

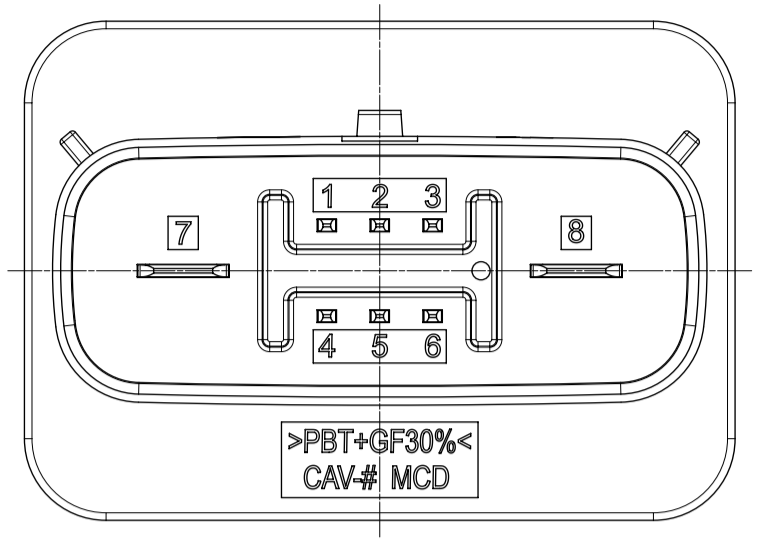
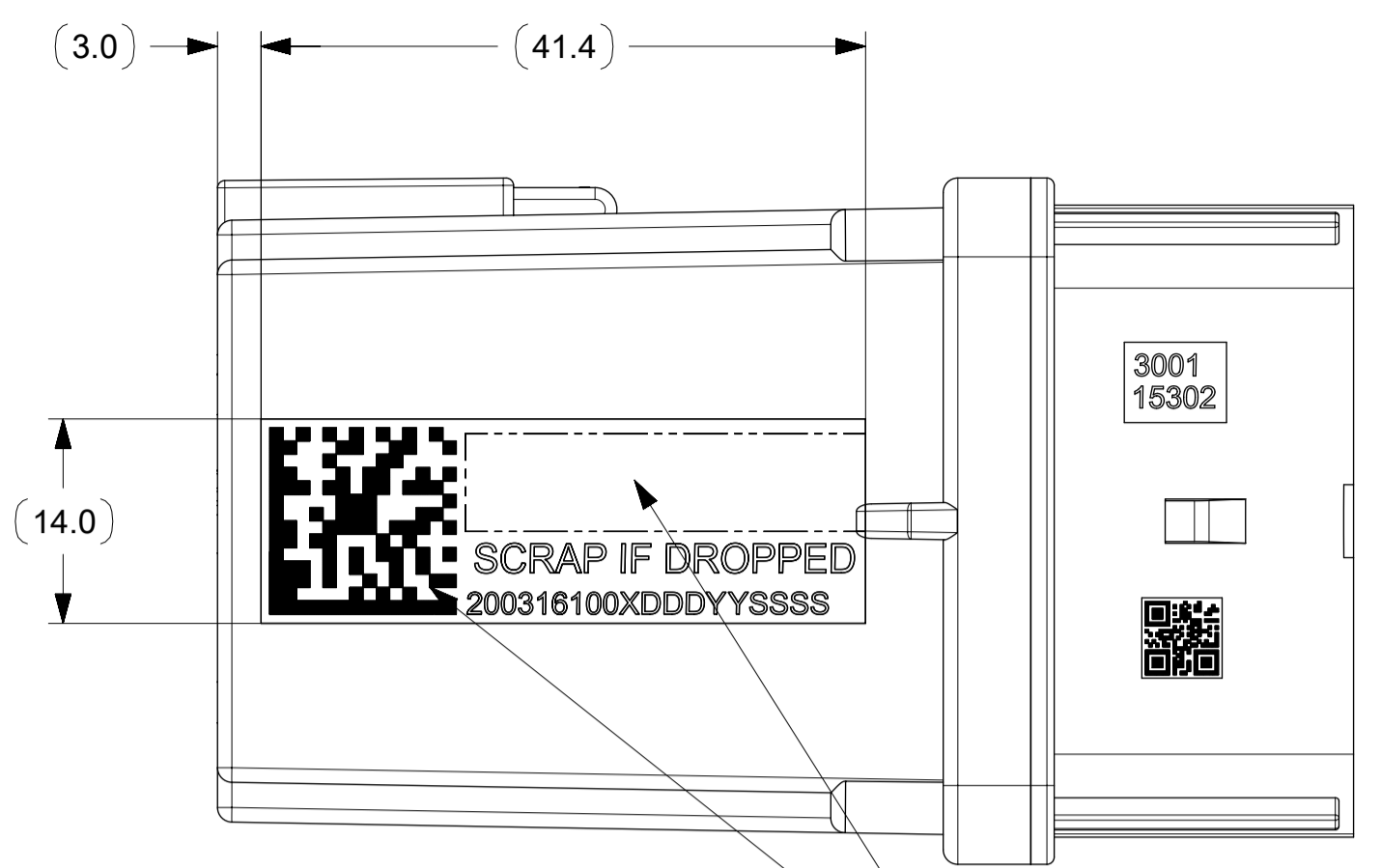
SCOPE OF PRODUCTS: .  
 THIS PRODUCT DRAWING IS FOR "GENERAL MARKET PRODUCTS" ONLY.

- NOTES:  
 1. GENERAL:  
 1.1 APPLICATION SPECIFICATION SEE: AS-200316100X  
 1.2 PRODUCT SPECIFICATION SEE: PS-200316100X  
 1.3 PACKAGING SPECIFICATION PER MOLEX DRAWING PK-2003168103  
 1.4 PARTS MUST BE IN COMPLIANCE TO MOLEX CHEMICAL SUBSTANCES FOR PRODUCTS AND PACKAGING SPECIFICATION: QEHS-699000-300 (FOR SUPPLIERS) OR QEHS-699000-301 (FOR CUSTOMERS) OR QEHS-699000-304 (INTERNAL)  
 1.5 DATA MUST BE SUBMITTED UNDER THE MOLEX PART NUMBER TO IMDS (COMPANY ID#13255)

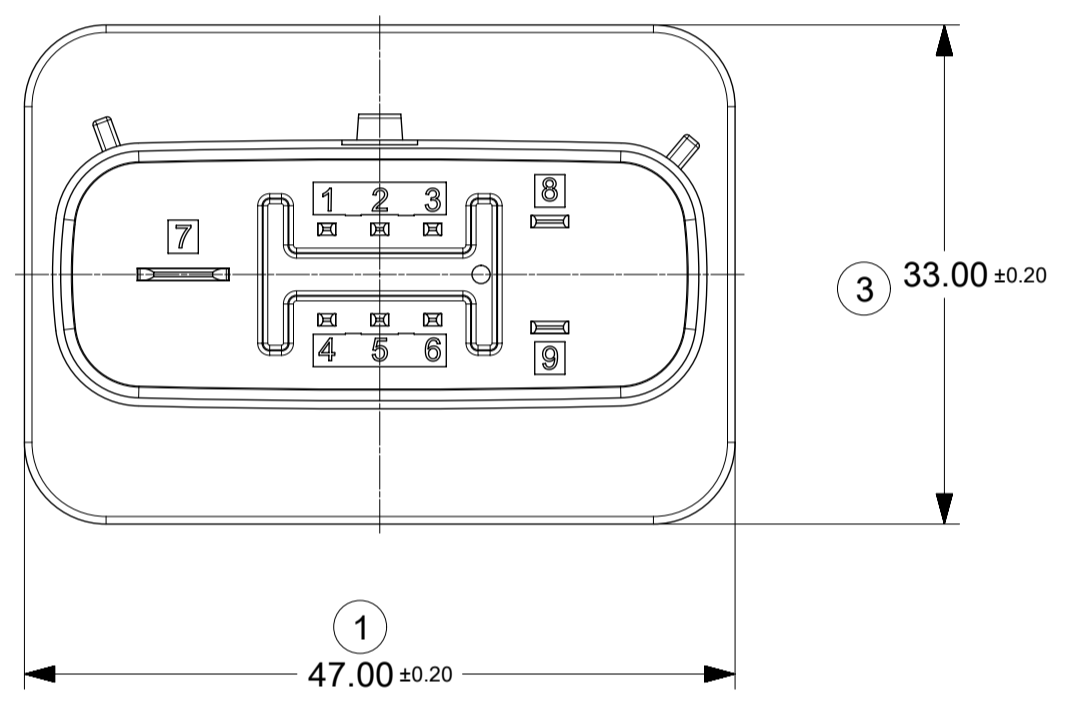
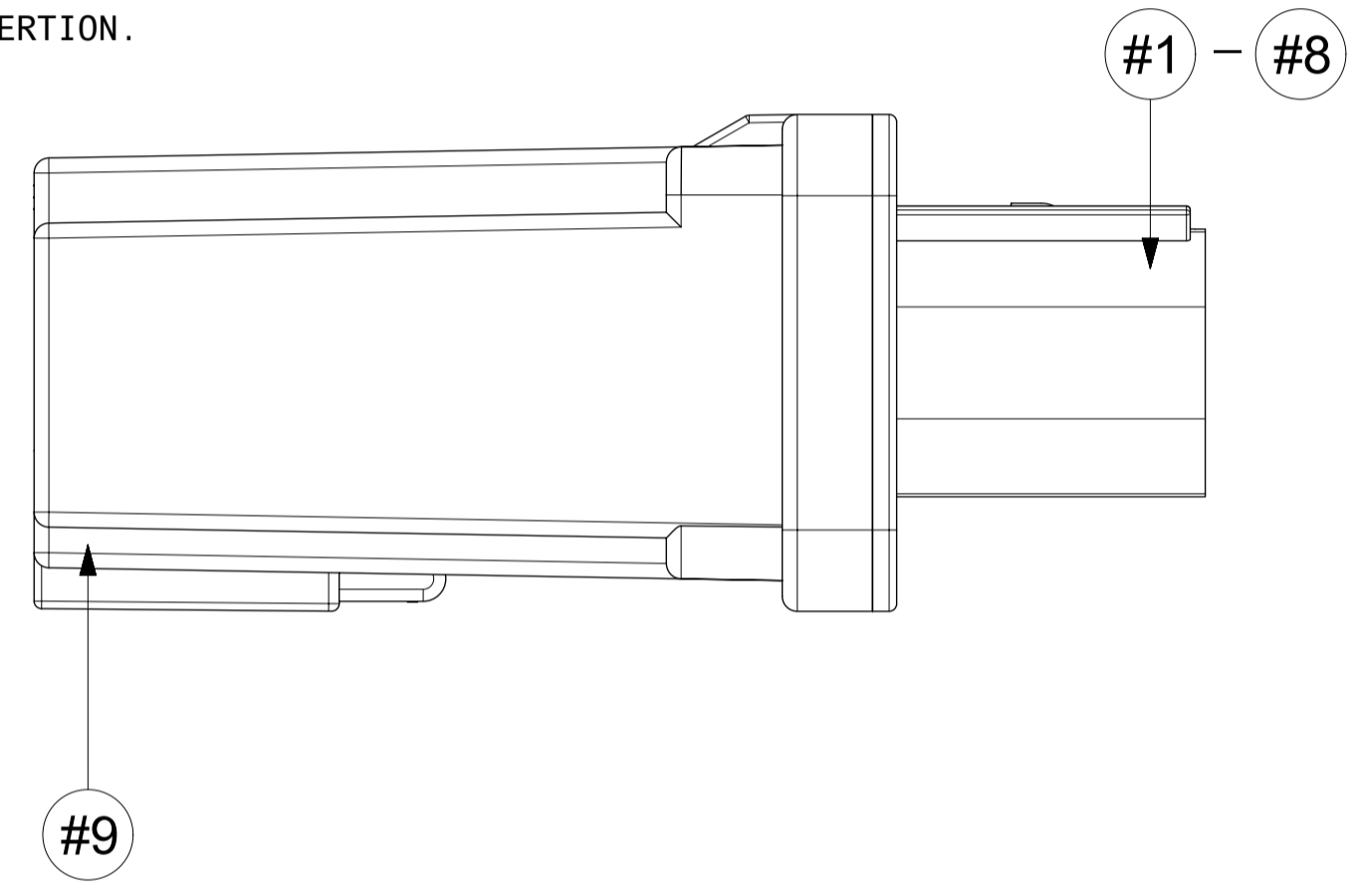
2. DESIGN - MATERIALS:  
 2.1 SEE BOM TABLE / COMPONENT DRAWINGS  
 2.2 PLATING: SEE COMPONENT DRAWINGS  
 1.5 BLADES: PER EWCAP-001 REV\_K: HARNESS SIDE  
 1.0-2.5 μm ELECTRO DEPOSITED TIN OVER 0.76-2.0 μm ELECTRODEPOSITED SULPHAMATE NICKEL  
 2.8 BLADES: PER EWCAP-001 REV\_K: HARNESS SIDE  
 1.0-2.5 μm ELECTRO DEPOSITED TIN OVER 0.76-2.0 μm ELECTRODEPOSITED SULPHAMATE NICKEL  
 6.3 BLADES (TIN): PER EWCAP-001 REV\_K: HARNESS SIDE  
 1.0-2.5 μm ELECTRO DEPOSITED TIN OVER 0.76-2.0 μm ELECTRODEPOSITED SULPHAMATE NICKEL  
 6.3 BLADES (AG): PER EWCAP-001 REV\_K: HARNESS SIDE  
 1.0-3.0 μm ELECTRO DEPOSITED SILVER OVER 1.0-2.0 μm ELECTRODEPOSITED SULPHAMATE NICKEL.  
 ANTI-TARNISH COATING: EVABRIGHT-S  
 2.3 FOR SILVER PLATED BLADES ONLY: ANTI-TARNISHING AGENTS MAY WIPE OFF PINS/BLADES DURING TERMINAL INSERTION. SOME GREY OR BLACK SPOTS MAY APPEAR ON SILVER PLATED PINS. ELECTRICAL PERFORMANCE IS NOT AFFECTED BY GREY OR BLACK TARNISH ON THE SILVER PLATING SURFACE. ACCEPTABLE SILVER PIN SURFACE CAN INCLUDE GREY OR BLACK TARNISH.

3. DESIGN - GEOMETRY:  
 3.1 THE 3-D CAD DATA IS BASIC (WITHOUT TOLERANCE) AND MUST BE TAKEN FROM THE DATA FILE AT ITS LATEST REVISION.  
 3.2 THE 3-D CAD DATA IS MASTER FOR THIS PART AND IS TO BE USED TO ESTABLISH DIMENSIONAL INFORMATION NOT SHOWN ON THIS DRAWING. ANY DIMENSIONS UNDERLINED INDICATE A CONFLICT WITH THE MODEL.  
 3.3 GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5-2009.  
 3.5 EDGES AND UNDIMENSIONED DETAILS PER ISO 13715  
 3.6 CORNERS SHOWN AS SHARP TO R0.2 MAX

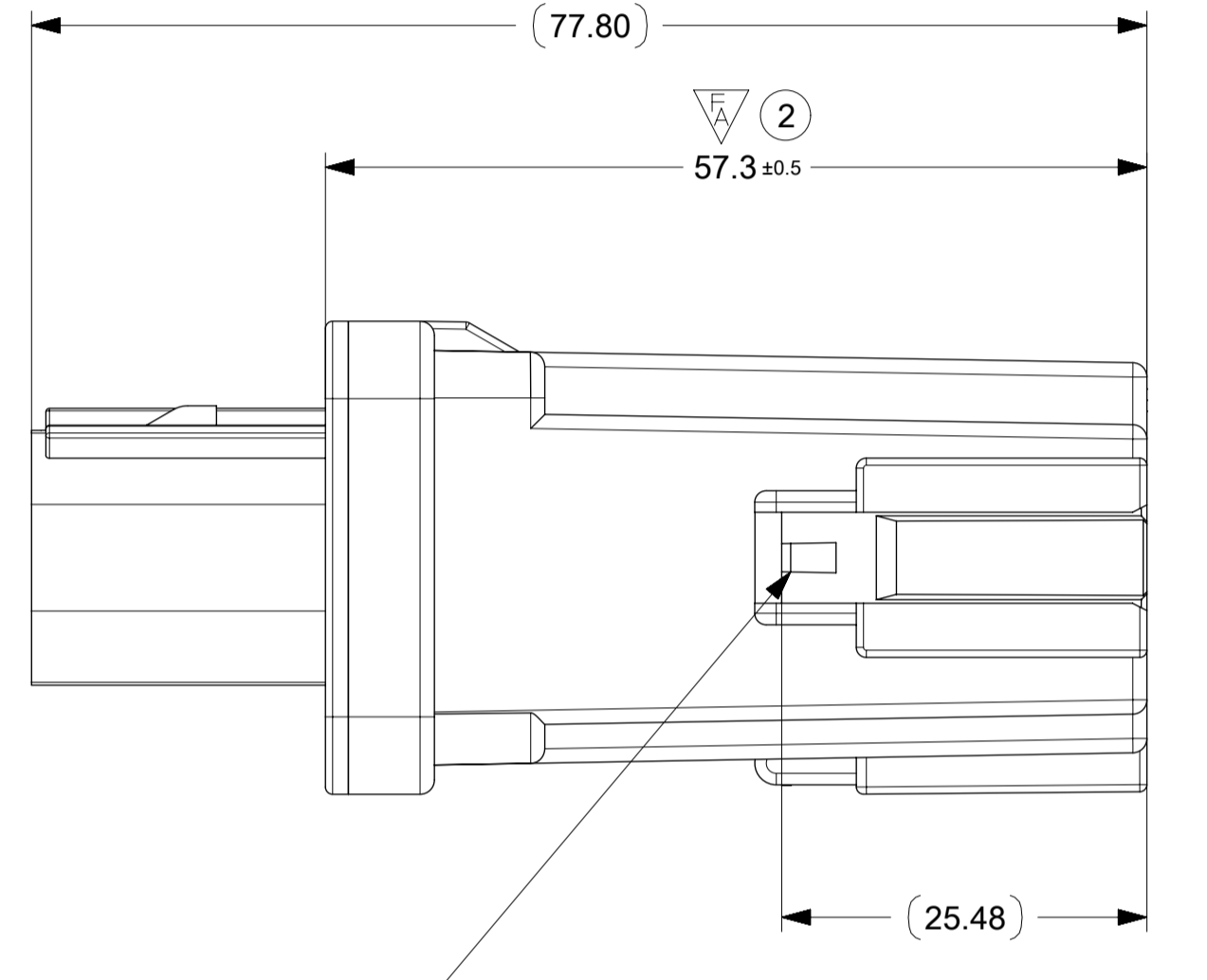
4. DESIGN - MANUFACTURING:  
 4.1 VISUAL DEFECTS SHALL MEET COSMETIC STANDARD PS-45499-002 (CLASS B)  
 4.2 TRACEABILITY LASER MARKING: INITIAL SAMPLE MUST BE APPROVED BY PRODUCT ENGR.  
 4.2.1 2D DATA MATRIX CODE (2D DMC)  
 - MARKING AND READING STANDARD: DATA MATRIX (ECC200)  
 - 14MM X 14MM SIZE  
 - INFORMATION TO BE ENCODED:  
 PPPP = LAST FOUR DIGITS OF MOLEX PART NUMBER  
 YY=YEAR  
 DDD=DAY OF THE YEAR  
 SSSS=INCREMENTAL SERIAL NUMBER  
 4.2.2 HUMAN READABLE CODE (HRC)  
 - PERMANENTLY APPLIED ON THE PART WITH APPROPRIATE FONT SIZE  
 - INFORMATION TO BE PRINTED:  
 10 DIGIT MOLEX PART NUMBER  
 5 DIGITS JULIAN MANUFACTURING DATE (DDYY)  
 4 DIGITS INCREMENTAL SERIAL NUMBER  
 4.3 ALL ASSEMBLYS MUST BE CHECKED FOR ELECTRICAL FUNCTIONALITY TEST SPEC.: SEE P/N TABLE  
 4.4 LEAK TEST SPECIFICATION: PRESSURE: -55 KPA (-8 PSI VACUUM)  
 - ACCEPTANCE CRITERIA: LESS THAN 5SCCM (IN THE ADHESIVE SIDE)  
 4.5 CLEANLINESS REQUIREMENTS (PARTICLES CONTAMINATION):  
 ACCORDING TO ISO 16232 FOR SURFACE AREA OF 1000 CM2:  
 - METALLIC PARTICLES = 1000 MICRON MAX.  
 - NONMETALLIC PARTICLES = UNLIMITED  
 - FIBERS MAXIMUM = UNLIMITED  
 - TOTAL MASS OF DEBRIS: LESS THAN 5 MG



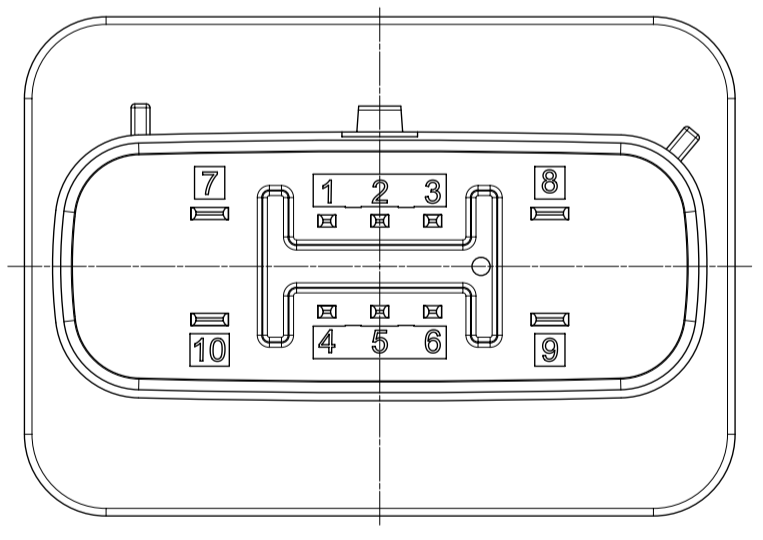
8-WAY KEY\_A



9-WAY KEY\_A



2X CLIP HOLDER:  
 EWCAP-005-11 (USCAR:11.0MM)  
 RECOMMANDED CLIPS: X-MAS TREE (OVAL TYPE)



10-WAY KEY\_A

ASSEMBLY P/N: FOR GENERAL MARKET			2003161101	2003161102	2003161103	2003161104	2003161121	2003161122
ITEM	PN	COMPONENT DESCRIPTION	QUANTITY					
1	2003169120	MPDB_BACK COVER	1	1	1	1	1	1
2	2003165001	MPDB_PCB_ASSY 8CKT KEY-B	1	-	-	-	-	-
3	2003165002	MPDB_PCB_ASSY 8CKT KEY-A	-	1	-	-	-	-
4	2003165003	MPDB_PCB_ASSY 8CKT KEY-C	-	-	1	-	-	-
5	2003165004	MPDB_PCB_ASSY 8CKT KEY-C	-	-	-	1	-	-
6	2003165021	MPDB_PCB_ASSY 8CKT KEY-A	-	-	-	-	1	-
7	2003165022	MPDB_PCB_ASSY 8CKT KEY-B	-	-	-	-	-	1

K	DEFINED SCOPE OF PRODUCTS, ADDED 2ND SOURCING COMPONENTS	ER628082
J3	UPDATED DIM#2 TOLERANCE, NOTE 1.3. ADDED LASER MARK FOR DIRECTIVE E-108	10883430
J2	ADDED SILVER TARNISH ON NOTE 2.1	10880906
J1	CHANGED MATERIAL CODE LOCATION: HEADER, COVER	10874497
J	UPDATED 2003161001: REVISED PCB REV. TO 2003166001_B	10869194
H1	UPDATED TOLERANCE IN DIM#2	10865432
H	UPDATED CIRCUIT CAVITIES, AND TOLERANCE IN DIM#2	10861527
G1	UPDATED 2003161003, BOM AND SCHEMATIC	10854955
G	UPDATED DRAWINGS AND ACTIVE 2003161006	10843561
F2	UPDATED DRAWINGS	10831784
F1	CORRECTION CONNECTOR P/N 160078-3023 TO 160078-3024	10823512
F	ACTIVE 2003161001, UPDATED DRAWING	10820253
E3	UPDATED SCHEMATIC	10804376
E2	UPDATED COMPONENTS AND CHANGED POSITION OF TRACEABILITY	10809144
E1	REVISED BOM TABLE AND FIXED TYPO	10802296
E	RELEASE MASS PRODUCTION BY MULTI CAVITY TOOLS	10788930
D	UPDATED DRAWING: REVISED NOTES, SCHEMATIC	10781685
C1	UPDATED / CREATED DRAWING	10765166
C	UPDATED DRAWING SAP	10754450
B1	UPDATED PCB SCHEMATIC DRAWING	-
B	REVISED: #4 UPDATED DRAWING	10721011
A1, A2	REVISED VIEWS	10704115
A	RELEASE PRODUCTION	10703504
REV.	DESCRIPTIONS	SAP NO.

<b>SYMBOLS</b> THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION DIMENSION UNITS: mm SCALE: 2:1 GENERAL TOLERANCES (UNLESS SPECIFIED): ANGULAR TOL ± 3.0° 4 PLACES ± 3 PLACES ± 2 PLACES ± 0.1 1 PLACE ± 0.2 0 PLACES ± 0.25 DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS THIRD ANGLE PROJECTION DRAWING SERIES: A1-SIZE 200316	CURRENT REV DESC: EC NO: 628082 DRWN: ECHEONG 2019/12/09 CHK'D: RBAUMAN 2019/12/12 APPR: RBAUMAN 2019/12/12 INITIAL REVISION: DRWN: ECHEONG 2016/04/05 APPR: RBAUMAN 2016/08/22		 MPDB ASSY_DWG PRODUCT CUSTOMER DRAWING	
	DOCUMENT NUMBER: 2003161000 DOC TYPE: PSD DOC PART: 000 REVISION: K			

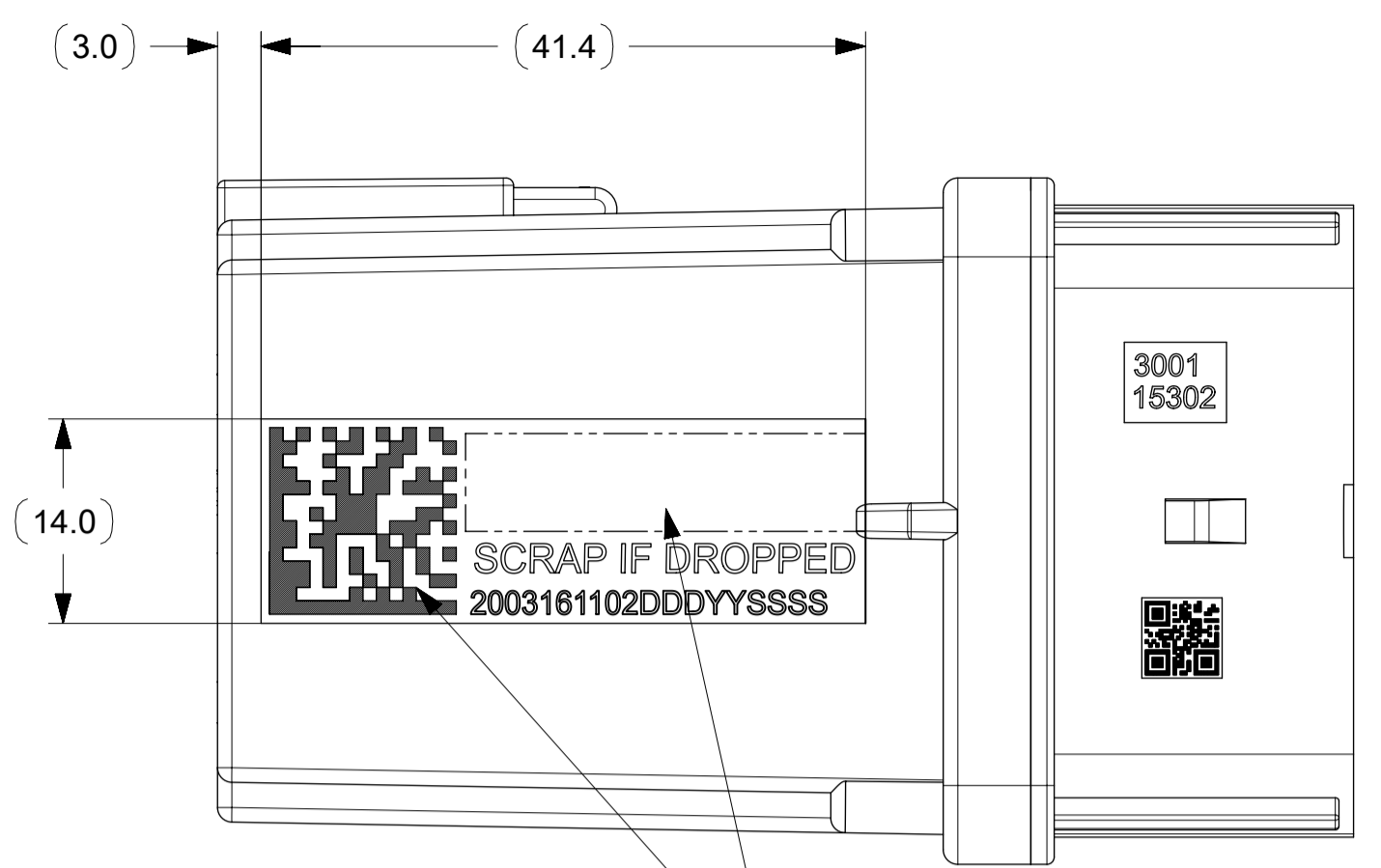
2003161122	A	GENERAL MARKET	MPDB ASSY 8W KEY-B	B	8-WAY (6X1.5 & 2X6.3)	1.5:TIN / 6.3:TIN	MOLEX: 160078-3007	TS-2003161022	LASER M. (14X14)	ACTIVE
2003161121	A	GENERAL MARKET	MPDB ASSY 8W KEY-A	A	8-WAY (6X1.5 & 2X6.3)	1.5:TIN / 6.3:TIN	MOLEX: 160078-3006	TS-2003161021	LASER M. (14X14)	ACTIVE
2003161104	A	GENERAL MARKET	MPDB ASSY 8W KEY-C	C	8-WAY (6X1.5 & 2X6.3)	1.5:TIN / 6.3:TIN	MOLEX: 160078-3026	TS-2003161004	LASER M. (14X14)	INACTIVE
2003161103	A1	GENERAL MARKET	MPDB ASSY 8W KEY-C	C	8-WAY (6X1.5 & 2X6.3)	1.5:TIN / 6.3:TIN	MOLEX: 160078-3026	TS-2003161003	LASER M. (14X14)	ACTIVE
2003161102	B	GENERAL MARKET	MPDB ASSY 8W KEY-A	A	8-WAY (6X1.5 & 2X6.3)	1.5:TIN / 6.3:TIN	MOLEX: 160078-3022	TS-2003161002	LASER M. (14X14)	ACTIVE
2003161101	B	GENERAL MARKET	MPDB ASSY 8W KEY-B	B	8-WAY (6X1.5 & 2X6.3)	1.5:TIN / 6.3:AG	MOLEX: 160078-3024	TS-2003161001	LASER M. (14X14)	ACTIVE
MOLEX P/N	REV	CUSTOMER P/N	DESCRIPTION	KEY WAY	HEADER PIN OUT	BLADE PLATING	CONNECTOR P/N	EOL TEST SPEC.	TRACEABILITY	STATUS



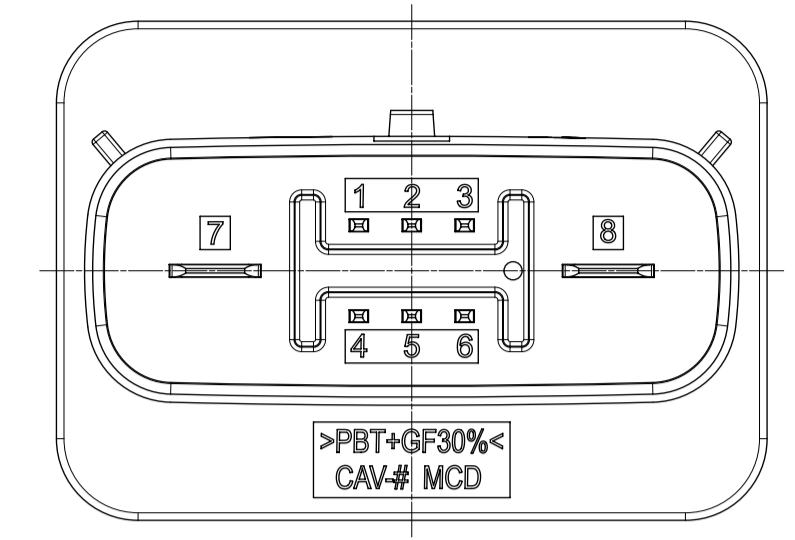
- NOTES:**
- GENERAL:
    - APPLICATION SPECIFICATION SEE: AS-200316100X
    - PRODUCT SPECIFICATION SEE: PS-200316100X
    - PACKAGING SPECIFICATION PER MOLEX DRAWING PK-2003168103
    - PARTS MUST BE IN COMPLIANCE TO MOLEX CHEMICAL SUBSTANCES FOR PRODUCTS AND PACKAGING SPECIFICATION: QEHS-699000-300 (FOR SUPPLIERS) OR QEHS-699000-301 (FOR CUSTOMERS) OR QEHS-699000-304 (INTERNAL)
    - DATA MUST BE SUBMITTED UNDER THE MOLEX PART NUMBER TO IMDS (COMPANY ID#13255)
  - DESIGN - MATERIALS:
    - SEE BOM TABLE / COMPONENT DRAWINGS
    - PLATING: SEE COMPONENT DRAWINGS
      - BLADES: PER EWCAP-001 REV\_K: HARNESS SIDE
        - 1.0-2.5 μm ELECTRO DEPOSITED TIN OVER 0.76-2.0 μm ELECTRODEPOSITED SULPHAMATE NICKEL
      - BLADES: PER EWCAP-001 REV\_K: HARNESS SIDE
        - 1.0-2.5 μm ELECTRO DEPOSITED TIN OVER 0.76-2.0 μm ELECTRODEPOSITED SULPHAMATE NICKEL
      - BLADES (TIN): PER EWCAP-001 REV\_K: HARNESS SIDE
        - 1.0-2.5 μm ELECTRO DEPOSITED TIN OVER 0.76-2.0 μm ELECTRODEPOSITED SULPHAMATE NICKEL
      - BLADES (AG): PER EWCAP-001 REV\_K: HARNESS SIDE
        - 1.0-3.0 μm ELECTRO DEPOSITED SILVER OVER 1.0-2.0 μm ELECTRODEPOSITED SULPHAMATE NICKEL.
    - FOR SILVER PLATED BLADES ONLY: ANTI-TARNISHING AGENTS MAY WIPE OFF PINS/BLADES DURING TERMINAL INSERTION. SOME GREY OR BLACK SPOTS MAY APPEAR ON SILVER PLATED PINS. ELECTRICAL PERFORMANCE IS NOT AFFECTED BY GREY OR BLACK TARNISH ON THE SILVER PLATING SURFACE. ACCEPTABLE SILVER PIN SURFACE CAN INCLUDE GREY OR BLACK TARNISH.

- DESIGN - GEOMETRY:
  - THE 3-D CAD DATA IS BASIC (WITHOUT TOLERANCE) AND MUST BE TAKEN FROM THE DATA FILE AT ITS LATEST REVISION.
  - THE 3-D CAD DATA IS MASTER FOR THIS PART AND IS TO BE USED TO ESTABLISH DIMENSIONAL INFORMATION NOT SHOWN ON THIS DRAWING. ANY DIMENSIONS UNDERLINED INDICATE A CONFLICT WITH THE MODEL.
  - GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5-2009.
  - EDGES AND UNDIMENSIONED DETAILS PER ISO 13715
  - CORNERS SHOWN AS SHARP TO R0.2 MAX

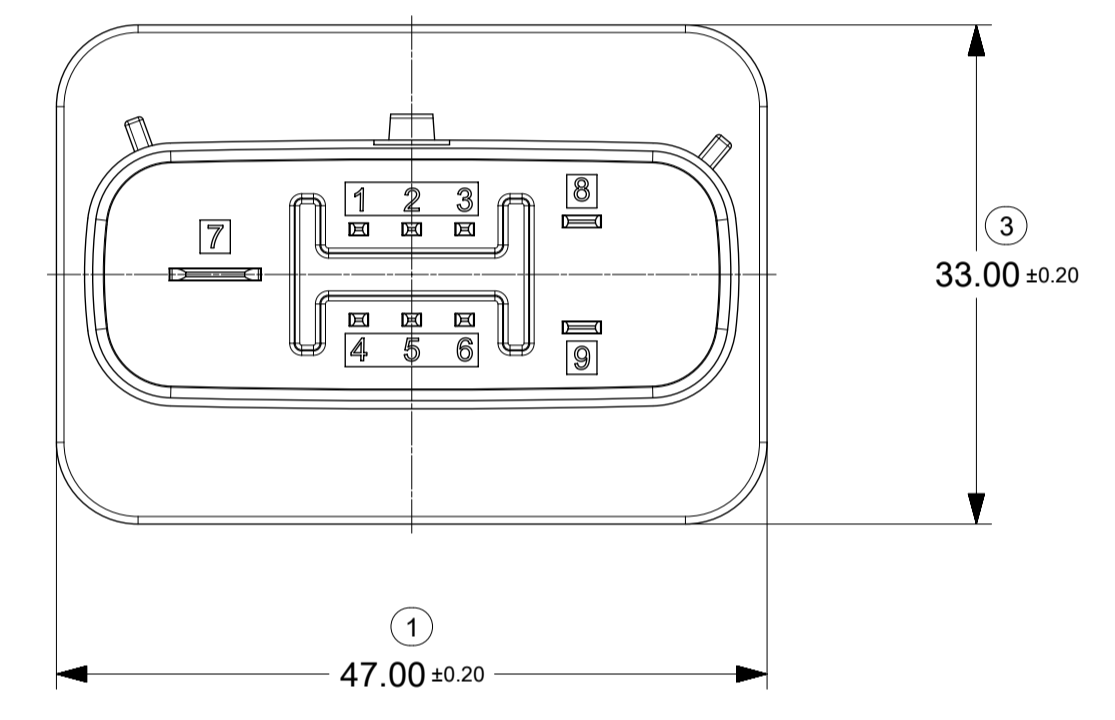
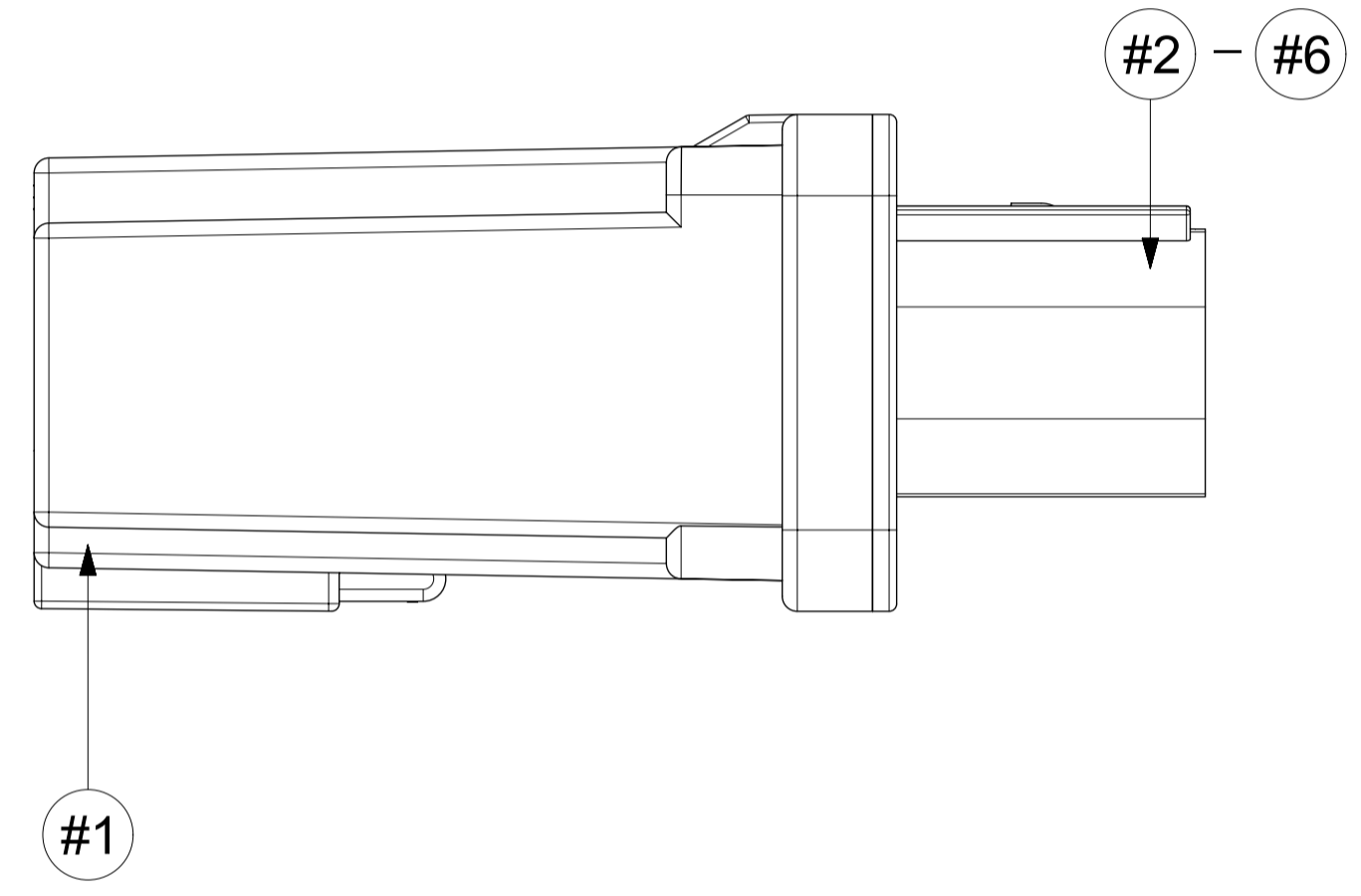
- DESIGN - MANUFACTURING:
  - VISUAL DEFECTS SHALL MEET COSMETIC STANDARD PS-45499-002 (CLASS B)
  - TRACEABILITY LASER MARKING: INITIAL SAMPLE MUST BE APPROVED BY PRODUCT ENGR.
    - 2D DATA MATRIX CODE (2D DMC)
      - MARKING AND READING STANDARD: DATA MATRIX (ECC200)
      - 14MM X 14MM SIZE
      - INFORMATION TO BE ENCODED:
        - PPPP = LAST FOUR DIGITS OF MOLEX PART NUMBER
        - YY=YEAR
        - DDD=DAY OF THE YEAR
        - SSSS=INCREMENTAL SERIAL NUMBER
    - HUMAN READABLE CODE (HRC)
      - PERMANENTLY APPLIED ON THE PART WITH APPROPRIATE FONT SIZE
      - INFORMATION TO BE PRINTED:
        - 10 DIGIT MOLEX PART NUMBER
        - 5 DIGITS JULIAN MANUFACTURING DATE (DDYY)
        - 4 DIGITS INCREMENTAL SERIAL NUMBER
  - ALL ASSEMBLYS MUST BE CHECKED FOR ELECTRICAL FUNCTIONALITY TEST SPEC.: SEE P/N TABLE
  - LEAK TEST SPECIFICATION: PRESSURE: -55 KPA (-8 PSI VACUUM)
    - ACCEPTANCE CRITERIA: LESS THAN 5SCCM (IN THE ADHESIVE SIDE)
  - CLEANLINESS REQUIREMENTS (PARTICLES CONTAMINATION): ACCORDING TO ISO 16232 FOR SURFACE AREA OF 1000 CM2:
    - METALLIC PARTICLES = 1000 MICRON MAX.
    - NONMETALLIC PARTICLES = UNLIMITED
    - FIBERS MAXIMUM = UNLIMITED
    - TOTAL MASS OF DEBRIS: LESS THAN 5 MG



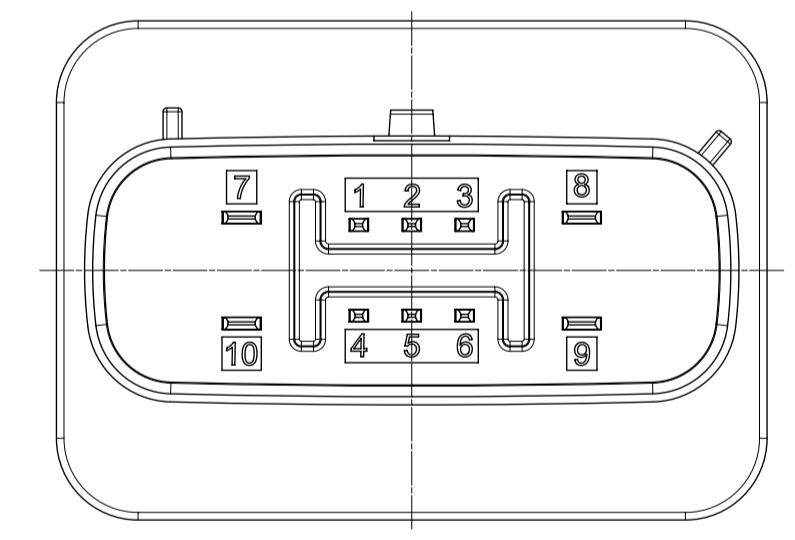
- LASER MARKING: SEE NOTE 4.2.1 - 4.2.2
- BOX AREA: OPTIONAL CONSTRUCTION PER REQUIREMENT: SEE PN TABLE



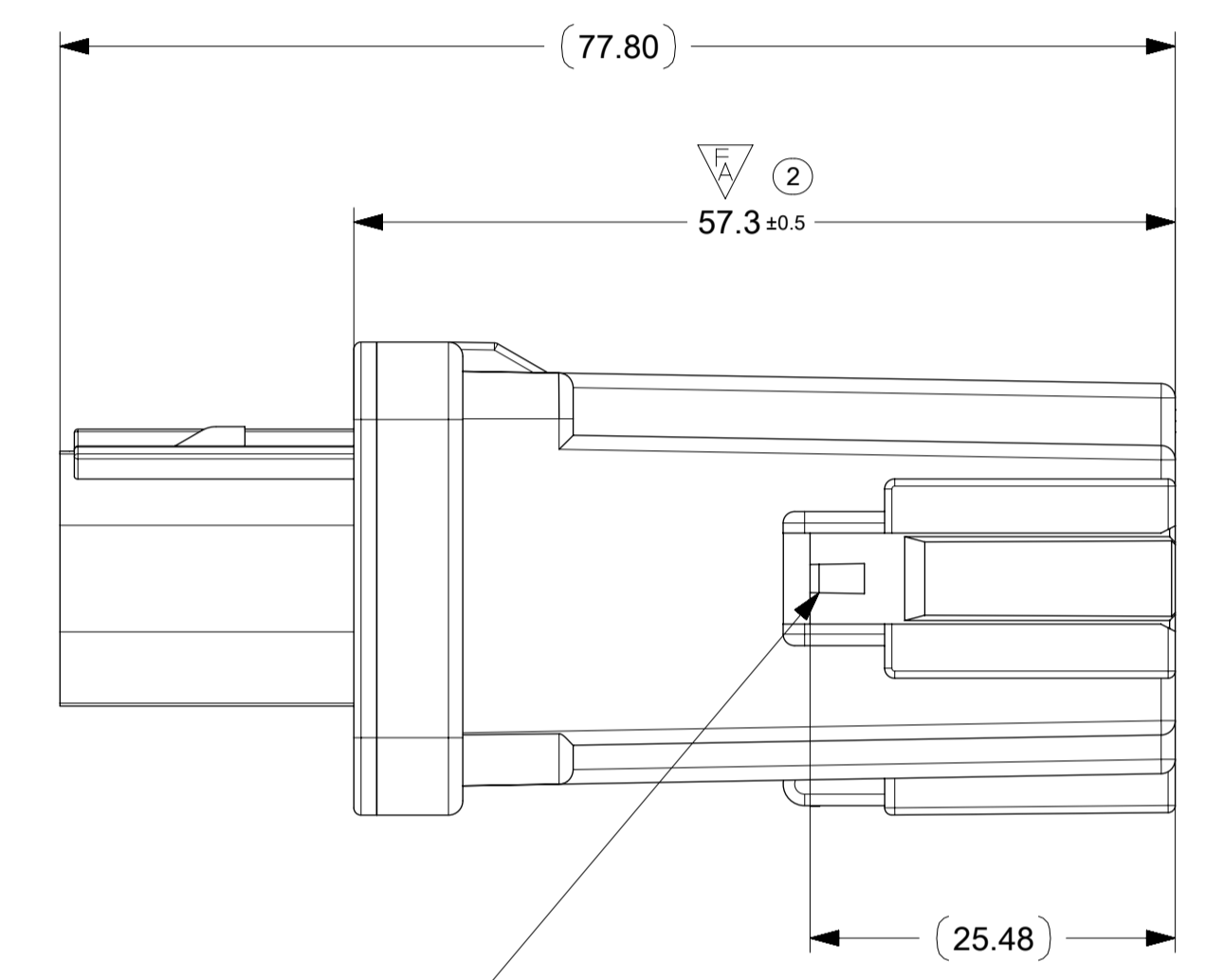
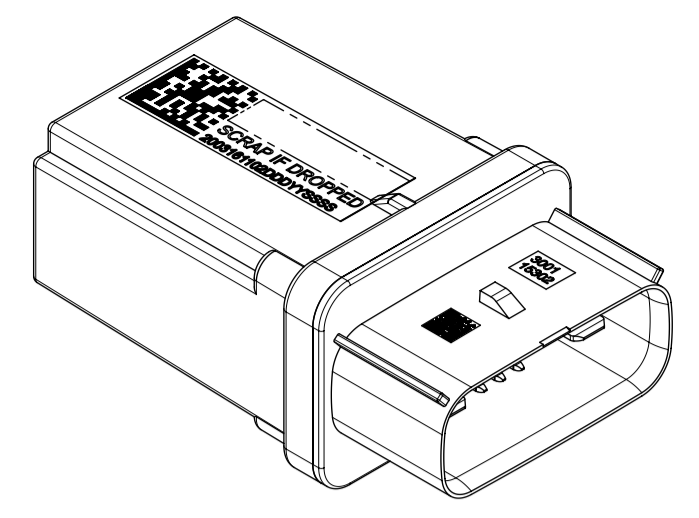
8-WAY KEY\_A: 200316-1102



9-WAY KEY\_A: TBD



10-WAY KEY\_A: TBD



2X CLIP HOLDER:  
 EWCAP-005-11 (USCAR:11.0MM)  
 RECOMMENDED CLIPS: X-MAS TREE (OVAL TYPE)

**BOM TABLE**

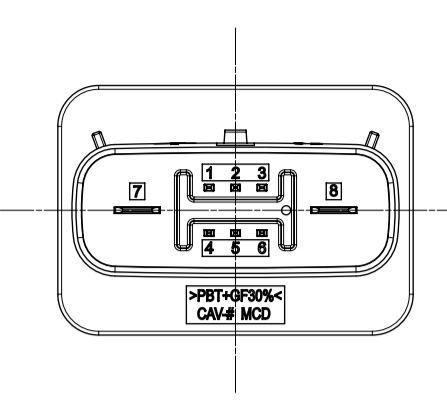
ASSEMBLY P/N			2003161101	2003161102	2003161103	2003161121	2003161122
STATUS			ACTIVE	ACTIVE	ACTIVE	ACTIVE	ACTIVE
ITEM	PN	COMPONENT DESCRIPTION	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
1	2003169120	MPDB_MOD_BCK-CVR	1	1	1	1	1
2	2003165001	MPDB_MOD_PCB_ASSY 8CKT KEY-B	1	-	-	-	-
3	2003165002	MPDB_MOD_PCB_ASSY 8CKT KEY-A	-	1	-	-	-
4	2003165003	MPDB_MOD_PCB_ASSY 8CKT KEY-C	-	-	1	-	-
5	2003165021	MPDB_MOD_PCB_ASSY 8CKT KEY-A	-	-	-	1	-
6	2003165022	MPDB_MOD_PCB_ASSY 8CKT KEY-B	-	-	-	-	1

B1	UPDATED PART DESCRIPTIONS	ER614434
B	ADDED 2003161121, 1122	ER608569
A	RELEASE PRODUCTION	10886196
REV.	DESCRIPTIONS	SAP NO.

2003161122	A	MPDB_ASSY 8CKT KEY-B GM2	B	8-WAY (6X1.5 & 2X6.3)	1.5:TIN / 6.3:TIN	MOLEX: 160078-3007	TS-2003161022	LASER MARKING	TBD
2003161121	A	MPDB_ASSY 8CKT KEY-A GM2	A	8-WAY (6X1.5 & 2X6.3)	1.5:TIN / 6.3:TIN	MOLEX: 160078-3006	TS-2003161021	LASER MARKING	TBD
2003161103	A1	MPDB_ASSY 8CKT KEY-C GM1	C	8-WAY (6X1.5 & 2X6.3)	1.5:TIN / 6.3:TIN	MOLEX: 160078-3026	TS-2003161003	LASER MARKING	TBD
2003161102	A1	MPDB_ASSY 8CKT KEY-A GM1	A	8-WAY (6X1.5 & 2X6.3)	1.5:TIN / 6.3:TIN	MOLEX: 160078-3022	TS-2003161002	LASER MARKING	TBD
2003161101	A1	MPDB_ASSY 8CKT KEY-B GM1	B	8-WAY (6X1.5 & 2X6.3)	1.5:TIN / 6.3:AG	MOLEX: 160078-3024	TS-2003161001	LASER MARKING	TBD
MOLEX P/N	REV	DESCRIPTION	KEY WAY	HEADER PIN OUT	HEADER BLADE PLATING	CONNECTOR P/N	EOL TEST SPEC.	TRACEABILITY	LASER MARK (BOX AREA)

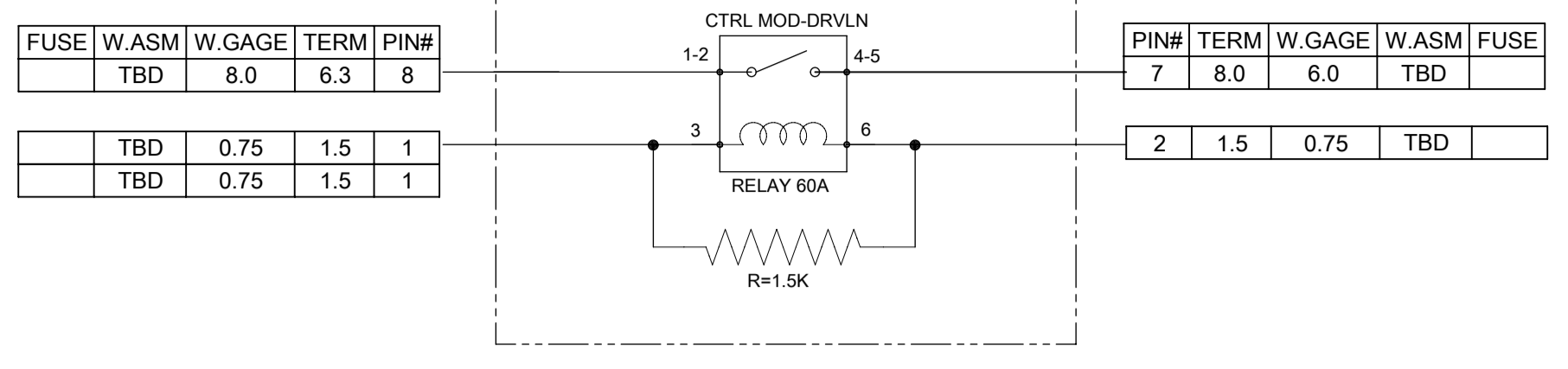
<b>SYMBOLS</b> THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION DIMENSION UNITS: mm SCALE: 2:1 GENERAL TOLERANCES (UNLESS SPECIFIED): ANGULAR TOL ± 3.0° 4 PLACES ± 3 PLACES ± 2 PLACES ± 0.1 1 PLACE ± 0.2 0 PLACES ± 0.25 DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	CURRENT REV DESC: EC NO: 614434 DRWN: ECHEONG 2019/03/25 CHK'D: RBAUMAN 2019/03/25 APPR: RBAUMAN 2019/03/25 INITIAL REVISION: DRWN: ECHEONG 2018/03/01 APPR: RBAUMAN 2018/03/22	 MPDB ASSY DWG G.MARKET PRODUCT CUSTOMER DRAWING	
	THIRD ANGLE PROJECTION DRAWING: A1-SIZE SERIES: 200316		
DOCUMENT STATUS: P1 RELEASE DATE: 2019/03/25 20:30:43	MATERIAL NUMBER: 2003161100 CUSTOMER:	SHEET NUMBER: 1 OF 2	

2003161101

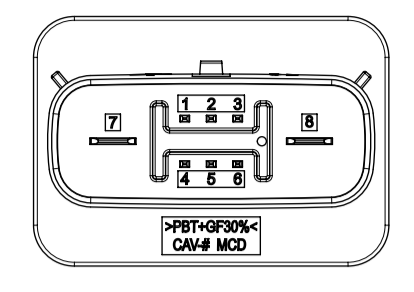


8-WAY HEADER KEY\_B

SCHMATIC

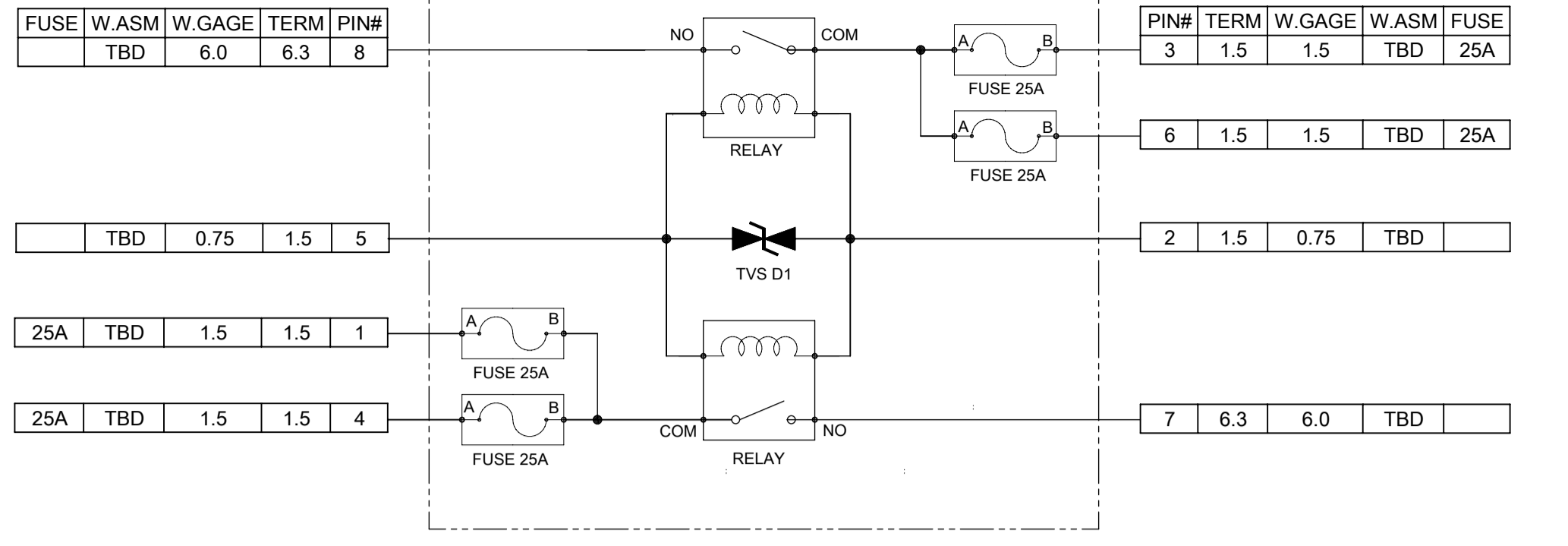


2003161121

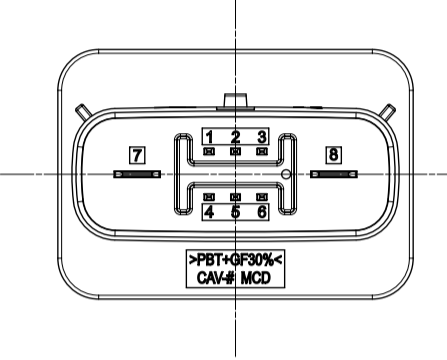


8-WAY HEADER KEY\_A

SCHMATIC

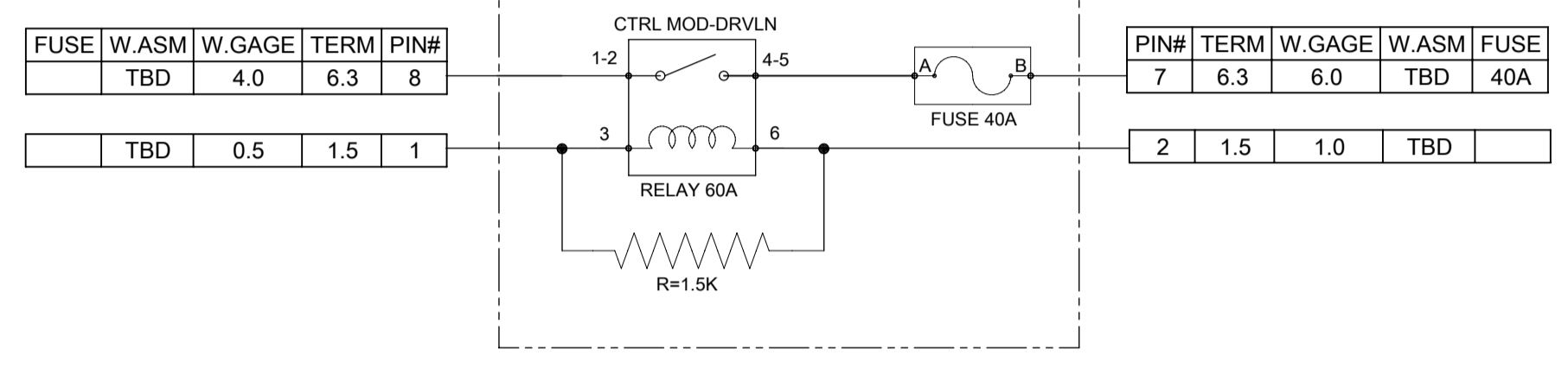


2003161102

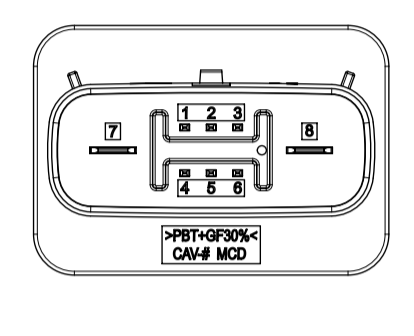


8-WAY HEADER KEY\_A

SCHMATIC

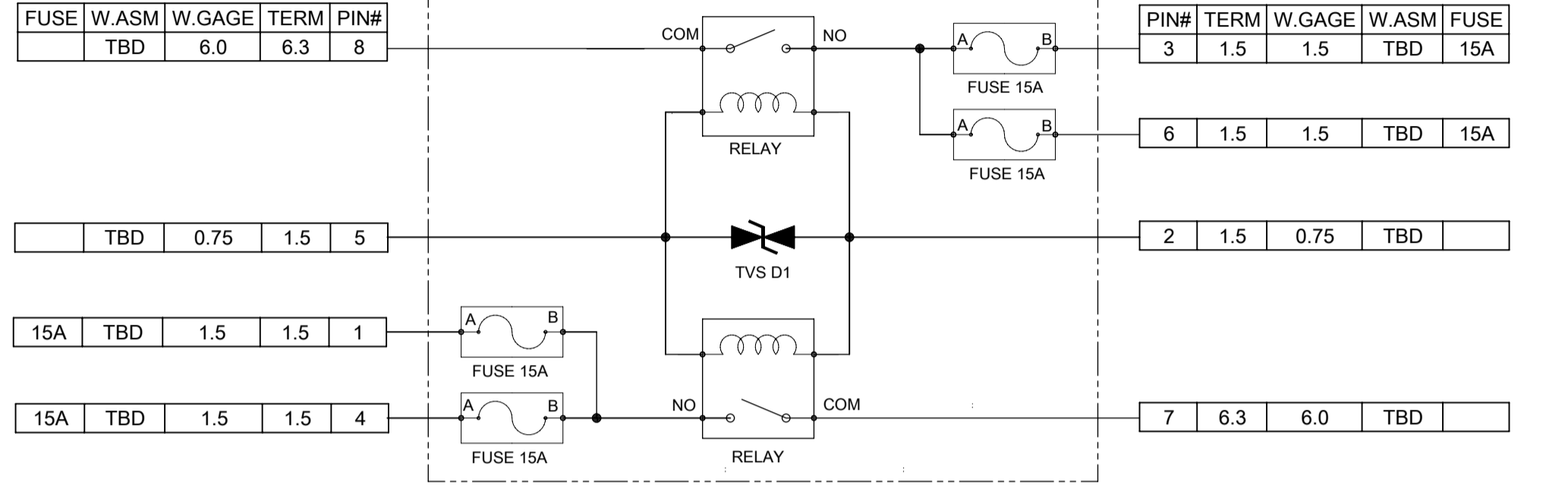


2003161122

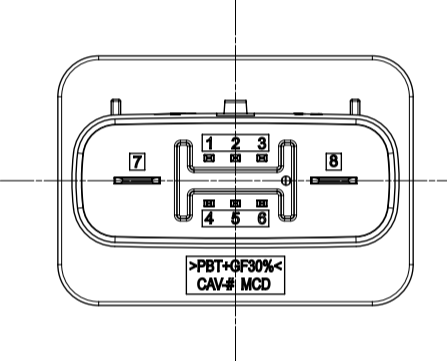


8-WAY HEADER KEY\_B

SCHMATIC

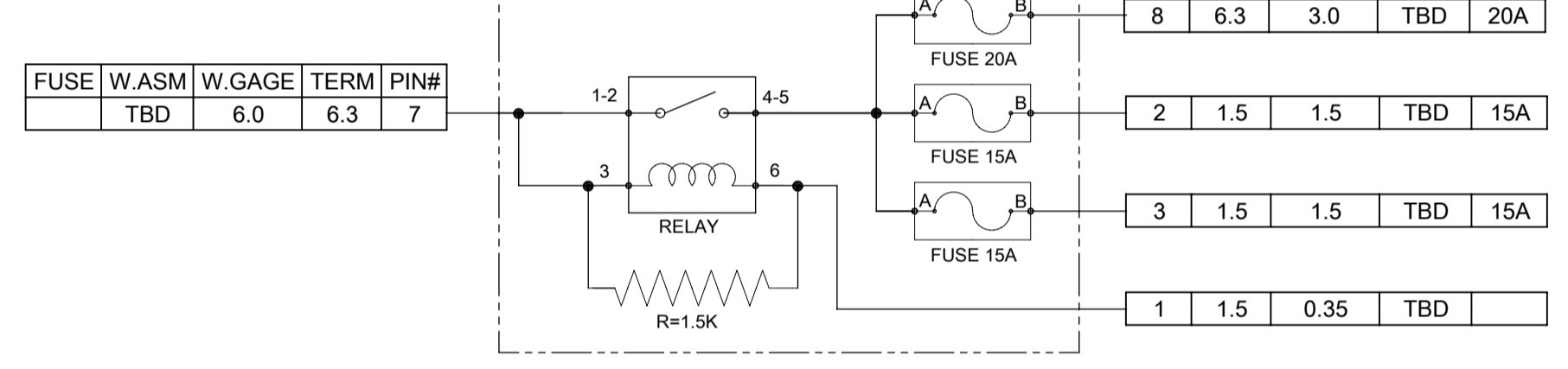


2003161103



8-WAY HEADER KEY\_C

SCHMATIC



<b>SYMBOLS</b> = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		<b>CURRENT REV DESC:</b>  EC NO: 614434 DRWN: ECHEONG 2019/03/25 CHK'D: RBAUMAN 2019/03/25 APPR: RBAUMAN 2019/03/25 INITIAL REVISION: DRWN: ECHEONG 2018/03/01 APPR: RBAUMAN 2018/03/22		  MPDB ASSY DWG G.MARKET				
	DIMENSION UNITS <b>mm</b>	SCALE <b>1:1</b>	GENERAL TOLERANCES (UNLESS SPECIFIED) ANGULAR TOL ± 3.0° 4 PLACES ± 3 PLACES ± 2 PLACES ± 0.1 1 PLACE ± 0.2 0 PLACES ± 0.25					PRODUCT CUSTOMER DRAWING	
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING <b>A1-SIZE</b>	SERIES <b>200316</b>	DOCUMENT NUMBER <b>2003161100</b>	DOC TYPE <b>PSD</b>	DOC PART <b>000</b>	REVISION <b>B1</b>
	MATERIAL NUMBER		CUSTOMER		SHEET NUMBER <b>2 OF 2</b>				