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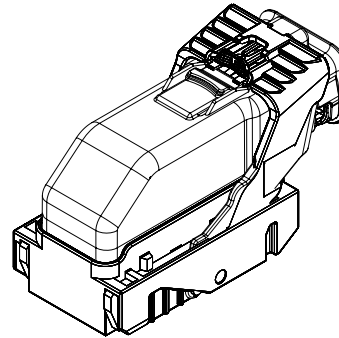
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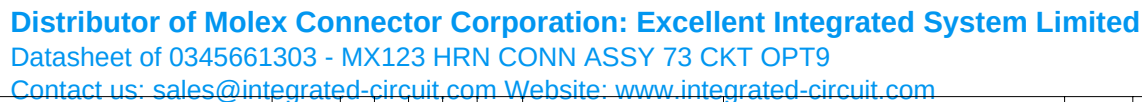
sales@integrated-circuit.com

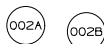
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ISO VIEW

	UNLESS OTHERWISE SPECIFIED: THIS DOCUMENT IS IN ACCORDANCE WITH ASME Y14.5M-1994 AS AMENDED BY THE GM GLOBAL DIMENSIONING AND TOLERANCING ADDENDUM-1997. ALL GEOMETRIC TOLERANCES AND RELATED DATUMS APPLY RFS, RULE #1 (PERFECT FORM AT MMC) DOES NOT APPLY WHEN A RELATIONSHIP BETWEEN FEATURES IS ESTABLISHED BY ORIENTATION OR LOCATION TOLERANCES. SEPARATE POSITION CALLOUTS MAY BE GAGED SEPARATELY REGARDLESS OF DATUM REFERENCES.			DATE	
	 CHANGE RESTRICTED NO MANUAL CHANGES	REFERENCE 12H (MOLEX AUTOMOTIVE)	DRAFTER J SZYMKOWSKI APVD1 D PFAFFINGER APVD2 B BURT APVD3 APVD4 APVD5	22DE05 22DE05 22DE05	
DO NOT SCALE					
METRIC DIMENSIONS SHOWN IN MILLIMETERS UNLESS OTHERWISE SPECIFIED	DRAWING NAME HARNESS CONN ASM 66/73/80 CKTS				
	DRAWING NUMBER 12642695	DWG STATUS			PAGE NUMBER 1 of 21
		ST R	REV 002	PD1	



[illegible]

HIERARCHY /QUANTITY										DWG ITM	DWG RLTN SHIP	PART NUMBER	P-A ITM	D L S	ST	REV	P D I	N M C I	MASS (KG)	PART NAME	NOTES
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PARTS SHOWN ON DRAWING

	PAGE TITLE	DRAWING NUMBER	DWG STATUS			PAGE NUMBER	
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				R	002		

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	15
2	F/F	29.00	INSURE PROPER RELEASE OF LEVER	15
3	F/F	15.25	INSURE FINAL MATE POSITION	16
5	F/F	POSITIONAL TOLERANCE (2 PLACES)	INSURE CONNECTOR SYSTEM MATEABILITY	19



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electronic components					APPLICABLE COMPONENTS						
LINE	MFG.	MFG. P/N	GM P/N	EFFECTIVE DATE	DESCRIPTION	KEY OPTION	WIRE DRESS OPTION	KEY CONFIG.	COLOR	STATUS	
-											
1	MOLEX	34566-0003	12582676	02JN03	MX123 DRESS COVER 66/73/80 CKT	N/A	N/A	N/A	BLACK	AVAILABLE	
2	MOLEX	34822-0013	12642692	01SP13	MX123 HRNS CONN ASSY 66 CKT	A	0	1458	BLACK	AVAILABLE	
3	MOLEX	34822-0033	12659312	01SP13	MX123 HRNS CONN ASSY 66 CKT	C	0	2467	BLUE	AVAILABLE	
4	MOLEX	34822-0023	12642693	01SP13	MX123 HRNS CONN ASSY 66 CKT	A	9	1458	BLACK	AVAILABLE	
5	MOLEX	34822-0043	12659313	01SP13	MX123 HRNS CONN ASSY 66 CKT	C	9	2467	BLUE	AVAILABLE	
6	MOLEX	34566-0103	12582677	11JN04	MX123 HRNS CONN ASSY 73 CKT	A	0	1458	BLACK	AVAILABLE	
7	MOLEX	34566-0203	12582678	11JN04	MX123 HRNS CONN ASSY 73 CKT	B	0	1468	ST GRAY	AVAILABLE	
8	MOLEX	34566-0303	12615654	09AP08	MX123 HRNS CONN ASSY 73 CKT	C	0	2467	BLUE	AVAILABLE	
9	MOLEX	34566-0403	12642698	T.B.D.	MX123 HRNS CONN ASSY 73 CKT	D	0	2367	BROWN	NOT ACTIVE	
10	MOLEX	34566-0503	AMJ28633	T.B.D.	MX123 HRNS CONN ASSY 73 CKT	E	0	2468	GREEN	NOT ACTIVE	
11	MOLEX	34566-0603	12653574	05DC14	MX123 HRNS CONN ASSY 73 CKT	F	0	1357	NATURAL	AVAILABLE	
12	MOLEX	34566-0703	12588057	09AP08	MX123 HRNS CONN ASSY 80 CKT	G	0	1358	BLUE	AVAILABLE	
13	MOLEX	34566-0803	12588058	11JN04	MX123 HRNS CONN ASSY 80 CKT	H	0	2458	ST GRAY	AVAILABLE	
14	MOLEX	34566-0903	12615656	T.B.D.	MX123 HRNS CONN ASSY 80 CKT	J	0	2457	BLACK	NOT ACTIVE	
15	MOLEX	34566-1003	AMJ28695	T.B.D.	MX123 HRNS CONN ASSY 80 CKT	K	0	2367	BROWN	NOT ACTIVE	
16	MOLEX	34566-1103	AMJ29057	T.B.D.	MX123 HRNS CONN ASSY 80 CKT	L	0	2368	GREEN	NOT ACTIVE	
17	MOLEX	34566-1203	AMJ28669	T.B.D.	MX123 HRNS CONN ASSY 80 CKT	M	0	2358	NATURAL	NOT ACTIVE	
18	MOLEX	34566-1303	12603596	11JN04	MX123 HRNS CONN ASSY 73 CKT	A	9	1458	BLACK	AVAILABLE	
19	MOLEX	34566-1403	12603597	11JN04	MX123 HRNS CONN ASSY 73 CKT	B	9	1468	ST GRAY	AVAILABLE	
20	MOLEX	34566-1503	12615655	09AP08	MX123 HRNS CONN ASSY 73 CKT	C	9	2467	BLUE	AVAILABLE	
21	MOLEX	34566-1603	12642699	T.B.D.	MX123 HRNS CONN ASSY 73 CKT	D	9	2367	BROWN	NOT ACTIVE	
22	MOLEX	34566-1703	AMJ28698	T.B.D.	MX123 HRNS CONN ASSY 73 CKT	E	9	2468	GREEN	NOT ACTIVE	
23	MOLEX	34566-1803	12653575	05DC14	MX123 HRNS CONN ASSY 73 CKT	F	9	1357	NATURAL	AVAILABLE	
24	MOLEX	34566-1903	12603598	09AP08	MX123 HRNS CONN ASSY 80 CKT	G	9	1358	BLUE	AVAILABLE	
25	MOLEX	34566-2003	12603599	11JN04	MX123 HRNS CONN ASSY 80 CKT	H	9	2458	ST GRAY	AVAILABLE	
26	MOLEX	34566-2103	12615657	T.B.D.	MX123 HRNS CONN ASSY 80 CKT	J	9	2457	BLACK	NOT ACTIVE	
27	MOLEX	34566-2203	AMJ29117	T.B.D.	MX123 HRNS CONN ASSY 80 CKT	K	9	2357	BROWN	NOT ACTIVE	
28	MOLEX	34566-2303	AMJ29136	T.B.D.	MX123 HRNS CONN ASSY 80 CKT	L	9	2368	GREEN	NOT ACTIVE	
29	MOLEX	34566-2403	AMJ29214	T.B.D.	MX123 HRNS CONN ASSY 80 CKT	M	9	2358	NATURAL	NOT 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 0.50mm-0.80mm)	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 0.20mm-1.90mm)	N/A	N/A	N/A	GREEN	NOT ACTIVE	
37	YAZAKI	7158-3112-70	12588069	02JN03	2.8mm CABLE SEAL (wire 0.0.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 0.0.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	MOLEX	63811-4200	XX019825	02JN03	MX64 TERM HAND CRIMP TOOL	N/A	N/A	N/A	N/A	AVAILABLE	
41	MOLEX	63813-1400	XX019826	02JN03	MX64 TERM SERVICE TOOL	N/A	N/A	N/A	N/A	AVAILABLE	
42	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	
43	MOLEX	63865-8070	XX019828	02JN03	MX64 APPLICATOR TOOL KIT 18/20 GAGE	N/A	N/A	N/A	N/A	AVAILABLE	
44	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	
45	MOLEX	63865-8170	XX019830	02JN03	MX64 APPLICATOR TOOL KIT 22 GAGE	N/A	N/A	N/A	N/A	AVAILABLE	
46	SPX	J35616-64	T.B.D.	02JN03	0.64mm PROBE TOOL (for rcpt)	N/A	N/A	N/A	N/A	AVAILABLE	
47	SPX	J35616-64A	T.B.D.	02JN03	0.64mm PROBE TOOL WITH EXT (for rcpt)	N/A	N/A	N/A	N/A	AVAILABLE	
48	SPX	J35616-65	T.B.D.	02JN03	0.64mm PROBE TOOL WITH EXT (for pin)	N/A	N/A	N/A	N/A	AVAILABLE	
49	SPX	J35616-4A	T.B.D.	02JN03	2.8mm PROBE TOOL (for rcpt)	N/A	N/A	N/A	N/A	AVAILABLE	
50	YAZAKI	X39899-J374	12094430	02JN03	2.8mm TERM SERVICE TOOL	N/A	N/A	N/A	N/A	AVAILABLE	

002B

002B

* - MX123 DRESS COVER 73/80/66 CKT MATES TO ANY MX123 HARN CONN ASSY SHOWN ON TABLE ABOVE

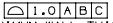
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1. MATERIAL FOR INTERFACE:

- 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. PLATING REQUIREMENTS:
1. SILVER PLATING
a. 99.5% PURE SEMI-BRIGHT WITH NO ORGANIC BRIGHTENERS 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. FOR DIMENSIONAL OR ANY INFORMATION NOT SHOWN ON THIS DRAWING, ANALYZE THE CAD MODEL.
- B. TOLERANCES:
1. LINEAR 0.X ± 0.30
0.XX ± 0.10
0.XXX ± 0.10
2. ANGULAR X' ± 3'
3.  1.0A[B]C
- C. MINIMUM WALL THICKNESS REQUIRED: 1.3mm.
D. CORNERS SHOWN AS SHARP TO BE R 0.2 MAX.
E. LETTERING SHALL BE 0.15 MAX RAISED IN 0.20 MAX RECESS PAD. THIS INCLUDES MATERIAL CODE, RECYCLING CODE, CAVITY ID AND DATE CODE.
F-1. PARTS MUST BE FREE OF DISCOLORATION, SALT RESIDUE AND OTHER IMPERFECTIONS THAT AFFECT FIT OR FUNCTION.
F-2. SCRATCHES OR DENTS NOT TO EXCEED 0.013mm IN DEPTH.
G. 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: JJYY (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 DÉBRIS, RESIDUAL ABRASIVE MATERIAL AND CORROSION PRODUCTS ADVERESLY AFFECTING FUNCTION OR APPEARANCE.
M. RESTRICTED AND REPORTABLE SUBSTANCES FOR PARTS PER GMW3059.

002C



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NOTES: UNLESS OTHERWISE SPECIFIED

4. SYSTEM REQUIREMENTS:

A. HARNESS CONNECTOR IS COMPATIBLE WITH THE FOLLOWING SAE WIRE SIZE NO'S:

- 14, MEETING SAE J1128
- 18, MEETING SAE J1128, MAX O.D. OF 2.06 MM
- 20, MEETING SAE J1128
- 22, MEETING SAE J1128, MIN O.D. OF 1.47 MM

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:
- 3. 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, SEALING CLASS 1, VIBRATION CLASS 2
- 4. RESTRICTED AND REPORTABLE CHEMICALS PER GMW #3059, REV: D AUGUST 2002
- 5. 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 A₉ 18/20 GAGE CRIMPED TO SAE WIRE SIZE NO.18 AND MATED TO MX123 0.64MM PIN: 11.3 AMPS
- 2. MX64 RCPT TERM A₉ 22 GAGE CRIMPED TO SAE WIRE SIZE NO.22 AND MATED TO MX123 0.64MM PIN:8.5 AMPS

WIRE	CURRENT RATING			
	23°C	85°C	105°C	125°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

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



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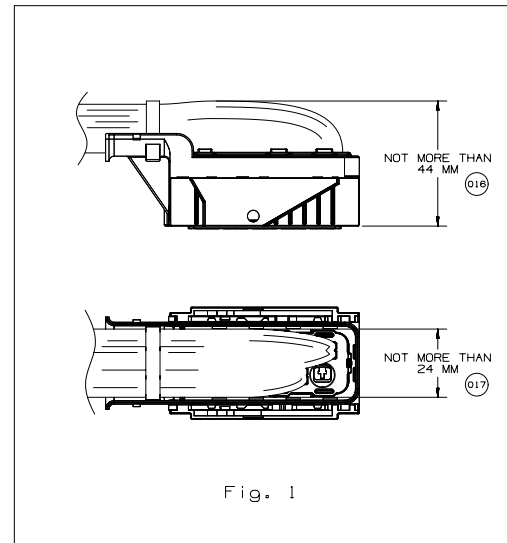
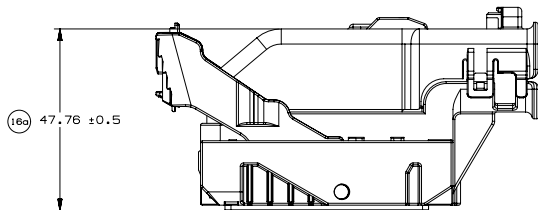
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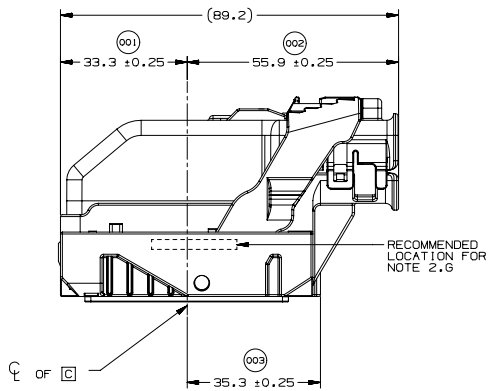


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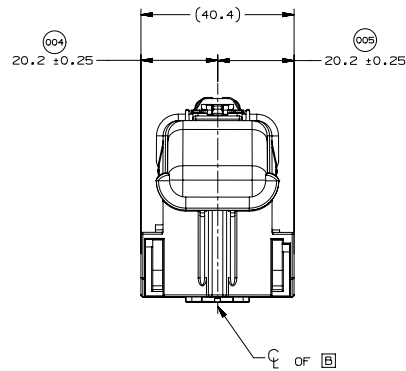
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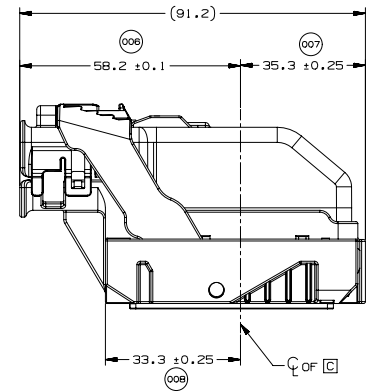
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WIRE DRESS OPTION 0 SHOWN



WIRE DRESS OPTION 0 SHOWN



WIRE DRESS OPTION 9 SHOWN



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LOCATION AND PACKAGING DIMENSIONS
REFERENCING INTERFACE DATUMS B & C

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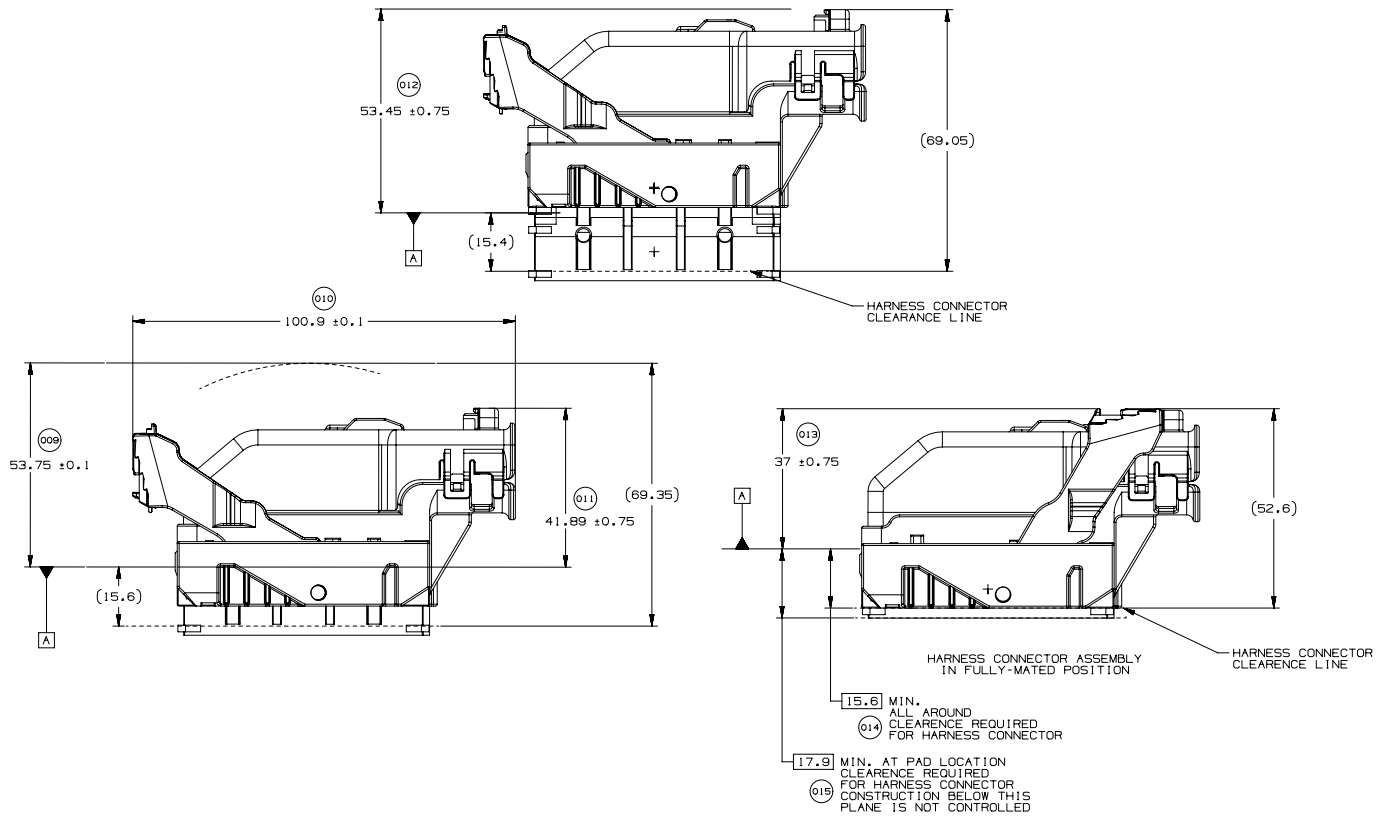
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LOCATION AND PACKAGING DIMENSIONS
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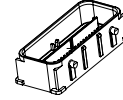
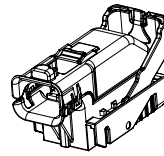
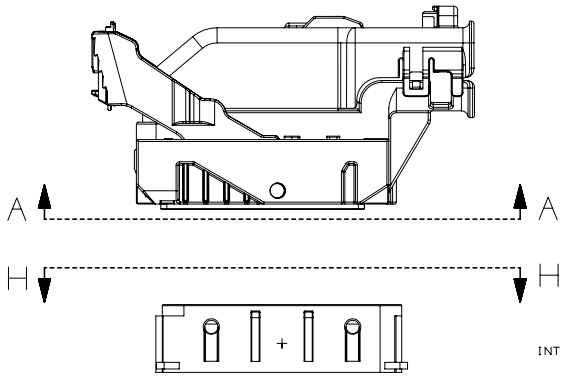
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R	002	

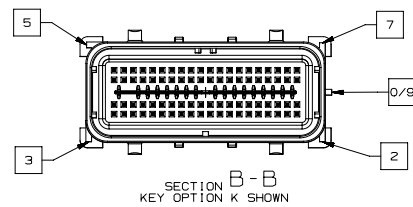
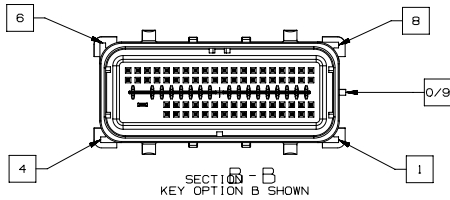
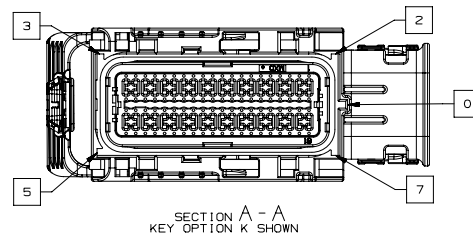
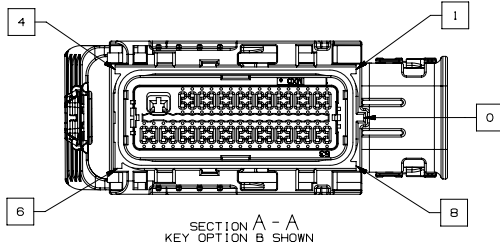
PAGE NUMBER

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NOTE: REFERENCE THE COMPONENT TABLE FOR KEY OPTIONS AND CONFIGURATIONS

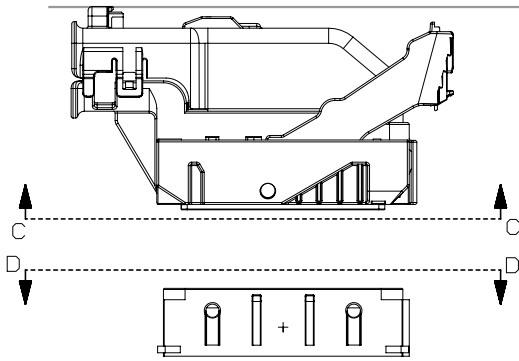
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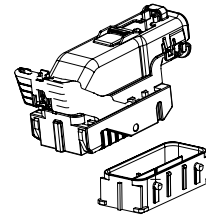
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DRAWING NUMBER
12642695

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ST	REV	PD1	11	OF 21
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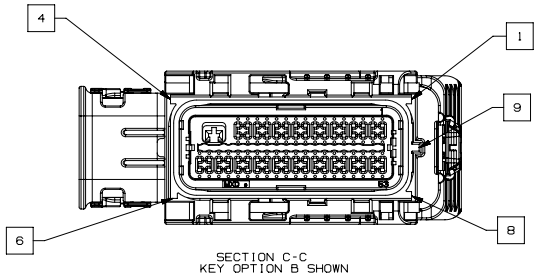


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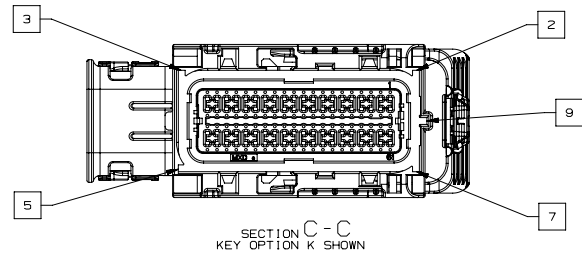


NOTE: REFERENCE THE COMPONENT TABLE FOR KEY OPTIONS AND CONFIGURATIONS

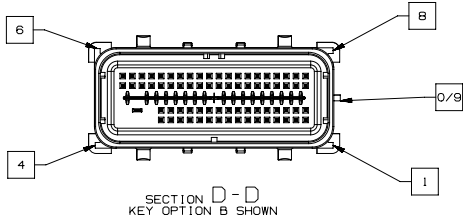
VIEW V



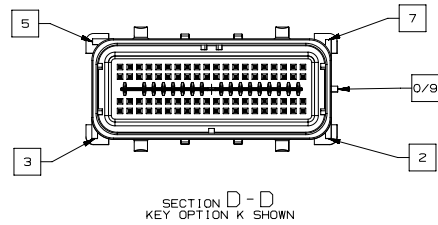
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SECTION C-C
KEY OPTION K SHOWN



SECTION D-D
KEY OPTION B SHOWN



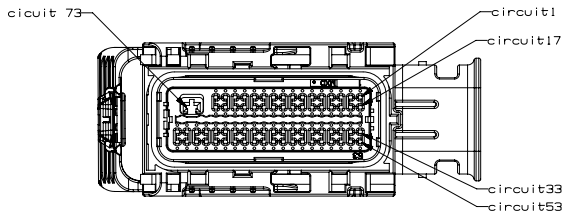
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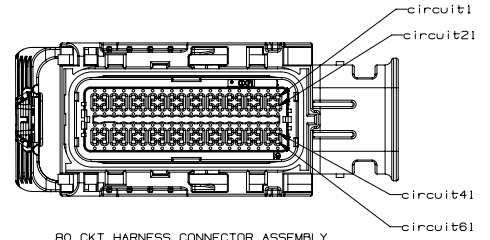
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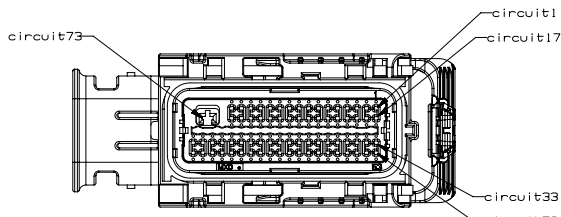


73 CKT HARNESS CONNECTOR ASSEMBLY
WIRE DRESS OPTION 0

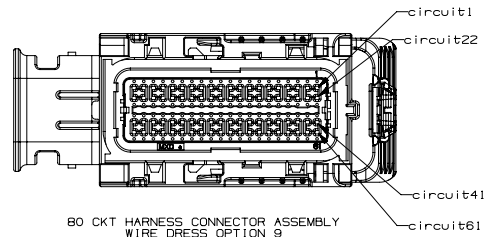


80 CKT HARNESS CONNECTOR ASSEMBLY
WIRE DRESS OPTION 0

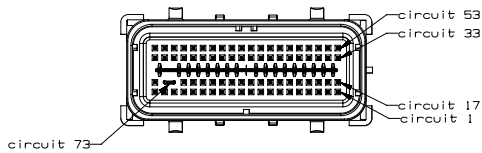
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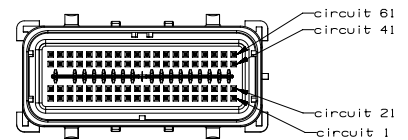
73 CKT HARNESS CONNECTOR ASSEMBLY
WIRE DRESS OPTION 9



80 CKT HARNESS CONNECTOR ASSEMBLY
WIRE DRESS OPTION 9



73 CKT COMPONENT CONNECTOR INTERFACE



80 CKT COMPONENT CONNECTOR INTERFACE



PAGE TITLE
CIRCUIT CONFIGURATIONS

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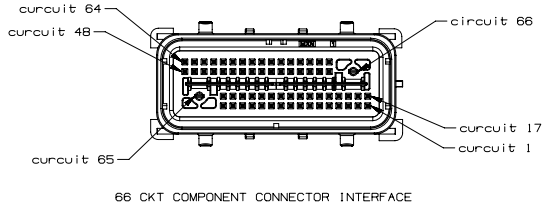
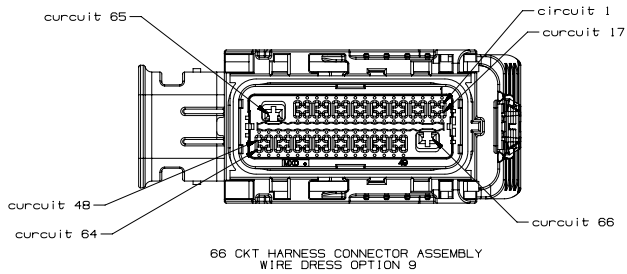
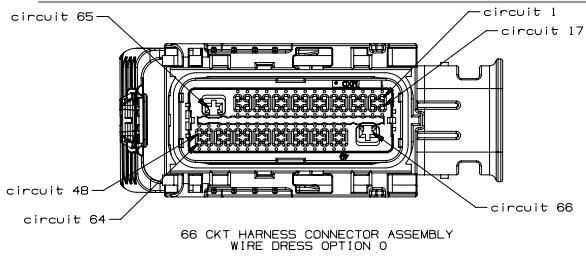
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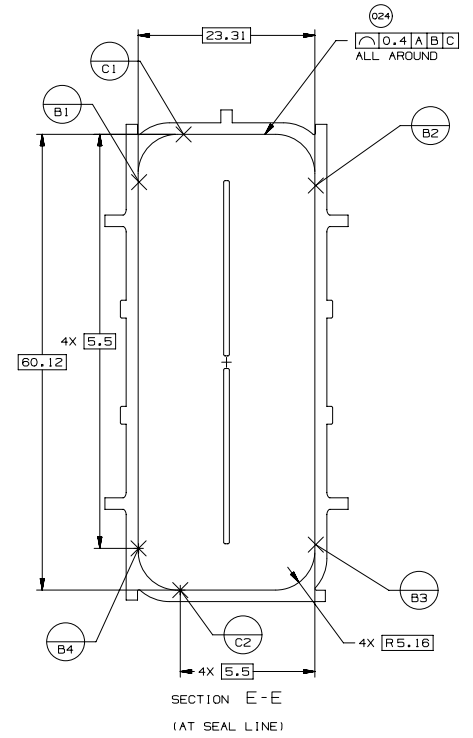
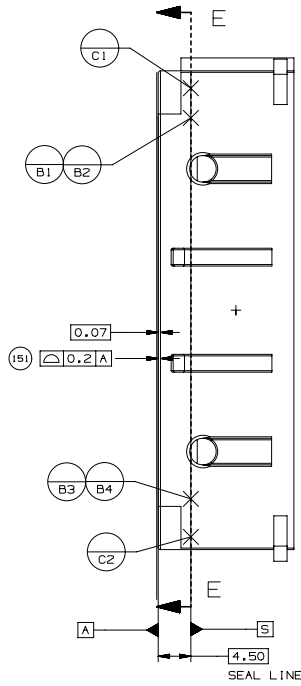
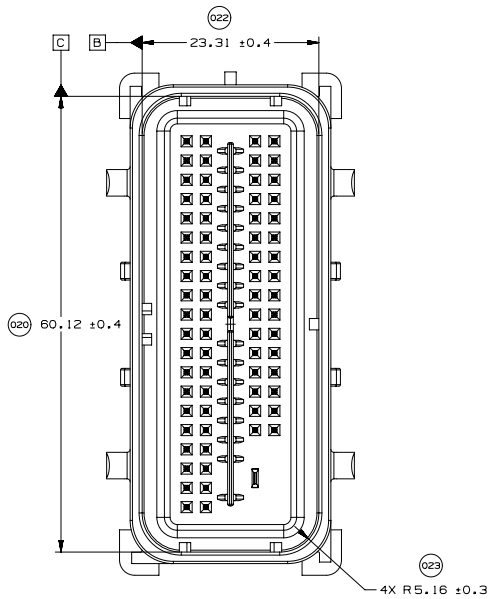
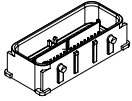
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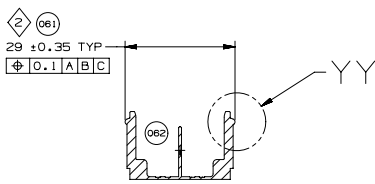
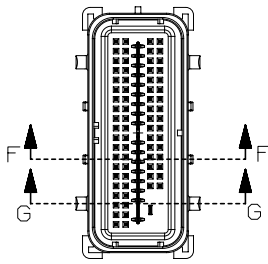
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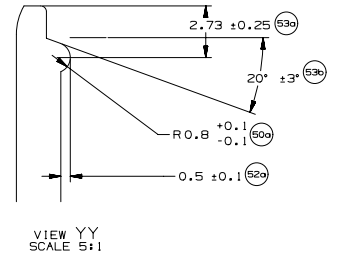
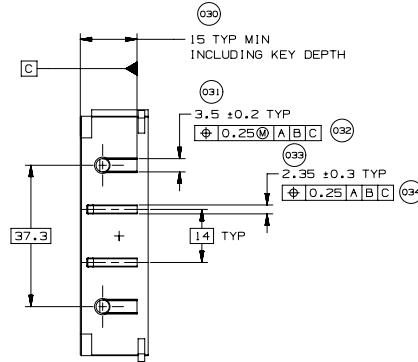
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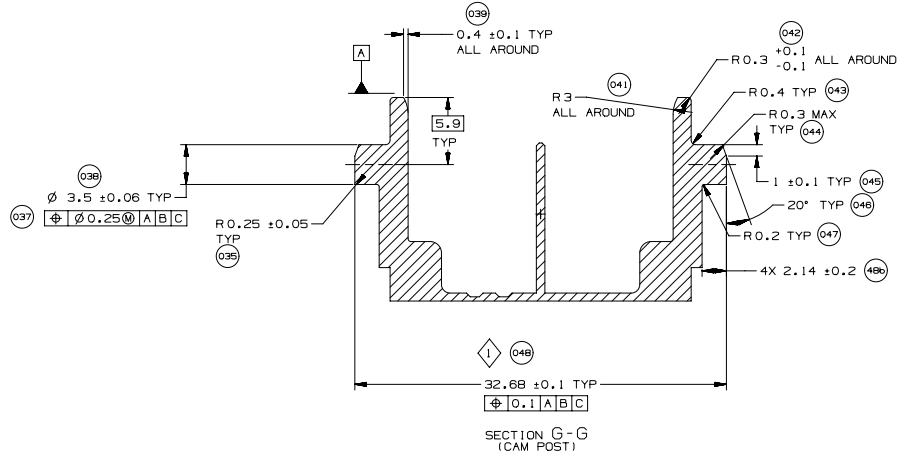
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SECTION F - F



VIEW YY
SCALE 5:1



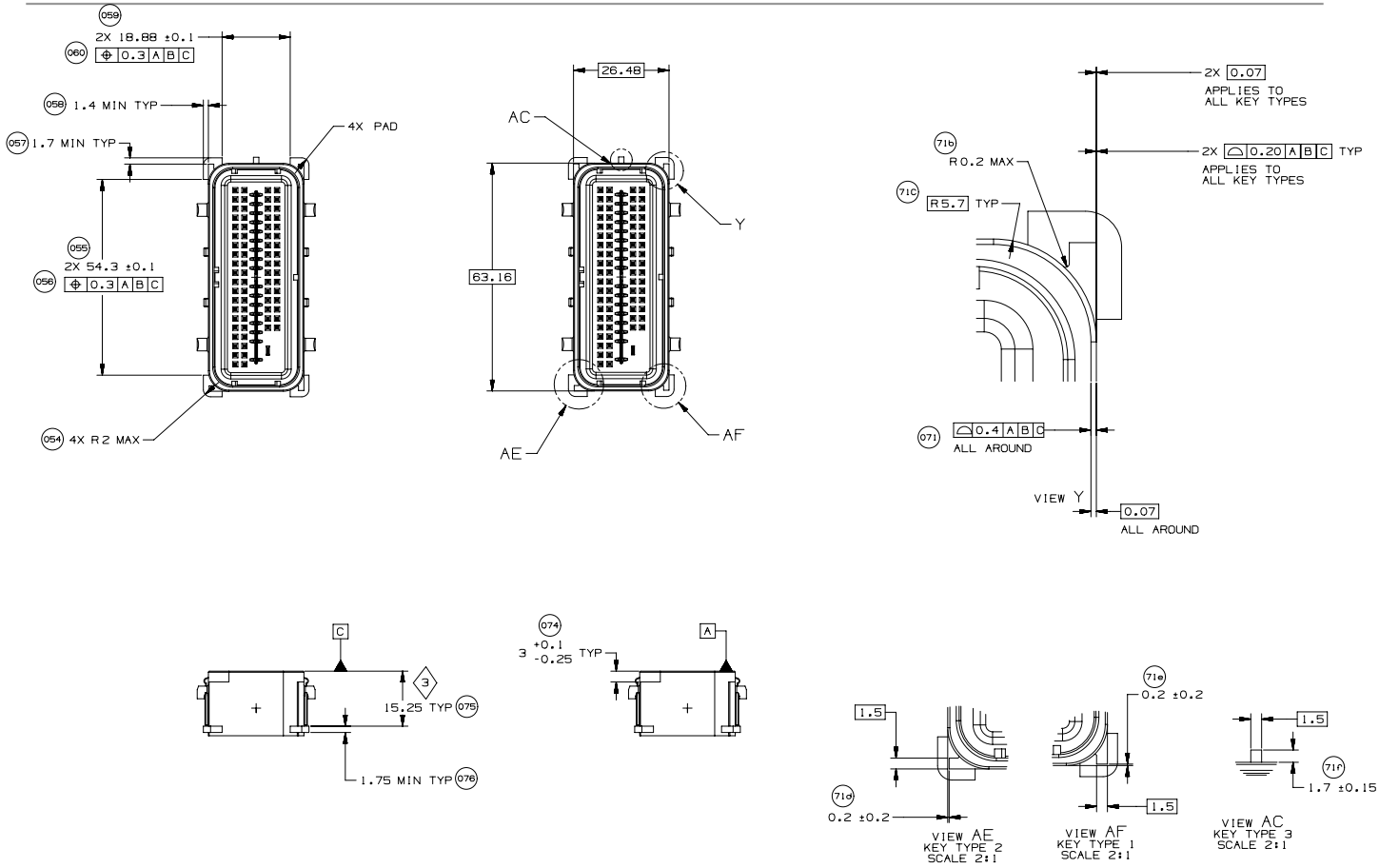
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(CAM POST)



PAGE TITLE
COMPONENT CONNECTOR INTERFACE

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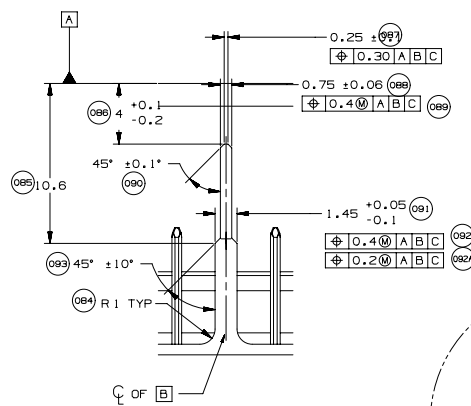
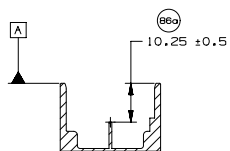
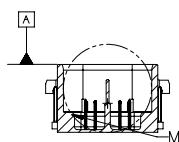
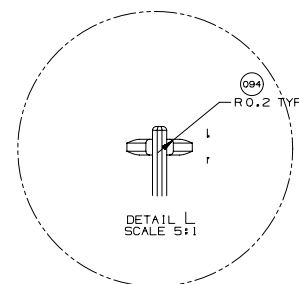
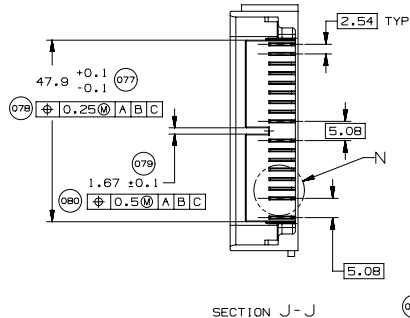
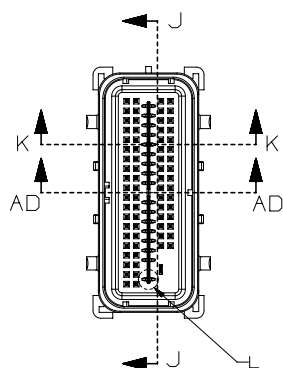
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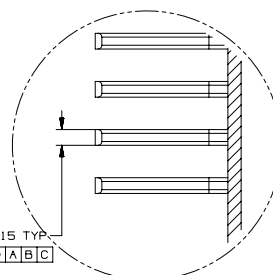
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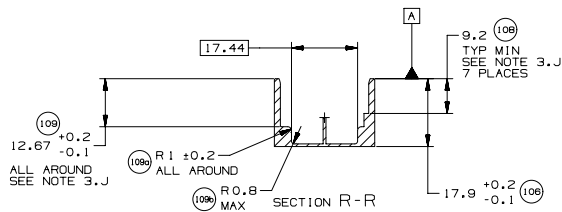
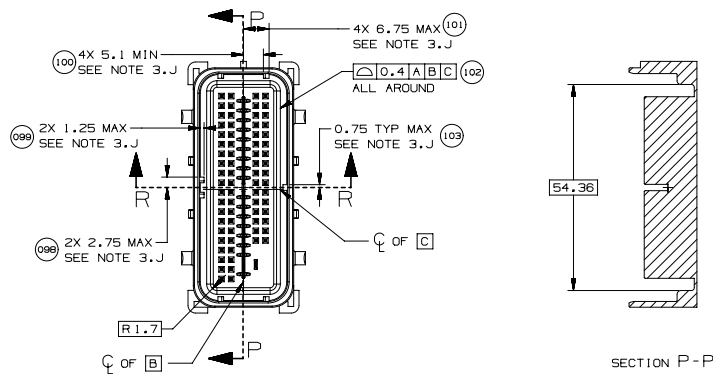
DETAIL M
TYPICAL
SCALE 4:1



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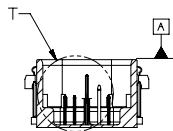
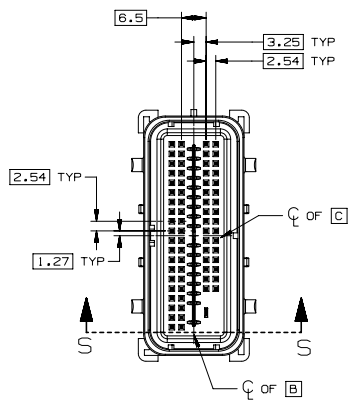
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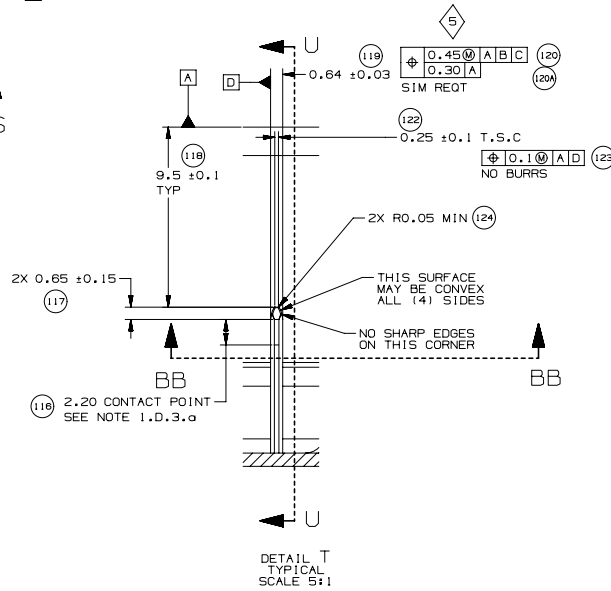
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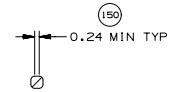
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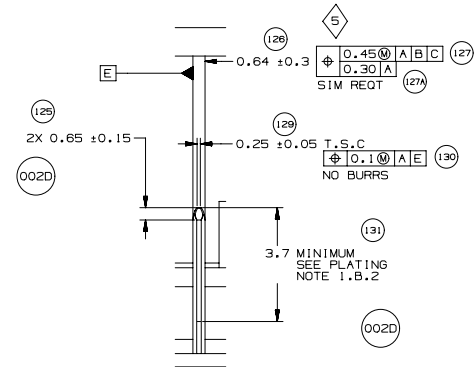
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DETAIL T
TYPICAL
SCALE 5:1



SECTION BB-BB



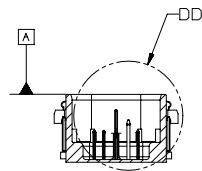
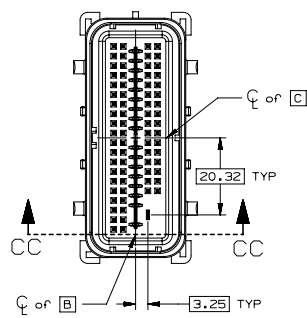
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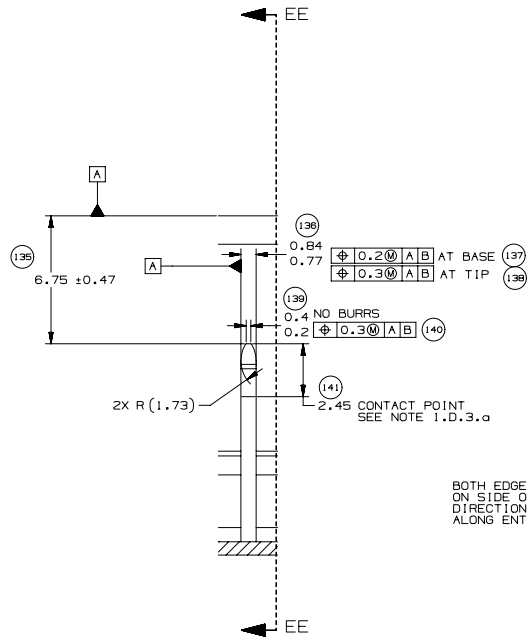
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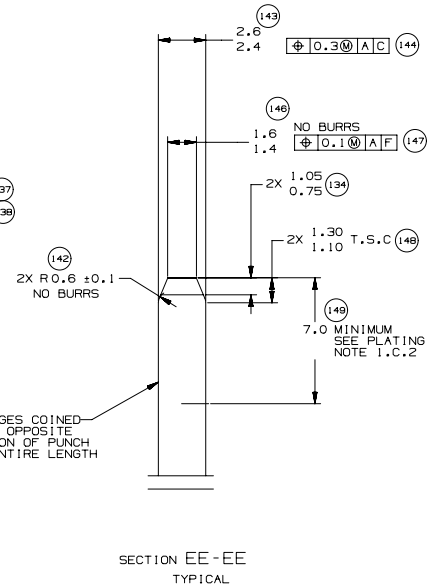
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SECTION CC-CC



DETAIL DD
TYPICAL
SCALE 5:1



SECTION EE-EE
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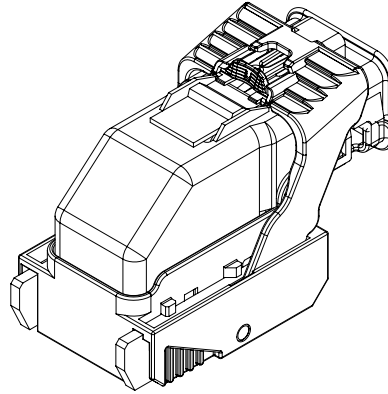


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KEY ID REF - WIRE DRESS OPTION 0	11
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ISO VIEW

	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	DWG STATUS		PAGE NUMBER
		ST	REV	
	12672832	R	001	1 of 23



DWG STATUS						REVISION HISTORY				AUTH	DR	CK	ENG
PAGE	DATE	ST	REV	CHG	PD1								
	03JUN15	R	001			RELEASED TO PRODUCTION AT DLS A				CRMJRJE	DFK		

	PAGE TITLE		DRAWING NUMBER	DWG STATUS			PAGE NUMBER		
	REVISION BLOCK			ST	REV	PD1	2 of 23		
				R	001				

[illegible]

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

DWG STATUS

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R	001	

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Distributor of Molex Connector Corporation: Excellent Integrated System Limited

Datasheet of 0345661303 - MX123 HRN CONN ASSY 73 CKT OPT9

Contact us: sales@integrated-circuit.com Website: www.integrated-circuit.com

electronic components				APPLICABLE COMPONENTS						
QTY	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	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	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	N/A	WHITE AVAILABLE
27	YAZAKI	7158-3114-90	12674821	02JN03	2.8mm YESC CAVITY PLUG	N/A	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	OSR	A-0549C	12646688	01SE14	6.35mm CABLE SEAL (FOR 6.0mm2 WIRE SIZE - 3.8 TO 4.2mm INSULATION OD)	N/A	N/A	N/A	N/A	WHITE AVAILABLE
31	OSR	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	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	X38899-J374	12094430	02JN03	2.8mm TERM SERVICE TOOL	N/A	N/A	N/A	N/A	AVAILABLE
43	TOI	7000-1001	N/A	01FE15	18CKT PASS THROUGH ADAPTERS	N/A	N/A	N/A	N/A	BLACK AVAILABLE
44	TOI	7000-1004	N/A	01FE15	49CKT PASS THROUGH ADAPTERS	N/A	N/A	N/A	N/A	BLACK AVAILABLE
45	TOI	79917-0060	N/A	02JA08	56CKT PASS THROUGH ADAPTERS	N/A	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



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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. 0.6MM 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. 2.5MM 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 1.25-2.5 μm 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 1.25-2.5 μm 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 BRIGHTENERS 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.
- 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: JJYY (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 (SP1 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 ADVERSELY AFFECTING FUNCTION OR APPEARANCE.
- M. RESTRICTED AND REPORTABLE SUBSTANCES FOR PARTS PER GMW3059.



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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: 188mm 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
0.75mm ²	11.3A	11.3A	9.5A	6.6A
0.50mm ²	10.0A	10.0A	8.3A	5.7A
0.35mm ²	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



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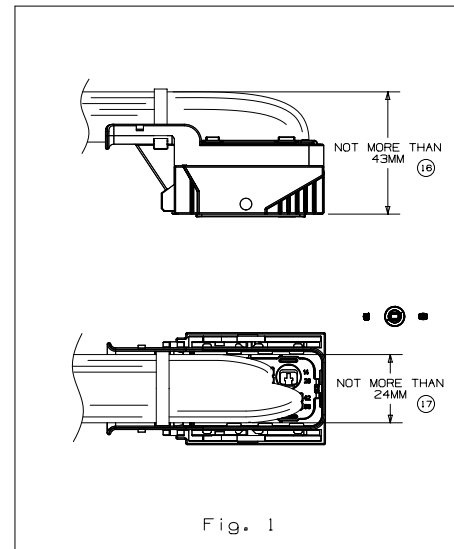
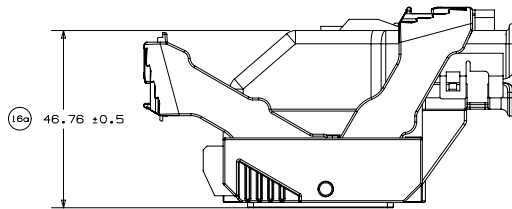
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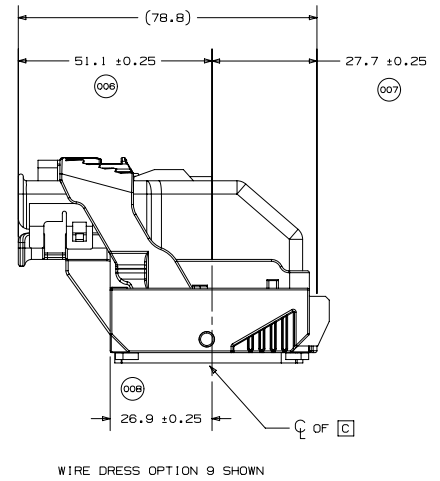
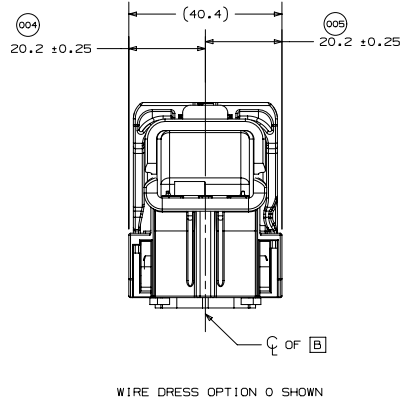
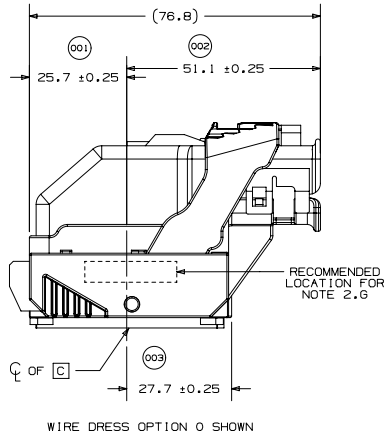


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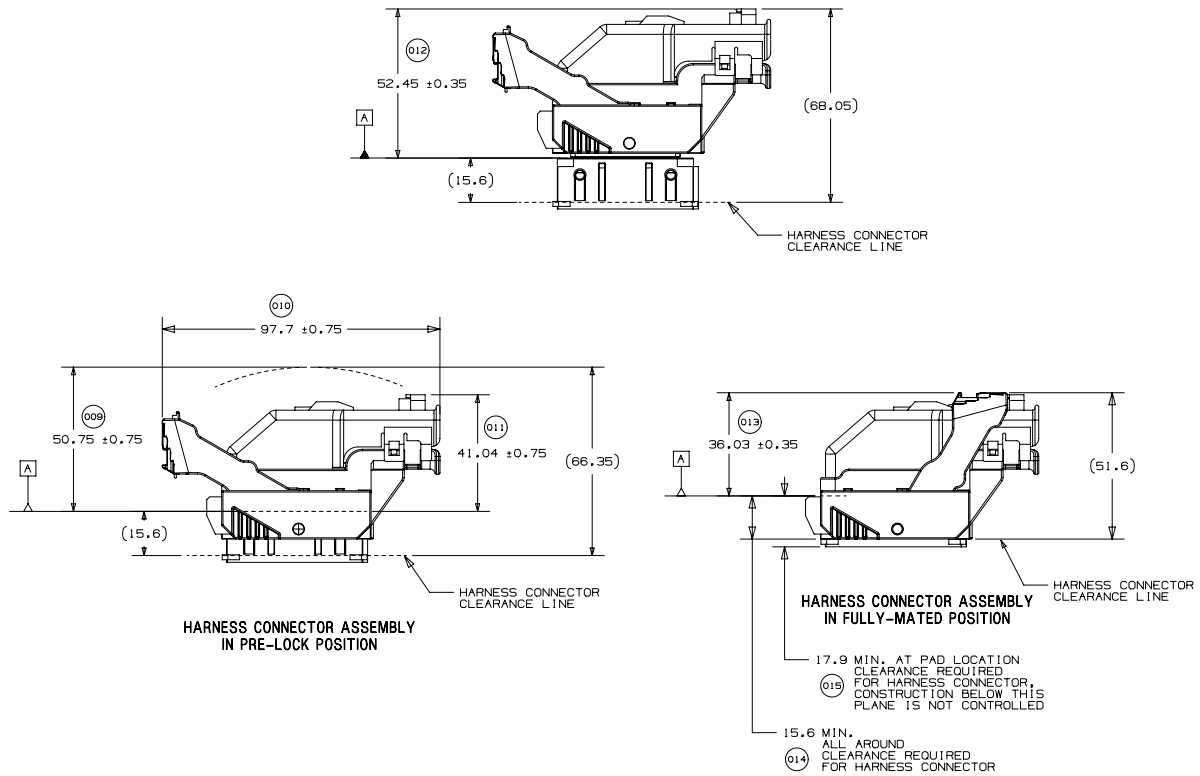
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LOCATION AND PACKAGING DIMENSIONS
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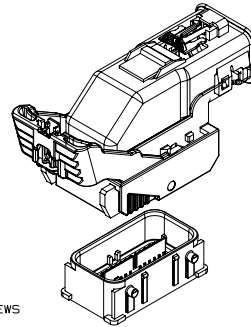
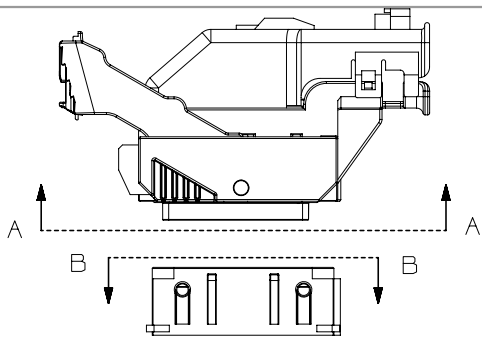
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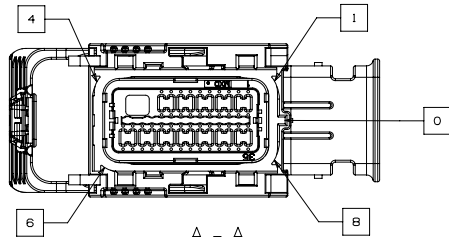
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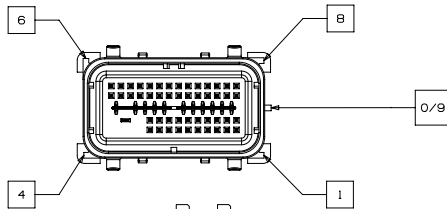


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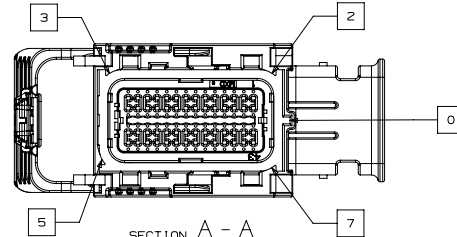
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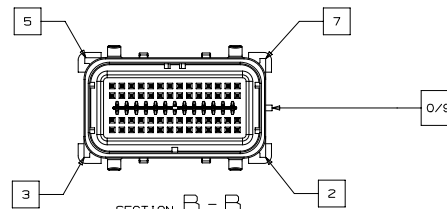
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49 CKT HARNESS CONNECTOR ASSEMBLY
KEY OPTION B SHOWN



SECTION B - B
49 CKT COMPONENT CONNECTOR INTERFACE
KEY OPTION B SHOWN



SECTION A - A
56 CKT HARNESS CONNECTOR ASSEMBLY
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SECTION B - B
56 CKT COMPONENT CONNECTOR INTERFACE
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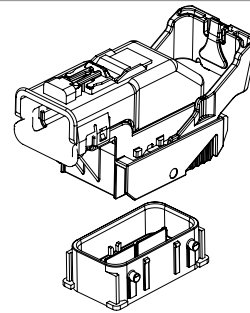
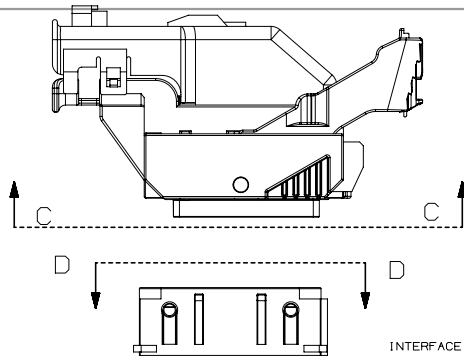
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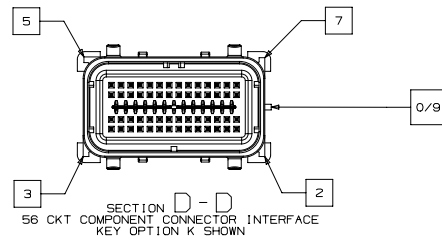
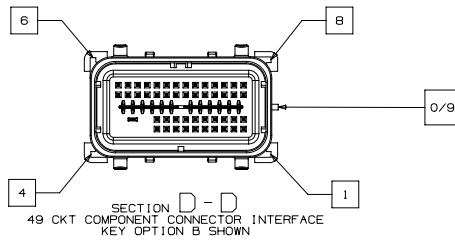
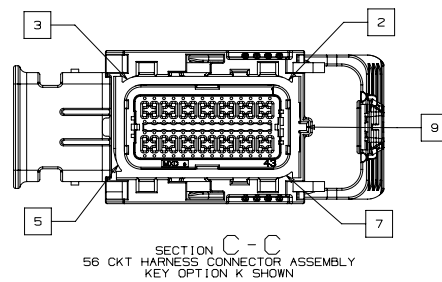
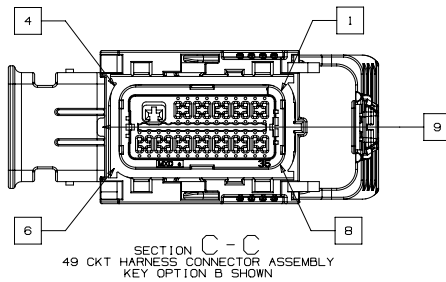
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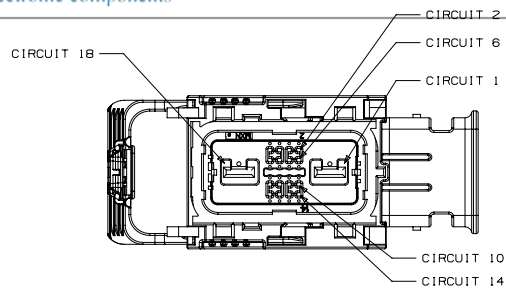
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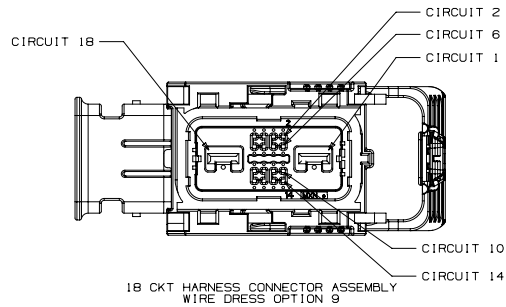
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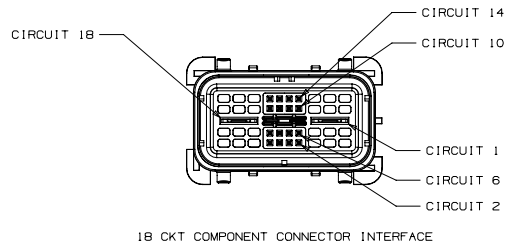
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18 CKT HARNESS CONNECTOR ASSEMBLY
WIRE DRESS OPTION 0



18 CKT HARNESS CONNECTOR ASSEMBLY
WIRE DRESS OPTION 9



18 CKT COMPONENT CONNECTOR INTERFACE

INTERFACE SIDE SHOWN ON ALL VIEWS



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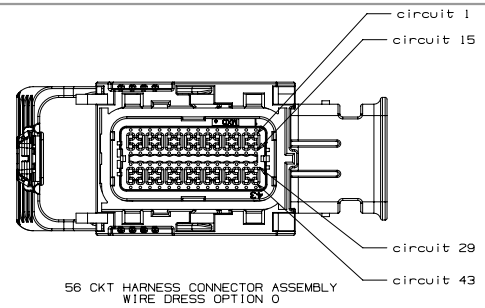
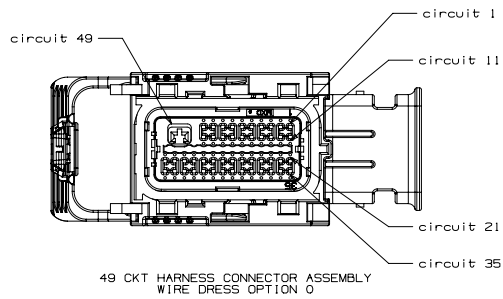
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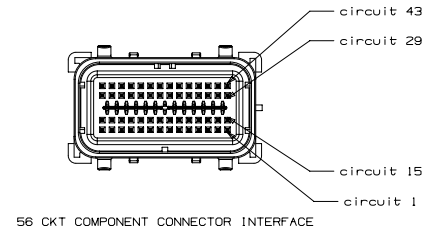
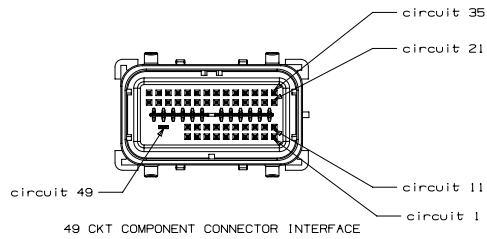
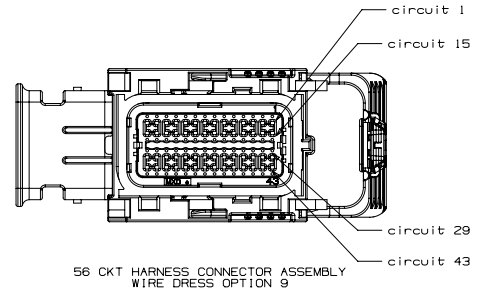
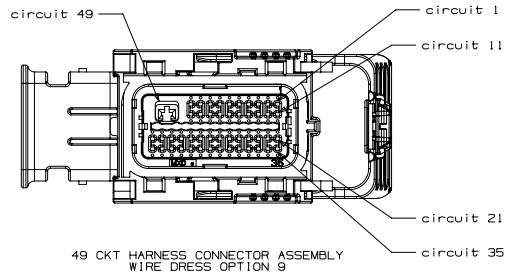
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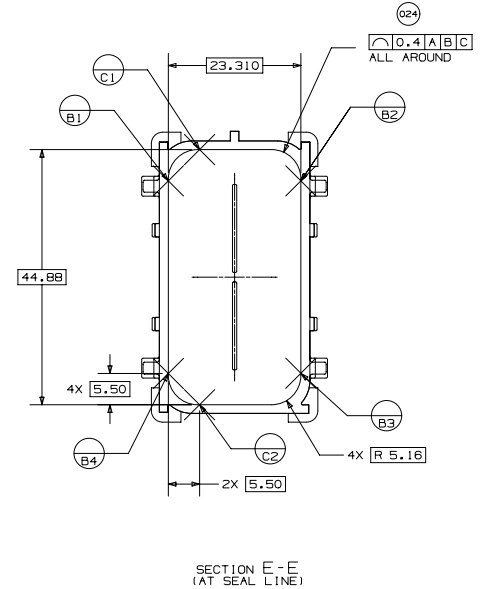
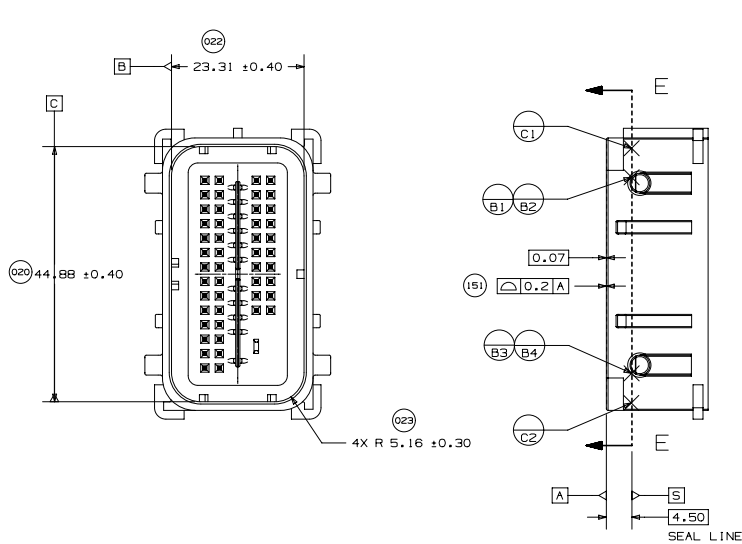
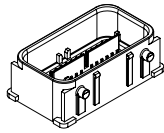
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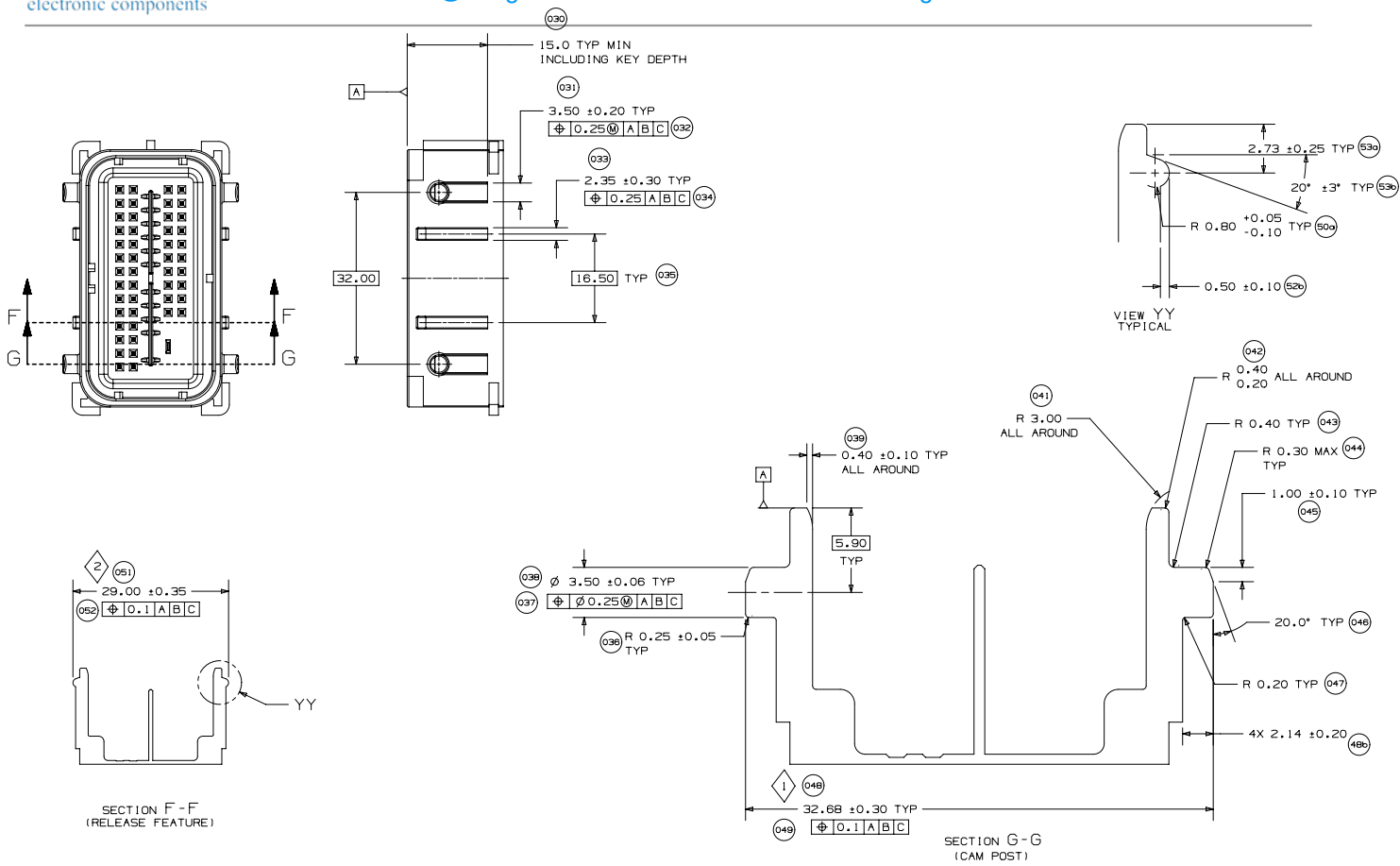
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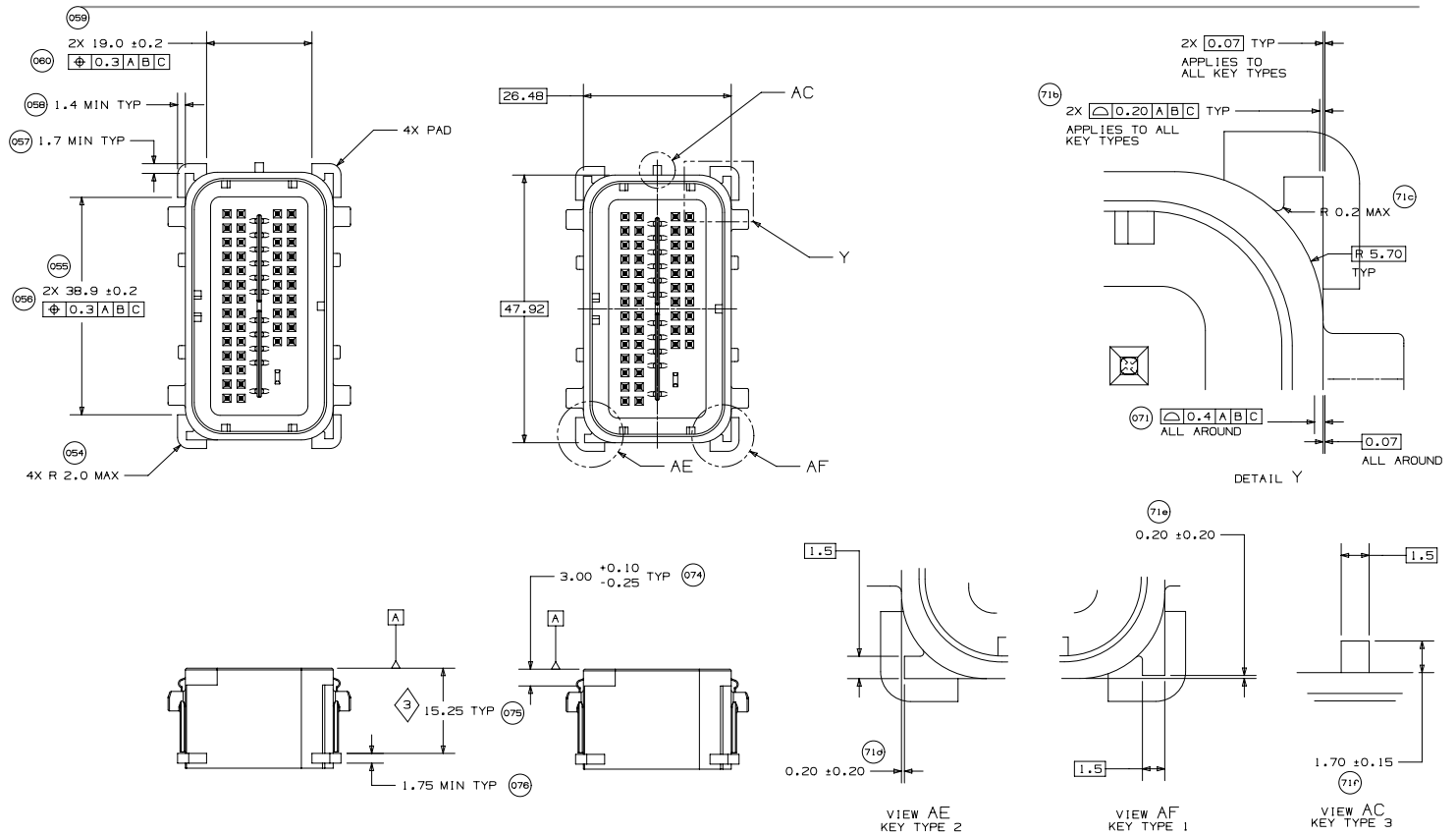
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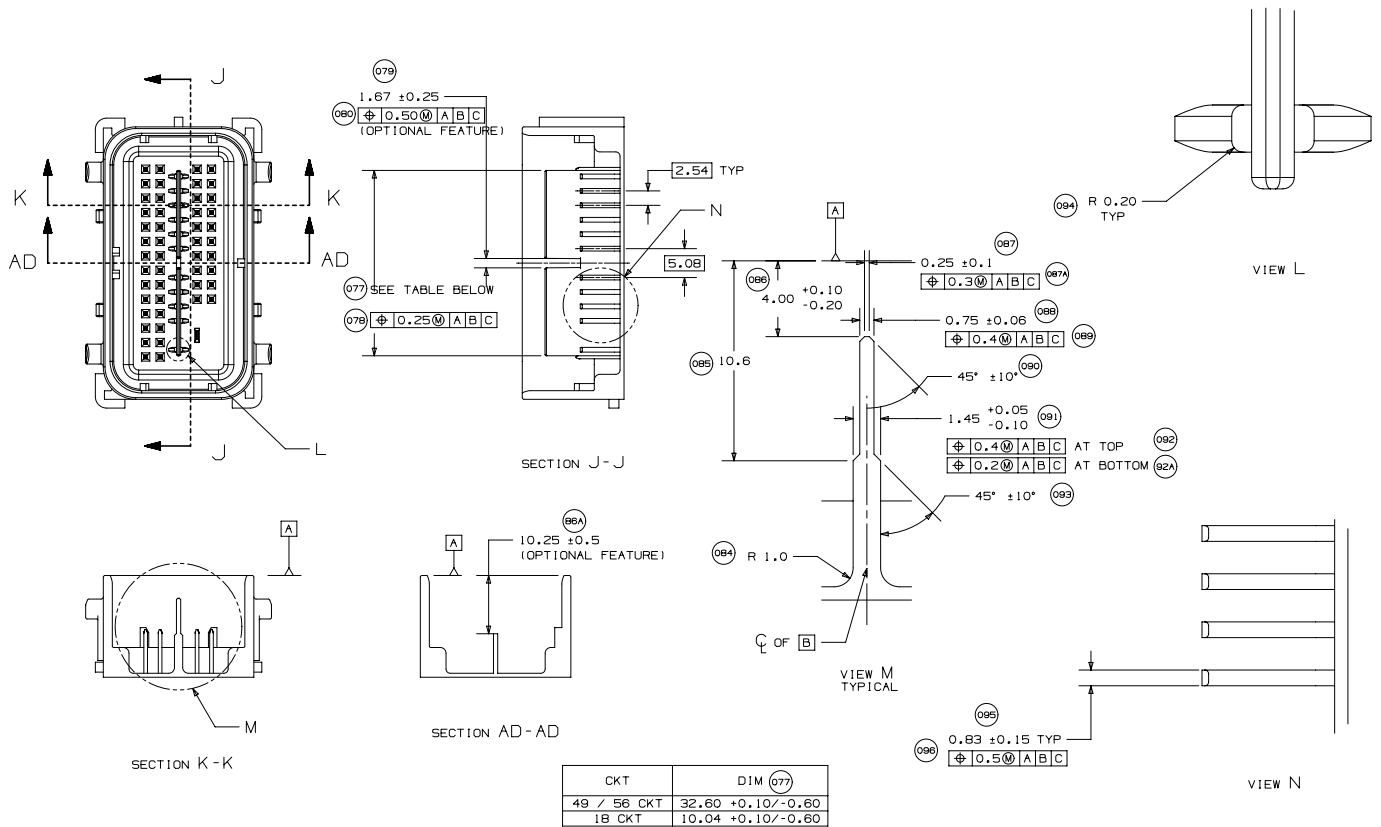
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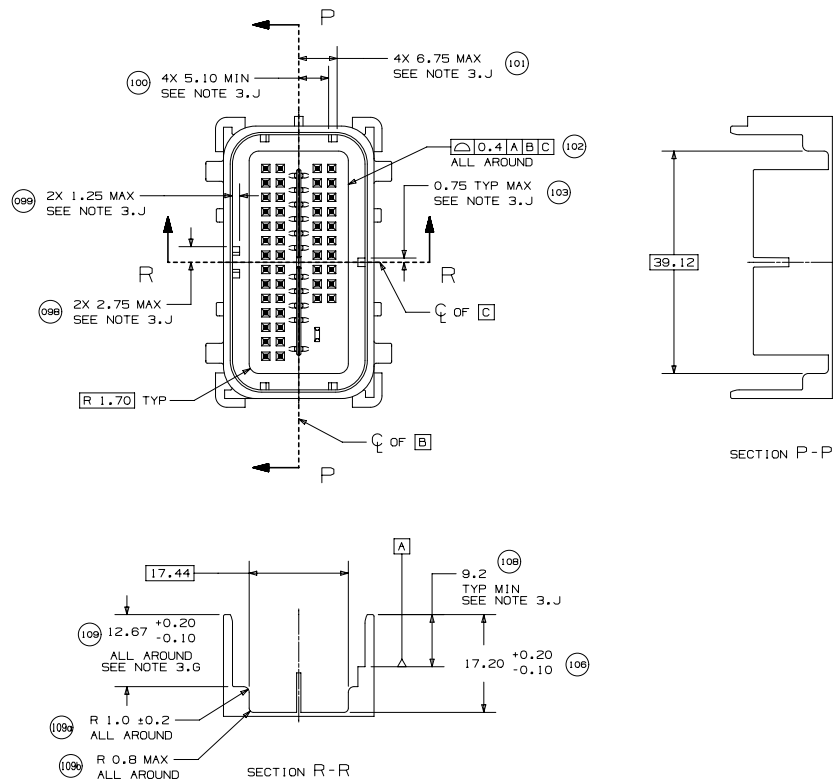
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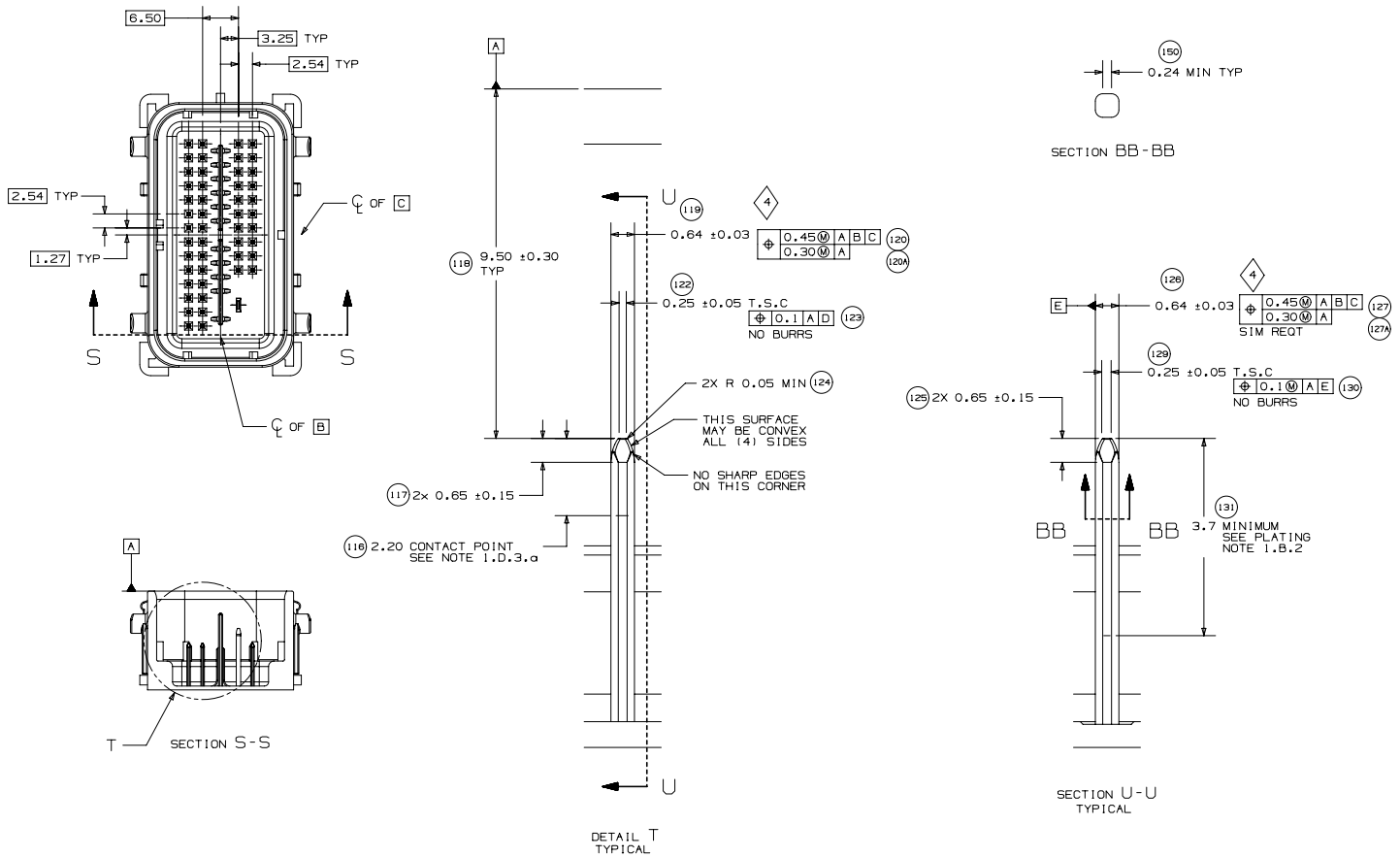
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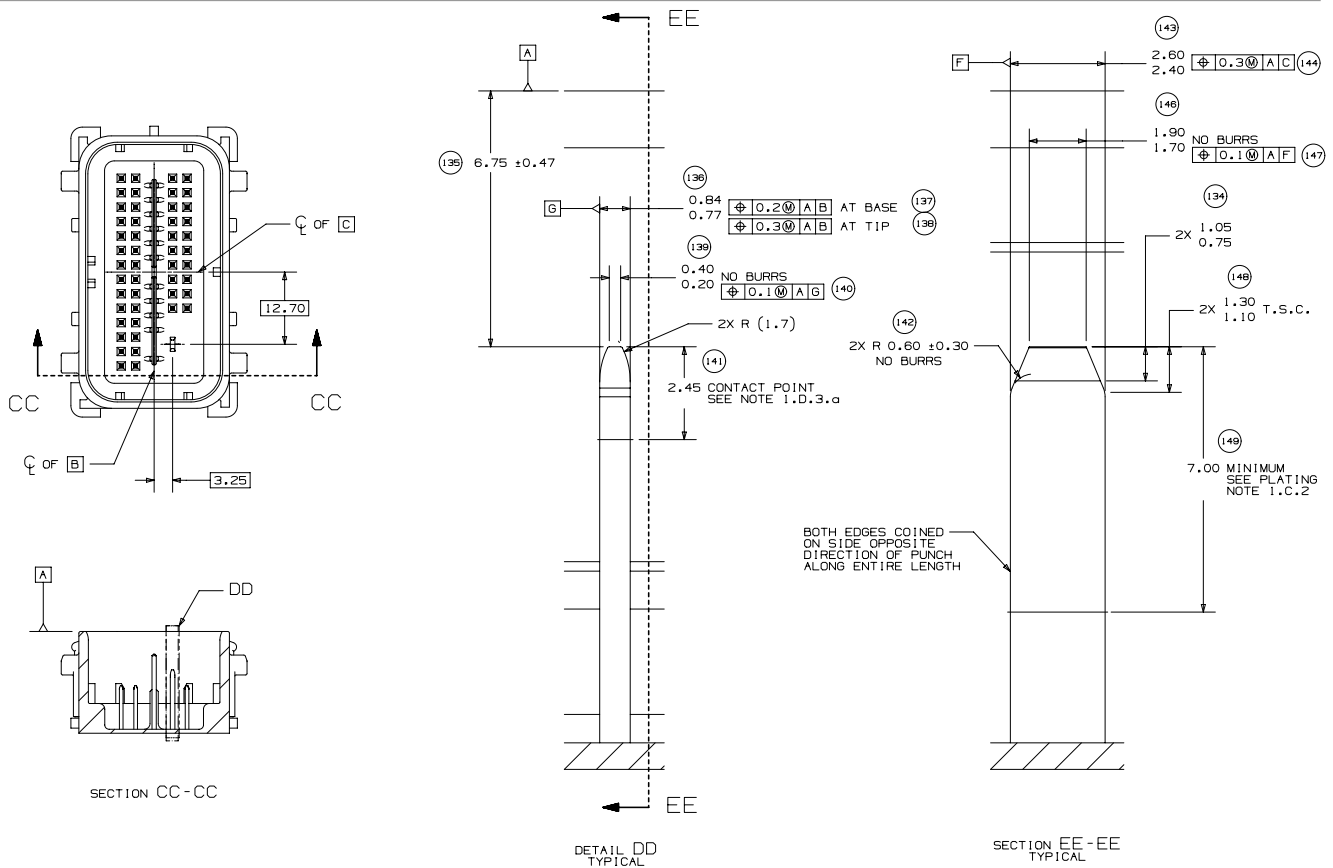
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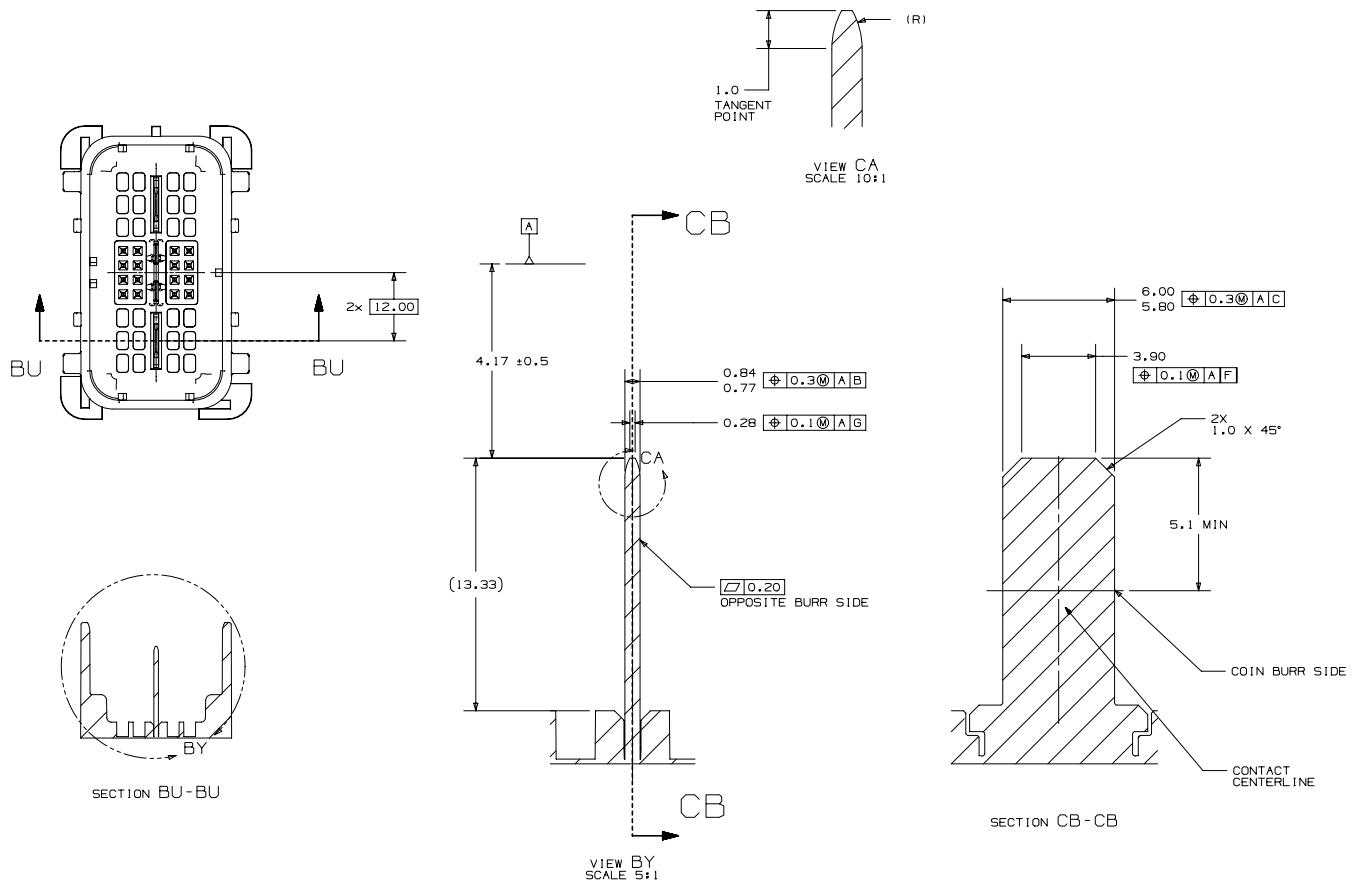
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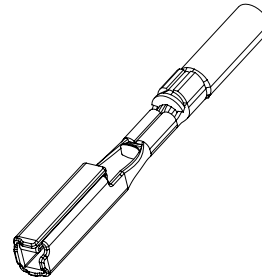
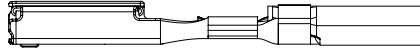
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MOLEX MX64 RECEPTACLE TERMINAL INFORMATION

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



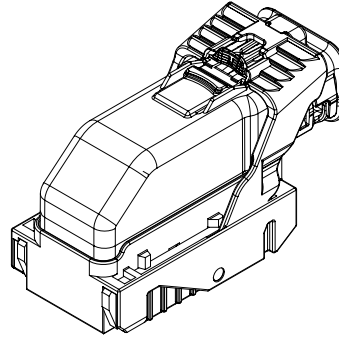
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ADDITIONAL COMPONENTS REQUIRED

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ISO VIEW

 UNLESS OTHERWISE SPECIFIED: THIS DOCUMENT IS IN ACCORDANCE WITH ASME Y14.5M-1994 AS AMENDED BY THE GM GLOBAL DIMENSIONING AND TOLERANCING ADDENDUM-1997. ALL GEOMETRIC TOLERANCES AND RELATED DATUMS APPLY RFS, RULE #1 (PERFECT FORM AT MMC) DOES NOT APPLY WHEN A RELATIONSHIP BETWEEN FEATURES IS ESTABLISHED BY ORIENTATION OR LOCATION TOLERANCES. SEPARATE POSITION CALLOUTS MAY BE GAGED SEPARATELY REGARDLESS OF DATUM REFERENCES.	DATE	
	05JN15	
 CHANGE RESTRICTED NO MANUAL CHANGES DO NOT SCALE	REFERENCE 12H (MOLEX AUTOMOTIVE)	DRAFTER APVD1 APVD2 APVD3 APVD4 APVD5
	DRAWING NAME HARNESS CONN ASM-SEALED 52/66/73/80 CKTS,MX123	
	METRIC DIMENSIONS SHOWN IN MILLIMETERS UNLESS OTHERWISE SPECIFIED	
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[illegible]

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 MATEABILITY	20



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electronic components					APPLICABLE COMPONENTS		KEY OPTION	WIRE DRESS OPTION	KEY CONFIG.	COLOR	STATUS
LINE	MFG.	MFG. P/N	GM P/N	EFFECTIVE DATE	DESCRIPTION						
-											
1	MOLEX	34566-0003	12672676	02JN03	MX123 DRESS COVER 52/66/73/80 CKT	N/A	N/A	N/A	BLACK	AVAILABLE	
2	MOLEX	160094-0001	12672652	01SP13	MX123 HRNS CONN ASSY 52 CKT	A	0	1458	BLACK	AVAILABLE	
3	MOLEX	160094-0003	12672654	01SP13	MX123 HRNS CONN ASSY 52 CKT	C	0	2467	BLUE	AVAILABLE	
4	MOLEX	160094-0013	12672653	01SP13	MX123 HRNS CONN ASSY 52 CKT	A	9	1458	BLACK	AVAILABLE	
5	MOLEX	160094-0015	12672655	01SP13	MX123 HRNS CONN ASSY 52 CKT	C	9	2467	BLUE	AVAILABLE	
6	MOLEX	34822-0013	12672656	01SP13	MX123 HRNS CONN ASSY 66 CKT	A	0	1458	BLACK	AVAILABLE	
7	MOLEX	34822-0033	12672658	01SP13	MX123 HRNS CONN ASSY 66 CKT	C	0	2467	BLUE	AVAILABLE	
8	MOLEX	34822-0023	12672657	01SP13	MX123 HRNS CONN ASSY 66 CKT	A	9	1458	BLACK	AVAILABLE	
9	MOLEX	34822-0043	12672659	01SP13	MX123 HRNS CONN ASSY 66 CKT	C	9	2467	BLUE	AVAILABLE	
10	MOLEX	34566-0103	12672660	11JN04	MX123 HRNS CONN ASSY 73 CKT	A	0	1458	BLACK	AVAILABLE	
11	MOLEX	34566-0203	12672662	11JN04	MX123 HRNS CONN ASSY 73 CKT	B	0	1468	ST GRAY	AVAILABLE	
12	MOLEX	34566-0303	12672664	09AP08	MX123 HRNS CONN ASSY 73 CKT	C	0	2467	BLUE	AVAILABLE	
13	MOLEX	34566-0603	12672666	05DC14	MX123 HRNS CONN ASSY 73 CKT	F	0	1357	NATURAL	AVAILABLE	
14	MOLEX	34566-1303	12672661	11JN04	MX123 HRNS CONN ASSY 73 CKT	A	9	1458	BLACK	AVAILABLE	
15	MOLEX	34566-1403	12672663	11JN04	MX123 HRNS CONN ASSY 73 CKT	B	9	1468	ST GRAY	AVAILABLE	
16	MOLEX	34566-1503	12672665	09AP08	MX123 HRNS CONN ASSY 73 CKT	C	9	2467	BLUE	AVAILABLE	
17	MOLEX	34566-1803	12672667	05DC14	MX123 HRNS CONN ASSY 73 CKT	F	9	1357	NATURAL	AVAILABLE	
18	MOLEX	34566-0703	12672672	09AP08	MX123 HRNS CONN ASSY 80 CKT	G	0	1358	BLUE	AVAILABLE	
19	MOLEX	34566-0803	12672670	11JN04	MX123 HRNS CONN ASSY 80 CKT	H	0	2458	ST GRAY	AVAILABLE	
20	MOLEX	34566-0903	12672668	T.B.D	MX123 HRNS CONN ASSY 80 CKT	J	0	2457	BLACK	NOT ACTIVE	
21	MOLEX	34566-1903	12672673	09AP08	MX123 HRNS CONN ASSY 80 CKT	G	9	1358	BLUE	AVAILABLE	
22	MOLEX	34566-2003	12672671	11JN04	MX123 HRNS CONN ASSY 80 CKT	H	9	2458	ST GRAY	AVAILABLE	
23	MOLEX	34566-2103	12672669	T.B.D	MX123 HRNS CONN ASSY 80 CKT	J	9	2457	BLACK	NOT ACTIVE	
24	MOLEX	34736-0028	12672651	01AU10	MX64 RCPT TERM Ag 0.5mm/0.75mm ISO GAGE B (RIGHT PAYOFF)	N/A	N/A	N/A	N/A	AVAILABLE	
25	MOLEX	34736-0026	12672650	01AU10	MX64 RCPT TERM Ag 0.35mm ISO GAGE B (RIGHT PAYOFF)	N/A	N/A	N/A	N/A	AVAILABLE	
26	MOLEX	34586-0001	12674820	11JN04	MX123 0.64mm GROMMET PLUG	N/A	N/A	N/A	NATURAL	AVAILABLE	
27	YAZAKI	7118-4150-02	12588066	02JN03	2.8mm YESC SEALED FEMALE TERMINAL TIN 0.35mm2-0.50mm2	N/A	N/A	N/A	N/A	NOT ACTIVE	
28	YAZAKI	7118-4151-02	12588067	02JN03	2.8mm YESC SEALED FEMALE TERMINAL TIN 0.75mm2-1.0mm2	N/A	N/A	N/A	N/A	NOT ACTIVE	
29	YAZAKI	7118-4152-02	12582685	02JN03	2.8mm YESC SEALED FEMALE TERMINAL TIN 1.5mm2-2.5mm2	N/A	N/A	N/A	N/A	AVAILABLE	
30	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	
31	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	
32	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	
33	YAZAKI	7158-3114-90	12674821	02JN03	2.8mm YESC CAVITY PLUG	N/A	N/A	N/A	BLUE	AVAILABLE	
34	MOLEX	63825-8400	N/A	02JN03	MX64 TERM HAND CRIMP TOOL	N/A	N/A	N/A	N/A	AVAILABLE	
35	MOLEX	63813-1400	XX019826	02JN03	MX64 TERM SERVICE TOOL	N/A	N/A	N/A	N/A	AVAILABLE	
36	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	
37	MOLEX	63902-5370	N/A	02JN03	MX64 APPLICATOR TOOL KIT 0.5/0.75mm2	N/A	N/A	N/A	N/A	AVAILABLE	
38	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	
39	MOLEX	63902-5170	N/A	02JN03	MX64 APPLICATOR TOOL KIT 0.35mm2	N/A	N/A	N/A	N/A	AVAILABLE	
40	SPX	J35616-64	T.B.D.	02JN03	0.64mm PROBE TOOL (for rcpt)	N/A	N/A	N/A	N/A	AVAILABLE	
41	SPX	J35616-64A	T.B.D.	02JN03	0.64mm PROBE TOOL WITH EXT (for rcpt)	N/A	N/A	N/A	N/A	AVAILABLE	
42	SPX	J35616-65	T.B.D.	02JN03	0.64mm PROBE TOOL WITH EXT (for pin)	N/A	N/A	N/A	N/A	AVAILABLE	
43	SPX	J35616-4A	T.B.D.	02JN03	2.8mm PROBE TOOL (for rcpt)	N/A	N/A	N/A	N/A	AVAILABLE	
44	YAZAKI	X39899-J374	12094430	02JN03	2.8mm TERM SERVICE TOOL	N/A	N/A	N/A	N/A	AVAILABLE	
45	TOI	7000-1006	N/A	15JN15	52 CKT PASS THROUGH ADAPTERS	N/A	N/A	N/A	BLACK	AVAILABLE	
46	TOI	7000-1002	N/A	15JN15	66 CKT PASS THROUGH ADAPTERS	N/A	N/A	N/A	BLACK	AVAILABLE	
47	TOI	79917-0061	N/A	15JN15	73 CKT PASS THROUGH ADAPTERS	N/A	N/A	N/A	BLACK	AVAILABLE	
48	TOI	79917-0066	N/A	15JN15	80 CKT PASS THROUGH ADAPTERS	N/A	N/A	N/A	BLACK	AVAILABLE	

* - MX123 DRESS COVER 52/66/73/80 CKT MATES TO ANY MX123 HARN CONN ASSY SHOWN ON TABLE ABOVE

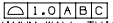
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1. MATERIAL FOR INTERFACE:

- 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 $\geq$ 28% IACS AT 20°C; TENSILE STRENGTH $\geq$ 635 N/mm²; SURFACE ROUGHNESS R_a 6 MAX.
 2. PLATING FINISH: SILVER (Ag). PLATING TO BE 1.9-3.3 μ m ELECTRODEPOSITED SEMI-BRIGHT SILVER OVER 1.25-2.25 μ m 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 $\geq$ 28% IACS AT 20°C; TENSILE STRENGTH $\geq$ 350 N/mm²; SURFACE ROUGHNESS R_a 6 MAX.
 2. PLATING FINISH: TIN. PLATING TO BE 2.5-5.0 μ m ELECTRODEPOSITED TIN. MATTE FINISH OVER 1.25-2.5 μ m DUCTILE SULPHAMATE NICKEL PER NOTE 1(D).
- D. 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. FOR DIMENSIONAL OR ANY INFORMATION NOT SHOWN ON THIS DRAWING, ANALYZE THE CAD MODEL.
- B. TOLERANCES:
 1. LINEAR
 0.X $\pm$ 0.30
 0.XX $\pm$ 0.10
 0.XXX $\pm$ 0.10
 2. ANGULAR X' $\pm$ 3'
 3. 
- C. MINIMUM WALL THICKNESS REQUIRED: 1.3mm.
 D. CORNERS SHOWN AS SHARP TO BE R 0.2 MAX.
 E. LETTERING SHALL BE 0.15 MAX RAISED IN 0.20 MAX RECESS PAD. THIS INCLUDES MATERIAL CODE, RECYCLING CODE, CAVITY ID AND DATE CODE.
 F-1. PARTS MUST BE FREE OF DISCOLORATION, SALT RESIDUE AND OTHER IMPERFECTIONS THAT AFFECT FIT OR FUNCTION.
 F-2. SCRATCHES OR DENTS NOT TO EXCEED 0.013mm IN DEPTH.
 G. FOLLOWING PRODUCTION CODES TO BE PERMANENTLY MARKED & HUMAN READABLE TO A LETTER HEIGHT OF 1.5 $\pm$ 0.5MM X 0.3 MAX DEEP
 1. MATERIAL #: XXXXX-XXXX
 2. DATE CODE: JJYY (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 DÉBRIS, RESIDUAL ABRASIVE MATERIAL AND CORROSION PRODUCTS ADVERESLY AFFECTING FUNCTION OR APPEARANCE.
 M. RESTRICTED AND REPORTABLE SUBSTANCES FOR PARTS PER GMW3059.



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4. SYSTEM REQUIREMENTS:

- A. HARNESS CONNECTOR IS COMPATIBLE WITH THE FOLLOWING ISO WIRE SIZE NO'S:
 0.35mm², MEETING GMW15626 - MIN OD OF 1.30MM
 0.50mm², MEETING GMW15626
 0.75mm², MEETING GMW15626 - MAX OD OF 2.06MM

B. CABLE TIE SPECIFICATIONS:

1. CABLE TIE:
 TENSILE RATING: 220N / (50lbs) MIN
 TIE LENGTH: 188mm 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, SEALING CLASS 1, VIBRATION CLASS 2
4. RESTRICTED AND REPORTABLE CHEMICALS PER GMW #3059, REV: D AUGUST 2002
5. 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 A_g 0.50/0.75mm² CRIMPED TO 0.75mm² ISO WIRE AND MATED TO MX123 0.64MM PIN: SEE TABLE BELOW
2. MX64 RCPT TERM A_g 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
0.75mm ²	11.3A	11.3A	9.5A	6.6A
0.50mm ²	10.0A	10.0A	8.3A	5.7A
0.35mm ²	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

6. CONTACT MOLEX AUTOMOTIVE FOR AVAILABLE CUSTOM PATTERNS OF CAVITIES OPEN FOR CIRCUITS - SEE GM DRAWING 13507496



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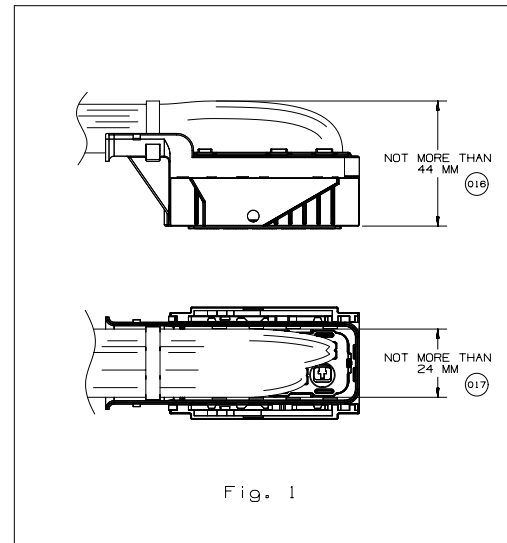
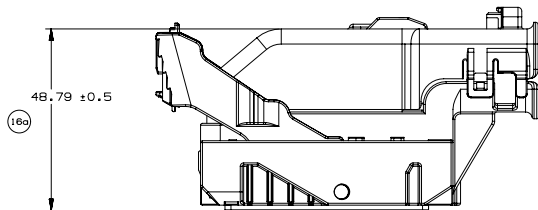
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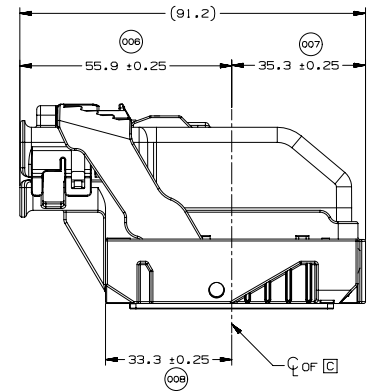
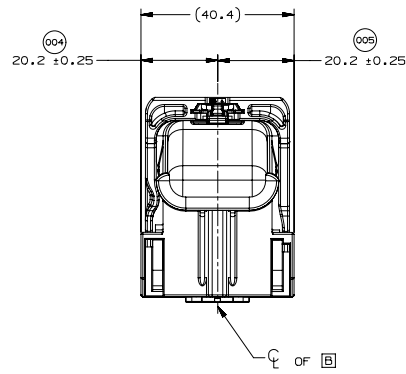
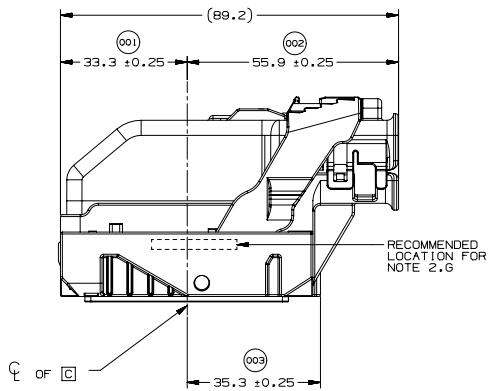


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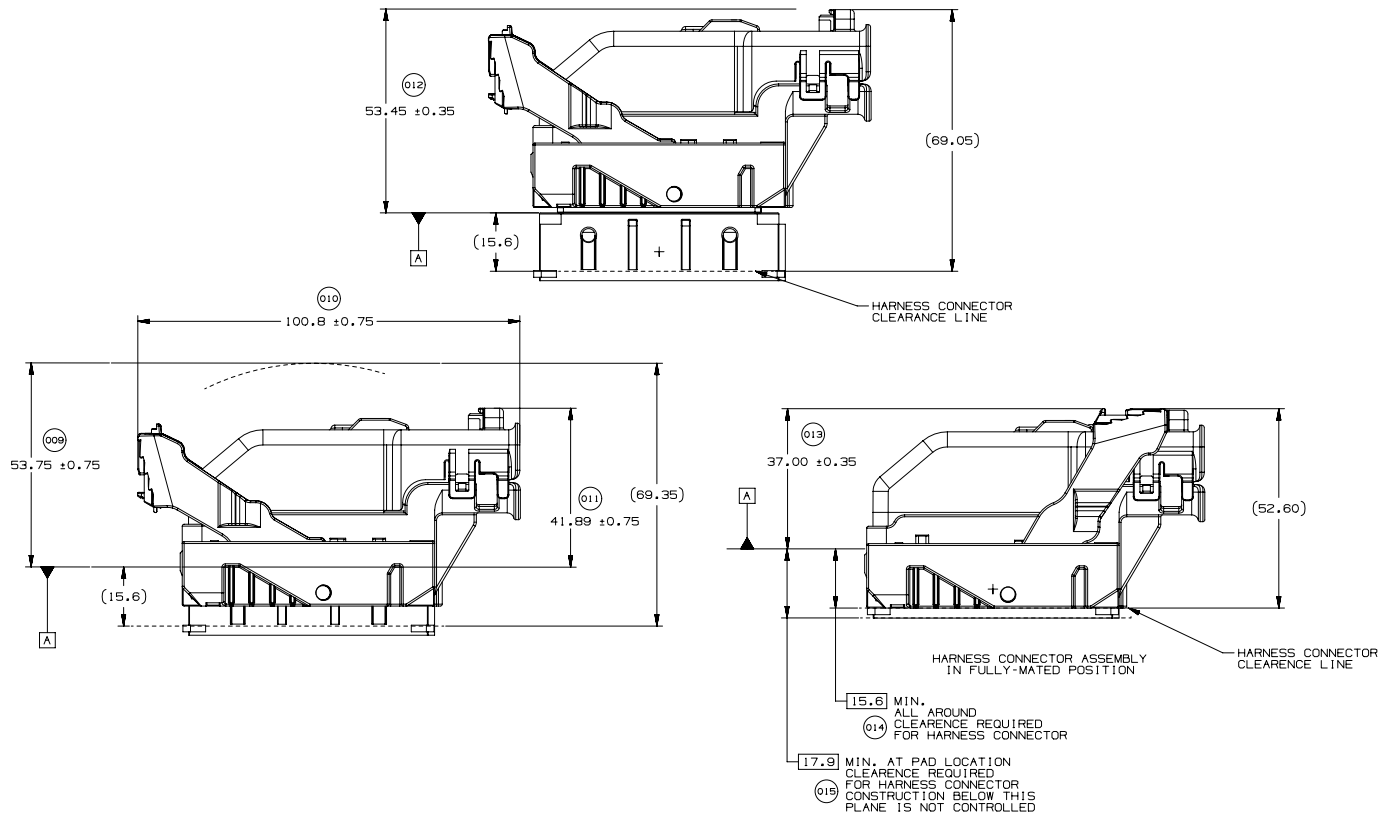
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LOCATION AND PACKAGING DIMENSIONS
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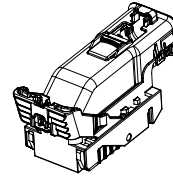
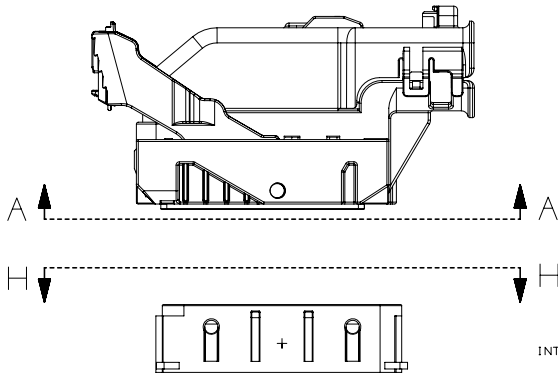
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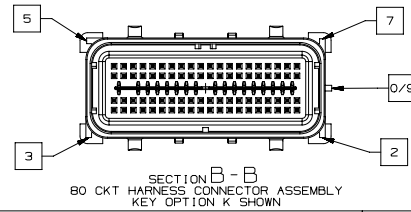
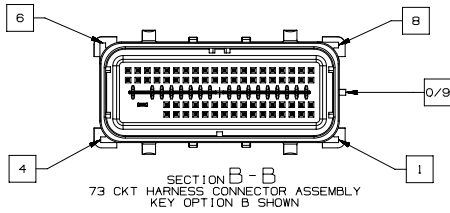
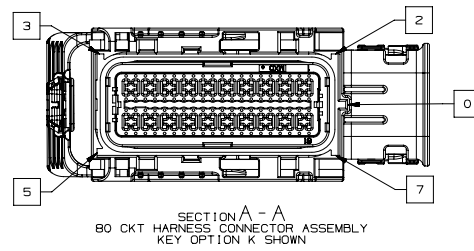
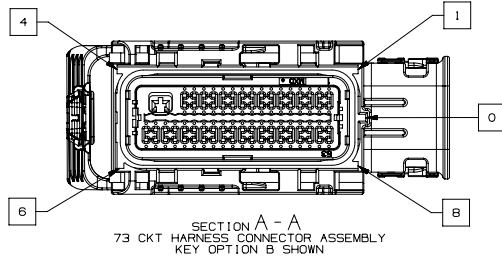
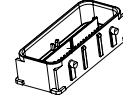
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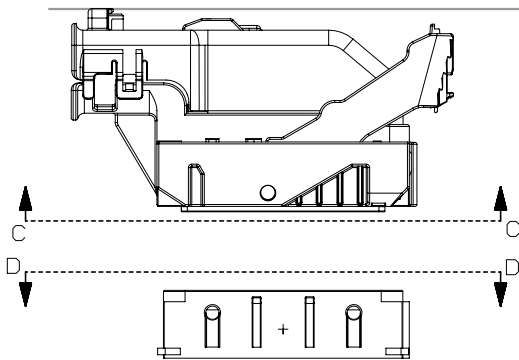
NOTE: REFERENCE THE COMPONENT TABLE
FOR KEY OPTIONS AND CONFIGURATIONS



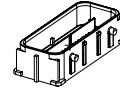
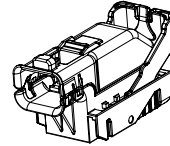
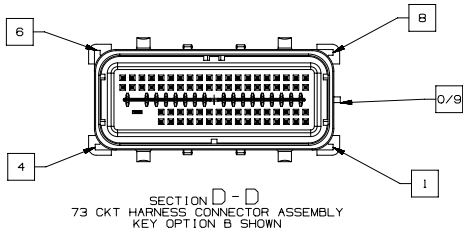
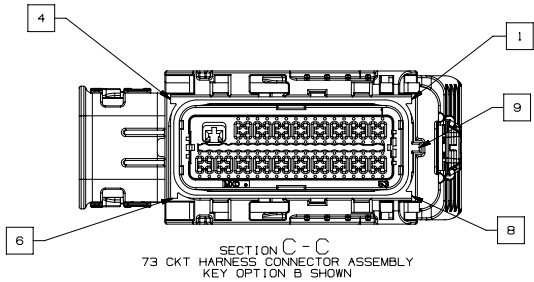
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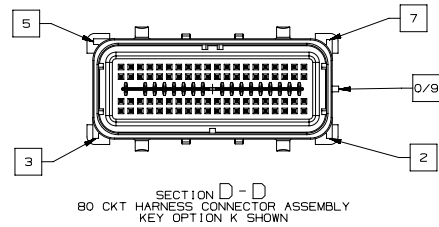
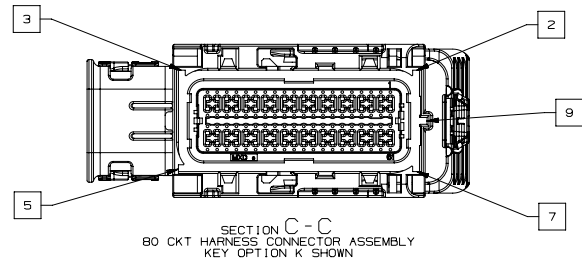
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INTERFACE SIDE SHOWN ON ALL SECTION VIEWS



NOTE: REFERENCE THE COMPONENT TABLE FOR KEY OPTIONS AND CONFIGURATIONS



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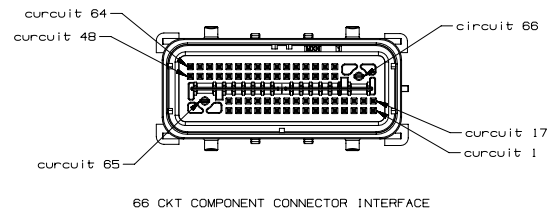
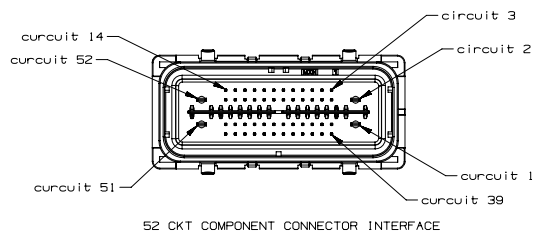
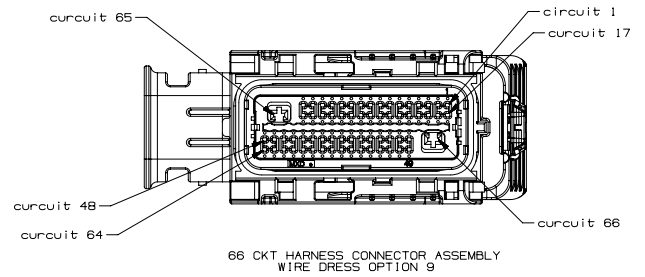
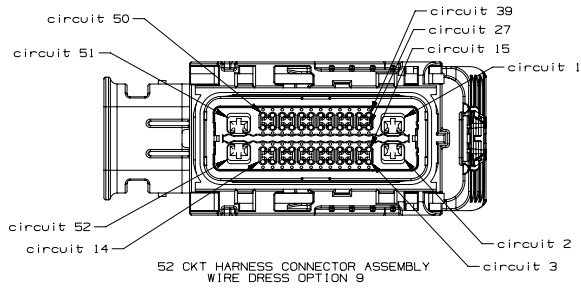
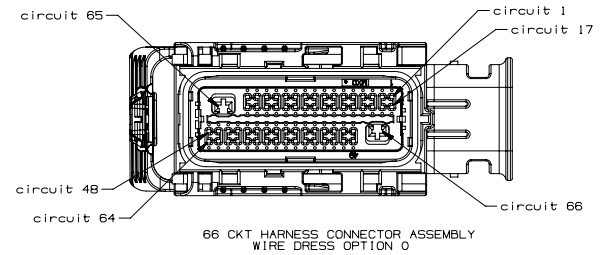
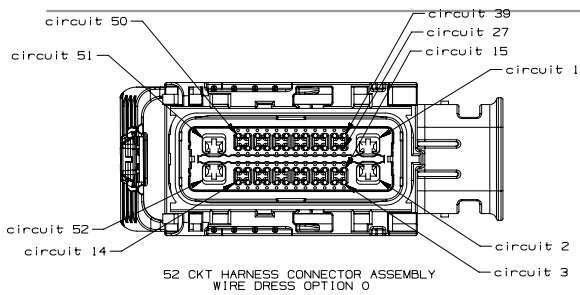
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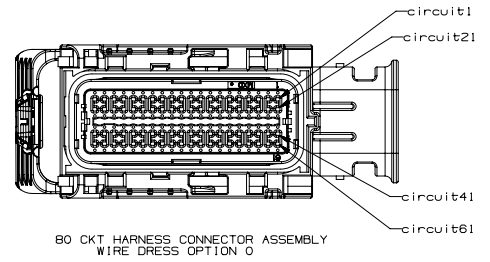
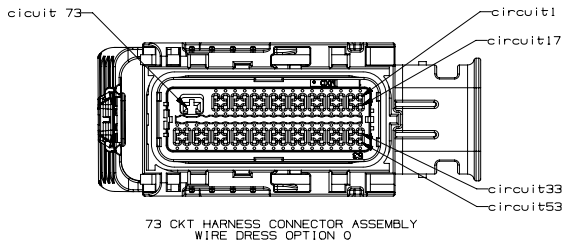
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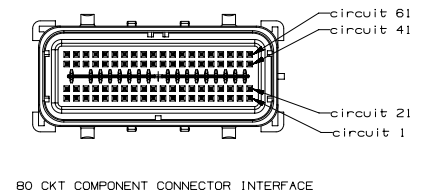
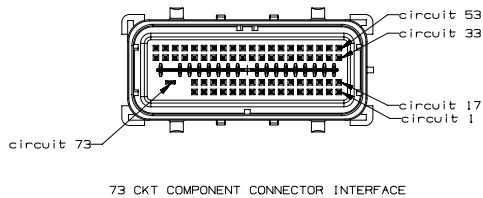
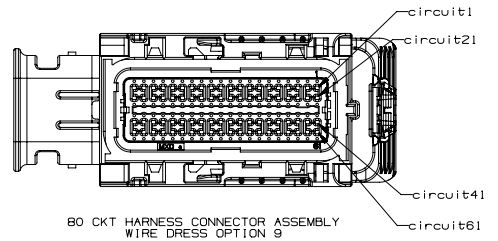
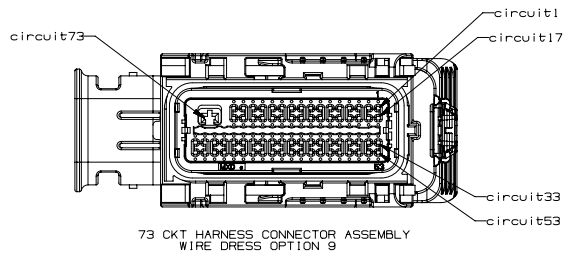
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INTERFACE SIDE SHOWN ON ALL VIEWS



PAGE TITLE
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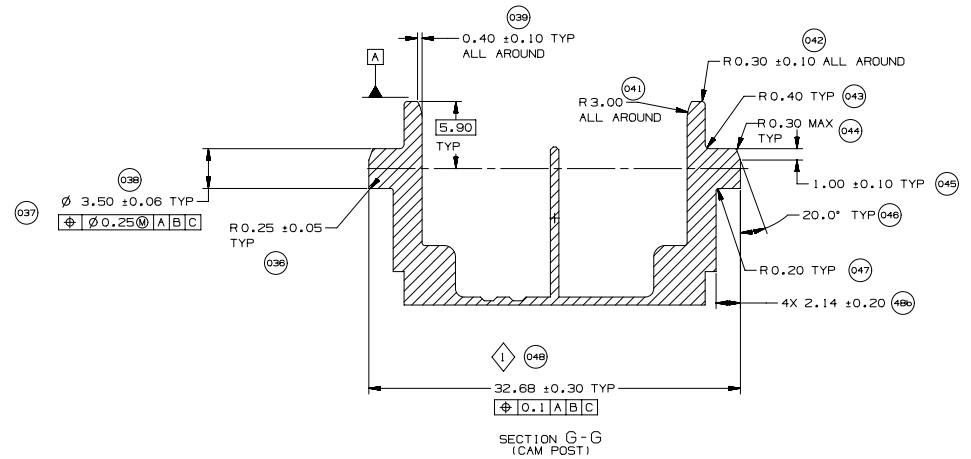
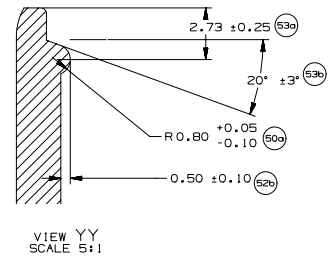
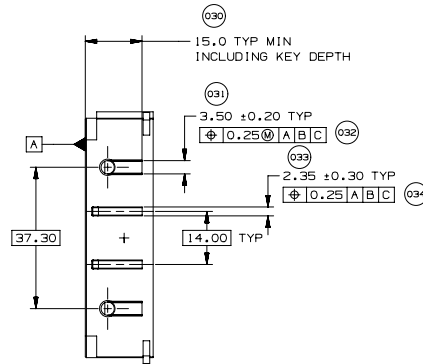
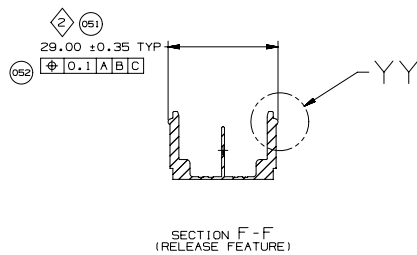
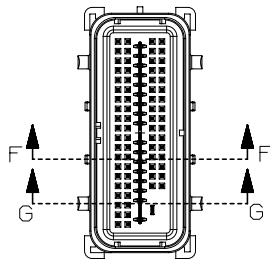
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PAGE NUMBER

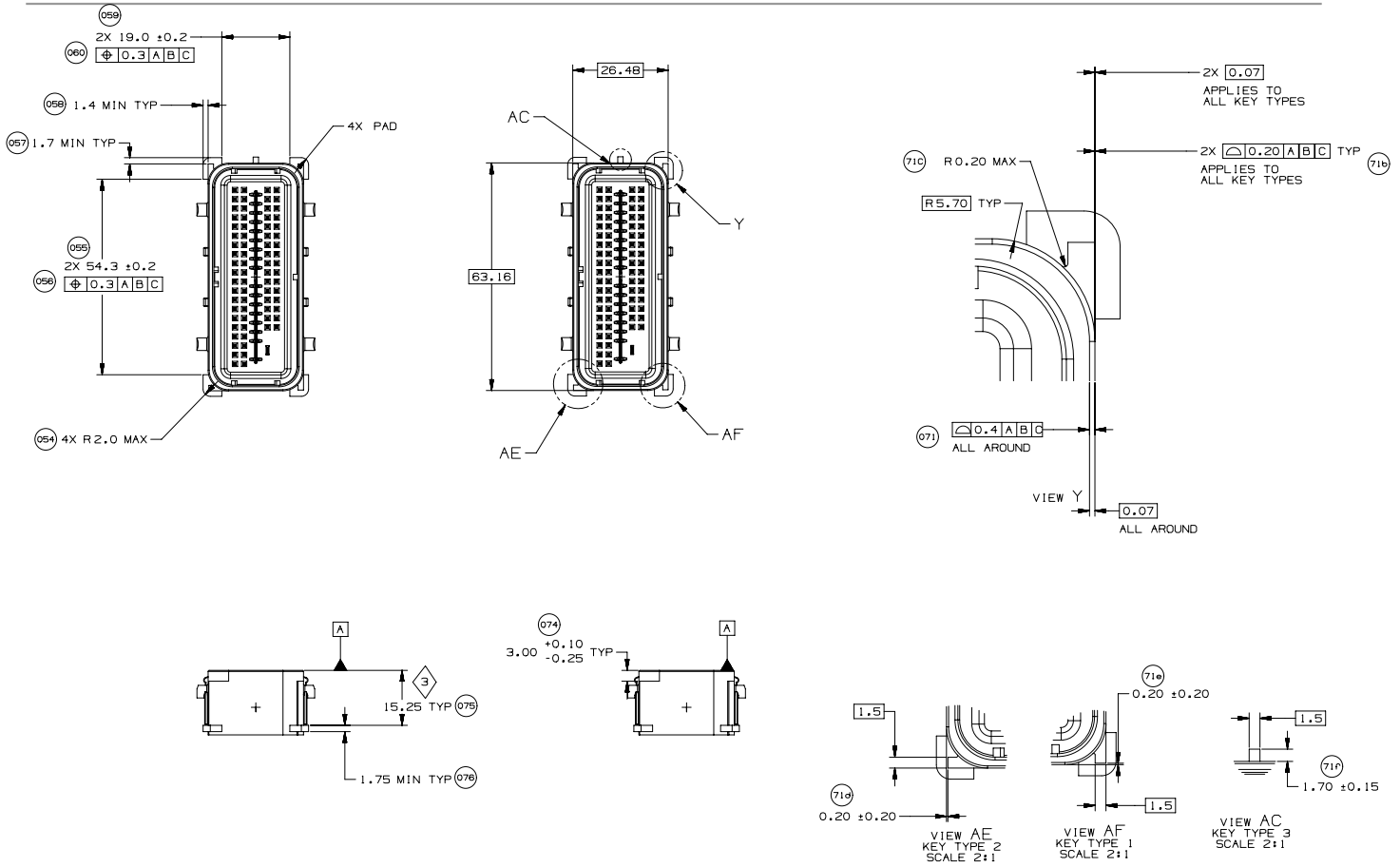
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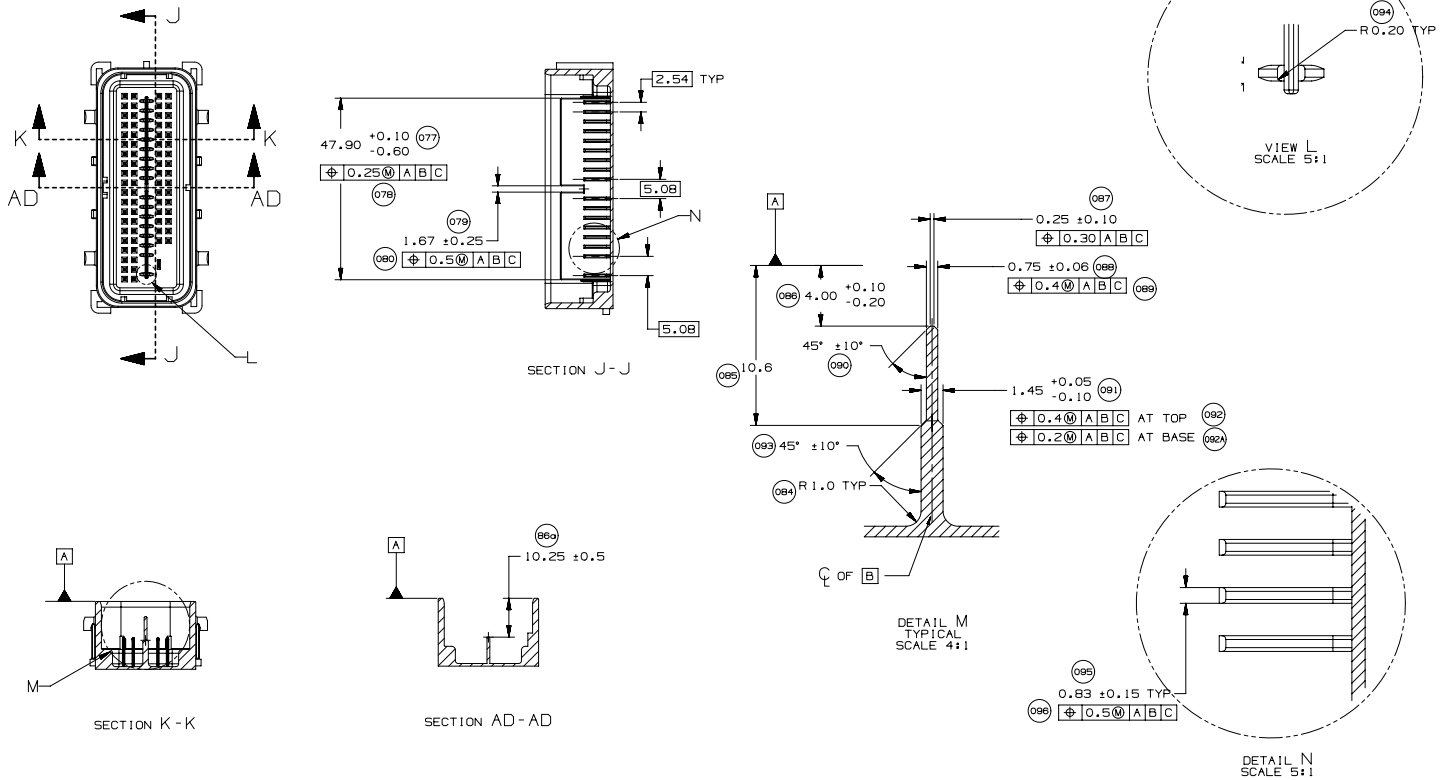
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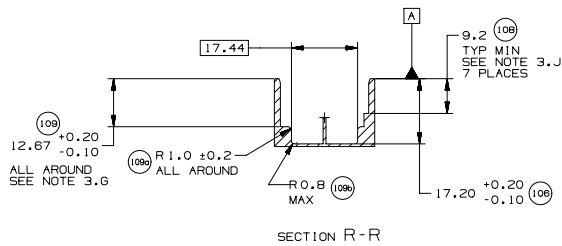
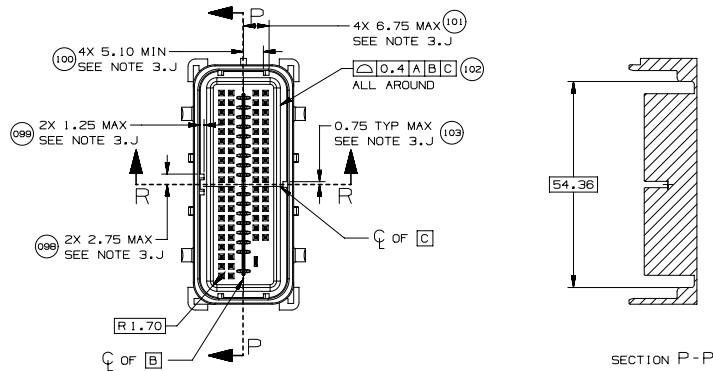
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PAGE TITLE
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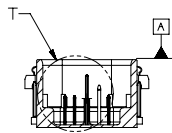
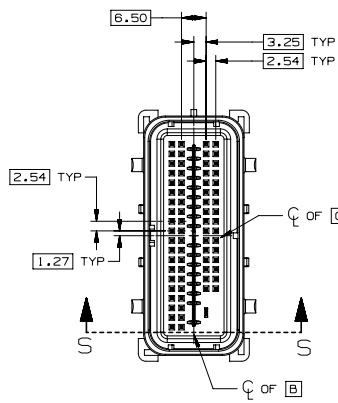
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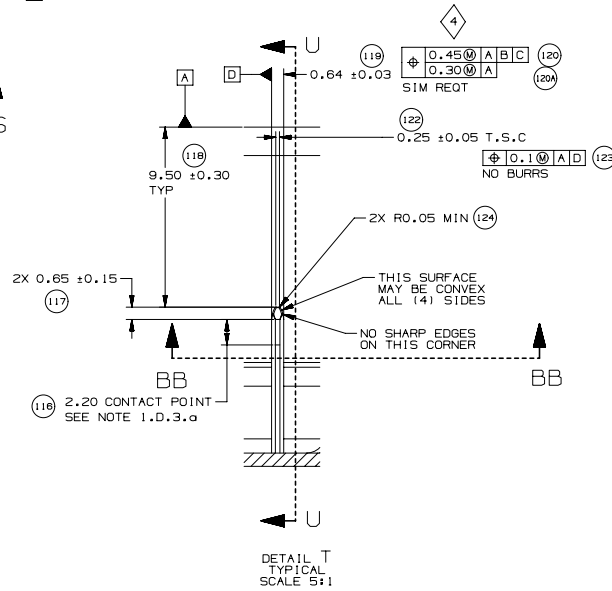
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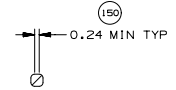
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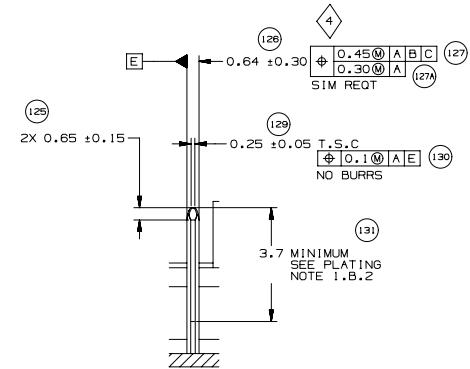
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DETAIL T
TYPICAL
SCALE 5:1



SECTION BB-BB



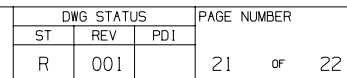
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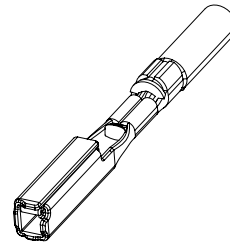
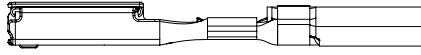
PAGE TITLE
COMPONENT CONNECTOR INTERFACE

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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	

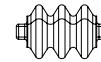


CAVITY PLUGS								
ITEM	MFG	MFG P/N	GM P/N RD	SIZE	COLOR	MFG DRAWING	PROD SPEC	APP SPEC
1	MOLEX	34586-0001	12674820	0.64	NATURAL	SD-34586-001	PS-34566-0000	AS-34566-001
2	YAZAKI	7158-3114-90	12674821	2.8	BLUE	7158-3114-90	YPES-11-04-062	YPES-15-299

ITEM 1



ITEM 2



PAGE TITLE
ADDITIONAL COMPONENTS REQUIRED

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