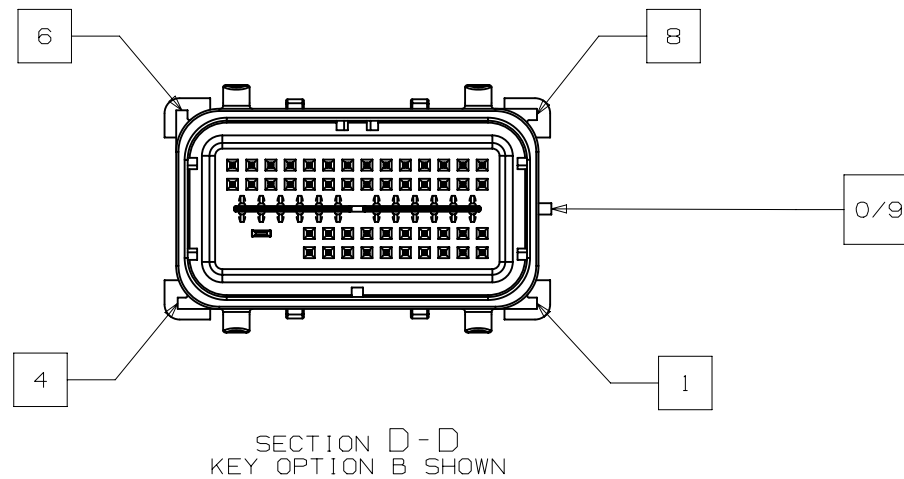
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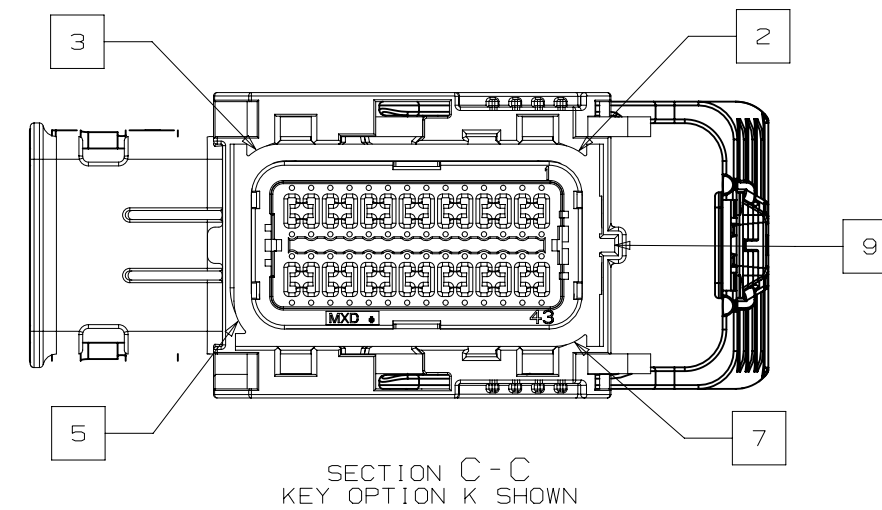
NOTE: REFERENCE THE COMPONENT TABLE
FOR KEY OPTIONS AND CONFIGURATIONS



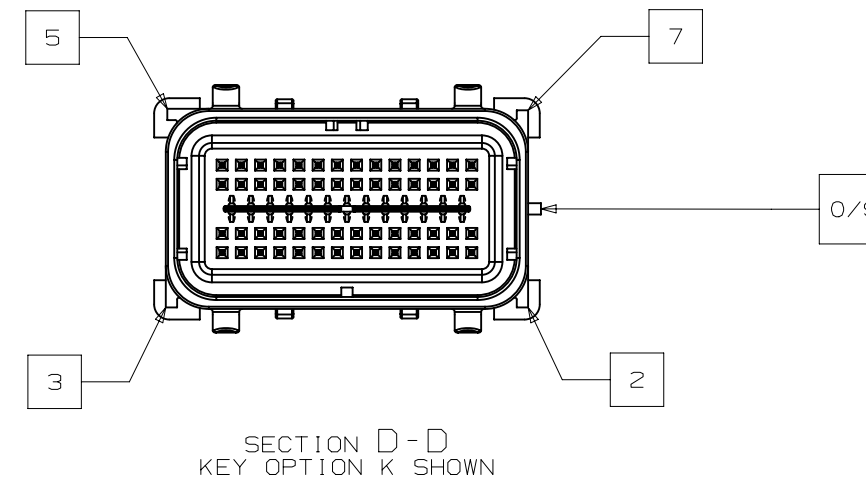
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SECTION D-D
KEY OPTION B SHOWN



SECTION C-C
KEY OPTION K SHOWN



SECTION D-D
KEY OPTION K SHOWN

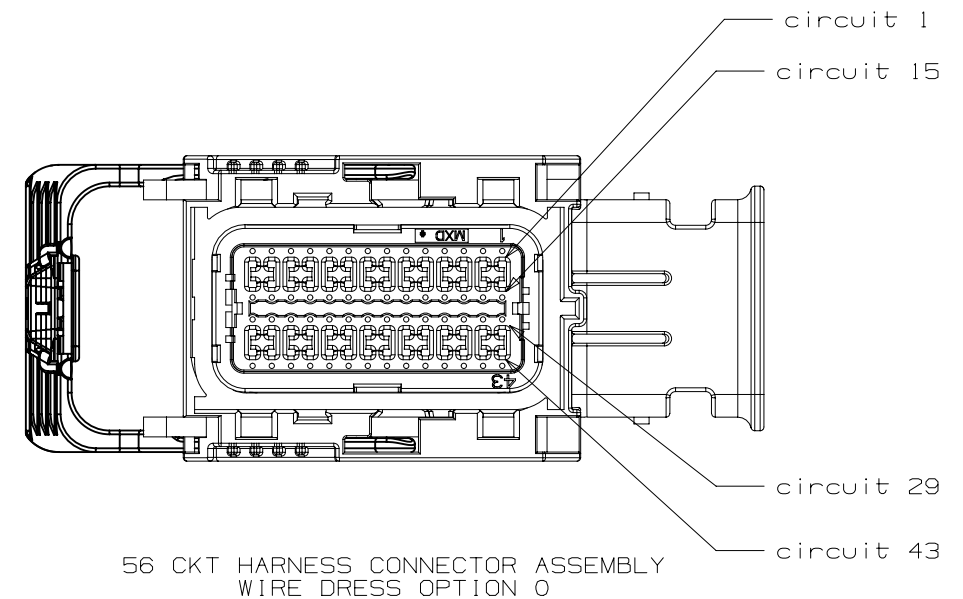
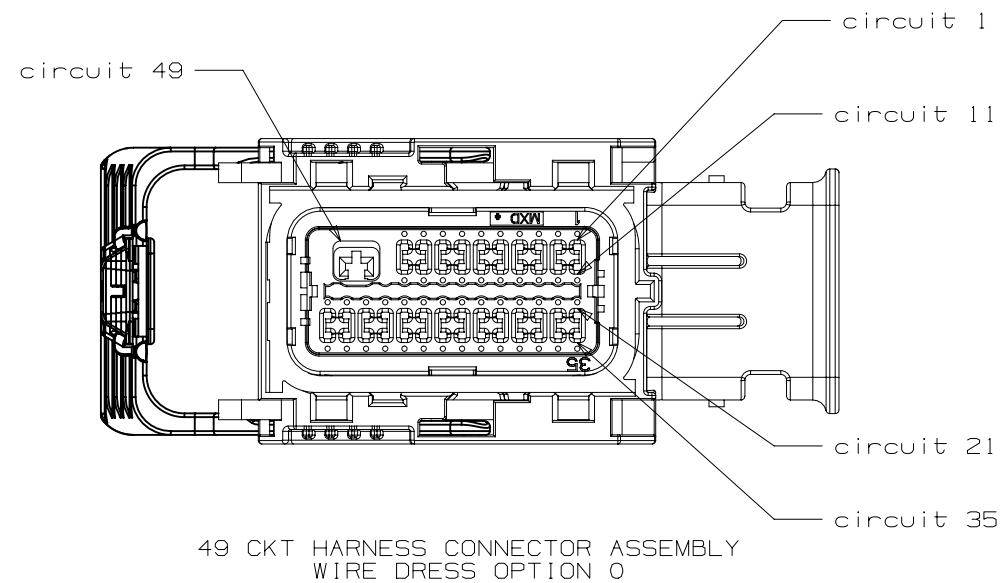


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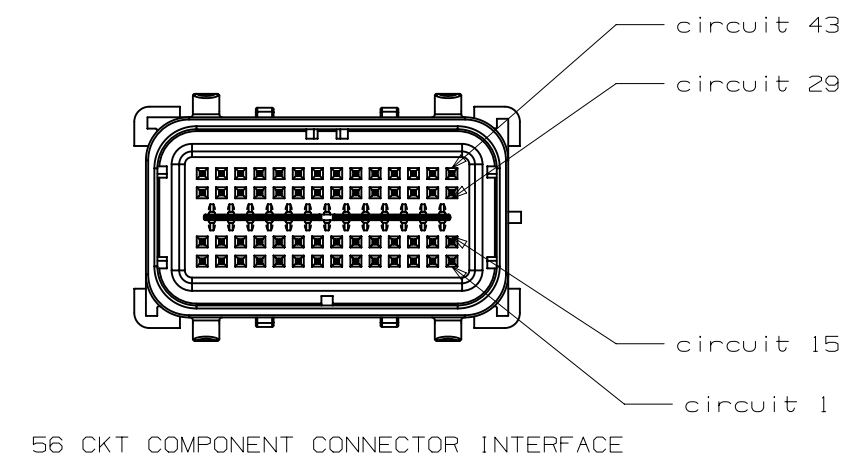
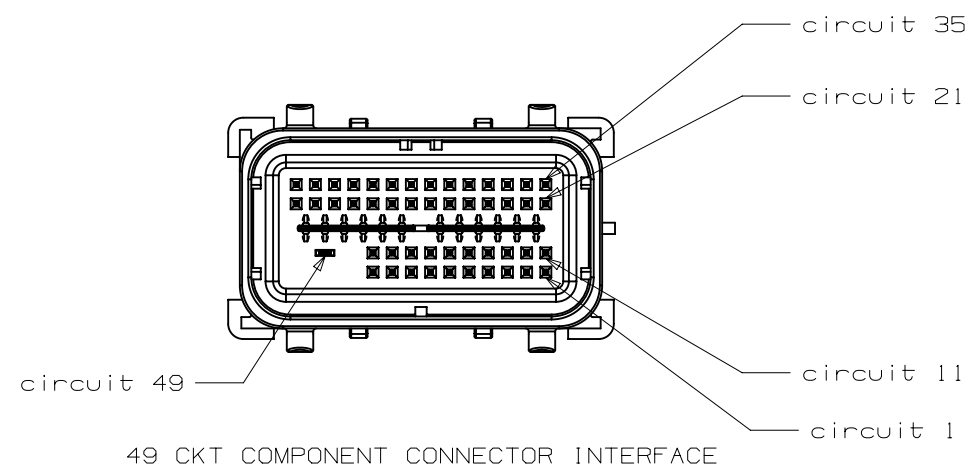
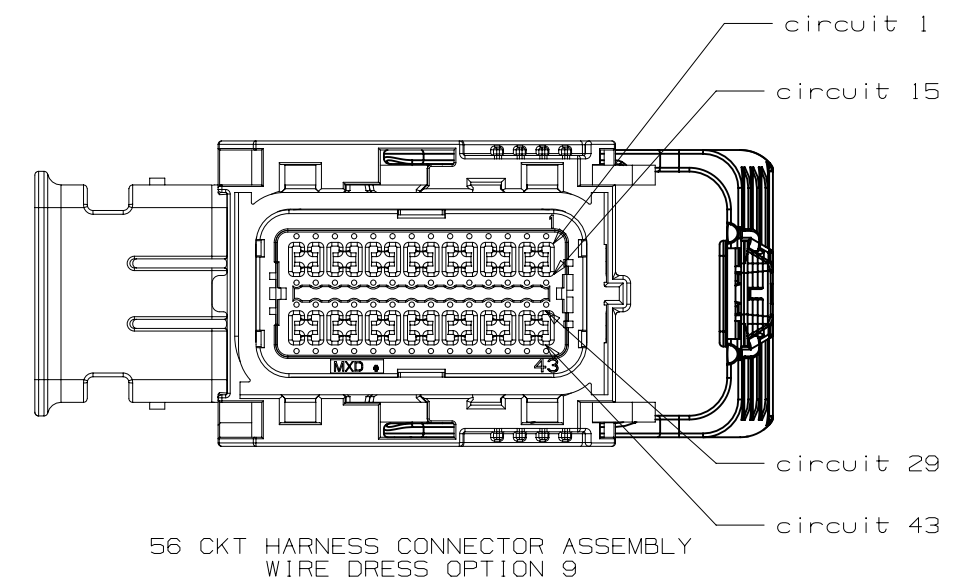
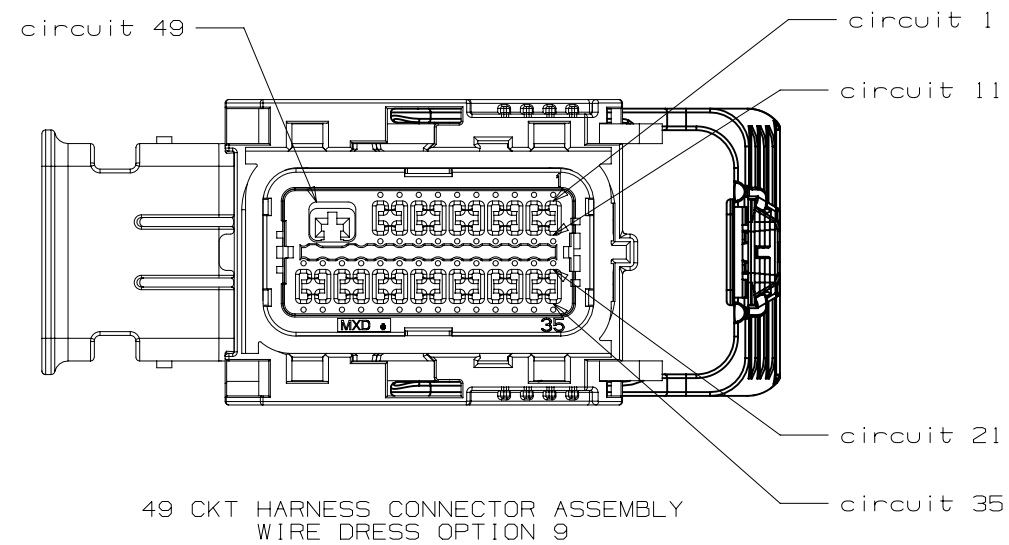
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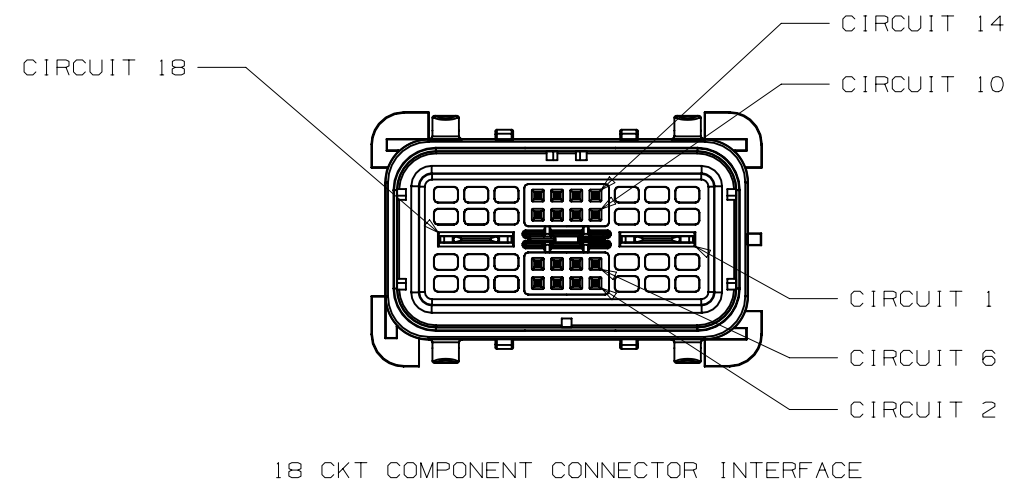
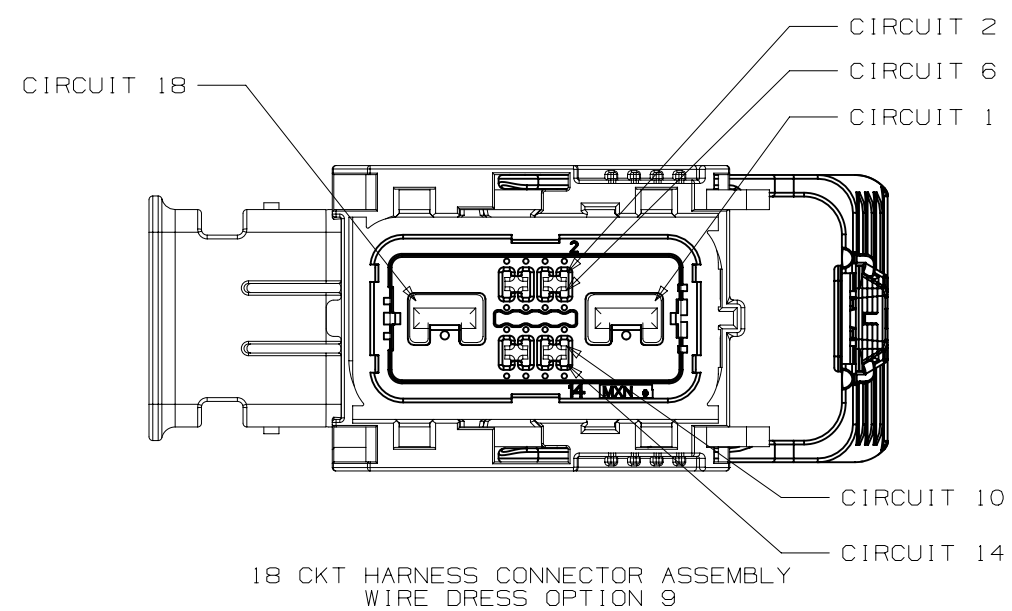
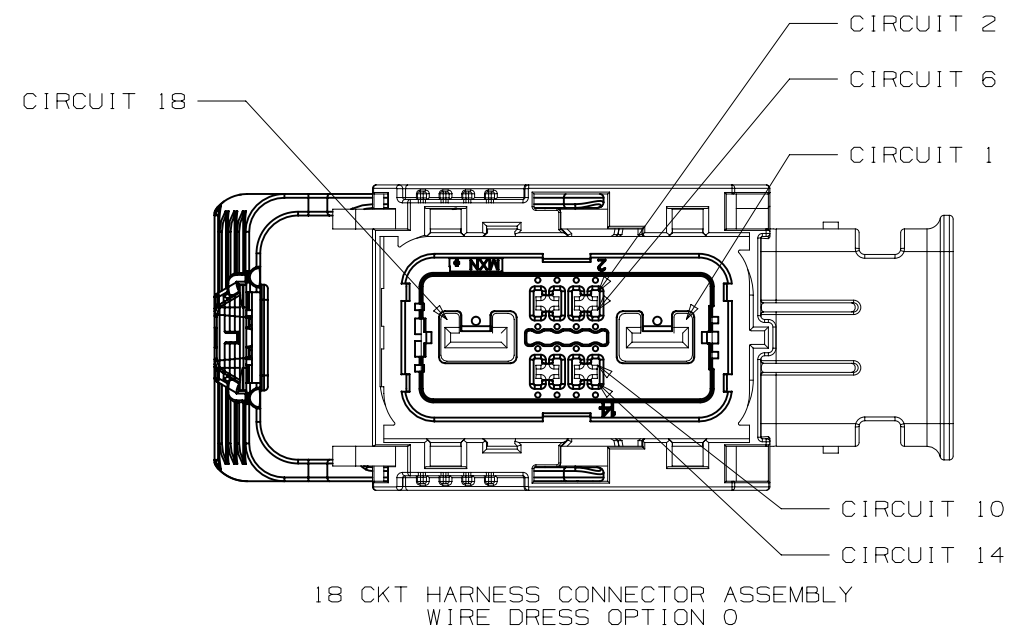
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INTERFACE SIDE SHOWN ON ALL VIEWS





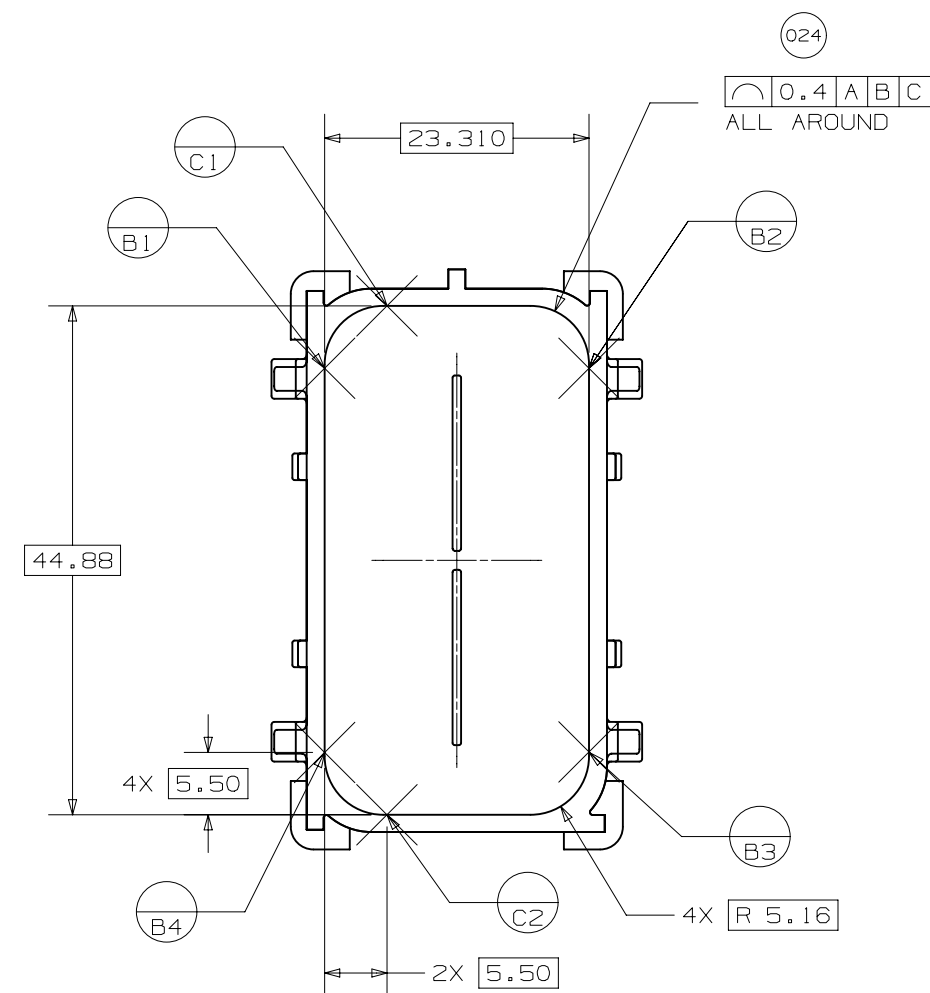
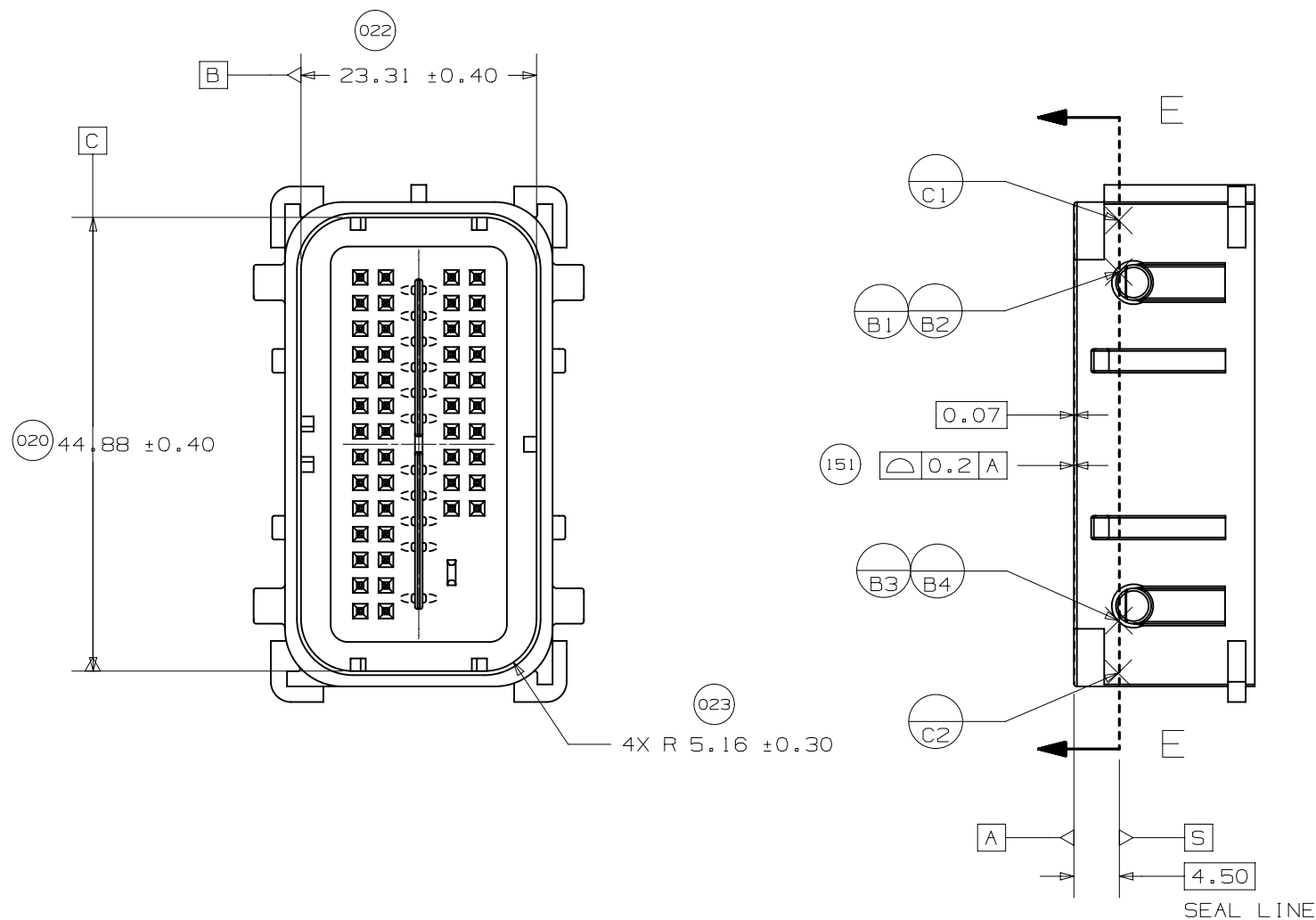
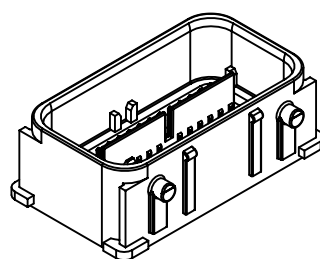
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12642694

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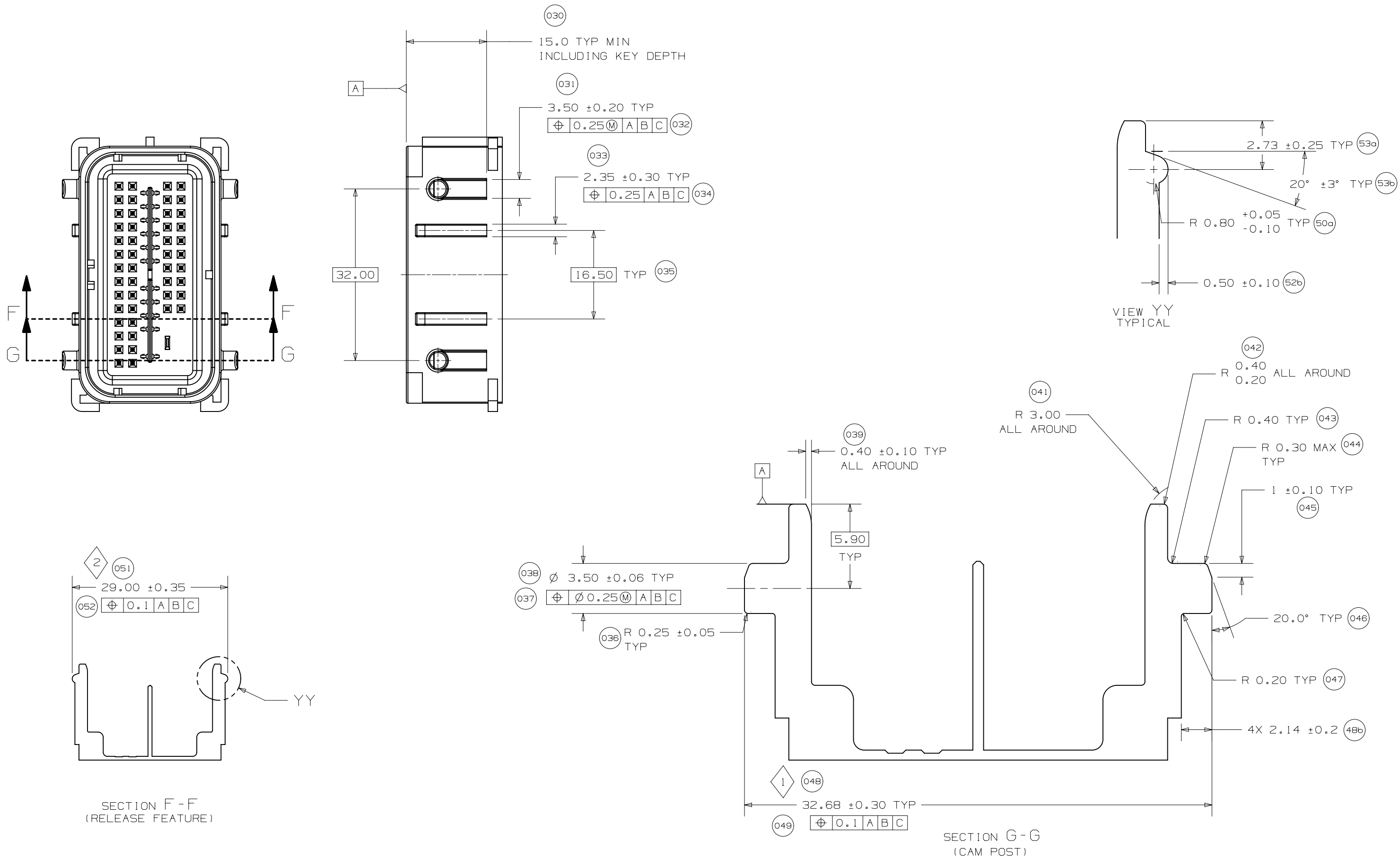
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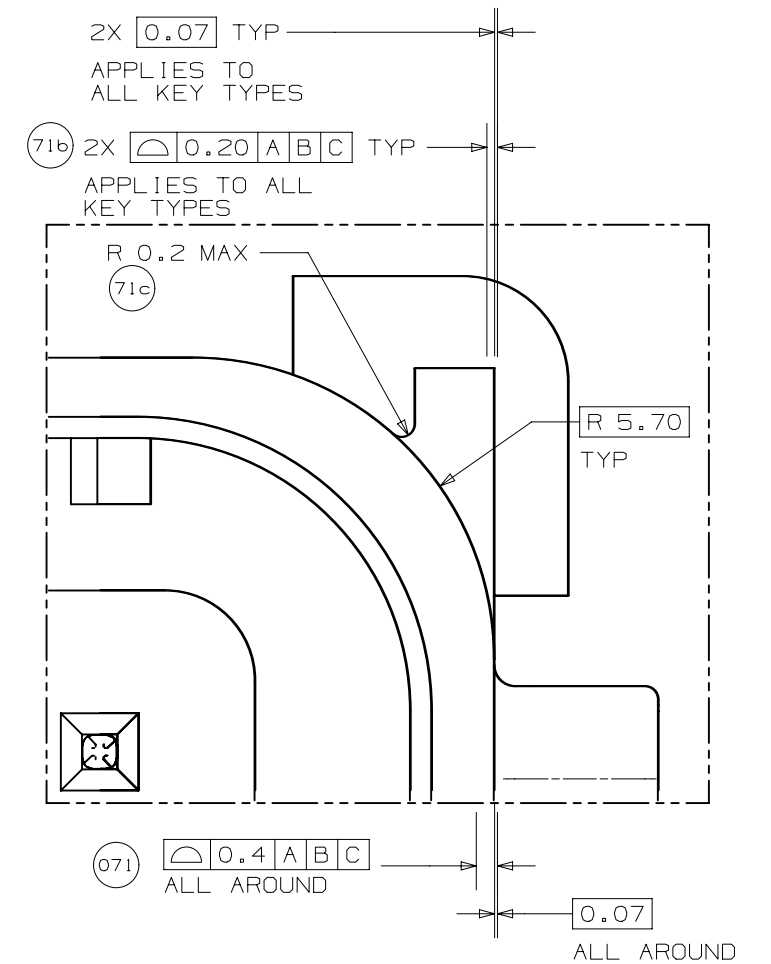
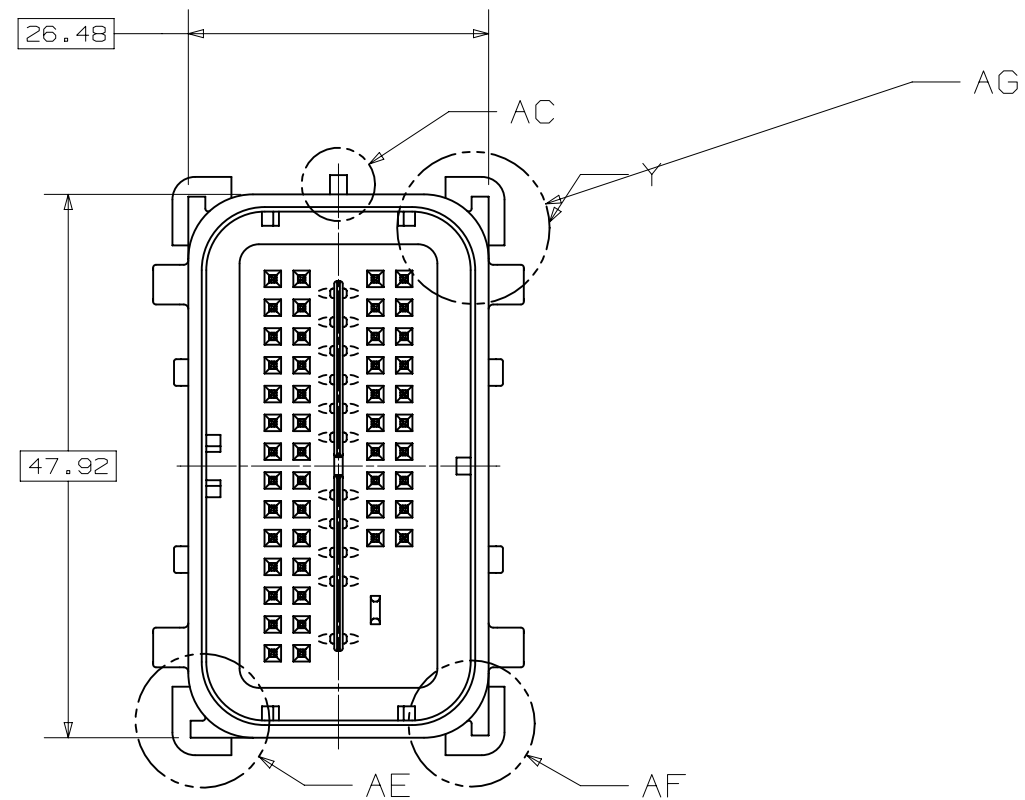
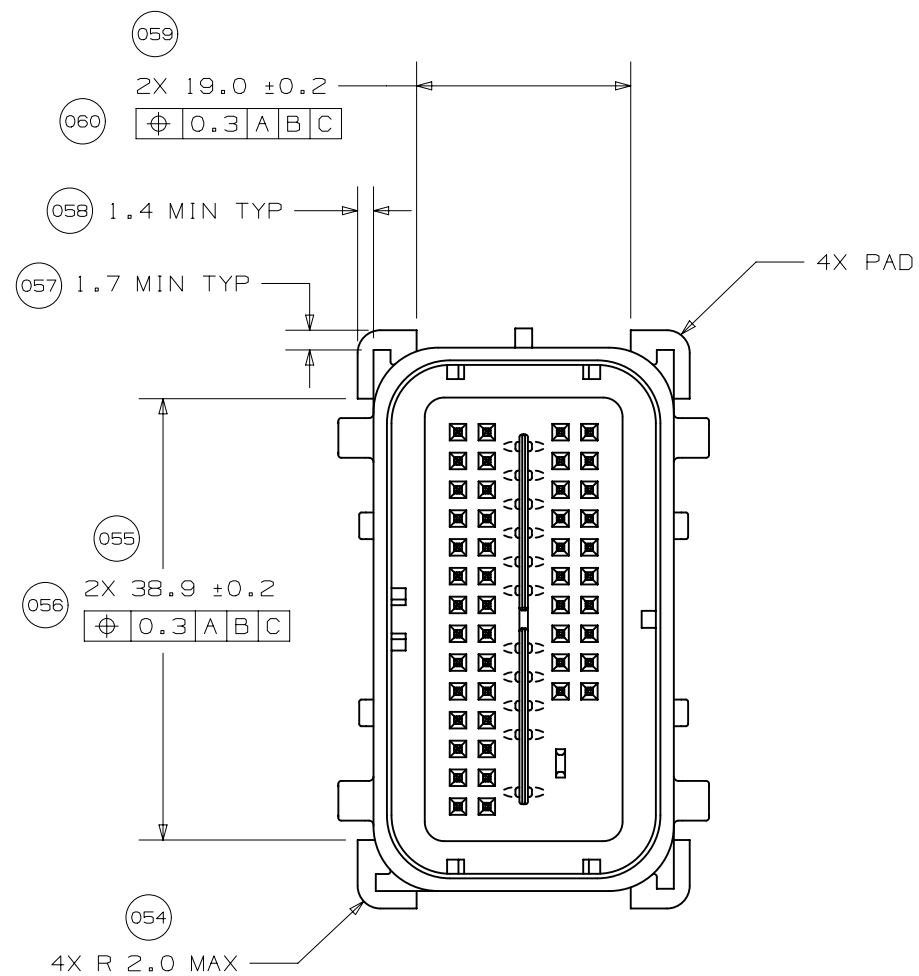


PAGE TITLE
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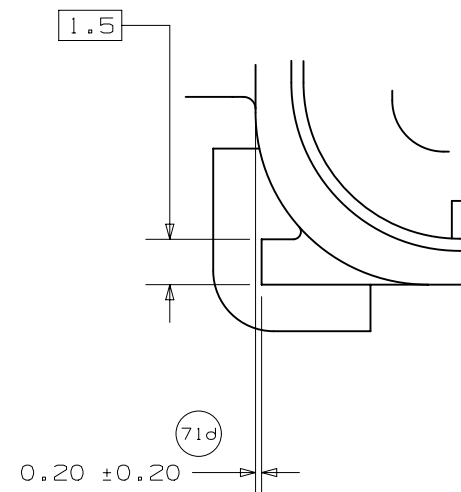
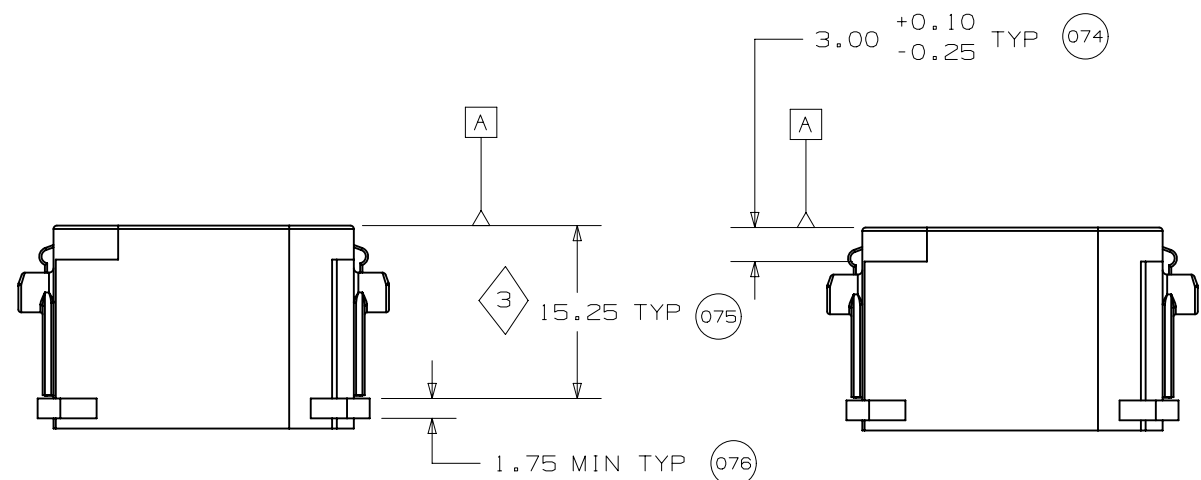
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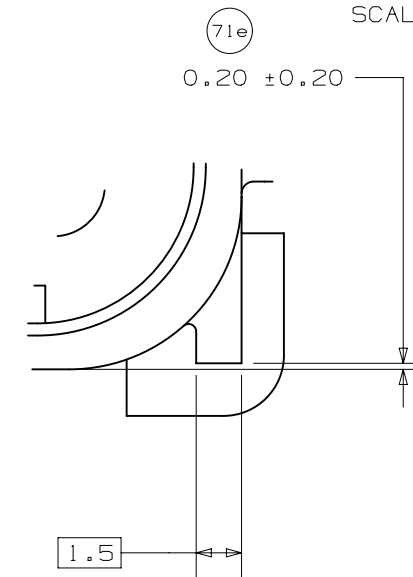




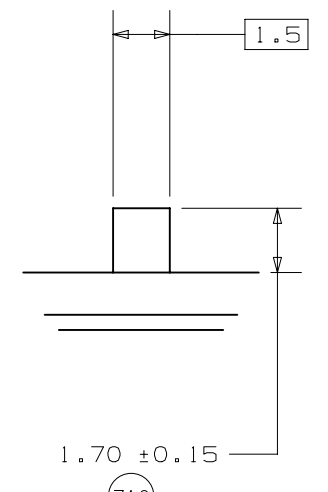
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SCALE 7:1



VIEW AE
KEY TYPE 2



VIEW AF
KEY TYPE 1



VIEW AC
KEY TYPE 3

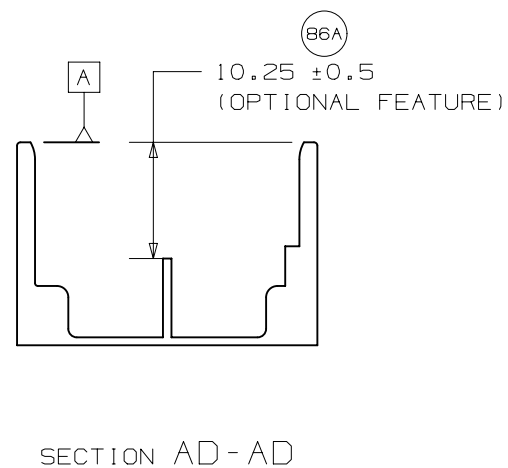
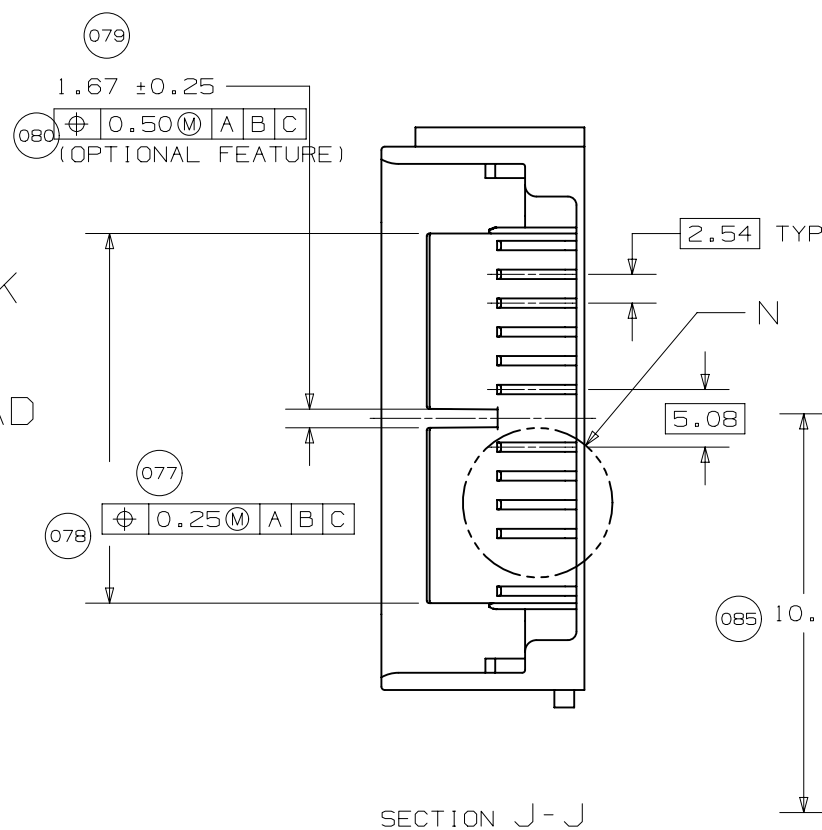
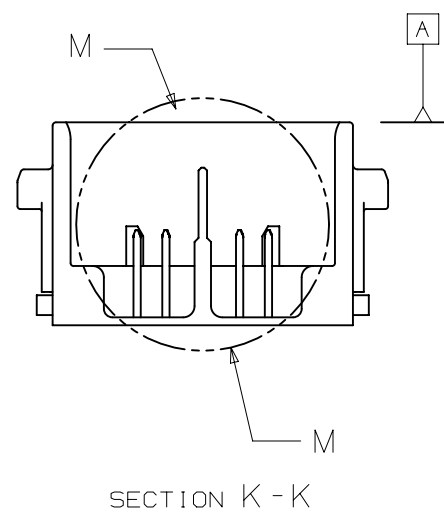
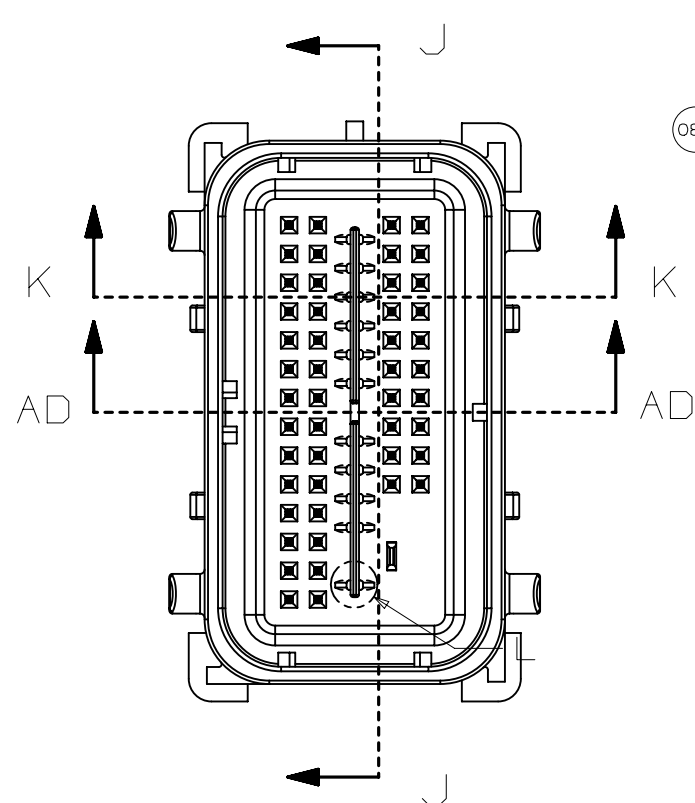


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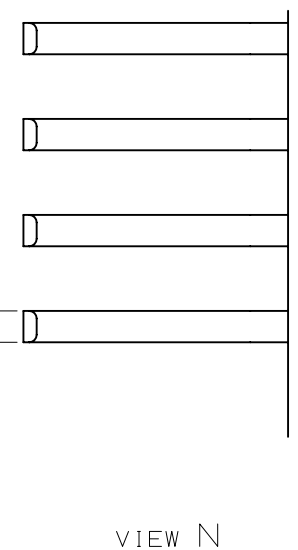
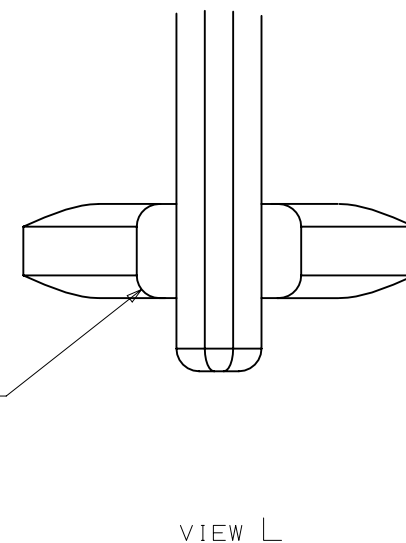
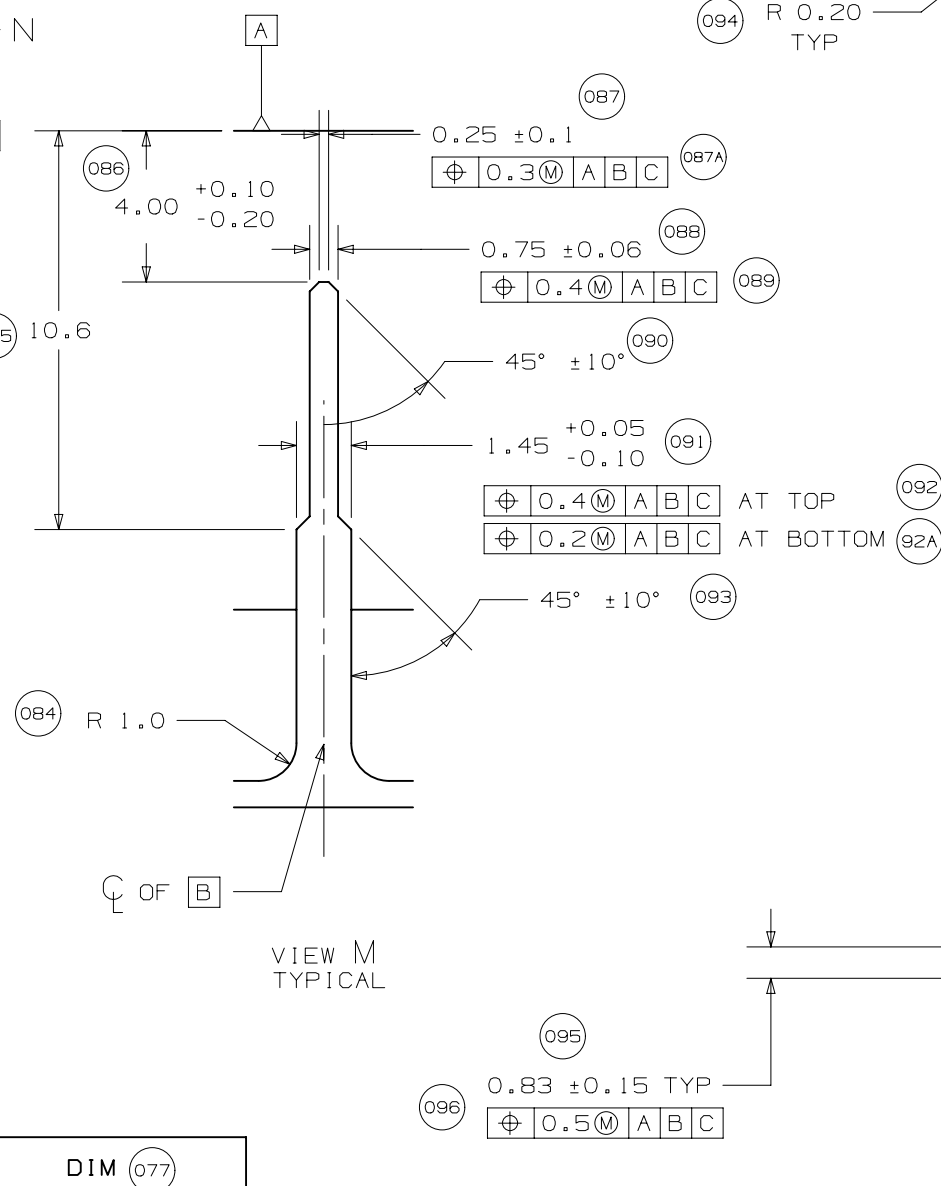
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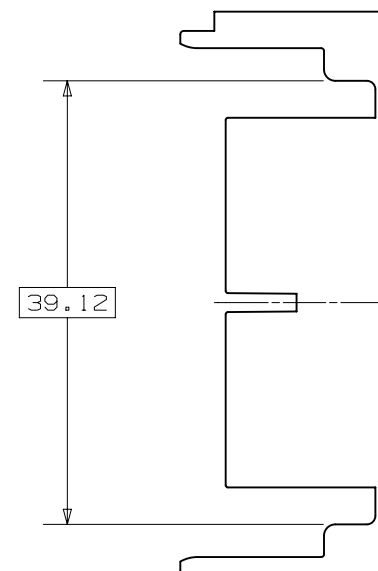
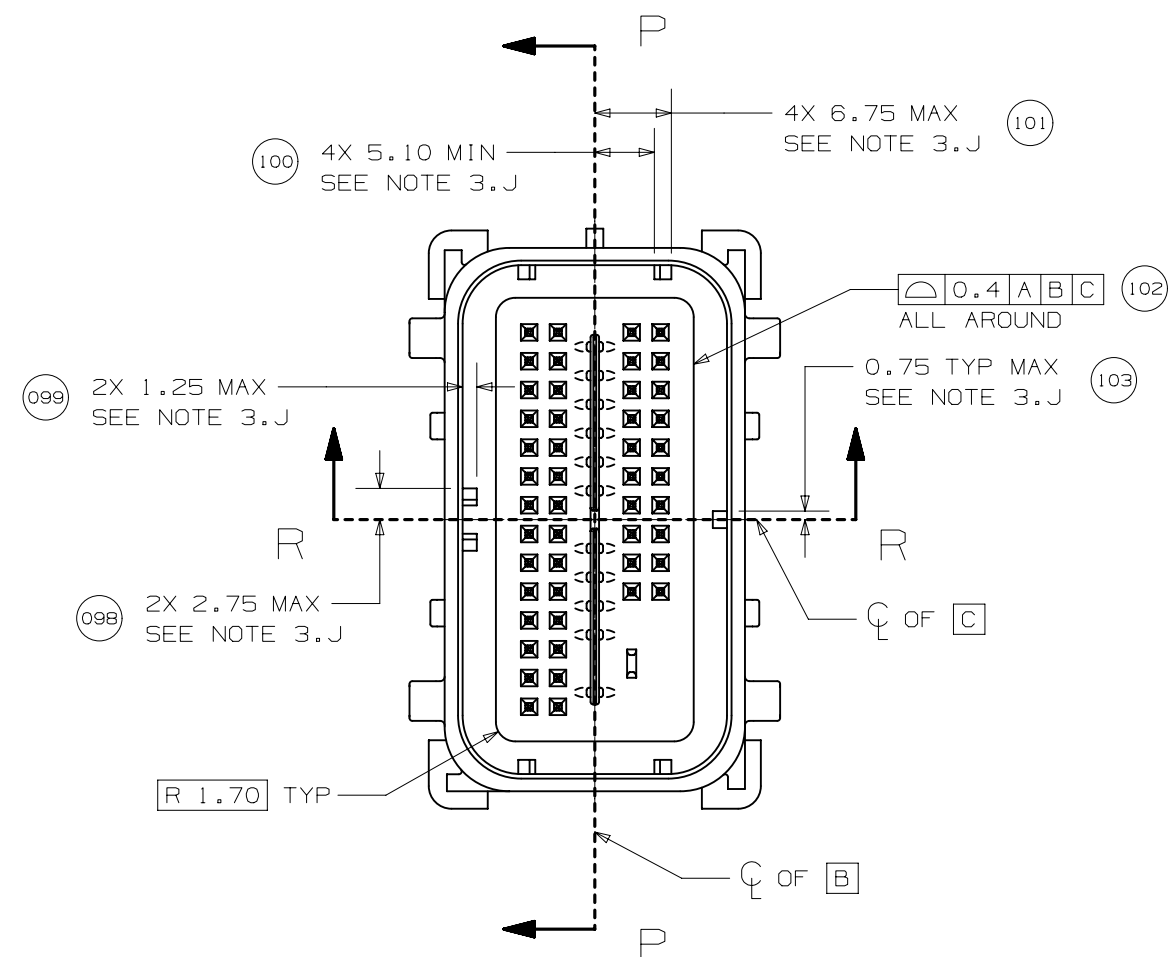
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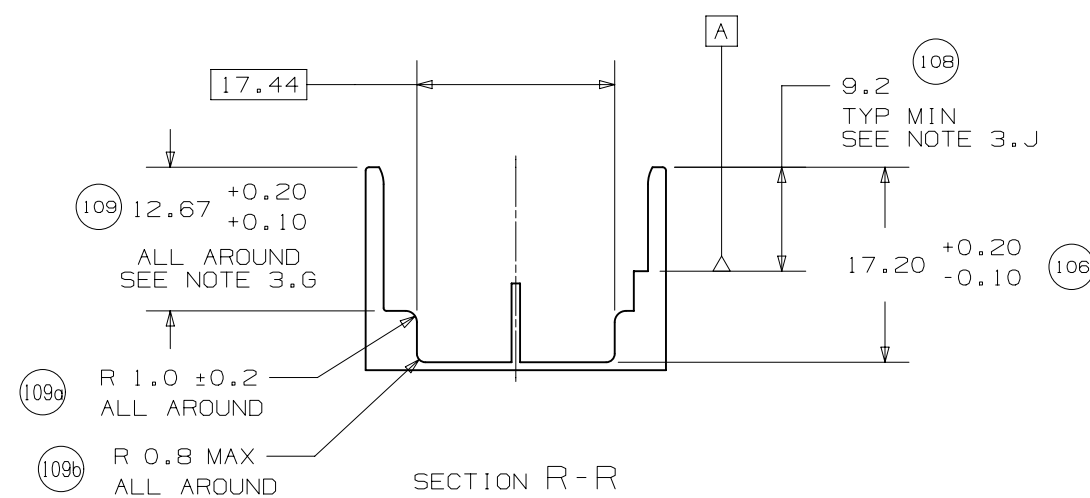


CKT	DIM (077)
49 / 56 CKT	32.60 +0.10/-0.80
18 CKT	10.04 +0.10/-0.80





SECTION P-P



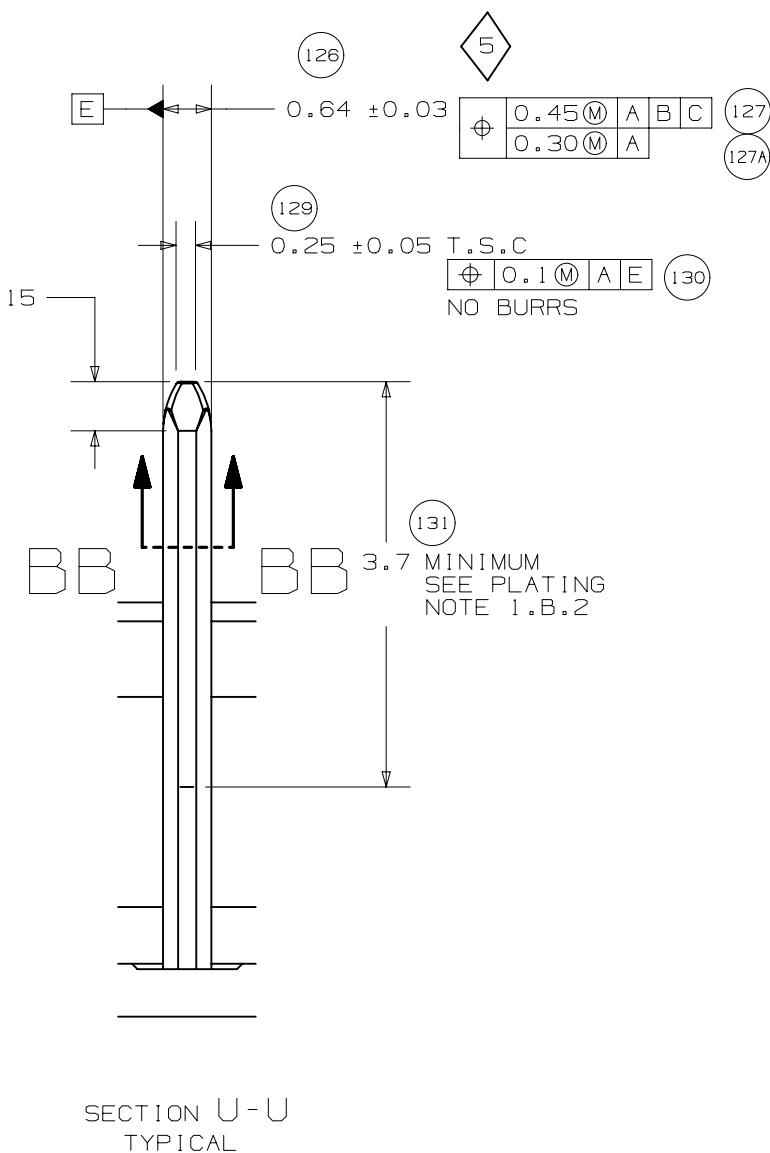
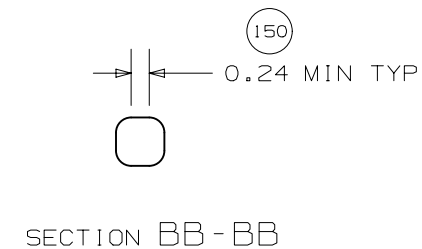
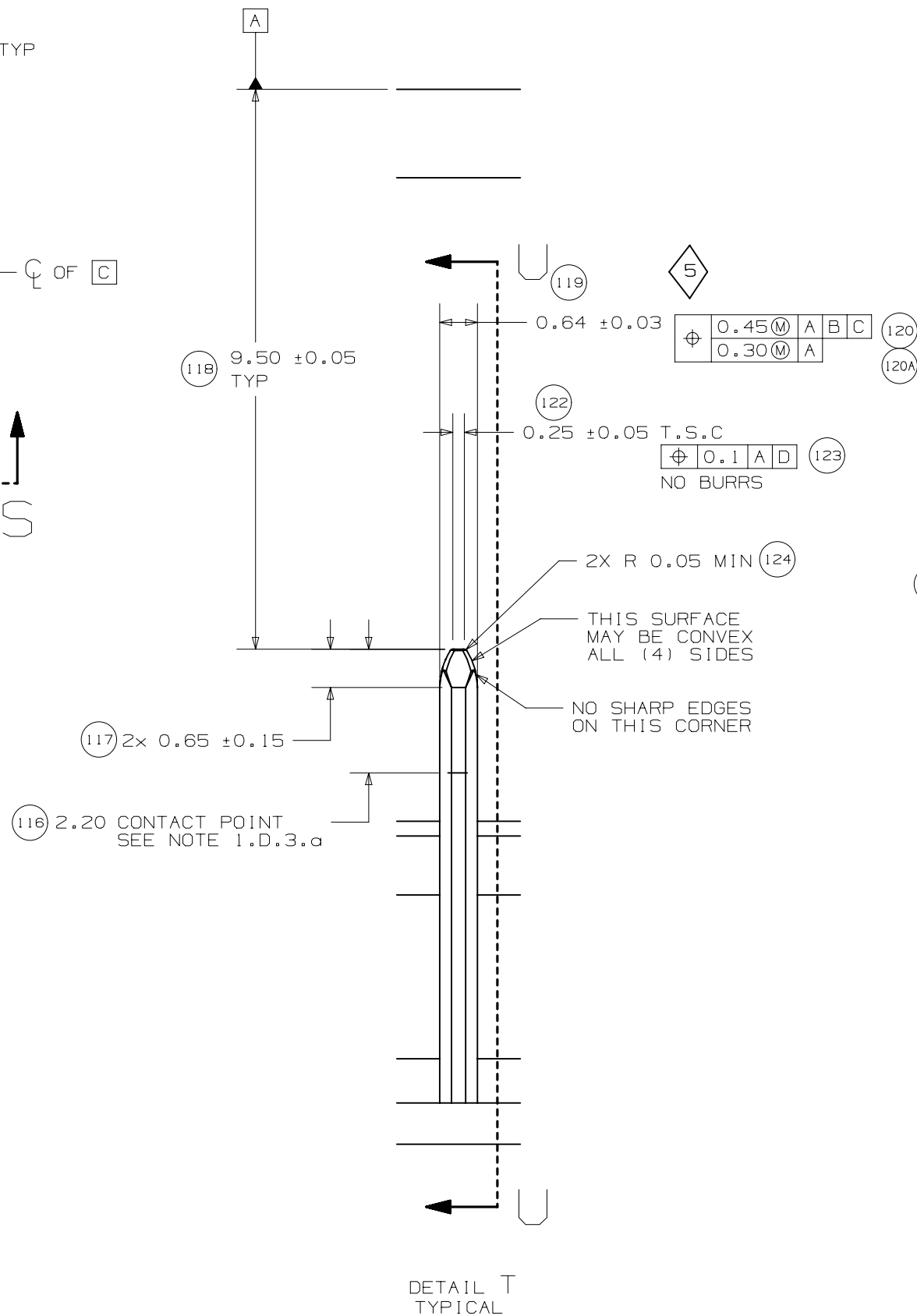
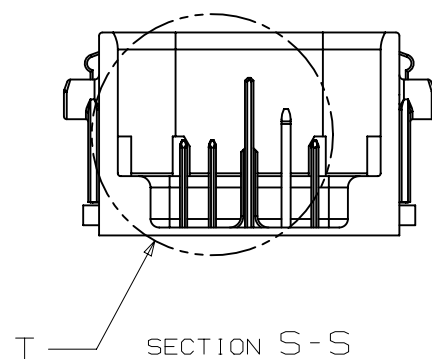
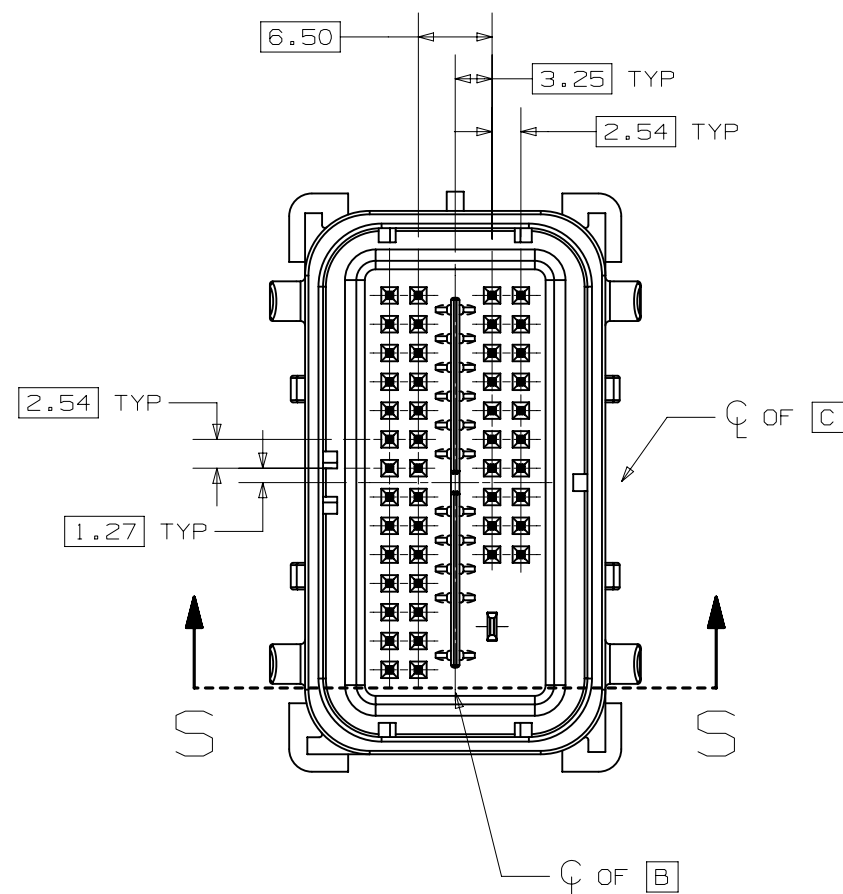
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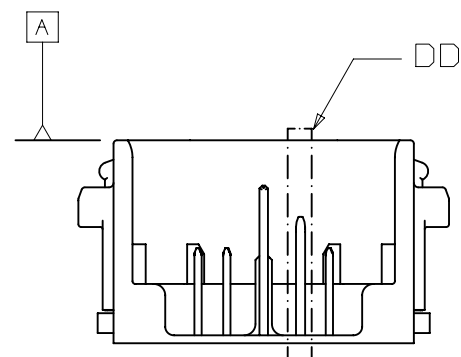
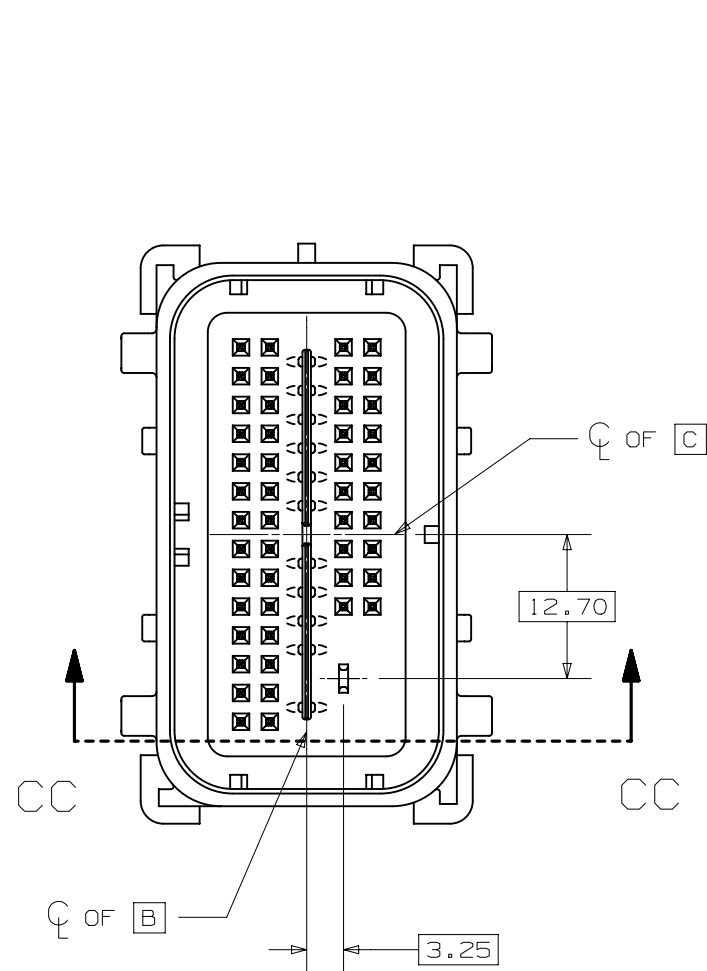


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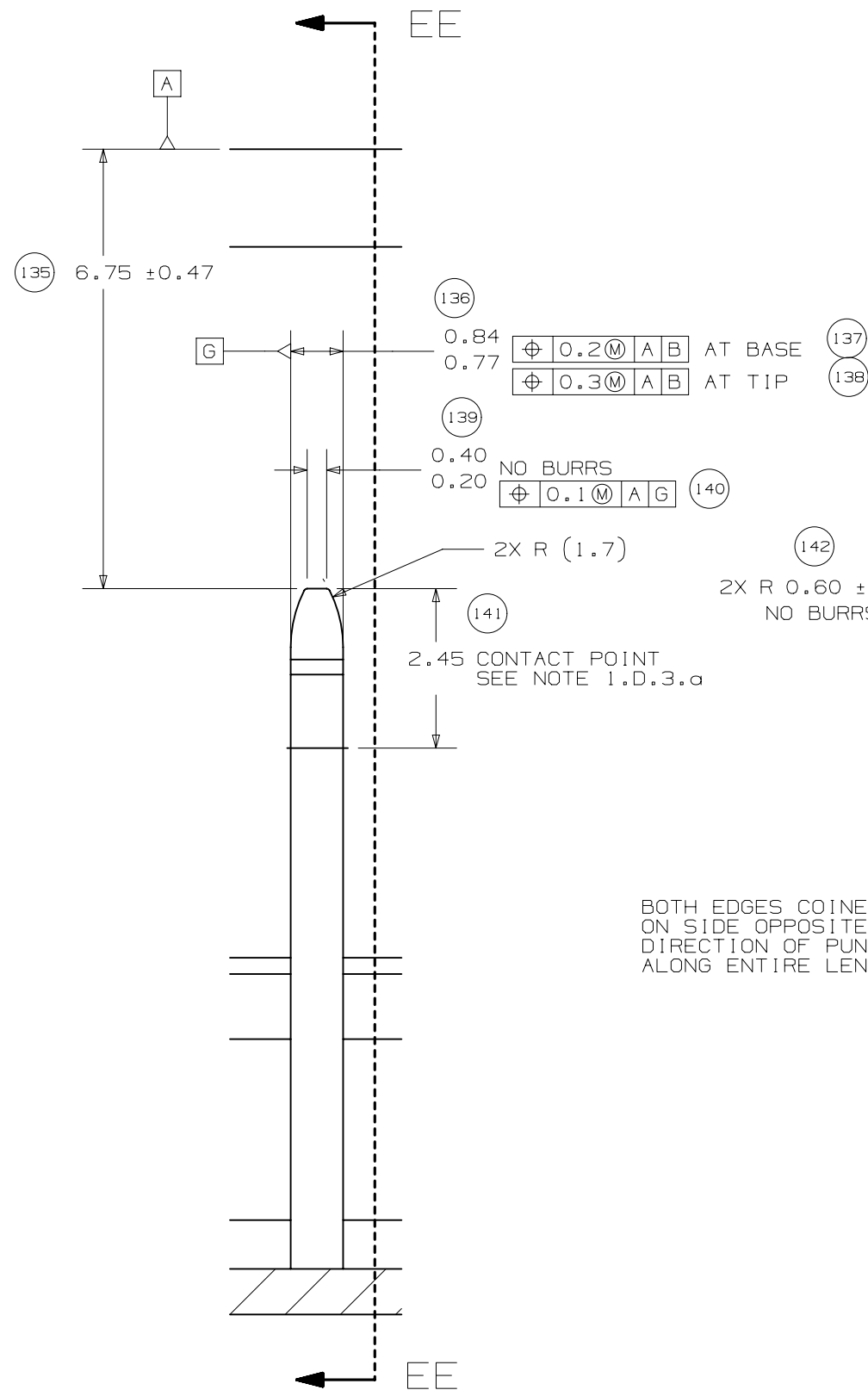
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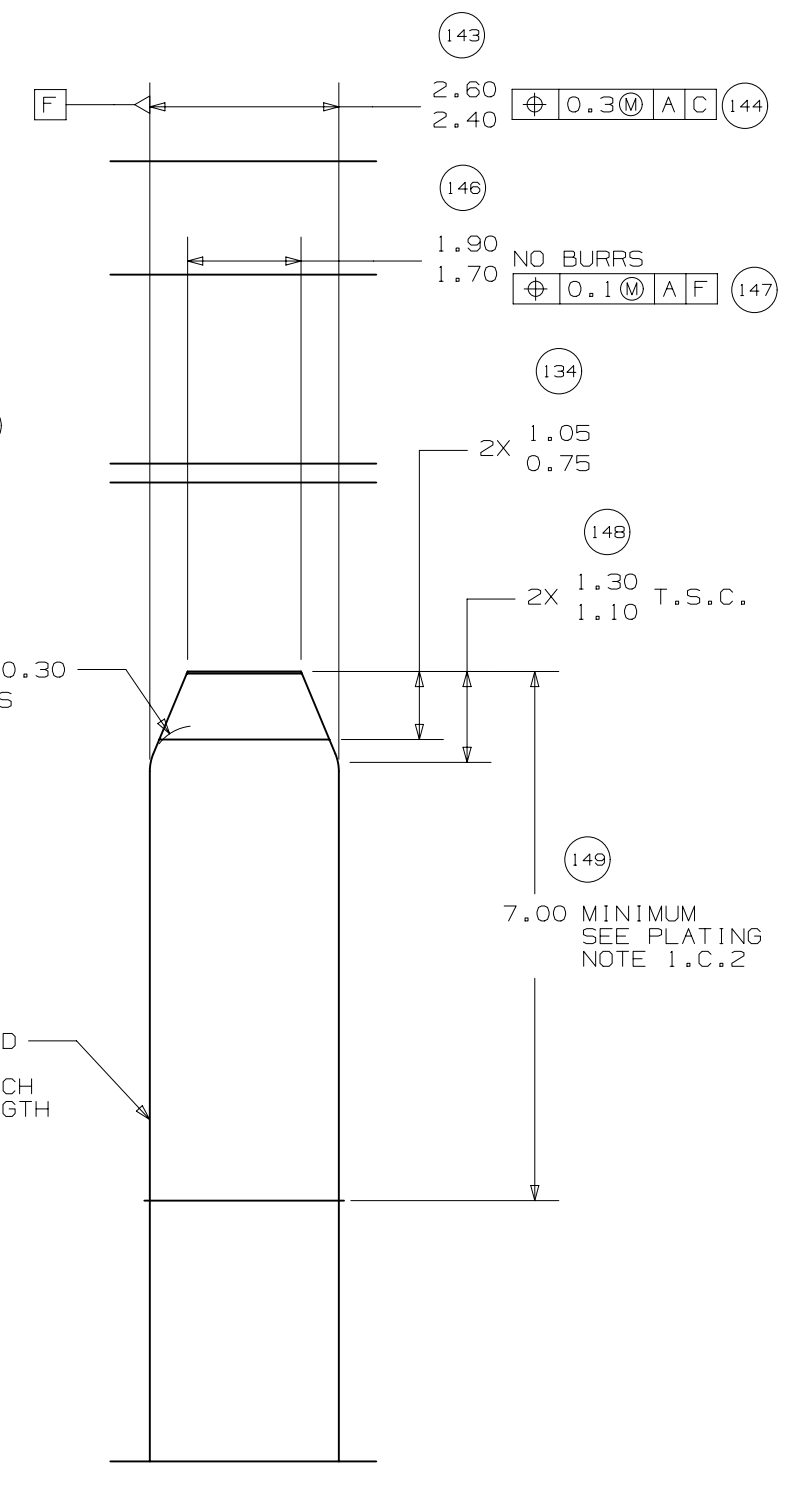
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SECTION CC-CC



DETAIL DD
TYPICAL



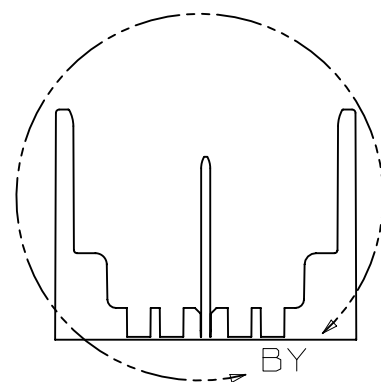
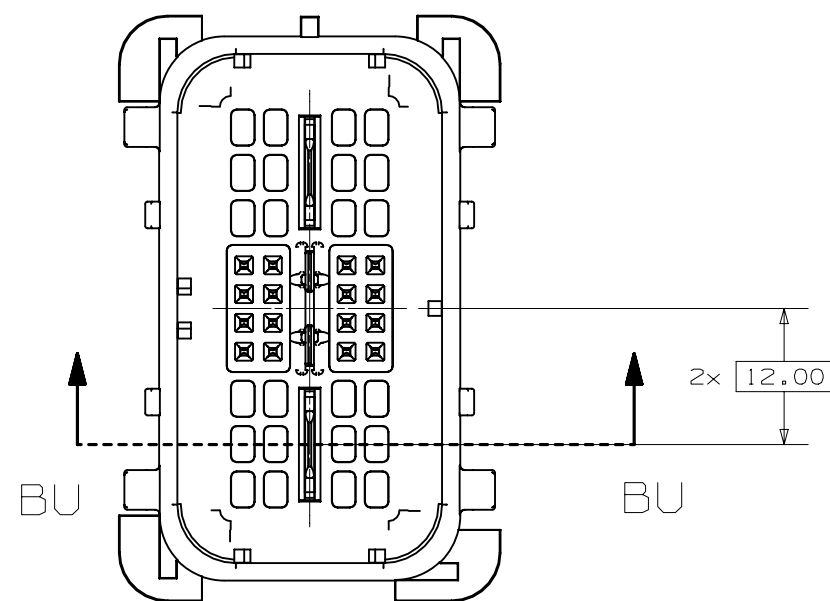
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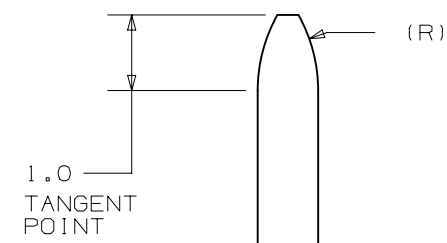
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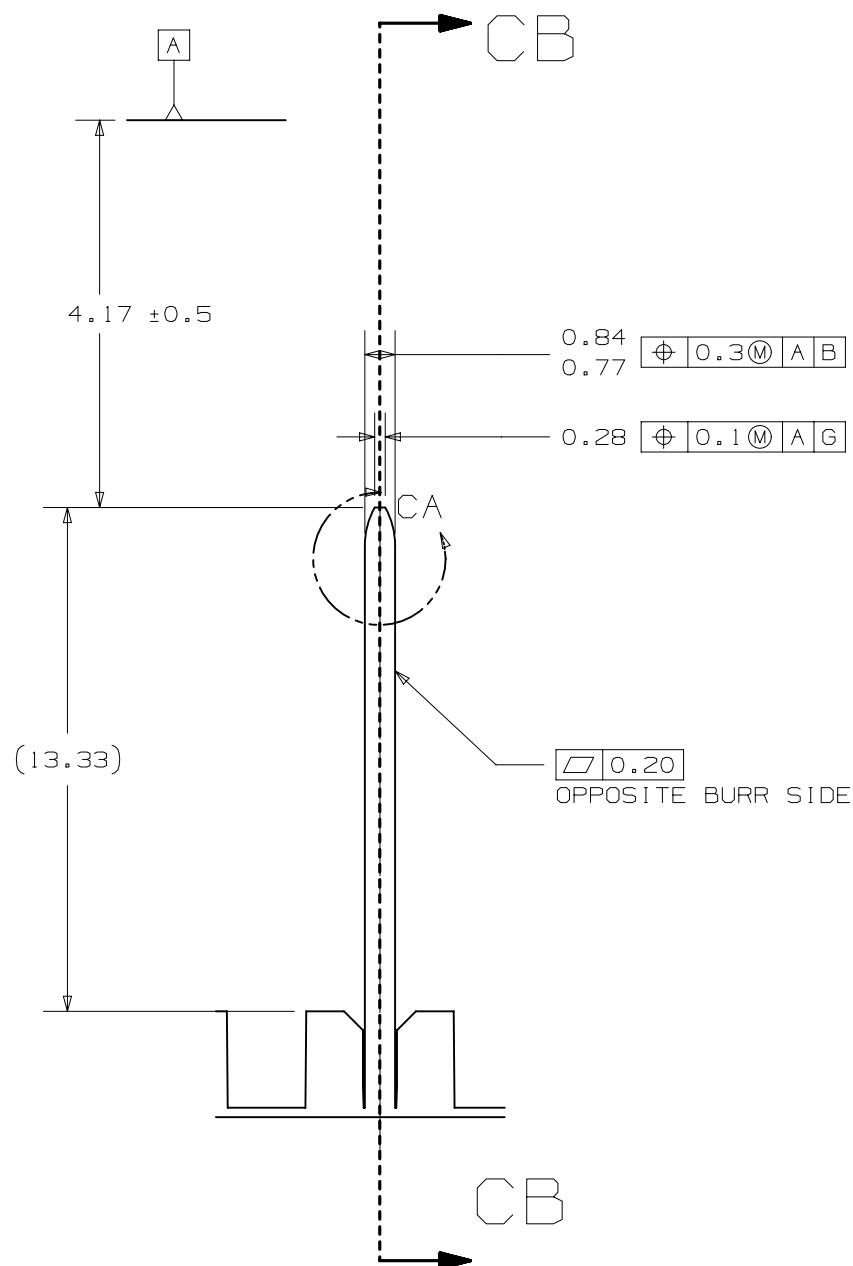
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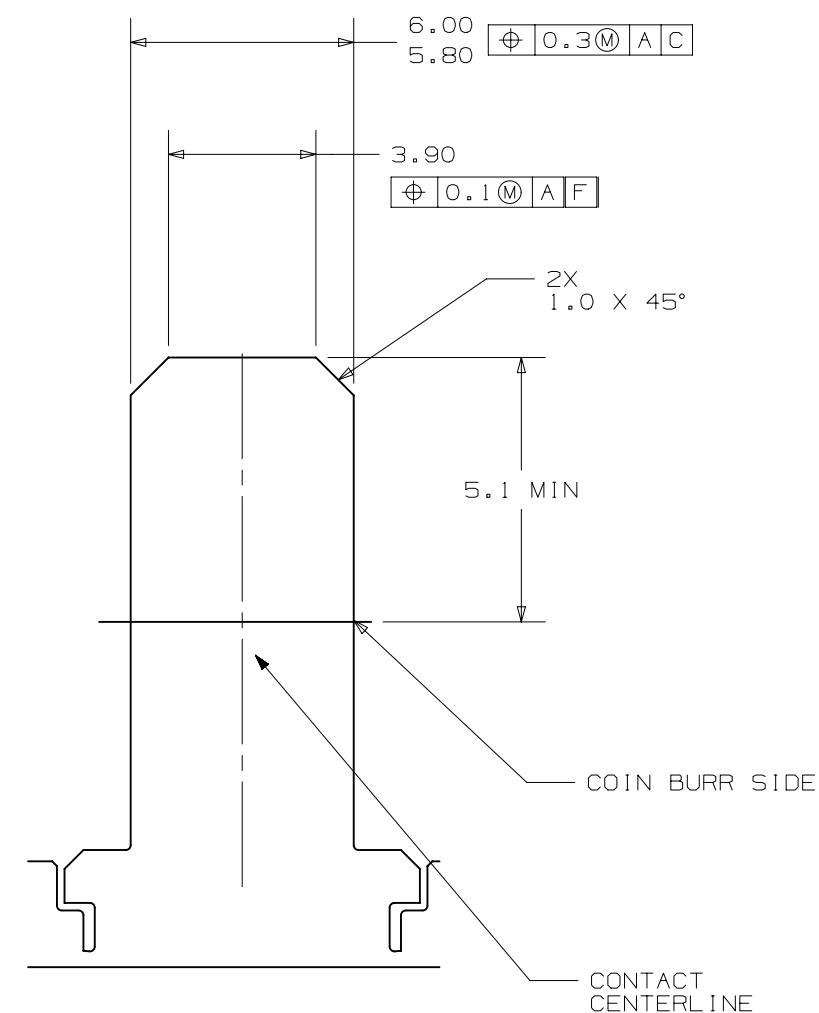
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VIEW CA
SCALE 10:1



VIEW BY
SCALE 5:1



SECTION CB-CB

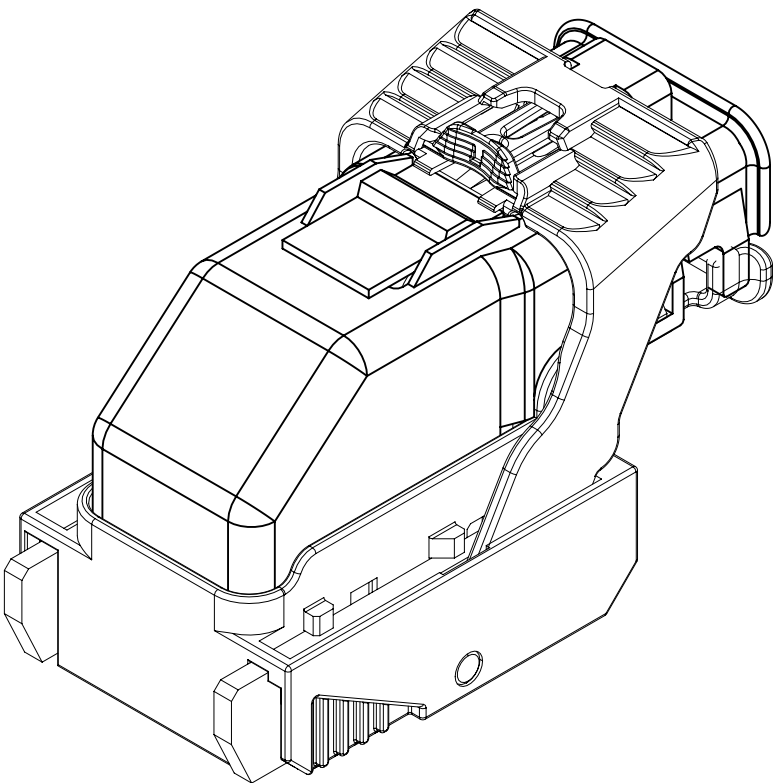


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ISO VIEW



	THIS DOCUMENT IS IN ACCORDANCE WITH ASME Y14.5M-1994 AS AMENDED BY THE GM GLOBAL DIMENSIONING AND TOLERANCING ADDENDUM - 2004.				
			DATE		
 CHANGE RESTRICTED NO MANUAL CHANGES	REFERENCE 12H (MOLEX AUTOMOTIVE)	DRAFTER D. KOEHLER	04JN15		
		APVD1			
APVD2					
APVD3					
APVD4					
DO NOT SCALE		APVD5			
METRIC DIMENSIONS SHOWN IN MILLIMETERS UNLESS OTHERWISE SPECIFIED	DRAWING NAME HARNESS CONN ASM-SEALED 18/49/56 CKTS, MX123				
	DRAWING NUMBER 12672832	DWG STATUS		PAGE NUMBER 1 of 23	
		ST	REV		PD1
		R	001		

PAGE	DWG STATUS					REVISION HISTORY	AUTH	DR	CK	ENG
	DATE	ST	REV	CHG	PDI					

PAGE	DWG STATUS					REVISION HISTORY	AUTH	DR	CK	ENG
	DATE	ST	REV	CHG	PDI					
	03JN15	R	001			RELEASED TO PRODUCTION AT DLS A	CRMRJE	DFK		

				KEY PRODUCT CHARACTERISTICS (IN ACCORDANCE WITH QN 1805 OR QN 1050)																
				⊖ SAFETY/COMPLIANCE ◇ FIT/FUNCTION			TOTAL ON DRAWING		4											
							LAST NO. USED		4											
				NO	TYPE	DESCRIPTION		RATIONALE		PAGE/ZONE										
				1	F/F	32.68		IMPROVE CONNECTOR SYSTEM MATING		16										
	2	F/F	29.00		INSURE PROPER RELEASE OF LEVER		16													
	3	F/F	15.25		INSURE FINAL MATE POSITION		17													
	4	F/F	POSITIONAL TOLERANCE (2 PLACES)		INSURE CONNECTOR SYSTEM MATIBILITY		20													
		PAGE TITLE KPC BLOCK				DRAWING NUMBER 12672832		<table><tr><td colspan="3">DWG STATUS</td></tr><tr><td>ST</td><td>REV</td><td>PDI</td></tr><tr><td>R</td><td>001</td><td></td></tr></table>		DWG STATUS			ST	REV	PDI	R	001		PAGE NUMBER 4 of 23	
DWG STATUS																				
ST	REV	PDI																		
R	001																			

					APPLICABLE COMPONENTS					
FIG.	MFG.	MFG. P/N	GM P/N	Effective Date	DESCRIPTION	Key Option	Wire Dress Option	Key Config.	Color	Status
1	MOLEX	34575-0003	12582679	02JN03	WIRE HARNESS COVER	N/A	NA	N/A	BLACK	AVAILABLE
2	MOLEX	34851-0007	12672834	31AU15	HARN CONN ASM 18 CKT	G	0	1358	BLUE	ACTIVE
3	MOLEX	34851-0008	12672836	31AU15	HARN CONN ASM 18 CKT	H	0	2458	ST GRAY	ACTIVE
4	MOLEX	34851-0019	12672835	31AU15	HARN CONN ASM 18 CKT	G	9	1358	BLUE	ACTIVE
5	MOLEX	34851-0020	12672837	31AU15	HARN CONN ASM 18 CKT	H	9	2458	ST GRAY	ACTIVE
6	MOLEX	34576-0103	12672838	31JL15	HARN CONN ASM 49 CKT	A	0	1458	BLACK	ACTIVE
7	MOLEX	34576-0203	12672840	T.B.D.	HARN CONN ASM 49 CKT	B	0	1468	ST GRAY	NOT ACTIVE
8	MOLEX	34576-0303	12672842	31JL15	HARN CONN ASM 49 CKT	C	0	2467	BLUE	ACTIVE
9	MOLEX	34576-1303	12672839	31JL15	HARN CONN ASM 49 CKT	A	9	1458	BLACK	ACTIVE
10	MOLEX	34576-1403	12672841	T.B.D.	HARN CONN ASM 49 CKT	B	9	1468	ST GRAY	NOT ACTIVE
11	MOLEX	34576-1503	12672843	31JL15	HARN CONN ASM 49 CKT	C	9	2467	BLUE	ACTIVE
12	MOLEX	34576-0703	12672848	11JN04	HARN CONN ASM 56 CKT	G	0	1358	BLUE	AVAILABLE
13	MOLEX	34576-0803	12672846	11JN04	HARN CONN ASM 56 CKT	H	0	2458	ST GRAY	AVAILABLE
14	MOLEX	34576-0903	12672844	T.B.D.	HARN CONN ASM 56 CKT	J	0	2457	BLACK	NOT ACTIVE
15	MOLEX	34576-1903	12672849	11JN04	HARN CONN ASM 56 CKT	G	9	1358	BLUE	AVAILABLE
16	MOLEX	34576-2003	12672847	T.B.D.	HARN CONN ASM 56 CKT	H	9	2458	ST GRAY	NOT ACTIVE
17	MOLEX	34576-2103	12672845	T.B.D.	HARN CONN ASM 56 CKT	J	9	2457	BLACK	NOT ACTIVE
18	MOLEX	34736-0028	12672851	01AU10	MX64 RCPT TERM Ag 0.5mm/0.75mm ISO GAGE B (RIGHT PAYOFF)	N/A	N/A	N/A	N/A	AVAILABLE
19	MOLEX	34736-0026	12672850	01AU10	MX64 RCPT TERM Ag 0.35mm ISO B (RIGHT PAYOFF)	N/A	N/A	N/A	N/A	AVAILABLE
20	MOLEX	34586-0001	12674820	11JN04	MX123 0.64MM GROMMET PLUG	N/A	N/A	N/A	NATURAL	AVAILABLE
21	YAZAKI	7116-4150-02	12588066	02JN03	2.8mm YESC SEALED FEMALE TERMINAL TIN 0.35mm2-0.50mm2	N/A	N/A	N/A	N/A	NOT ACTIVE
22	YAZAKI	7116-4151-02	12588067	02JN03	2.8mm YESC SEALED FEMALE TERMINAL TIN 0.75mm2-1.0mm2	N/A	N/A	N/A	N/A	NOT ACTIVE
23	YAZAKI	7116-4152-02	12582685	02JN03	2.8mm YESC SEALED FEMALE TERMINAL TIN 1.5mm2-2.5mm2	N/A	N/A	N/A	N/A	AVAILABLE
24	YAZAKI	7158-3111-60	12588068	02JN03	2.8mm CABLE SEAL (wire O.D. range 1.2mm-1.9mm)	N/A	N/A	N/A	GREEN	NOT ACTIVE
25	YAZAKI	7158-3112-70	12588069	02JN03	2.8mm CABLE SEAL (wire O.D. range 1.8mm-2.3mm)	N/A	N/A	N/A	YELLOW	NOT ACTIVE
26	YAZAKI	7158-3113-40	12582686	02JN03	2.8mm CABLE SEAL (wire O.D. range 2.1mm-3.0mm)	N/A	N/A	N/A	WHITE	AVAILABLE
27	YAZAKI	7158-3114-90	12674821	02JN03	2.8mm YESC CAVITY PLUG	N/A	N/A	N/A	BLUE	AVAILABLE
28	DELPHI	33140138	12646399	10JA14	6.35mm APEX RCPT TERM Sn/Ag GRIP CODE-10 (6mm2) - GREASED	N/A	N/A	N/A	N/A	AVAILABLE
29	DELPHI	33140135	12654556	10JA14	6.35mm APEX RCPT TERM Sn/Ag GRIP CODE-TBD (1mm2) - GREASED	N/A	N/A	N/A	N/A	AVAILABLE
30	QSR	A-0549C	12646688	01SE14	6.35mm CABLE SEAL (FOR 6.0mm2 WIRE SIZE - 3.6 TO 4.2mm INSULATION OD)	N/A	N/A	N/A	WHITE	AVAILABLE
31	QSR	A-0549B	12654557	01SE14	6.35mm CABLE SEAL (FOR 0.75-1.25mm2 WIRE SIZE - 1.8 TO 2.3mm INSULATION OD)	N/A	N/A	N/A	BLUE	AVAILABLE
32	MOLEX	63825-8400	N/A	02JN03	MX64 TERM HAND CRIMP TOOL	N/A	N/A	N/A	N/A	AVAILABLE
33	MOLEX	63813-1400	XX019826	02JN03	MX64 TERM SERVICE TOOL	N/A	N/A	N/A	N/A	AVAILABLE
34	MOLEX	63902-5300	N/A	02JN03	MX64 CRIMP APPLICATOR with TOOL KIT 0.5/0.75mm2 PAYOFF DIRECTION D (left payoff) (contact Molex for payoff detail)	N/A	N/A	N/A	N/A	AVAILABLE
35	MOLEX	63902-5370	N/A	02JN03	MX64 APPLICATOR TOOL KIT 0.5/0.75mm2	N/A	N/A	N/A	N/A	AVAILABLE
36	MOLEX	63902-5100	N/A	02JN03	MX64 CRIMP APPLICATOR with TOOL KIT 0.35mm2 PAYOFF DIRECTION D (left payoff) (contact Molex for payoff detail)	N/A	N/A	N/A	N/A	AVAILABLE
37	MOLEX	63902-5170	N/A	02JN03	MX64 APPLICATOR TOOL KIT 0.35mm2	N/A	N/A	N/A	N/A	AVAILABLE
38	SPX	J35616-64	T.B.D.	02JN03	0.64mm PROBE TOOL (for rcpt)	N/A	N/A	N/A	N/A	AVAILABLE
39	SPX	J35616-64A	T.B.D.	02JN03	0.64mm PROBE TOOL WITH EXT (for rcpt)	N/A	N/A	N/A	N/A	AVAILABLE
40	SPX	J35616-65	T.B.D.	02JN03	0.64mm PROBE TOOL WITH EXT (for pin)	N/A	N/A	N/A	N/A	AVAILABLE
41	SPX	J35616-4A	T.B.D.	02JN03	2.8mm PROBE TOOL (for rcpt)	N/A	N/A	N/A	N/A	AVAILABLE
42	YAZAKI	X39899-J374	12094430	02JN03	2.8mm TERM SERVICE TOOL	N/A	N/A	N/A	N/A	AVAILABLE
43	TQI	7000-1001	N/A	01FE15	18CKT PASS THROUGH ADAPTERS	N/A	N/A	N/A	BLACK	AVAILABLE
44	TQI	7000-1004	N/A	01FE15	49CKT PASS THROUGH ADAPTERS	N/A	N/A	N/A	BLACK	AVAILABLE
45	TQI	79917-0060	N/A	02JA08	56CKT PASS THROUGH ADAPTERS	N/A	N/A	N/A	BLACK	AVAILABLE
46	MOLEX	63813-1500	J-38125-217	01SE14	6.35mm APEX TERM SERVICE TOOL	N/A	N/A	N/A	N/A	AVAILABLE

* MX123 WIRE HARNESS COVER
MATES TO ANY 18/49/56 CKT
MX123 HARN CONN ASSY
SHOWN ON THIS TABLE

NOTES: UNLESS OTHERWISE SPECIFIED

1. MATERIAL FOR INTERFACE:

- A. RESIN:

1. 30% G.F. PBT; 20% MAX. (BY WEIGHT) REGRIND.

2. MATING CONNECTOR INTERFACE PART COLOR MUST BE SAME AS MATCHING KEYED HARNESS CONNECTOR ASSEMBLY.

3. MUST BE VALIDATED FOR INDIVIDUAL DEVICE APPLICATION REQUIREMENTS.
- B. 0.64MM PINS:

1. BASE MATERIAL: COPPER ALLOY; CONDUCTIVITY >= 28% IACS AT 20°C; TENSILE STRENGTH >= 635 N/mm²; SURFACE ROUGHNESS R_a 6 MAX.

2. PLATING FINISH: SILVER (Ag). PLATING TO BE 1.9-3.3 µm ELECTRODEPOSITED SEMI-BRIGHT SILVER OVER 1.25-2.25 µm DUCTILE SULPHAMATE NICKEL PER NOTE 1(D).

3. ANTI-TARNISH: SYNTHETIC HYDROCARBON CONTACT SURFACE FINISH OR EQUIVALENT APPLIED WITHOUT VOID TO CONTACT AREA (MIN 3.7mm FROM PIN TIP).
- C. 2.8MM BLADE:

1. BASE MATERIAL: COPPER ALLOY; CONDUCTIVITY>= 28% IACS AT 20°C; TENSILE STRENGTH >= 350 N/mm²; SURFACE ROUGHNESS R_a 6 MAX.

2. PLATING FINISH: TIN. PLATING TO BE 2.5-5.0 µm ELECTRODEPOSITED TIN, MATTE FINISH OVER 1.25-2.5µm DUCTILE SULPHAMATE NICKEL PER NOTE 1(D).
- D. 6.3MM BLADE:

1. BASE MATERIAL: COPPER ALLOY; CONDUCTIVITY>= 50% IACS AT 20°C;

2. PLATING FINISH: SILVER (Ag) PLATING TO BE 1.9-3.3 µm ELECTRODEPOSITED SEMI-BRIGHT SILVER, OVER 1.25-2.5µm DUCTILE SULPHAMATE NICKEL PER NOTE 1(D) WITH ENVIRONMENTAL BARRIER OR TIN/SILVER (ELECTRO-DEPOSITED), UNDERPLATE 0.5-2.0 µm NICKEL OR COPPER. TOP PLATING: 1.0-3.0 µm (SILVER RANGE 3.75-X.XX NO ANTI-TARNISH COATING REQUIRED).
- E. PLATING REQUIREMENTS:

1. SILVER PLATING

α. 99.5% PURE SEMI-BRIGHT WITH NO ORGANIC BRIGHTNERS OR CHROMATES.

2. NICKEL PLATING

α. ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL WITH A NON-BRIGHTENED FINISH. NO ORGANIC OR BRIGHTENING AGENTS SHALL BE ALLOWED.

b. SHALL ONLY BE USED AS AN UNDERLYING PLATING AND MAY NOT BE USED AS AN ELECTRICAL CONTACT SURFACE PLATING.

c. SHALL BE NODULE FREE WHEN VIEWED AT 10X MAGNIFICATION IN MEASURED IN CONTACT SURFACE AREA PLUS 0.5MM PERIMETER AROUND THE CONTACT SURFACE AREA.

d. ALL PLATINGS SHALL HAVE A 1.0% MAXIMUM BY WEIGHT IMPURITIES. IMPURITIES ARE DEFINED AS ALL ELEMENTS NOT THE PRIMARY PLATING OR HARDENING AGENT IF APPLICABLE, AS DETERMINED BY WET CHEMICAL ANALYSIS OR AUGER METHOD. NO SINGLE IMPURITY SHALL EXCEED 0.1% MAXIMUM BY WEIGHT.

3. TESTING

α. THICKNESS TO BE MEASURED IN CONTACT SURFACE AREA PLUS 0.5MM PERIMETER AROUND THE CONTACT SURFACE AREA AS DESIGNATED IN THE DRAWING. THICKNESS SHALL BE DETERMINED BY METHOD OF X-RAY (XRF).

b. PLATING ADHESION SHALL BE TESTED BY A BEND TEST FOR ALL METALS. THE TEST SAMPLE SHALL BE BENT 90 DEGREES TO DETERMINE DEPOSIT ADHESION. TESTING SHALL BE COMPLETED IN ACCORDANCE WITH ASTM SPEC B571.
2. DESIGN - GENERAL:
- A. THIS IS A 100% CAD GENERATED PART. THE CAD MATHEMATICAL DATA IS THE MASTER FOR THIS PART. WHERE DIMENSIONS ARE SPECIFIED ON THE DRAWING, THE DRAWING IS THE AUTHORITY FOR DIMENSIONAL VALUES. FOR DIMENSIONAL OR ANY INFORMATION NOT SHOWN ON THIS DRAWING, ANALYZE THE CAD MODEL.

B. DIMENSIONS OBTAINED FROM THE DIGITAL MODEL ARE BASIC:

1. FOR RELATIONSHIPS BETWEEN FEATURES WHEN ESTABLISHED BY GEOMETRIC TOLERANCES.

2. FOR THE FORM OF A FEATURE WHEN CONTROLLED BY A PROFILE TOLERANCE.

3. FOR THE SIZE, FORM AND/OR RELATIONSHIP BETWEEN FIXED DATUM TARGETS.

C. DIMENSIONS OBTAINED FROM THE DIGITAL MODEL ARE ROUNDED TO TWO DECIMAL PLACES (PER IEEE/ASTM SI 10-2002)

D. VIEWS AND SECTIONS ON THIS DRAWING ARE IN ACCORDANCE WITH GM DCS SECTION C3.

E. THE DIGITAL MODEL MUST CORRESPOND TO THE RELEASE LEVEL SHOWN IN THE PART BLOCK ON THIS DOCUMENT.

F. TOLERANCES:

1. LINEAR

0.X ± 0.30

0.XX ± 0.10

0.XXX ± 0.10

2. ANGULAR

X° ± 3°

3.

1.0

A

B

C

G. MINIMUM WALL THICKNESS REQUIRED: 1.3mm.

H. CORNERS SHOWN AS SHARP TO BE R 0.2 MAX.

J. LETTERING SHALL BE 0.15 MAX RAISED IN 0.20 MAX RECESS PAD. THIS INCLUDES MATERIAL CODE, RECYCLING CODE, CAVITY ID AND DATE CODE.

K-1. PARTS MUST BE FREE OF DISCOLORATION, SALT RESIDUE AND OTHER IMPERFECTIONS THAT AFFECT FIT OR FUNCTION.

K-2. SCRATCHES OR DENTS NOT TO EXCEED 0.013mm IN DEPTH.

L. FOLLOWING PRODUCTION CODES TO BE PERMANENTLY MARKED & HUMAN READABLE TO A LETTER HEIGHT OF 1.5 ±0.5MM X 0.3 MAX DEEP

1. MATERIAL #: XXXXX-XXXX

2. DATE CODE: JJJY (JULIAN DAY, LAST DIGIT OF YEAR)

3. INSPECTION MACHINE CODE + SERIAL #: X_XXXXX
3. DESIGN - MANUFACTURING:
- A. DRAFT TO BE WITHIN TOLERANCE.

B. ALLOWABLE FLASH MAX 0.2 HIGH X MAX 0.13 THICK.

C. ALLOWABLE PARTING LINE MISMATCH 0.2 MAX.

D. EJECTOR PINS MARK TO BE FLUSH TO 0.25 MAX DEPRESSED.

E. ALLOWABLE GATE VESTIGE FLUSH TO 0.25 MAX PROTRUSION.

F. NO EXTERNAL MOLD RELEASE AGENT ALLOWED DURING MANUFACTURING.

G. STEEL THAT FORMS THE INDICATED SURFACE MUST BE POLISHED WITH A DIAMOND FINISH (SPI A-2) OVER THE FULL PERIPHERY OF THE TOOL. SURFACE MUST HAVE NO MISMATCH.

H. ANY PROCESS LUBRICANT REMAINING ON THE TERMINAL MUST NOT VARNISH OR DEGRADE IT'S 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.

J. OPTIONAL FEATURES PROVIDED FOR AUTOMATION.

K. PART MUST BE FREE FROM BURRS AND SHARP EDGES, WHICH MIGHT BE DETRIMENTAL TO SATISFACTORY ASSEMBLY, SAFE HANDLING OR FUNCTION OF PART.

L. PARTS AS DELIVERED TO ASSEMBLY SHALL BE CLEAN AND FREE OF DEBRIS, RESIDUAL ABRASIVE MATERIAL AND CORROSION PRODUCTS ADVERESLY AFFECTING FUNCTION OR APPEARANCE.

M. RESTRICTED AND REPORTABLE SUBSTANCES FOR PARTS PER GMW3059.
- | | | | | | | | |
|--|---------------------|--|----------------------------|------------|-----|-----|------------------------|
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| | | | | ST | REV | PD1 | |
| | | | | R | 001 | | |

NOTES: UNLESS OTHERWISE SPECIFIED

4. SYSTEM REQUIREMENTS:

- A. HARNESS CONNECTOR IS COMPATIBLE WITH THE FOLLOWING WIRE SIZE NO'S:
0.35mm2, MEETING GMW15626 - MIN OD OF 1.30MM
0.50mm2, MEETING GMW15626
0.75mm2, MEETING GMW15626 - MIN OD OF 2.06MM
- B. CABLE TIE SPECIFICATIONS:
1. CABLE TIE:
TENSILE RATING: 220N / (50lbs) MIN
TIE LENGTH: 186mm MIN
TIE WIDTH: 4.75mm MAX
MATERIAL: NYLON
2. INSTALLATION:
CABLE TIE TENSION: 190N MIN
3. DRESSED WIRE BUNDLE PACKAGING: SEE FIG. 1
- C. WHEN MATED WITH COMPONENT CONNECTOR INTERFACE AND/OR DRESS COVER, HARNESS CONNECTOR SYSTEM CONFORMS TO THE FOLLOWING:
1. SAE/USCAR-2, REV: 3 APRIL, 2001; CLASS 3
2. FIELD CORRELATED LIFE TEST, SAE/USCAR-20, NOV. 2001
3. GMW #3191 AUGUST 22, 2000 (DRAFT); TEMPERATURE CLASS 3 (145°C), SEALING CLASS 1 (HIGH PRESSURE SPRAY), VIBRATION CLASS 2 (ON BODY)
4. TPA USER FORCES (FULLY POPULATED WITH TERMINALS)
a. REMOVAL FROM LOCK TO PRE-SET: <=120N
- D. WIRE SPECIFICATIONS:
1. WIRE SURFACE MUST BE FREE OF SCRATCHES, GROOVES OR DENTS WHERE FUNCTIONAL

5. TERMINAL CURRENT RATINGS:

- A. MX64 RCPT TERM
ALL TESTING DONE IN ACCORDANCE WITH USCAR-2 REV5 SECTION 5.3

1. MX64 RCPT TERM Ag 0.50/0.75mm2 CRIMPED TO 0.75mm2 ISO WIRE AND MATED TO MX123 0.64MM PIN: SEE TABLE BELOW
2. MX64 RCPT TERM Ag 0.35mm2 CRIMPED TO 0.35mm2 ISO WIRE AND MATED TO MX123 0.64MM PIN: SEE TABLE BELOW
- | WIRE | CURRENT RATING | | | |
|---------|----------------|-------|--------|--------|
| | 23 °C | 85 °C | 105 °C | 125 °C |
| 0.75mm2 | 11.3A | 11.3A | 9.5A | 6.6A |
| 0.50mm2 | 10.0A | 10.0A | 8.3A | 5.7A |
| 0.35mm2 | 8.5A | 8.5A | 7.1A | 5.0A |
- B. 2.8MM RCPT TERM
ALL TESTING DONE IN ACCORDANCE WITH MOLEX DVP&R 0279 (TR# 7125)

1. 2.8MM RCPT TERM TIN 2.0mm2 CRIMPED TO 2.0mm2 ISO WIRE AND MATED TO MX123 2.8MM BLADE: 25.6 AMPS AT 125°C
- C. 6.3MM RCPT TERM - DELPHI APEX
ALL TESTING DONE IN ACCORDANCE WITH USCAR-2 REV5 SECTION 5.3

1. 6.3MM RCPT TERM TIN/SILVER CRIMPED TO 6.0MM² WIRE AND MATED TO MOLEX 6.3MM² BLADE (Sn/Ag PLATED): 36A AT 125°C

6. CONTACT MOLEX AUTOMOTIVE FOR AVAILABLE CUSTOM PATTERNS OF CAVITIES OPEN FOR CIRCUITS - SEE GM DRAWING 13507495

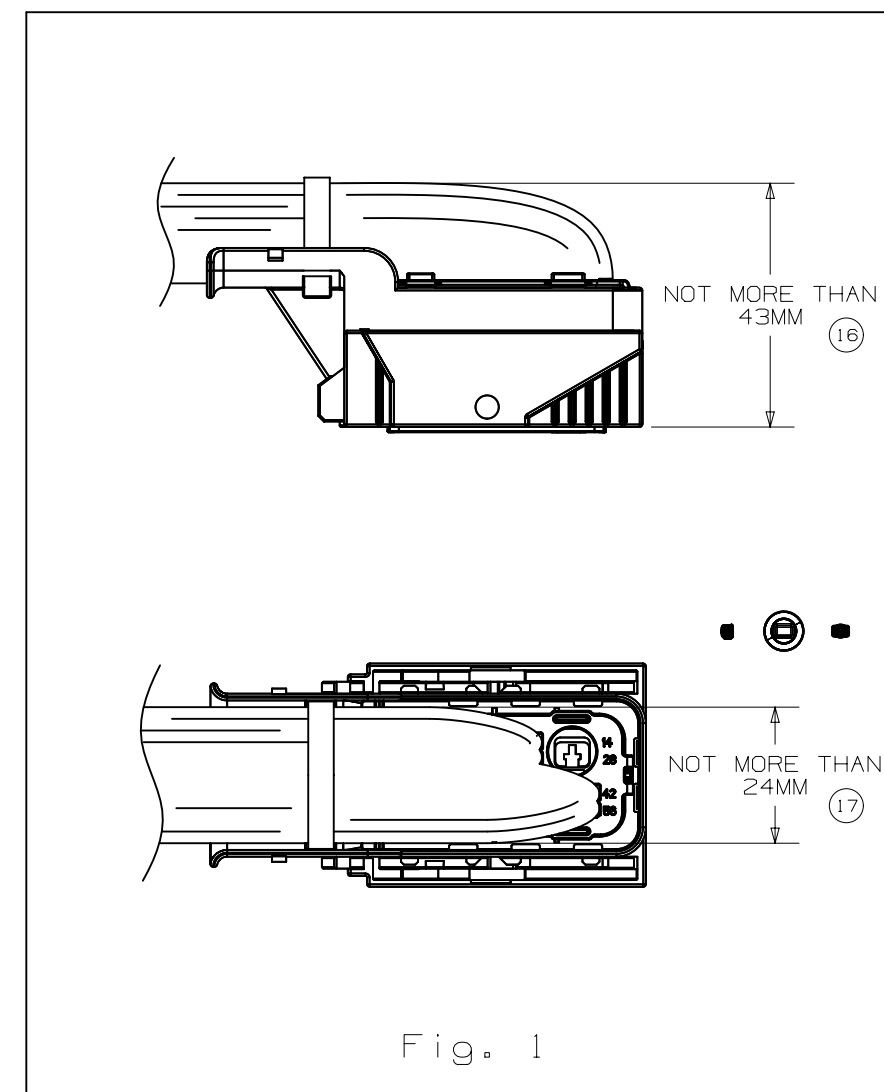
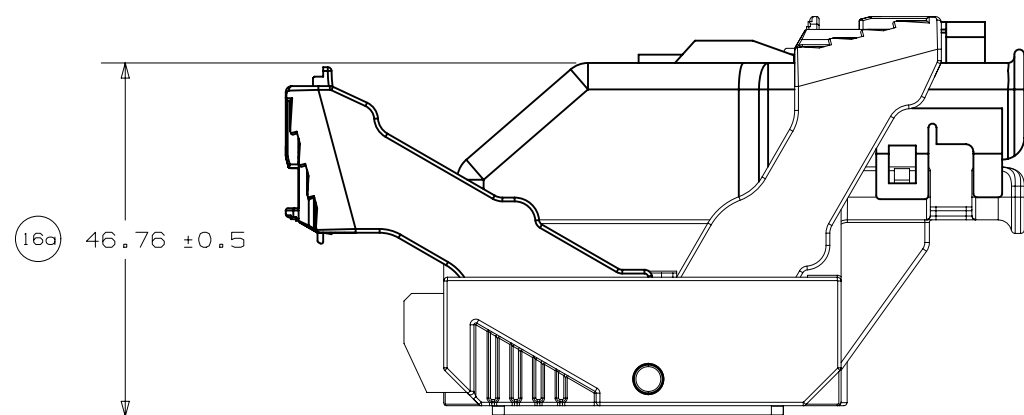


Fig. 1

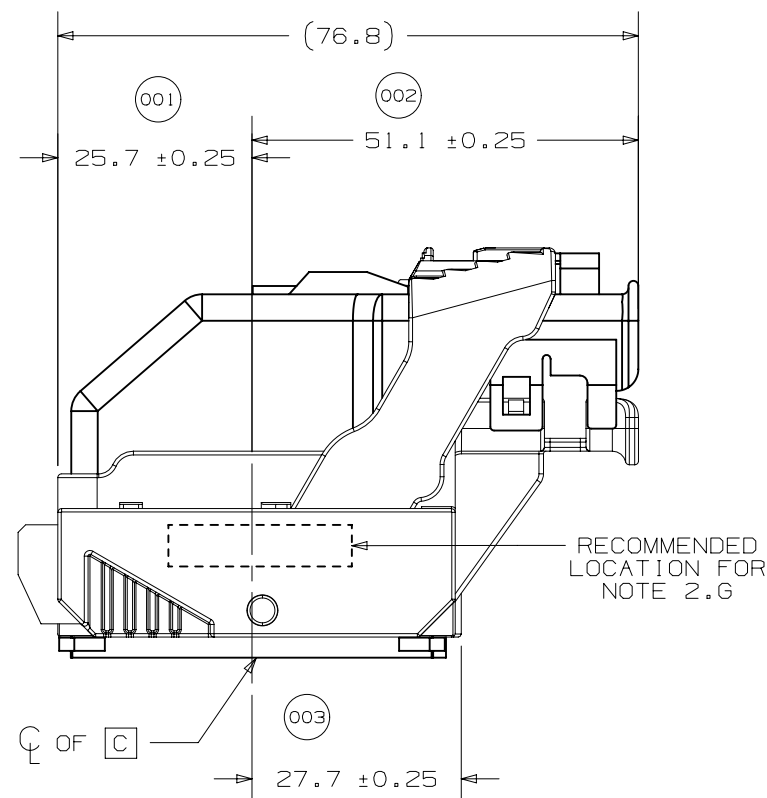


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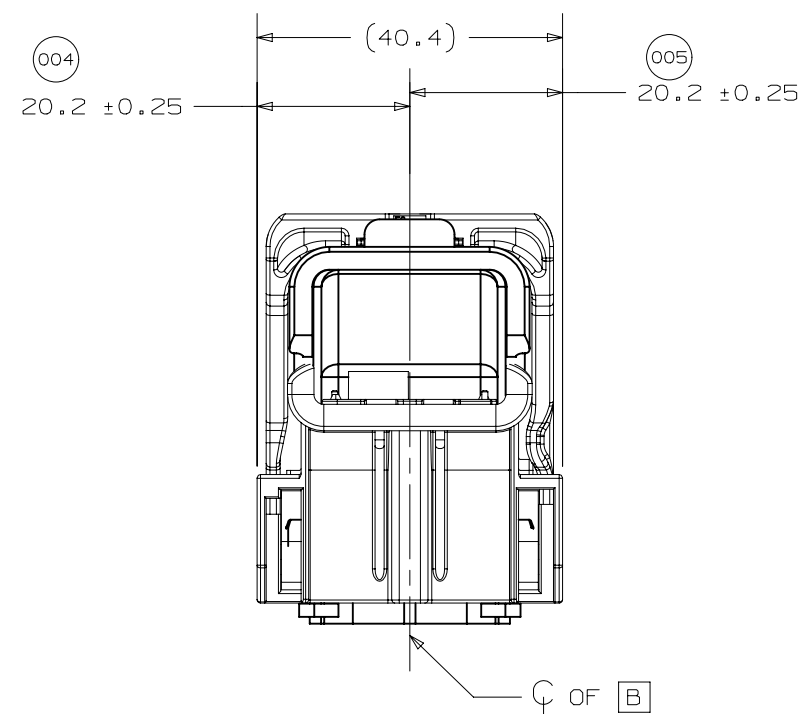
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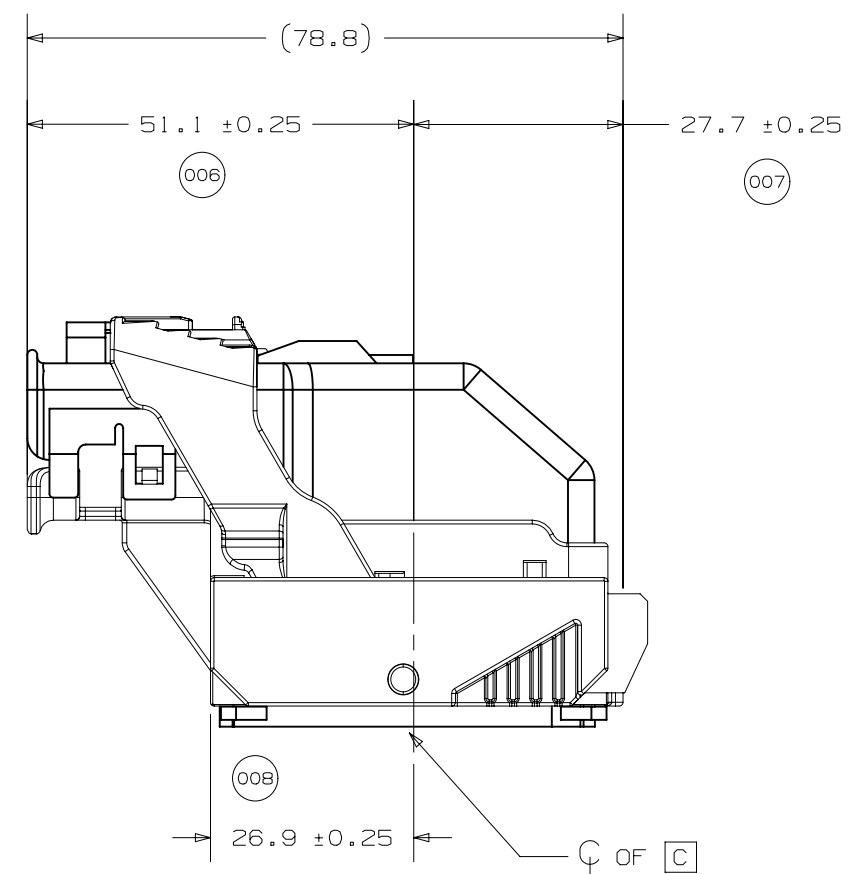
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WIRE DRESS OPTION 0 SHOWN



WIRE DRESS OPTION 0 SHOWN



WIRE DRESS OPTION 9 SHOWN



PAGE TITLE
LOCATION AND PACKAGING DIMENSIONS
REFERENCING INTERFACE DATUMS B & C

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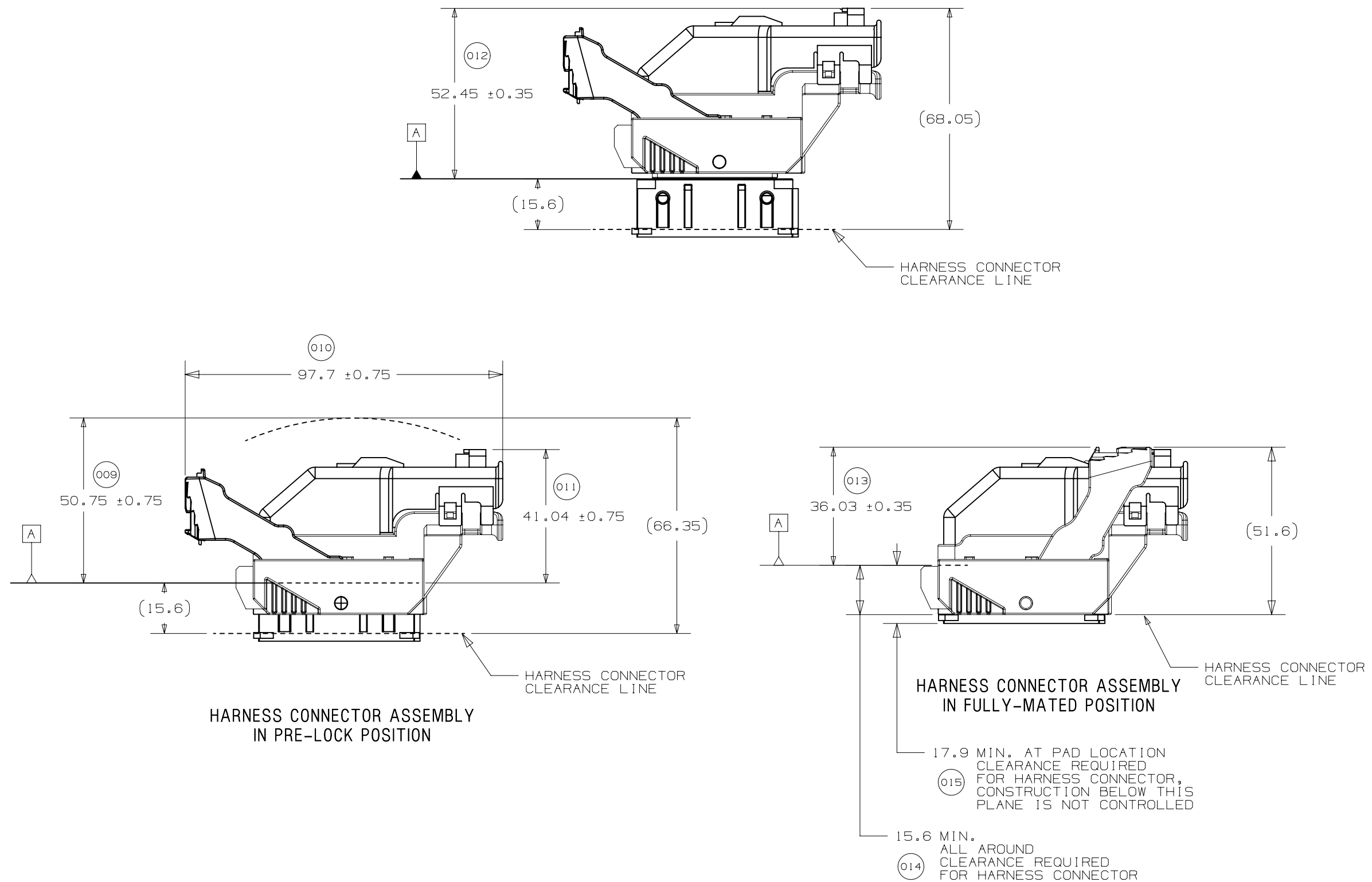
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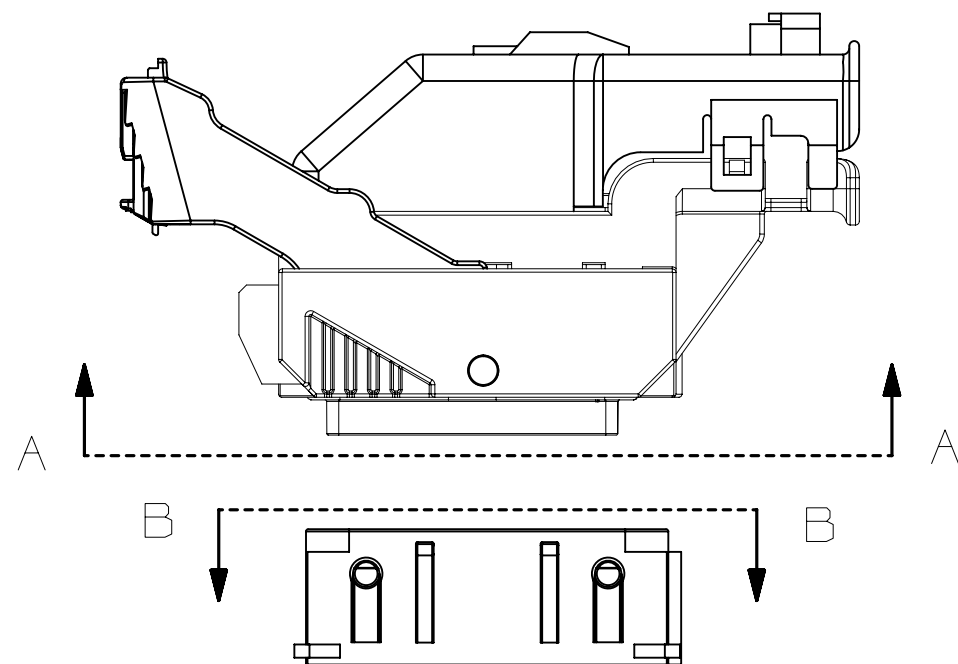
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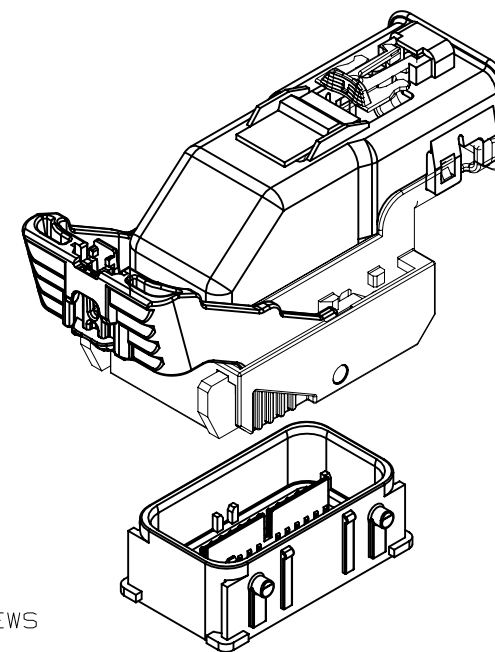
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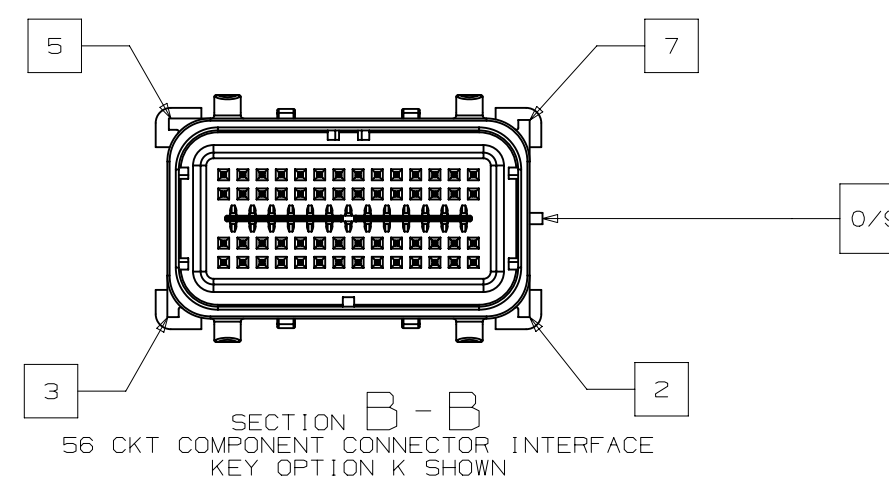
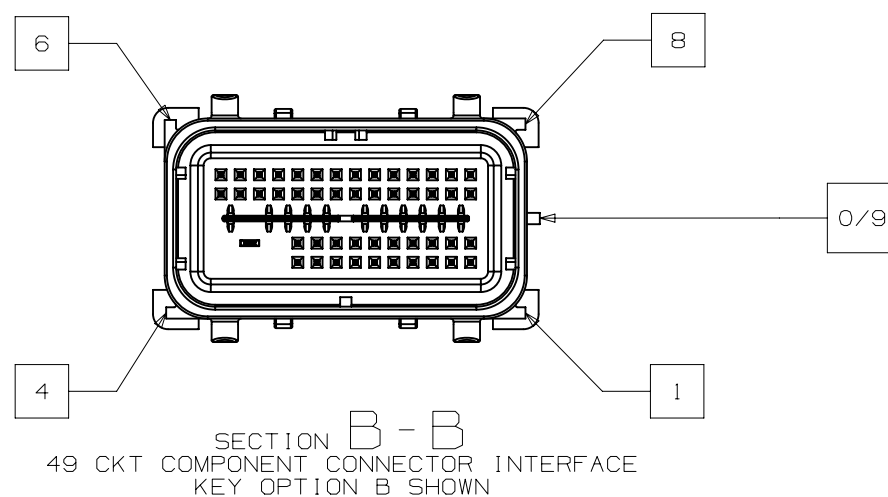
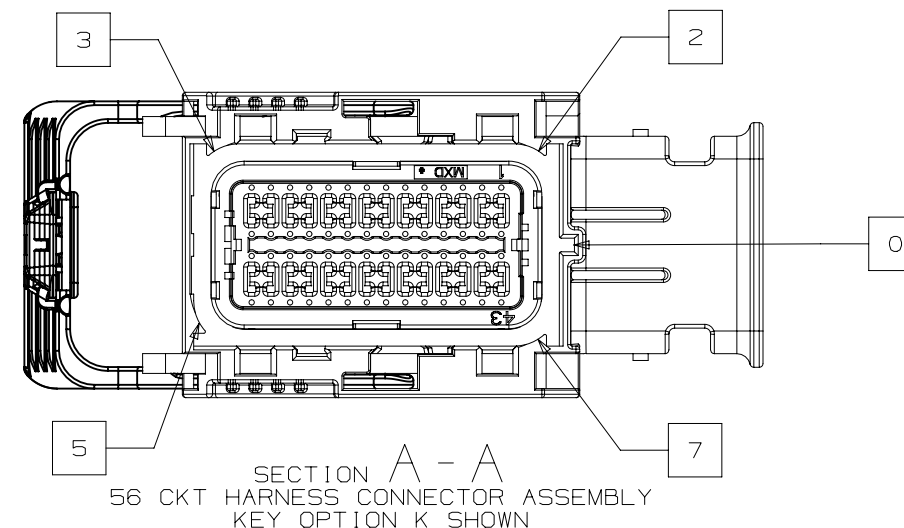
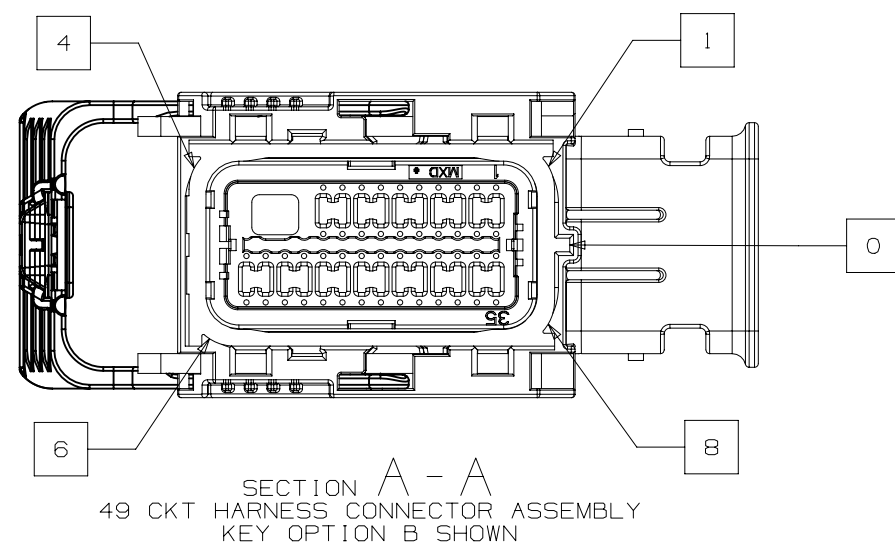




INTERFACE SIDE SHOWN IN ALL SECTION VIEWS



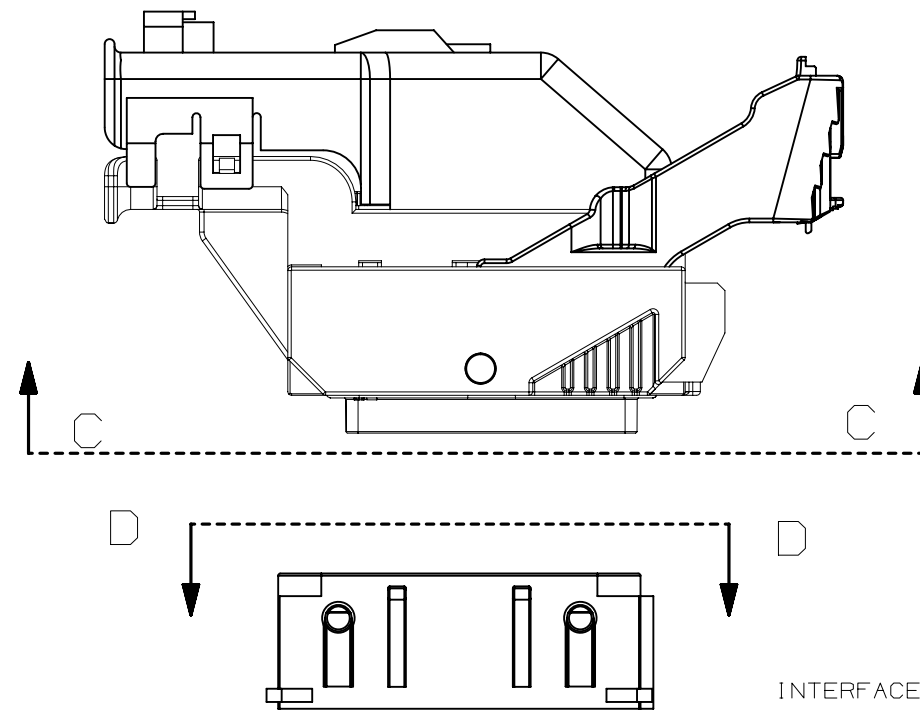
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FOR KEY OPTIONS AND CONFIGURATIONS



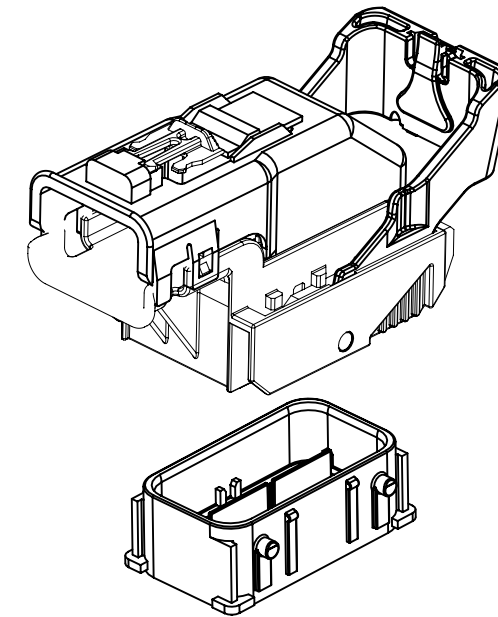
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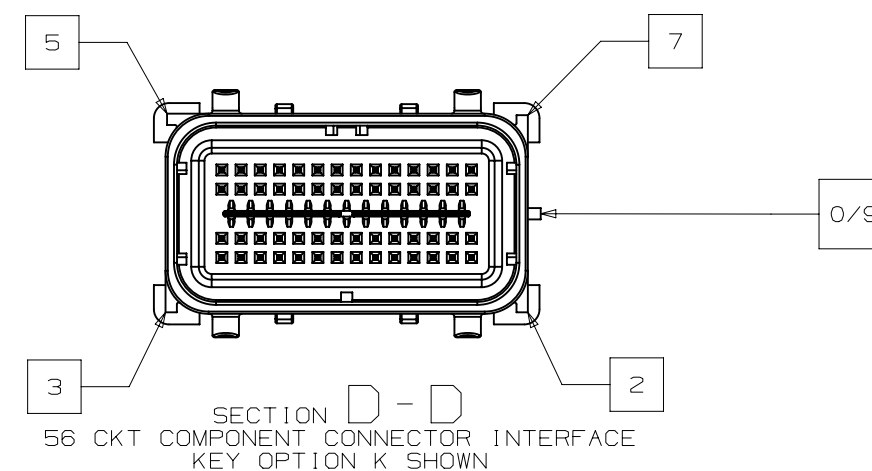
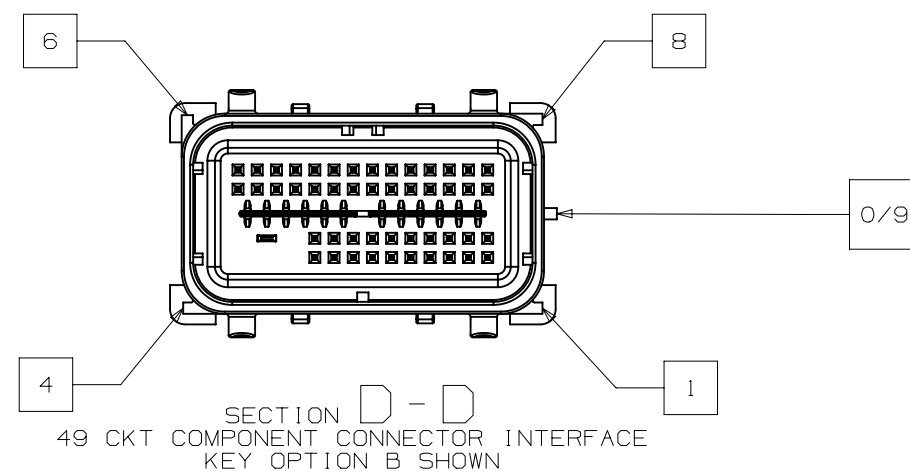
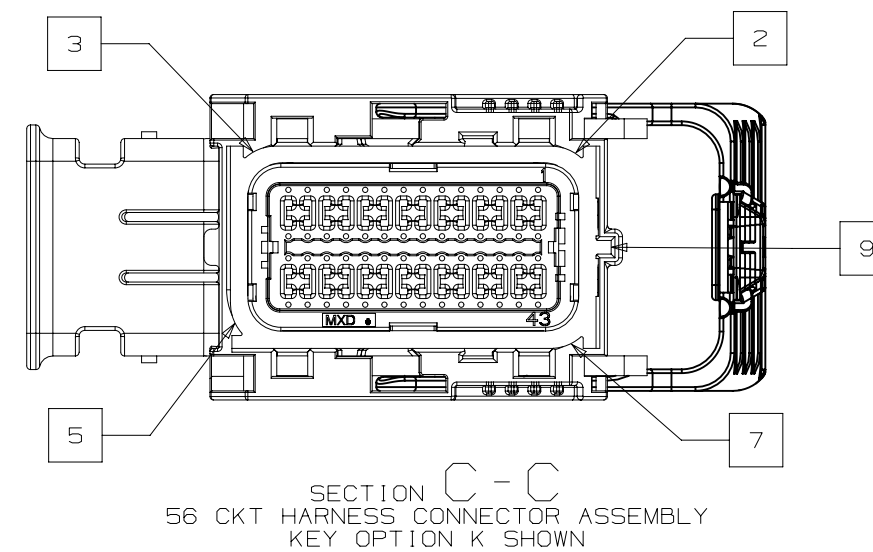
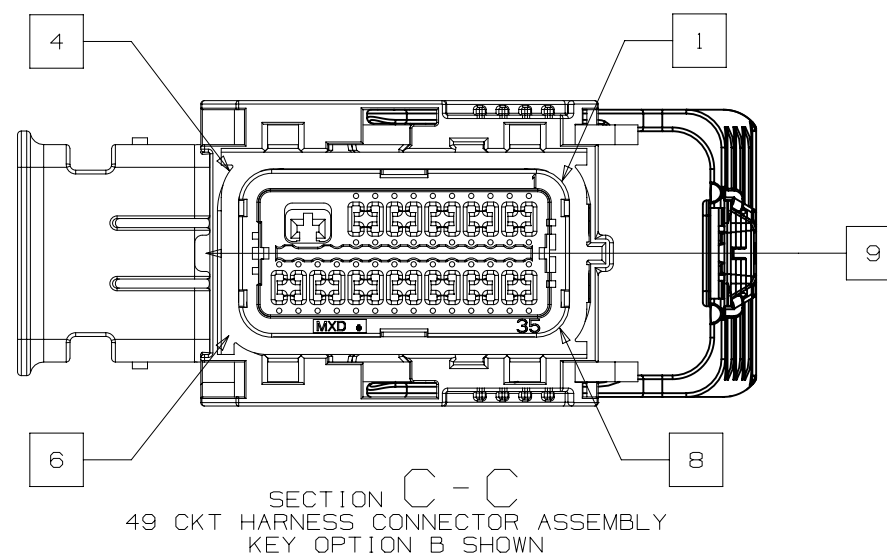
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NOTE: REFERENCE THE COMPONENT TABLE
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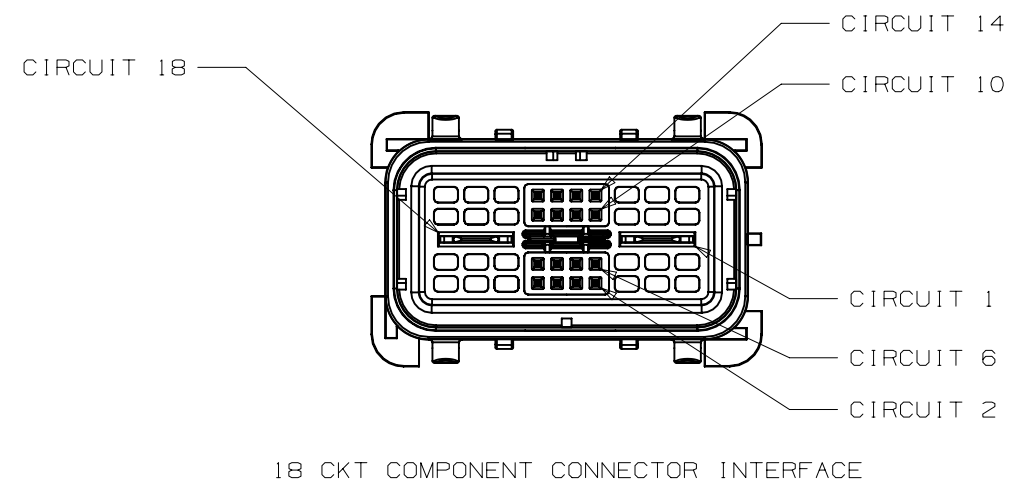
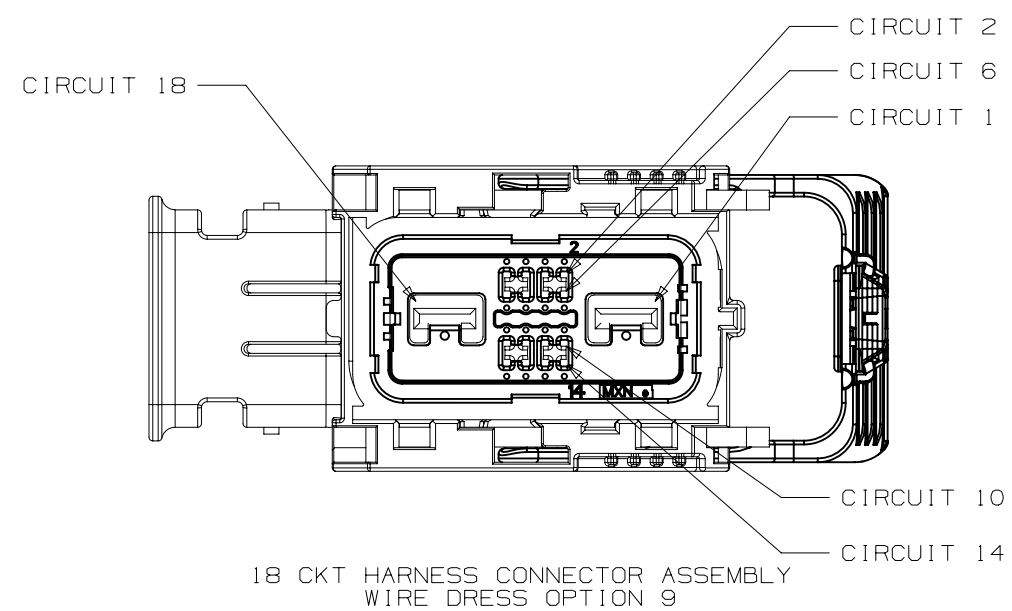
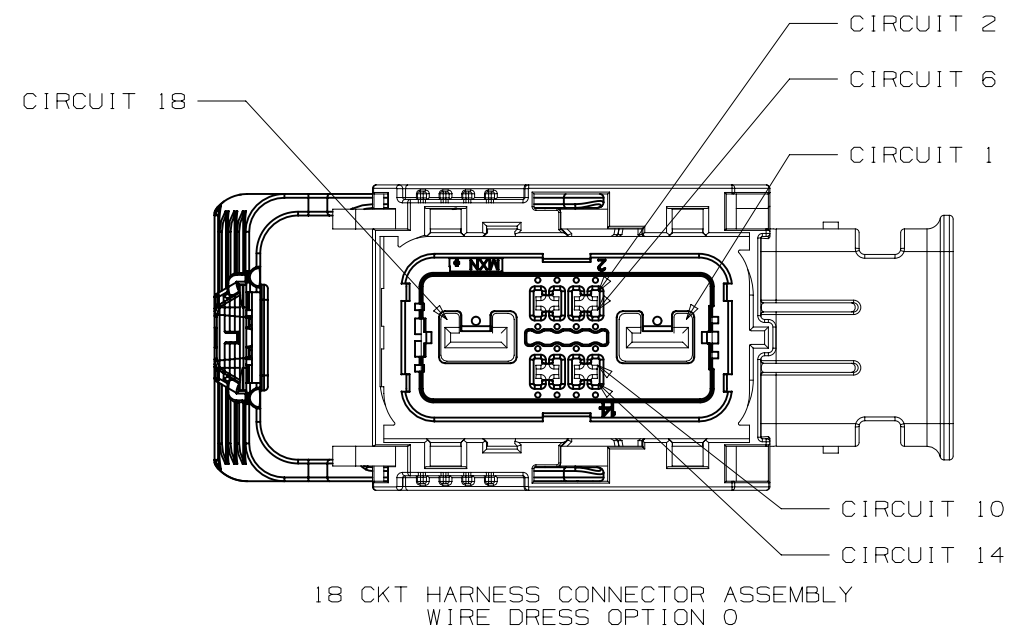


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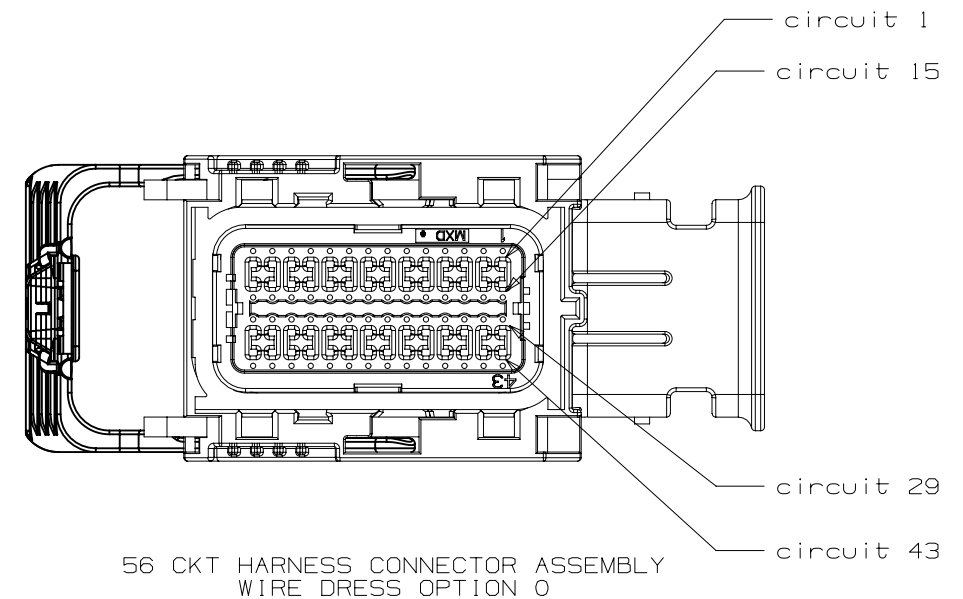
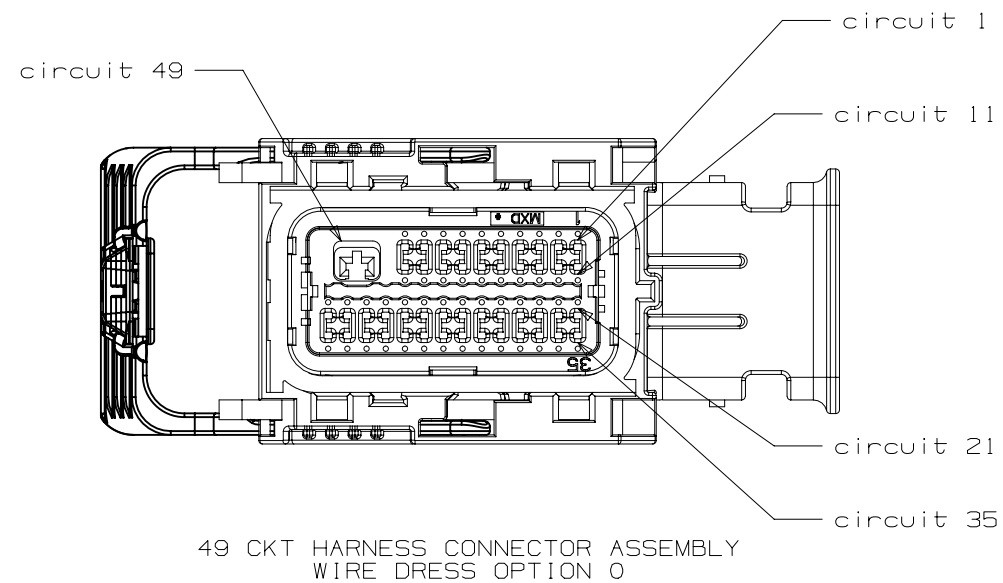
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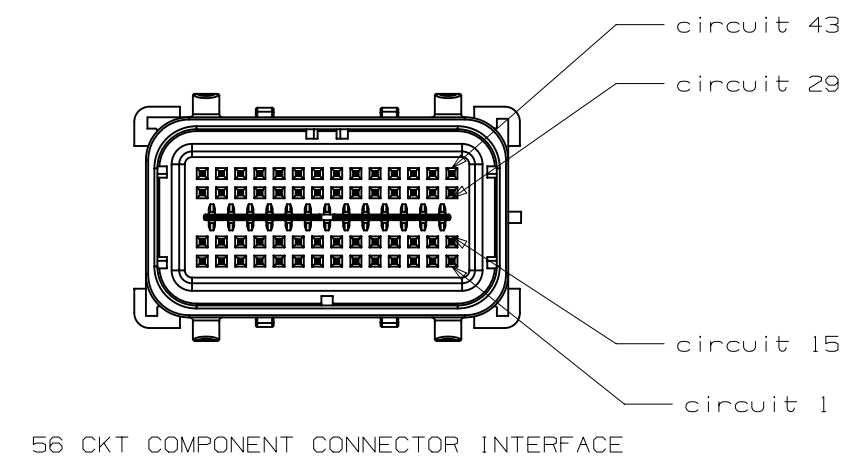
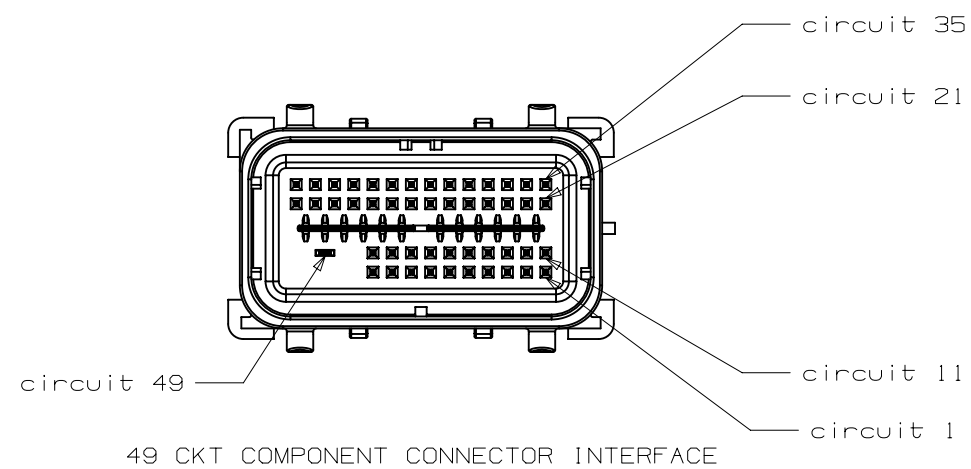
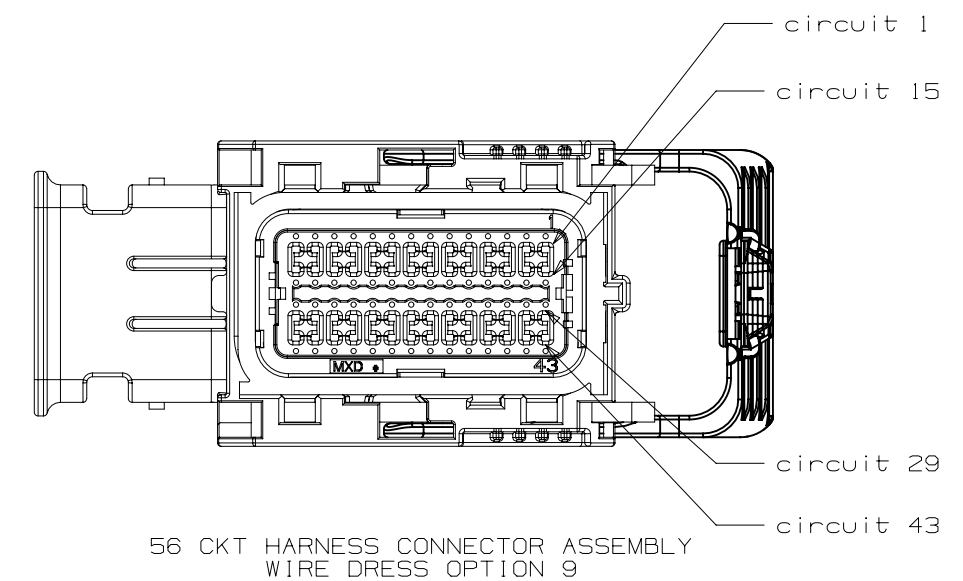
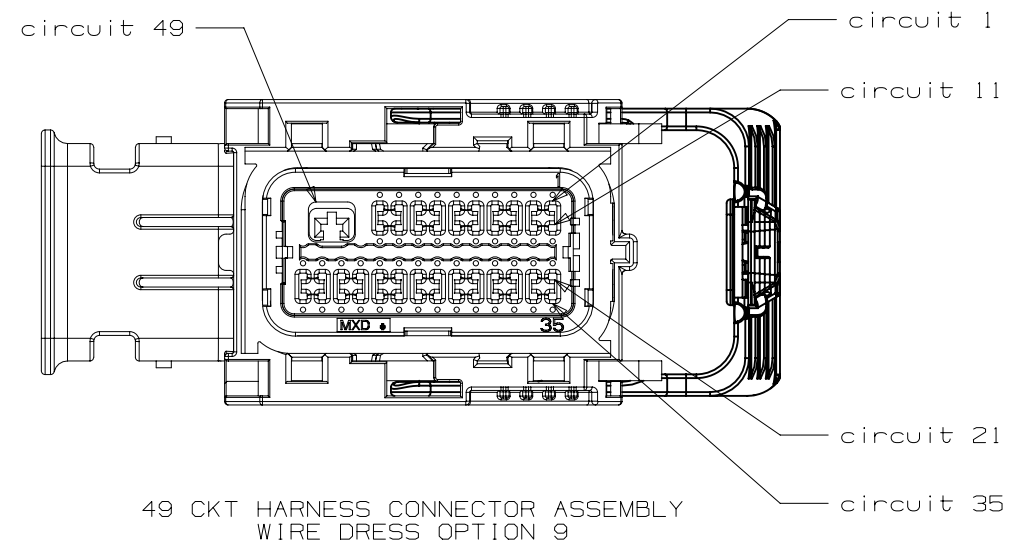
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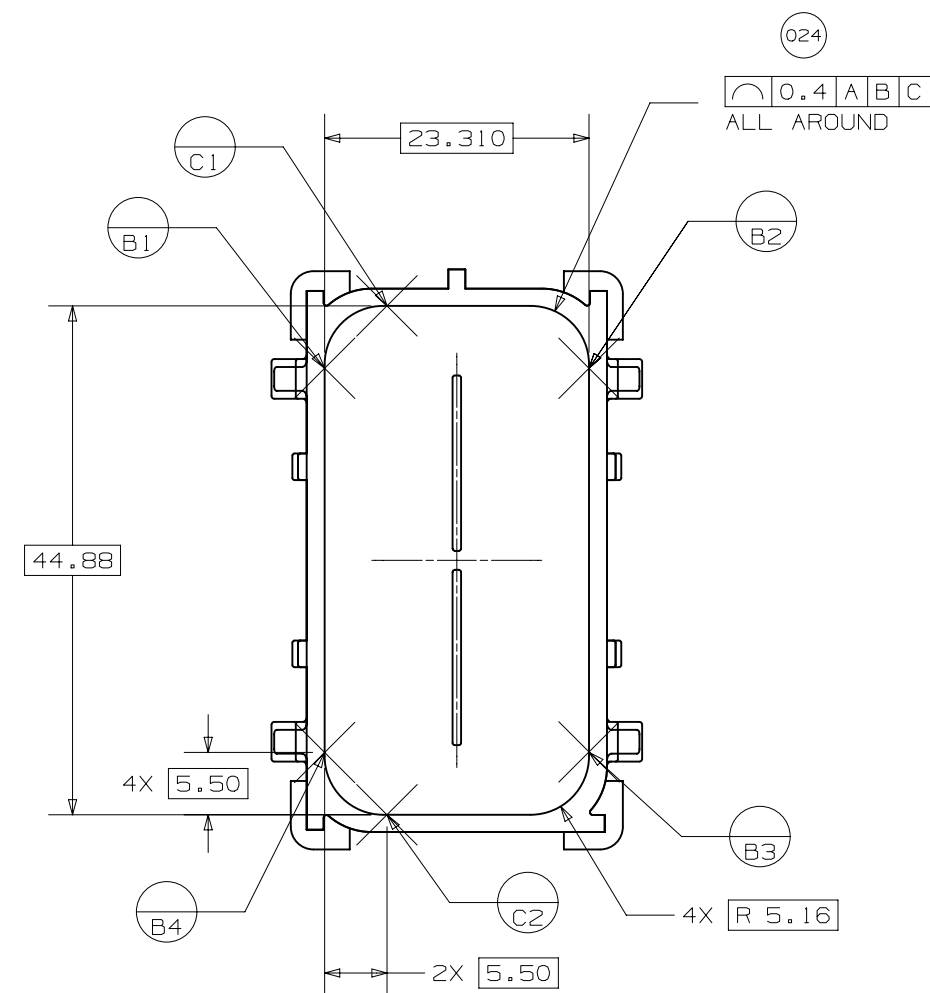
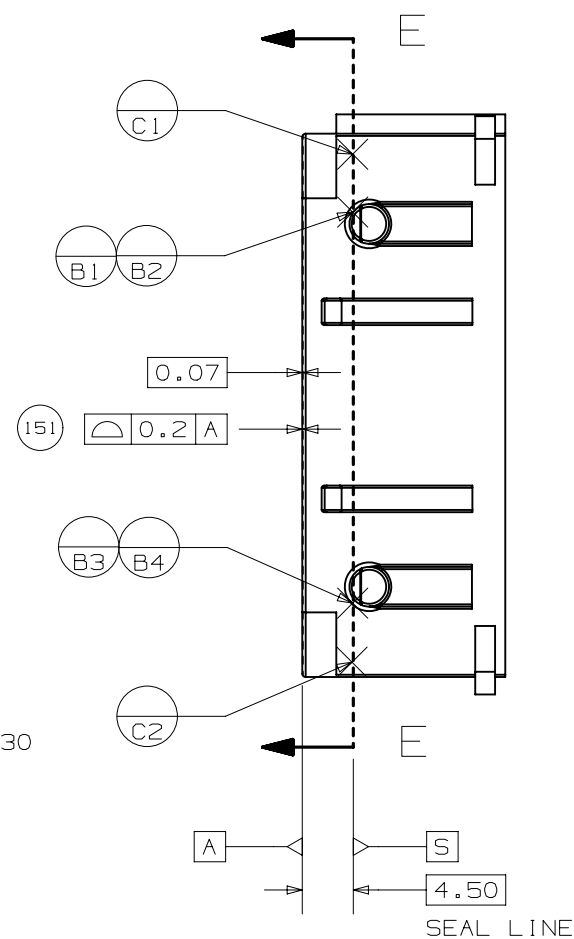
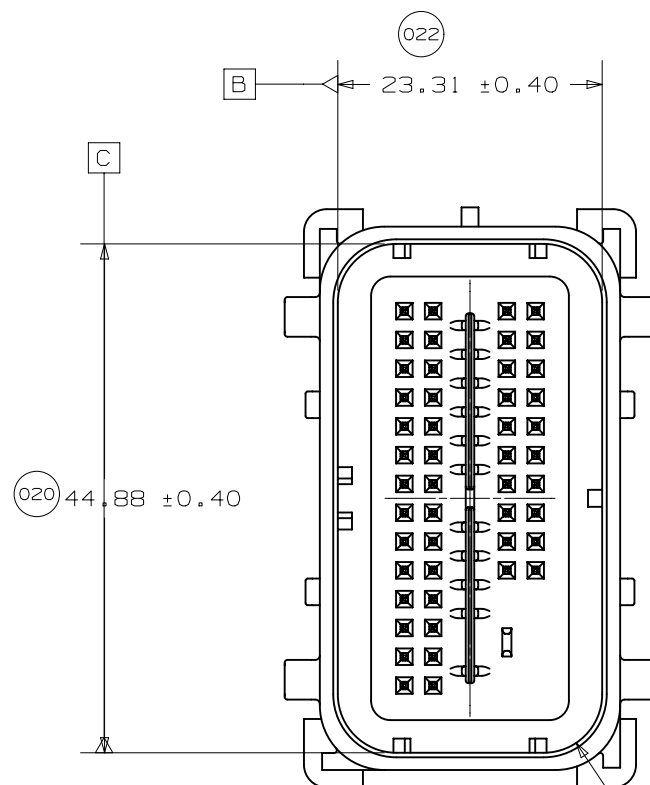
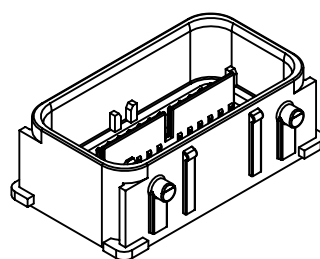
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SECTION E-E
(AT SEAL LINE)

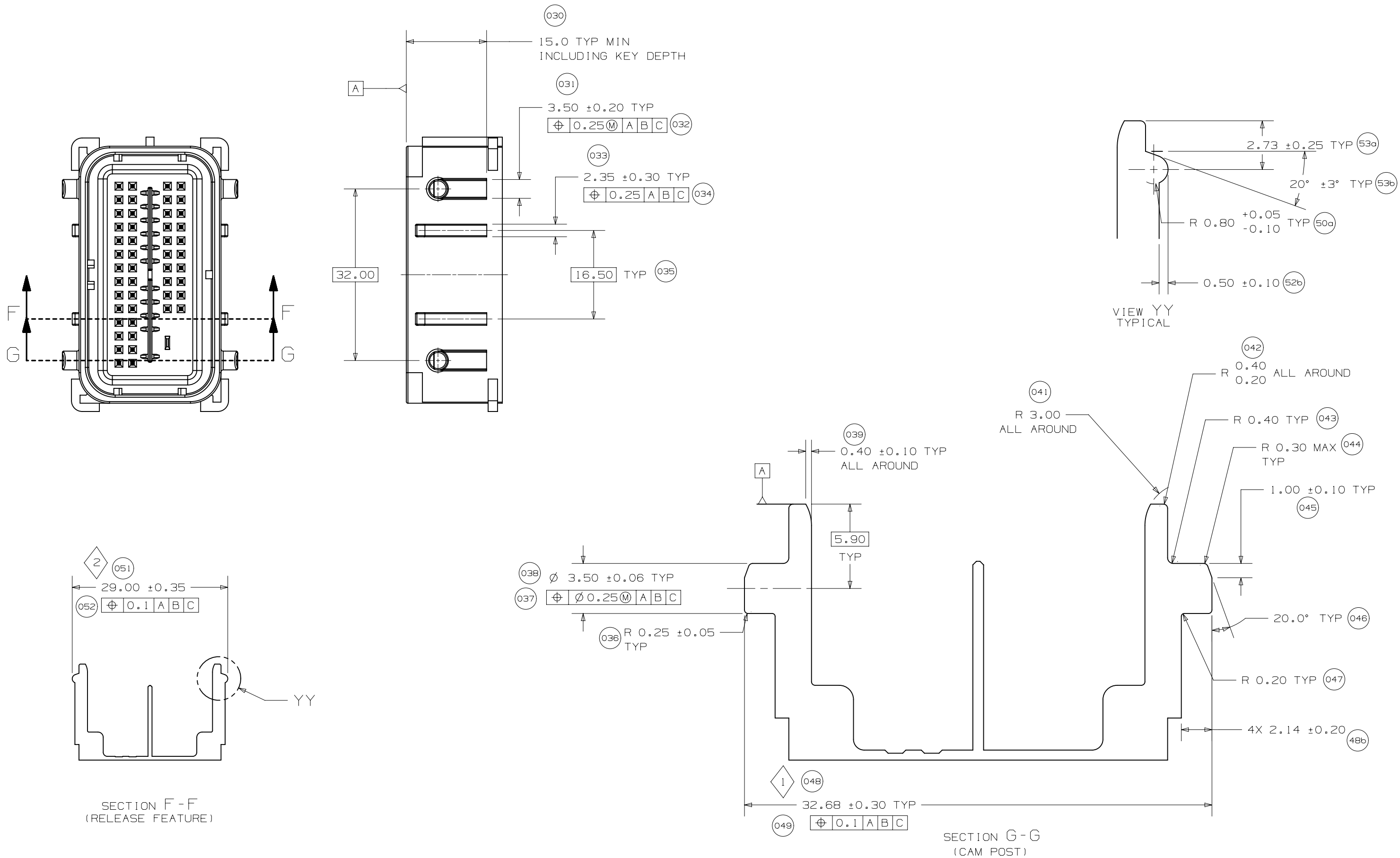
UNLESS SPECIFIED, TOLERANCE OF THE DEVICE INTERFACE TO BE $\boxed{\bigtriangleup 0.13 A B C}$



PAGE TITLE
COMPONENT CONNECTOR INTERFACE

DRAWING NUMBER
12672832

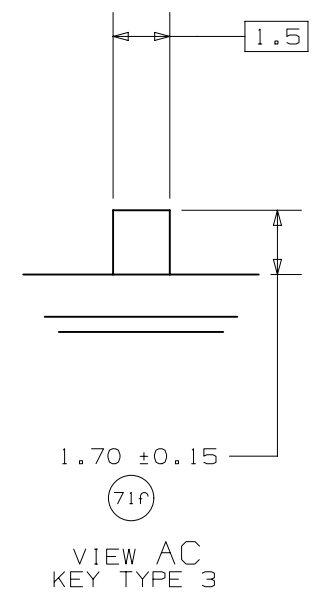
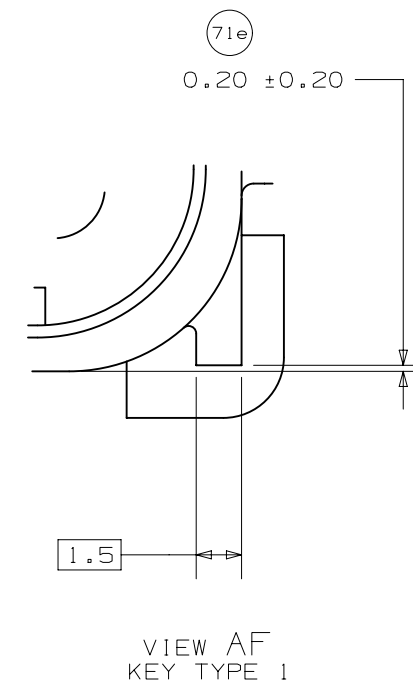
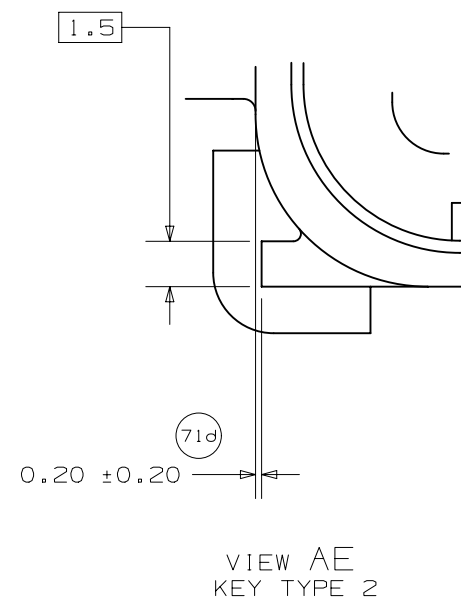
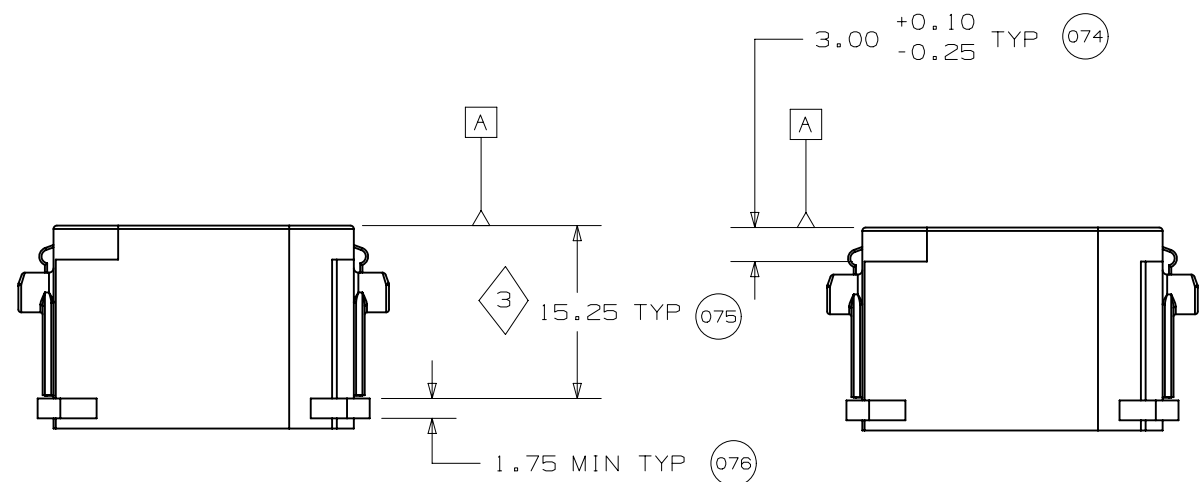
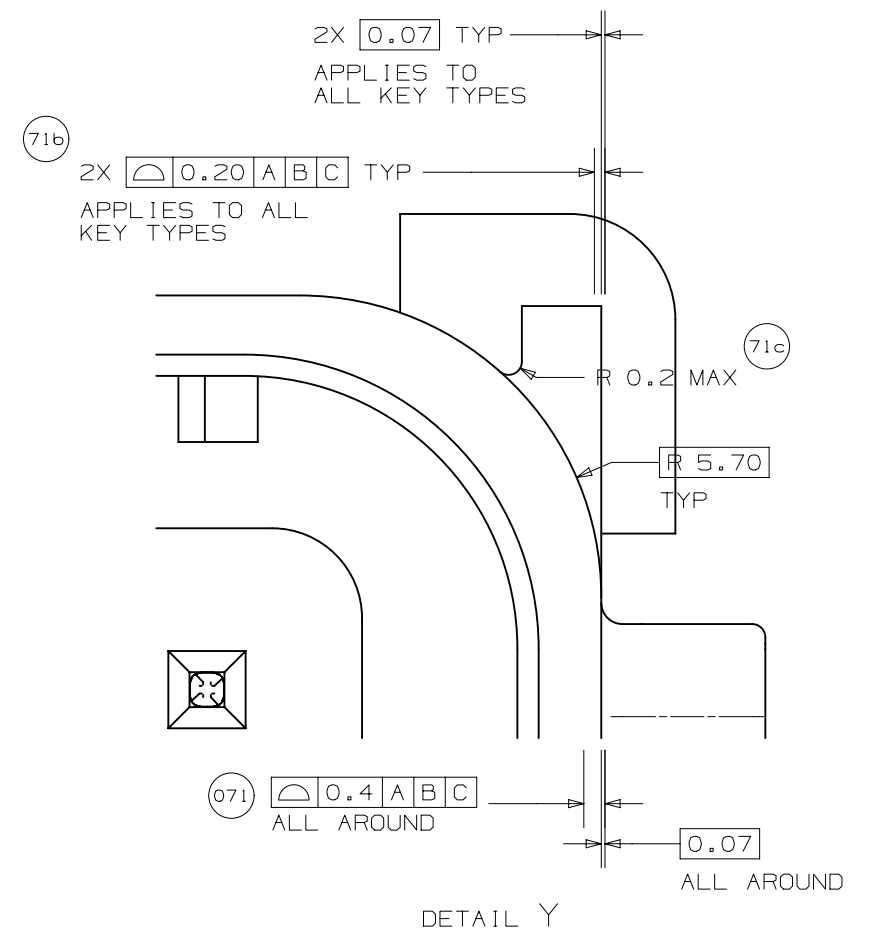
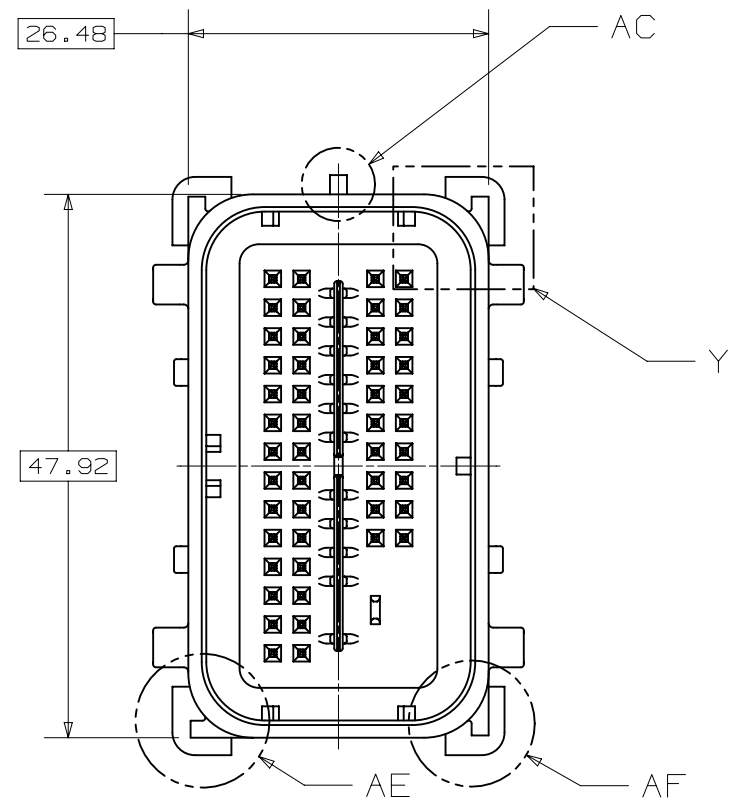
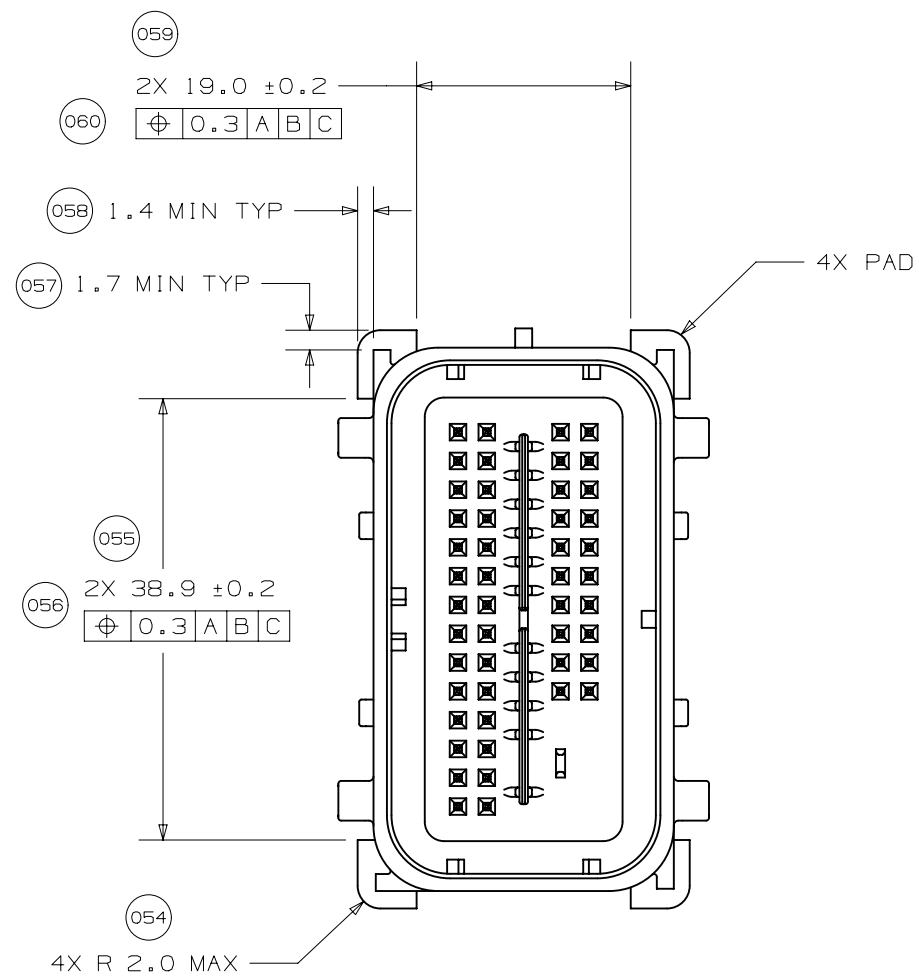
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ST	REV	PD1	15	OF 23
R	001			



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12672832

DWG STATUS			PAGE NUMBER	
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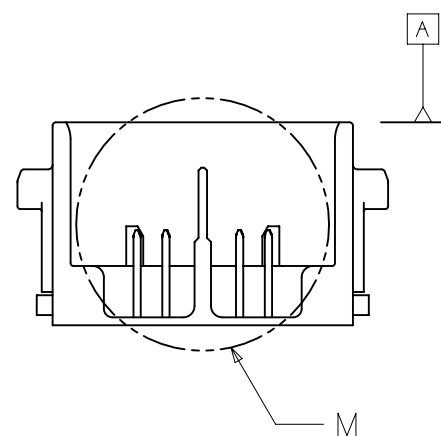
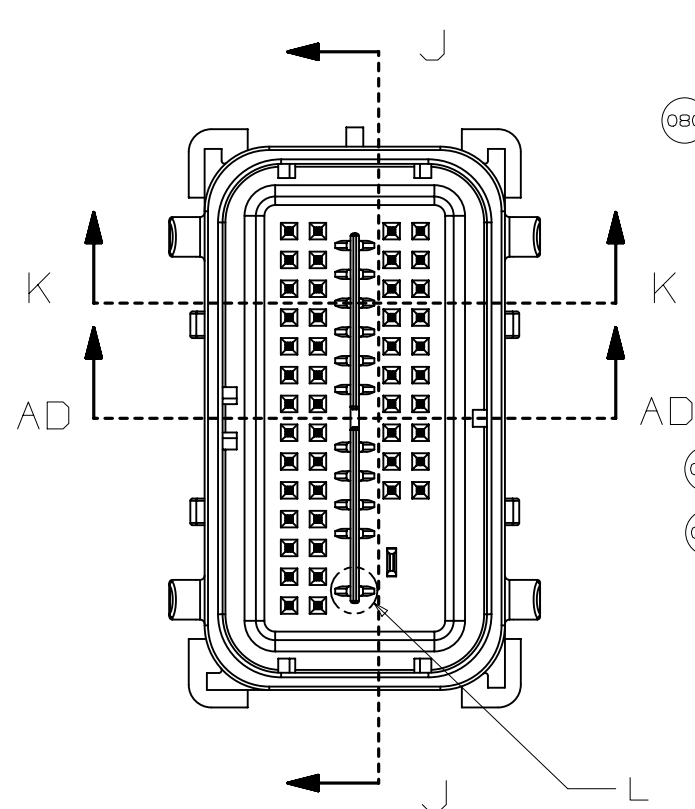


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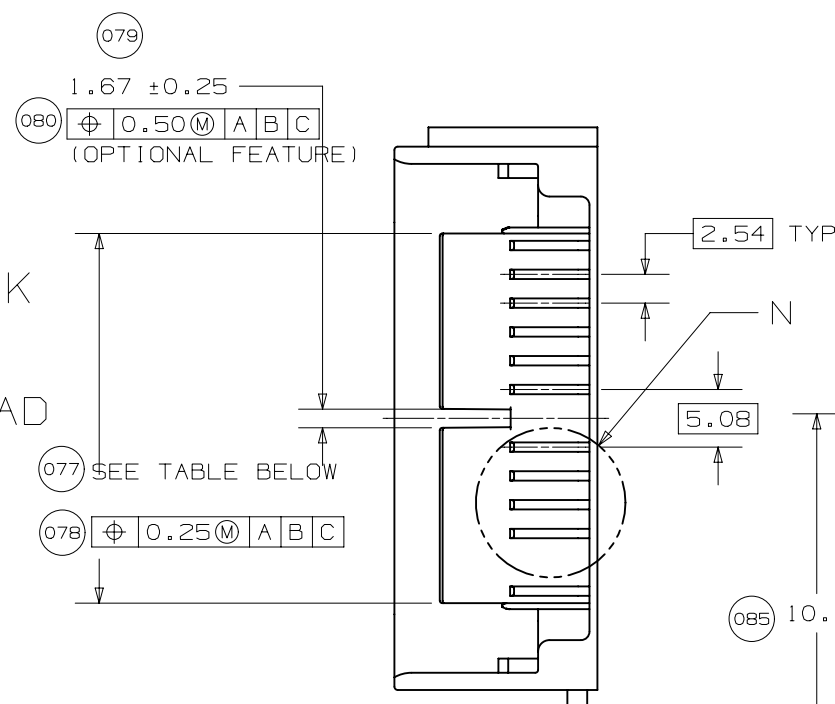
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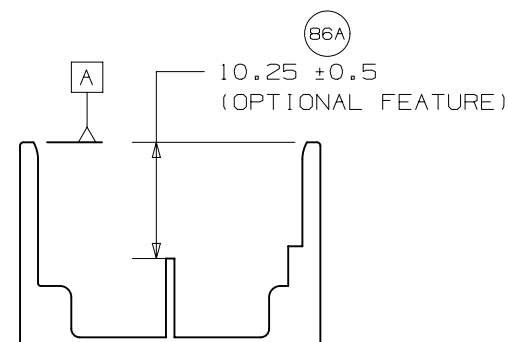
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17 OF 23



SECTION K-K

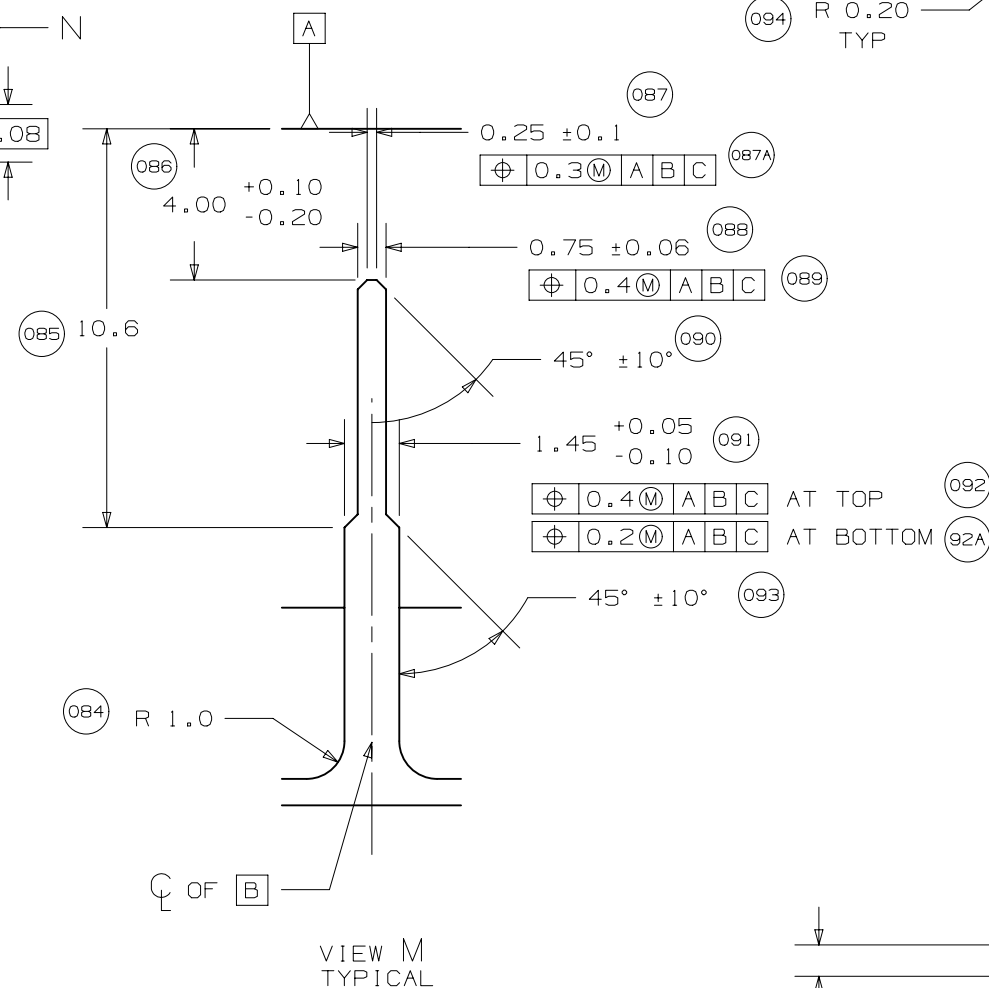


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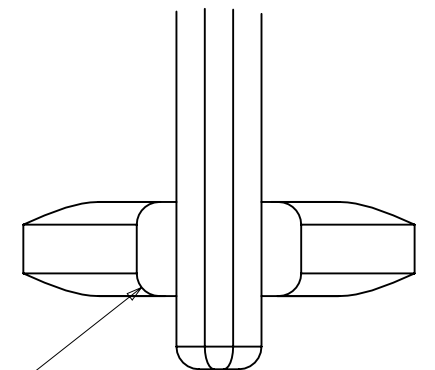


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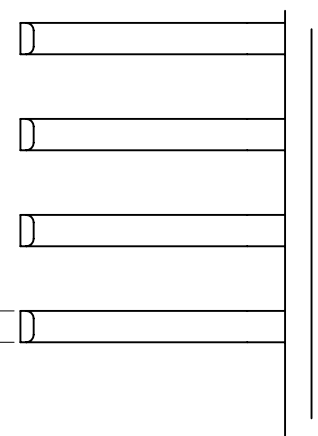
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49 / 56 CKT	32.60 +0.10/-0.60
18 CKT	10.04 +0.10/-0.60



VIEW M
TYPICAL

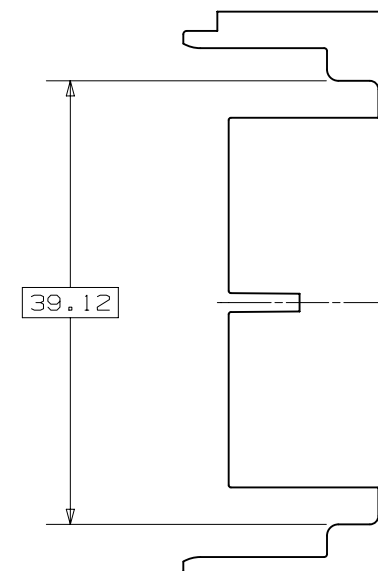
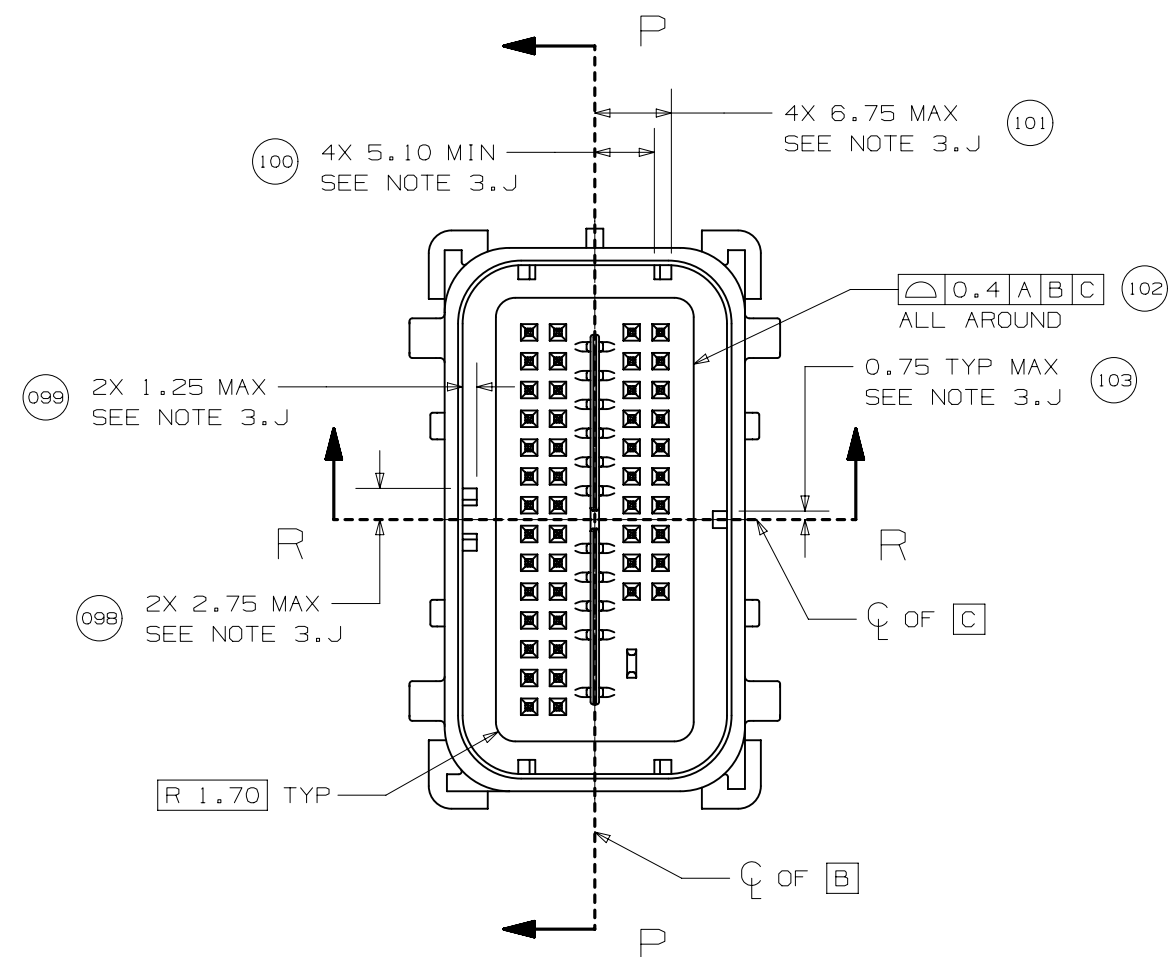


VIEW L

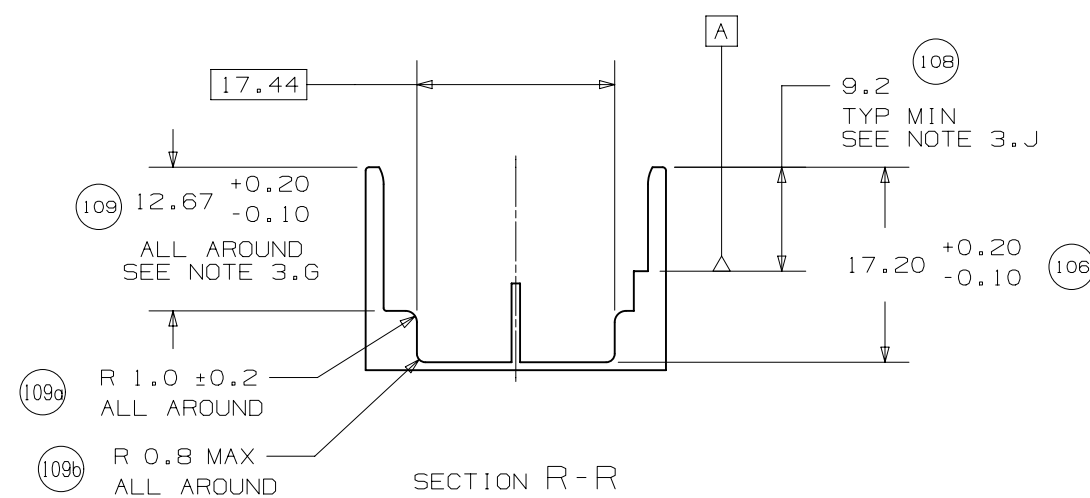


VIEW N





SECTION P-P



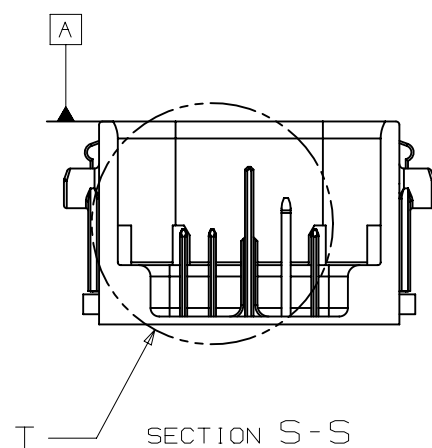
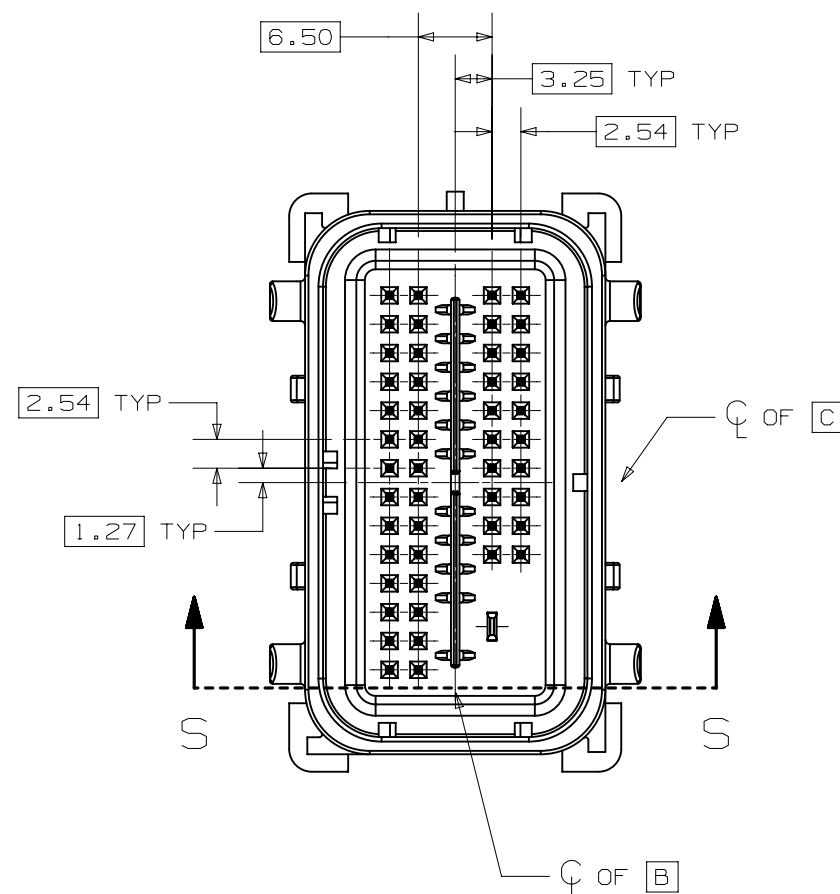
SECTION R-R



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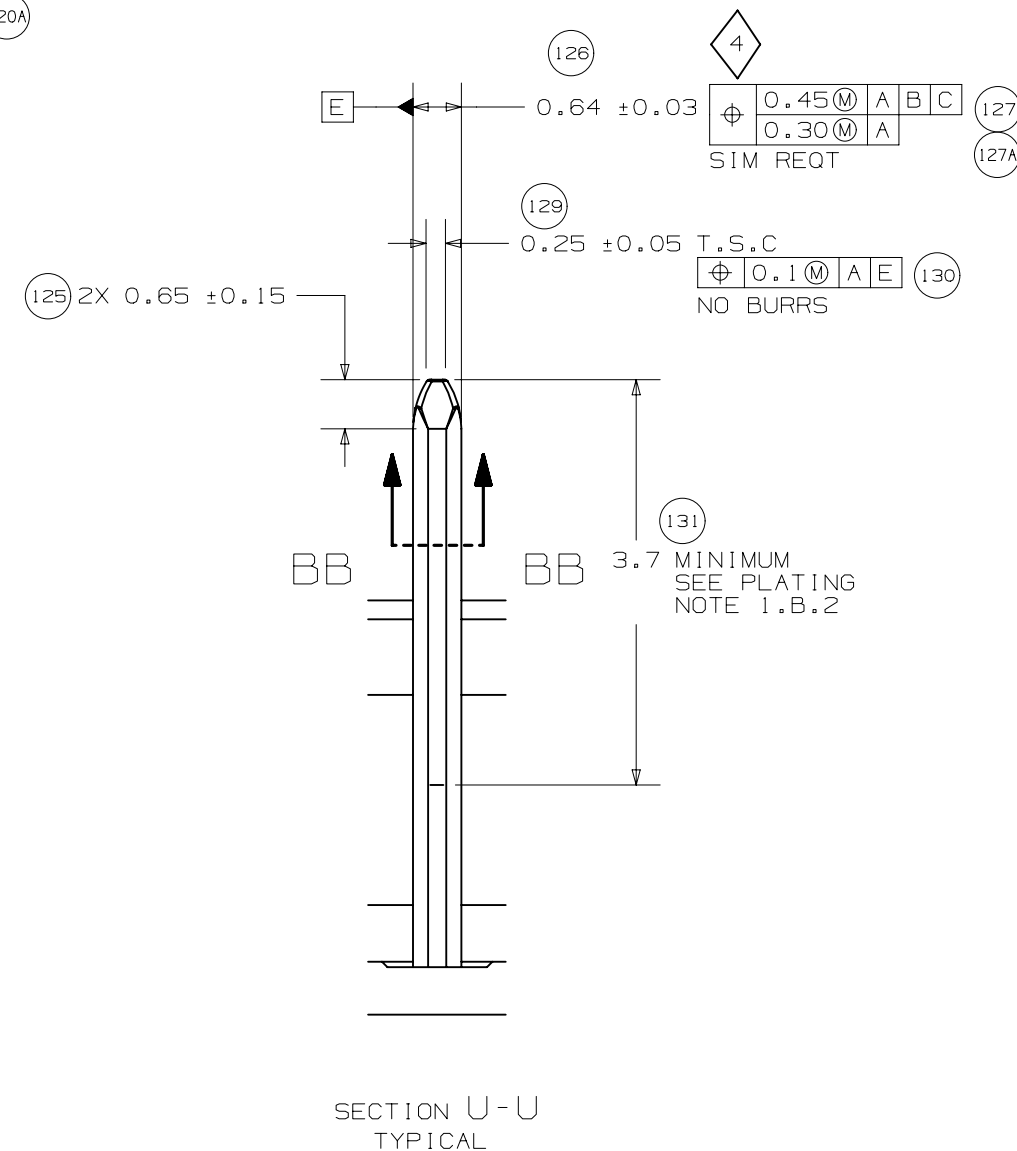
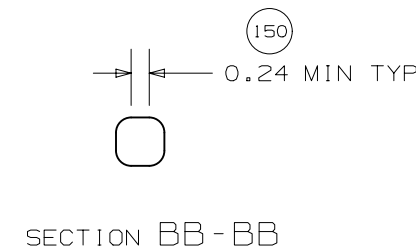
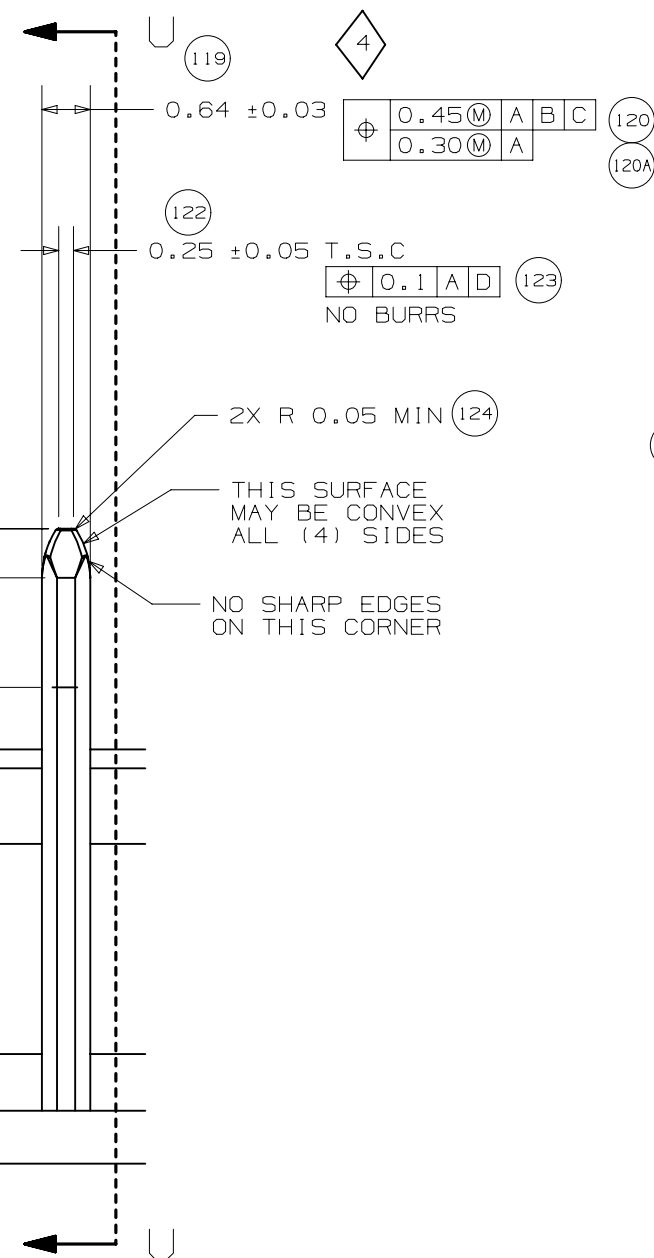


(116) 2.20 CONTACT POINT
SEE NOTE 1.D.3.a

(117) 2x 0.65 ±0.15

(118) 9.50 ±0.30
TYP

DETAIL T
TYPICAL

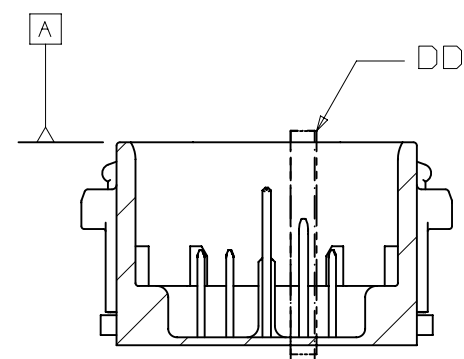
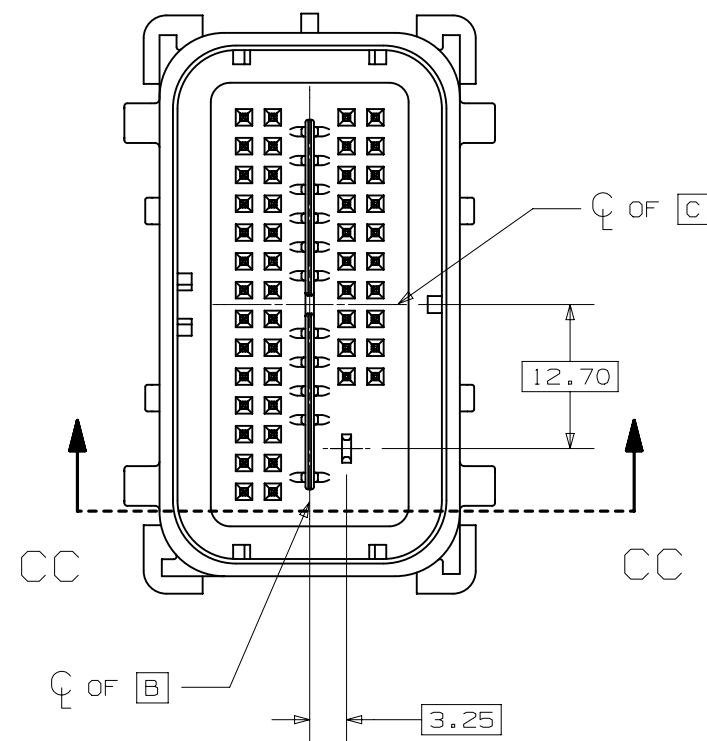


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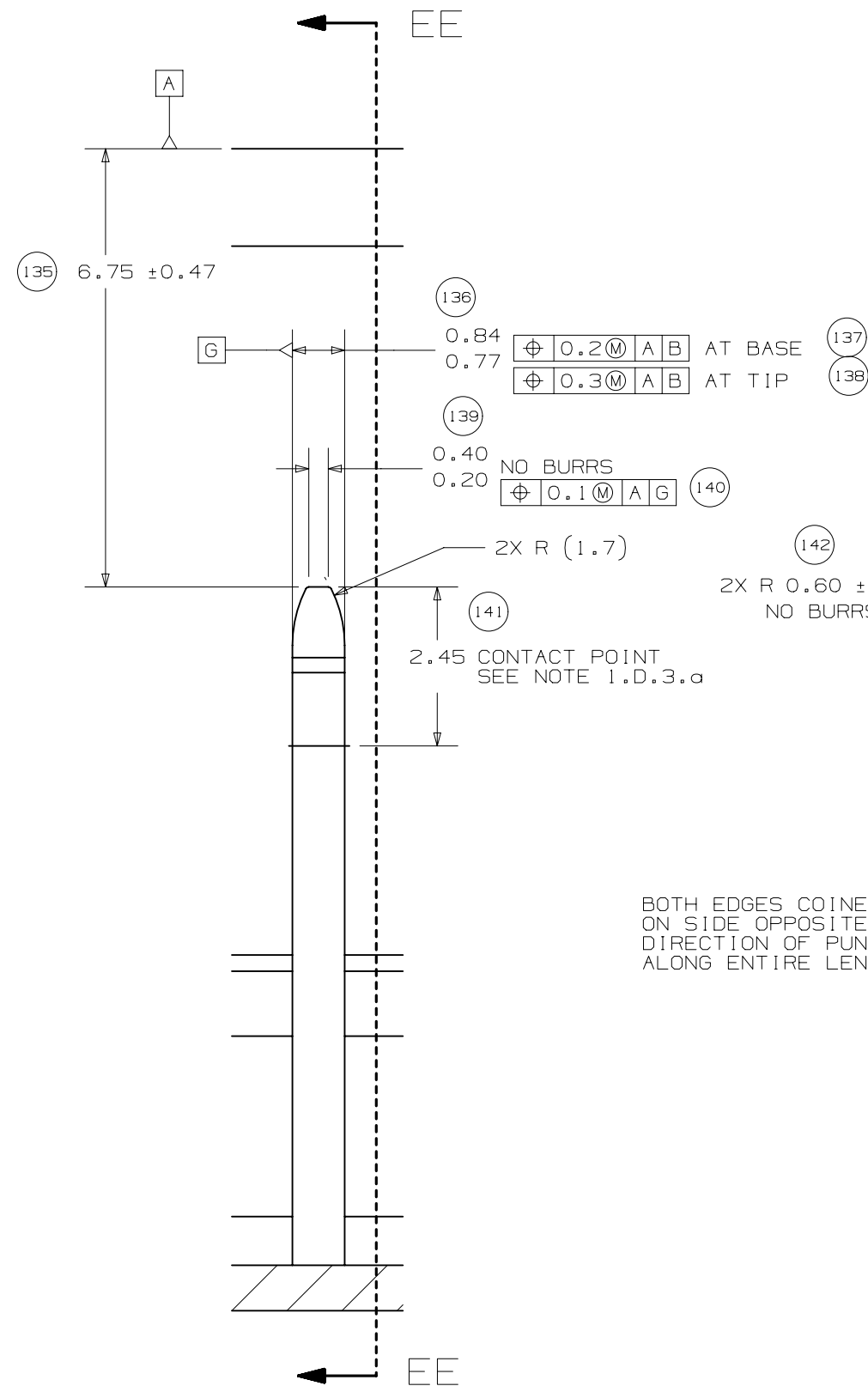
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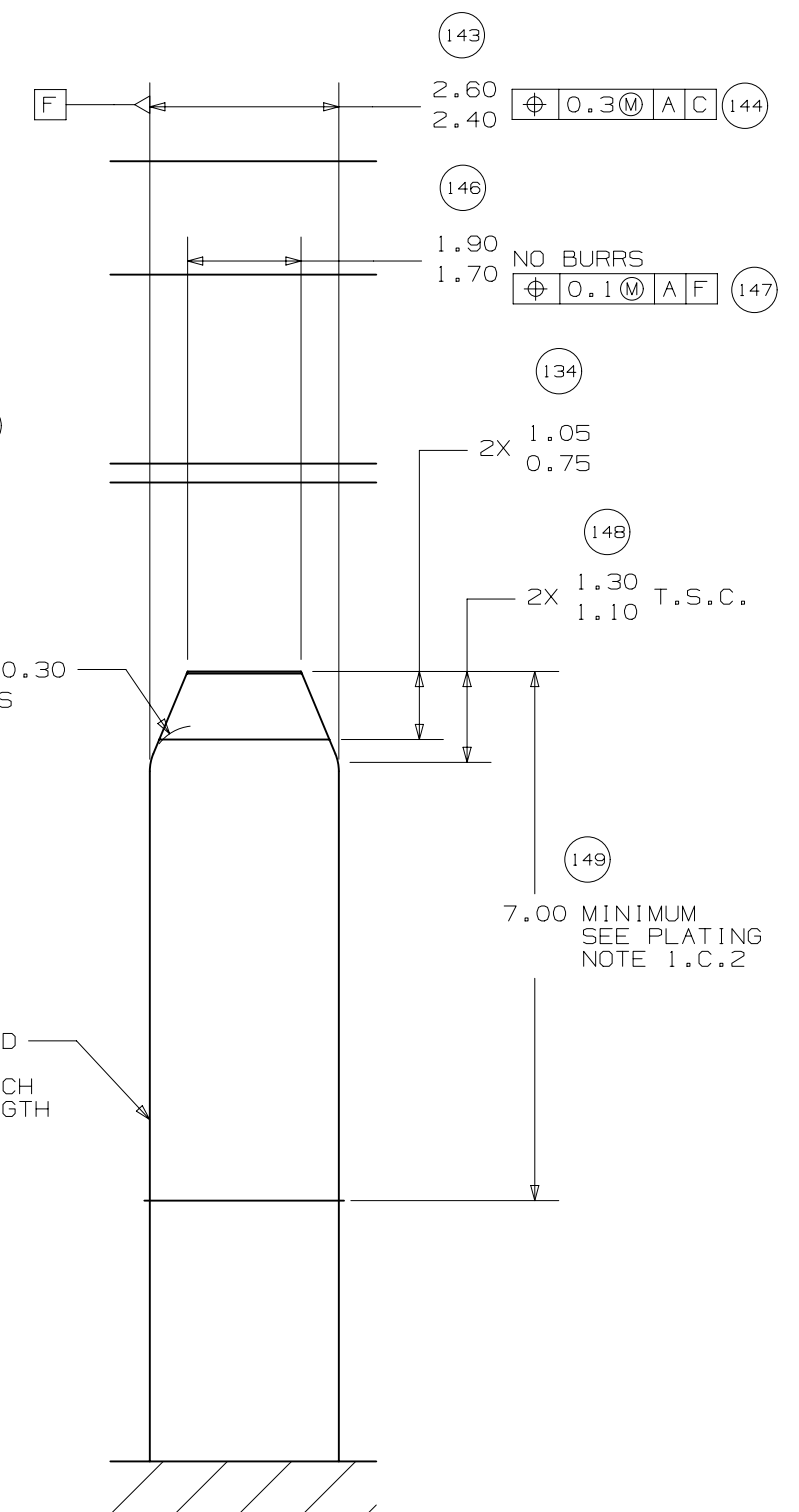
PAGE NUMBER
20 of 23



SECTION CC-CC



DETAIL DD
TYPICAL



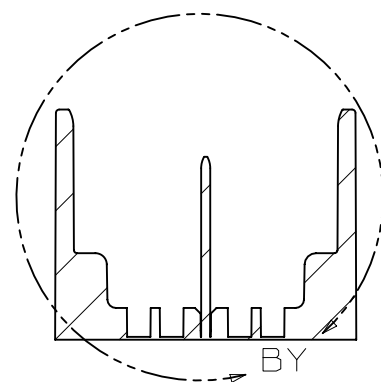
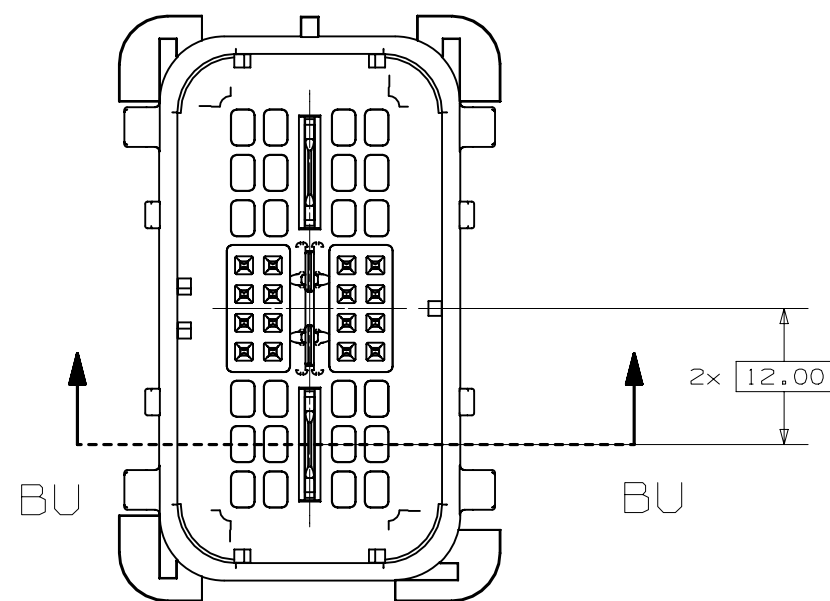
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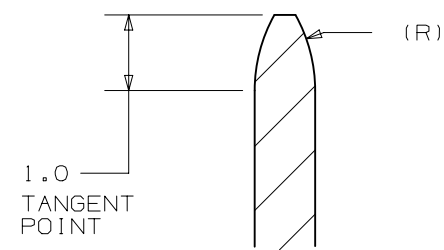
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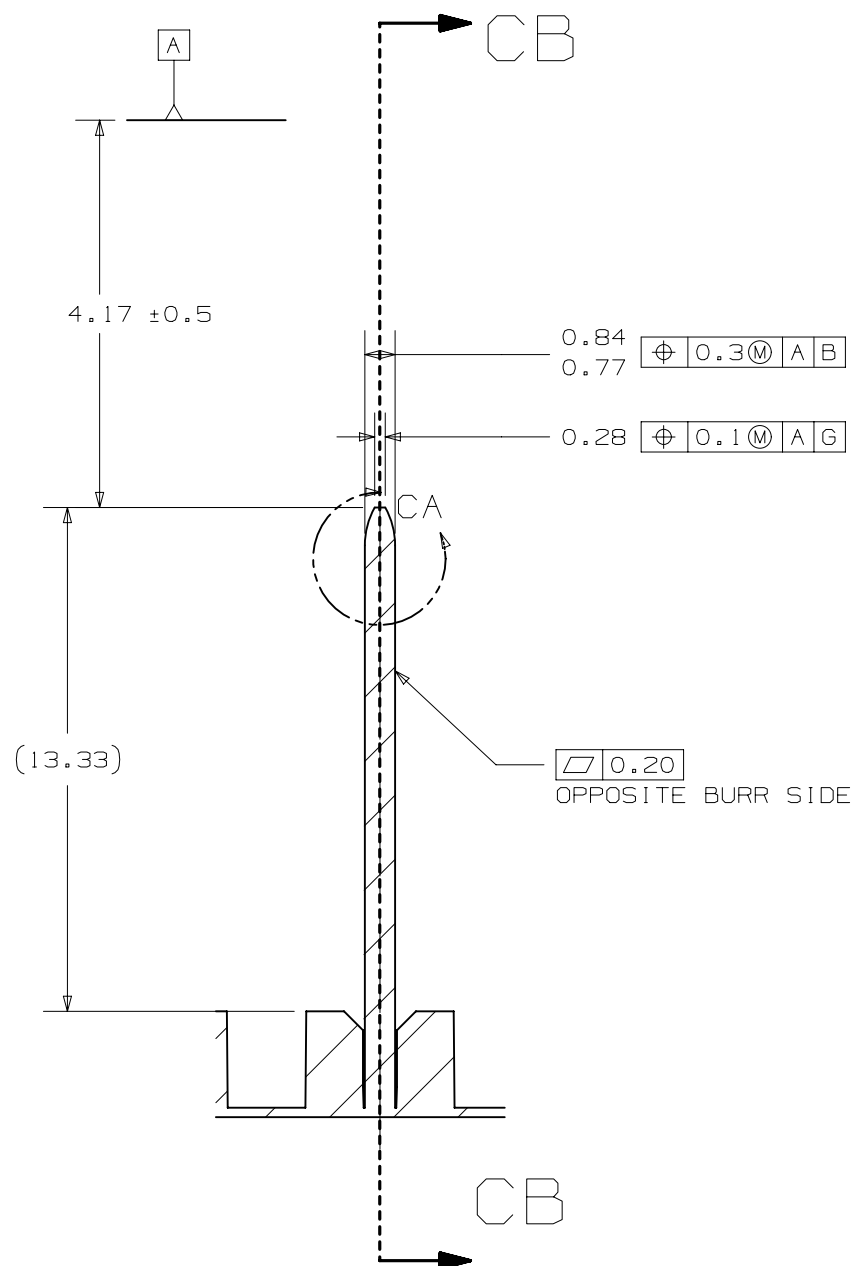
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ST	REV	PD1		
R	001		21	OF 23



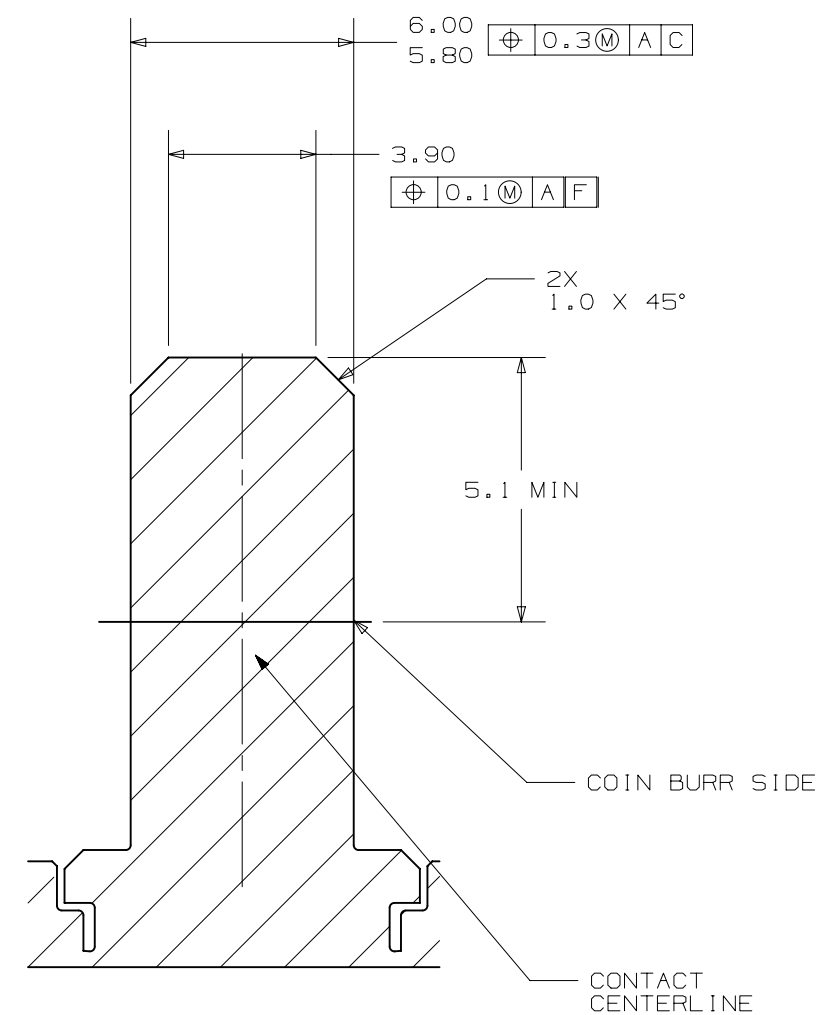
SECTION BU-BU



VIEW CA
SCALE 10:1



VIEW BY
SCALE 5:1



SECTION CB-CB

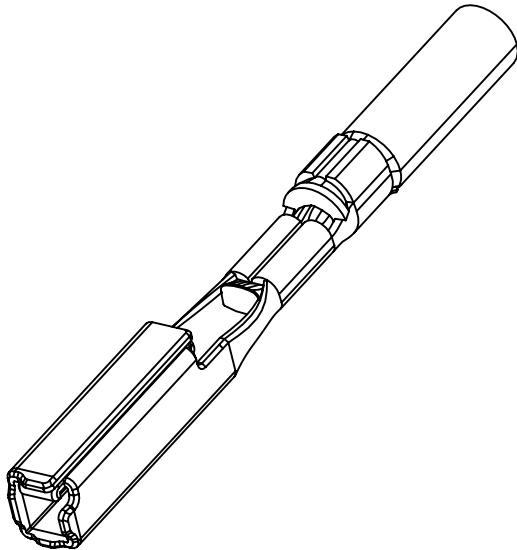
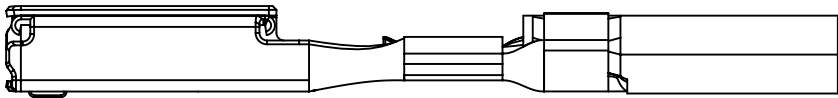


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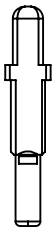
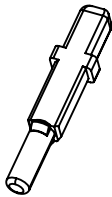
DWG STATUS			PAGE NUMBER	
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MOLEX MX64 RECEPTACLE TERMINAL INFORMATION							
ITEM	MOLEX P/N	GM P/N	WIRE SIZE MM2	TYPE	PLATING	REEL WIND DIRECTION	COMMENTS
1	34736-0025		0.35	ISO	SILVER	LEFT	
2	34736-0026	12672850	0.35	ISO	SILVER	RIGHT	
3	34736-0027		0.5 / 0.75	ISO	SILVER	LEFT	
4	34736-0028	12672851	0.5 / 0.75	ISO	SILVER	RIGHT	



CAVITY PLUGS									
ITEM	MFG	MFG P/N	GM P/N RD	SIZE	COLOR	MFG DRAWING	PROD SPEC	APP SPEC	COMMENTS
1	MOLEX	34586-0001	12674820	0.64	NATURAL	SD-34586-001	PS-34566-0000	AS-34566-001	
2	YAZAKI	7158-3114-90	12674821	2.8	BLUE	7158-3114-90	YPES-11-04-062	YPES-15-299	

ITEM 1



ITEM 2

