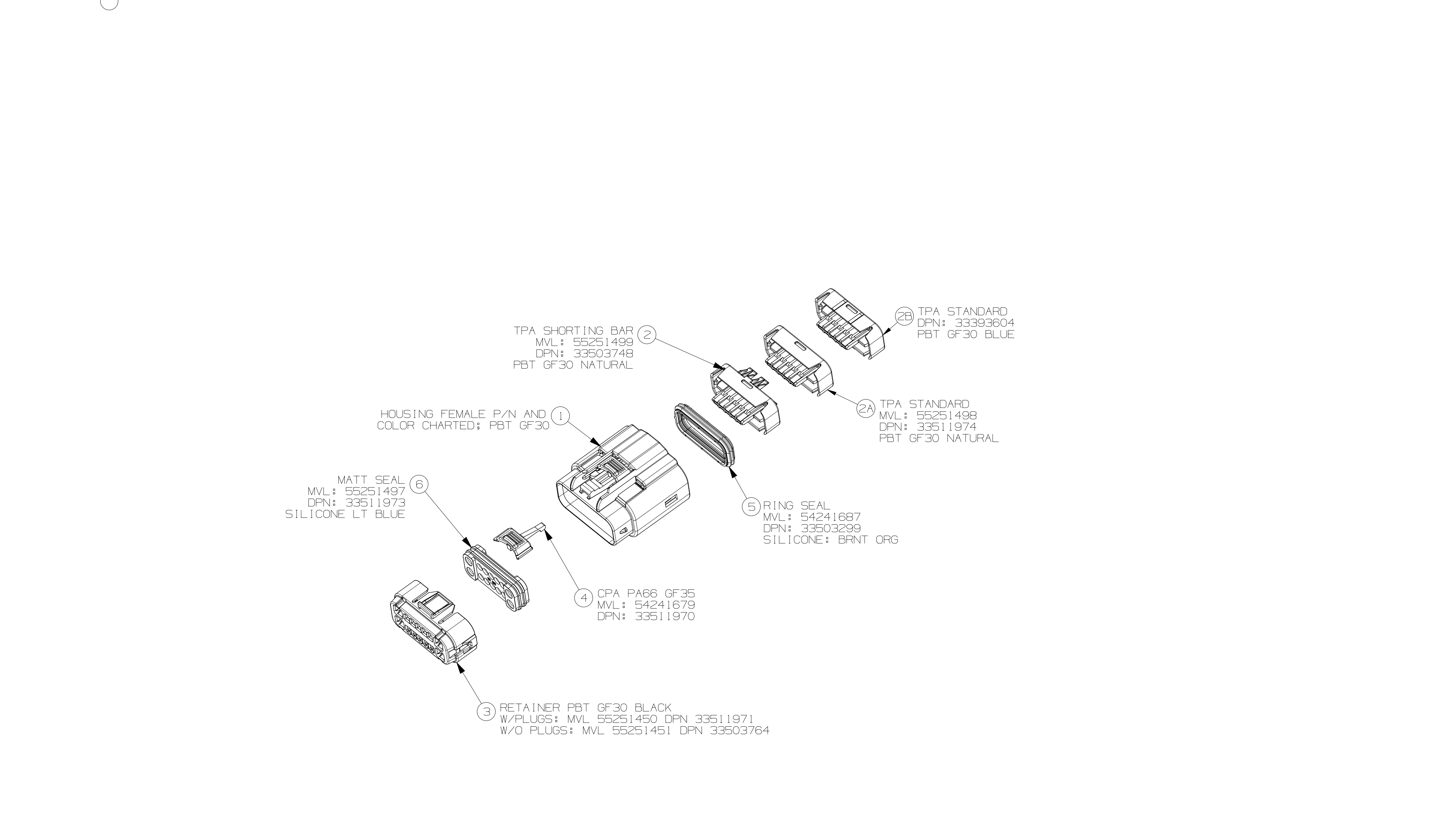


Main product specification table with columns for Assembly Numbers, Rev Level, Key Options, Color, Housing, Components (TPA, Retainer), Plugged (X) Seal Positions (2,8, 1.5, 2.8, Total), Open Circuits (1.5, 2.8, Total), and Mating P/N Reference (MVL, DELPHI).

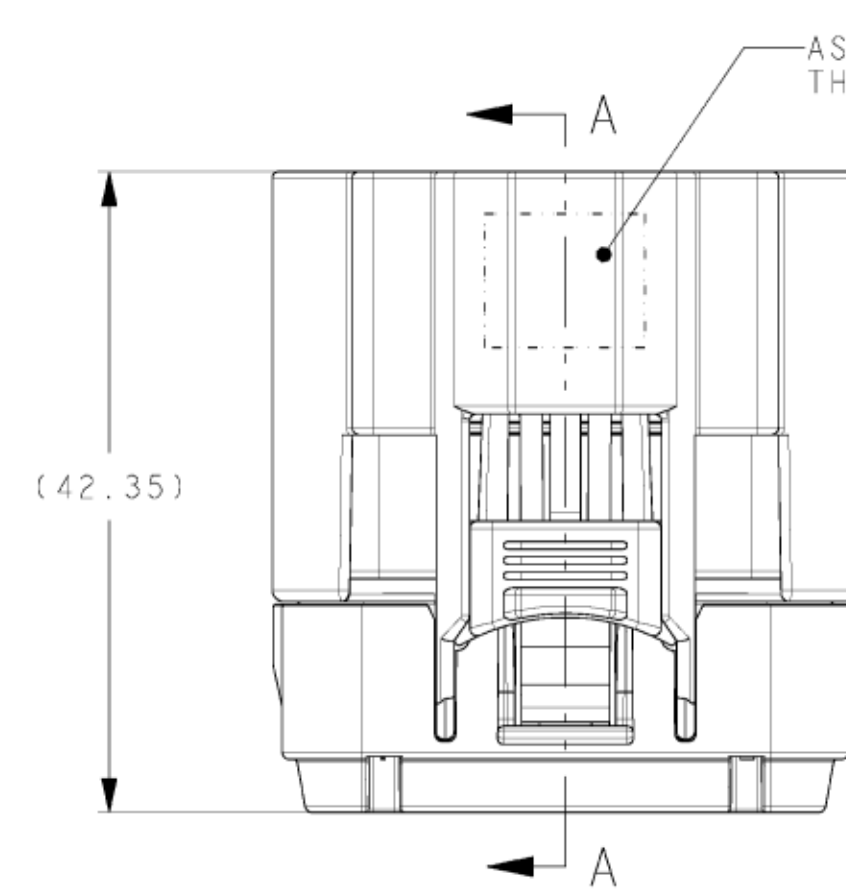
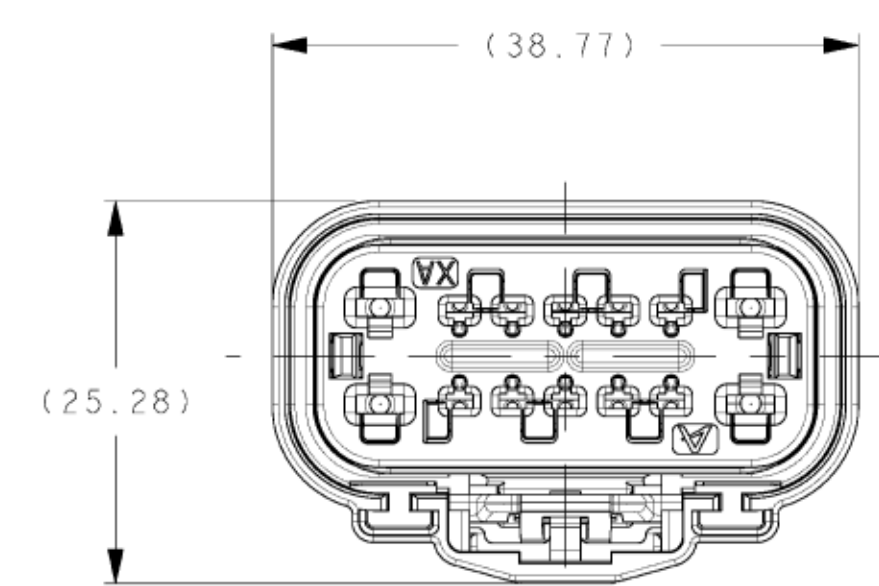
Continuation of the main table, showing assembly numbers F593310 through F033510 and their corresponding specifications.



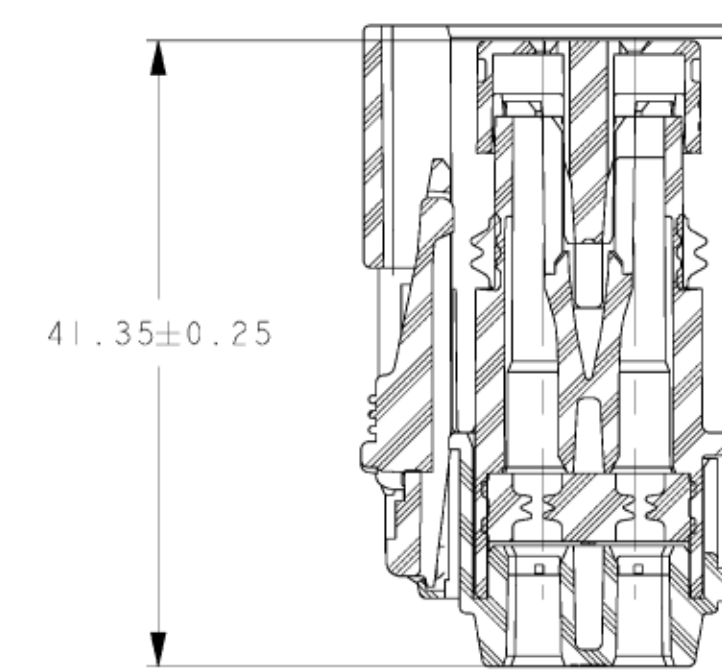
- NOTES:  
1) MAXIMUM TEMPERATURE CLASS:  
CLASS III (125C)  
2) TEST METHOD PER:  
SEE CHART  
3) ALLOWED WIRE SIZE RANGE:  
1.5MM TERMINALS:  
18AWG (10 mil) TO 22 AWG (10 mil)  
0.35mm2 TO 1.5mm2 (thin wall)  
2.8 TERMINALS:  
12AWG TO 18AWG  
4) CONNECTOR MAY BE USED WITH THE FOLLOWING TERMINALS:  
FC1 APEX150 AND APEX 2.8 WITH WIRE SIZES DEFINED IN NOTE 3.  
SEE FC1 DRAWINGS J54009 AND C15004 FOR SPECIFIC PART NUMBERS AND CRIMPING REQUIREMENTS.  
5) ANNUAL QUALITY REQUIREMENTS:  
IT IS PERMISSIBLE TO PERFORM CONTINUOUS CONFORMANCE PER FC1 SPECIFICATION #AQA-001 INSTEAD OF ANNUAL LAYOUT AND ANNUAL PV REQUIREMENTS OF 05-9000 SECTION 2 AND SAE/USCAR-2.

Change history table with columns: D/W, Z/D, D/W, D/W, D/W. Includes notes such as 'CORRECTED ASSEMBLY NUMBERS' and 'RELEASED'.

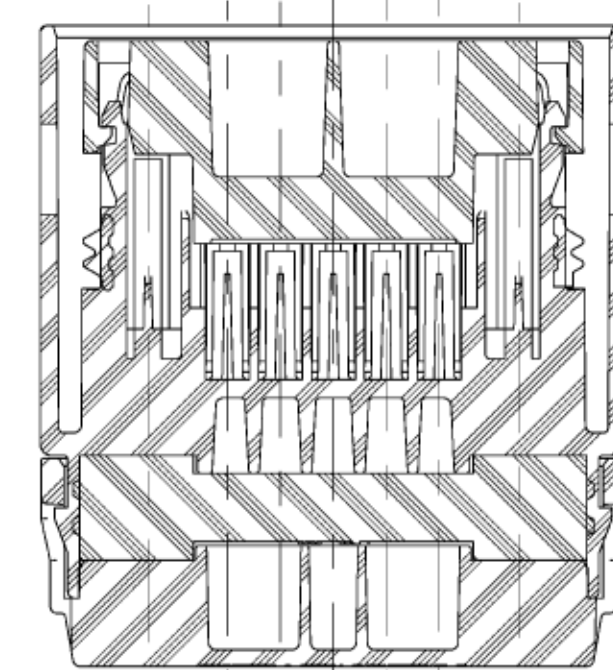




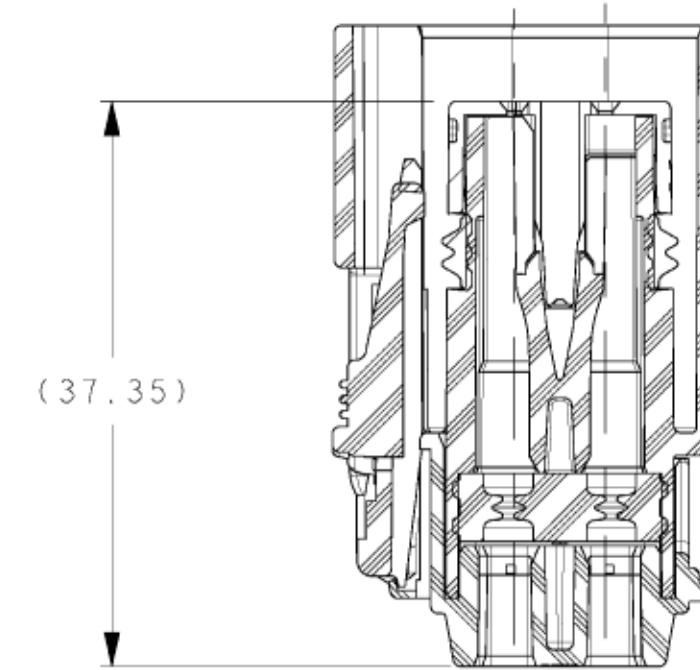
SCALE 2:1



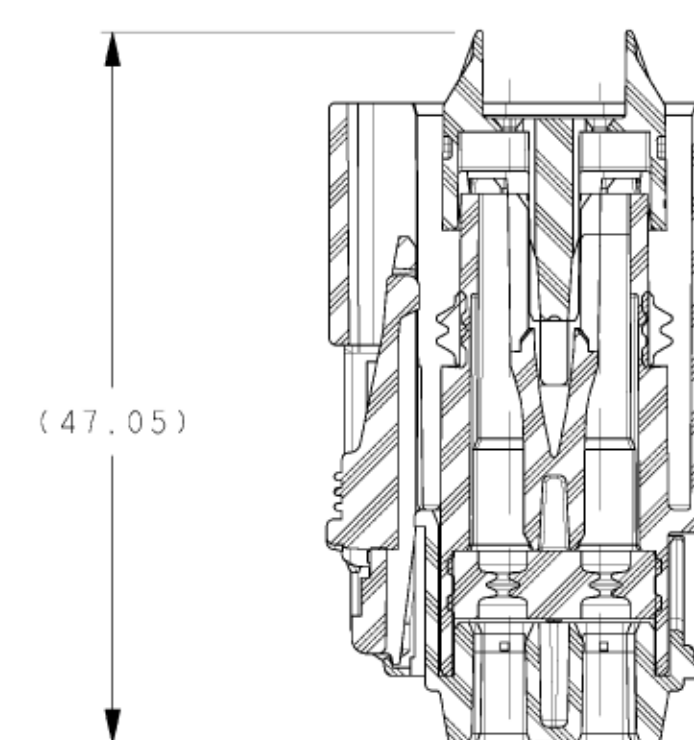
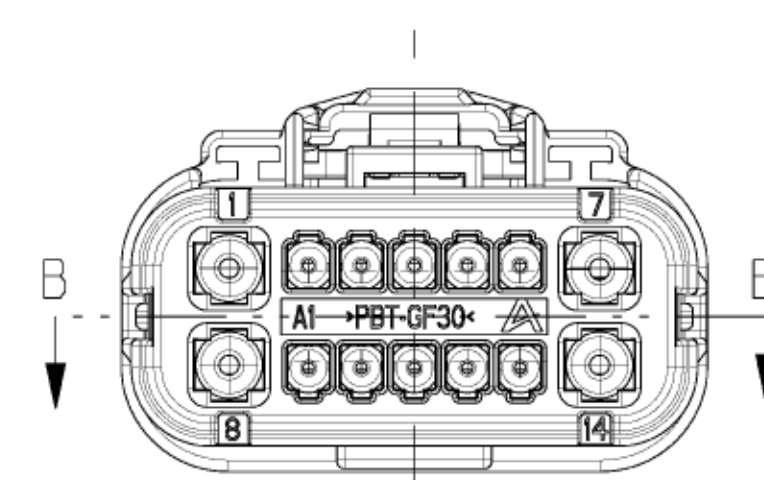
SECTION A-A  
CPA & TPA IN PRE-ASSEMBLED POSITION



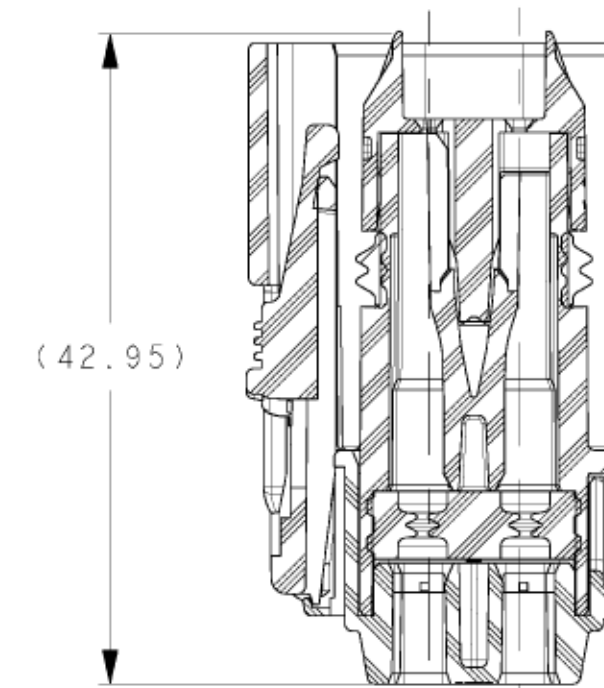
SECTION B-B



SECTION  
CPA & TPA IN FINAL POSITION



SECTION A-A  
TPA IN PRE-LOCK POSITION



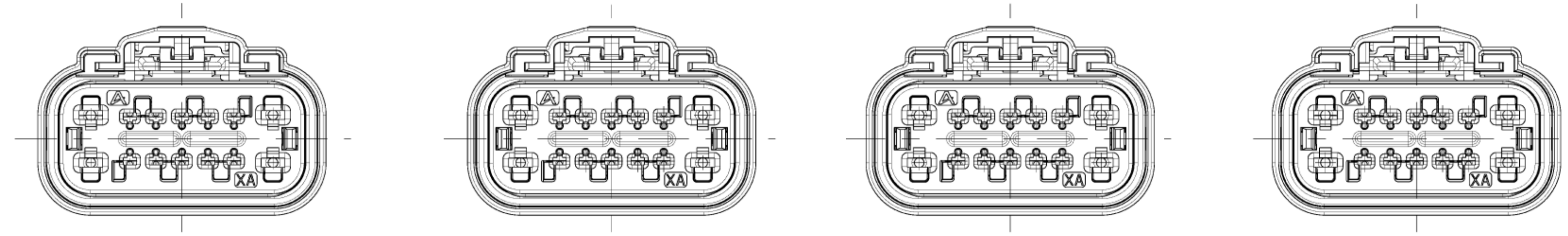
SECTION A-A  
TPA IN FINAL LOCK POSITION

APPLICABLE COMPONENTS				
SUPPLIER		ITEM DESCRIPTION	PLATING OR COLOR	GRIP SIZE
MVL	DELPHI			
54001625	13613157	APEX 150 TERMINAL	TIN	16, 18
54002000	13624983	APEX 150 TERMINAL	TIN	20, 22
54001627	13779834	APEX 150 TERMINAL	GOLD	16, 18
54002002	13725913	APEX 150 TERMINAL	GOLD	20, 22
54001208	15422738	APEX 2.8 TERMINAL	TIN	12
54001400	10762803	APEX 2.8 TERMINAL	TIN	14, 16
54001800	10757690	APEX 2.8 TERMINAL	TIN	18
54001402	10762770	APEX 2.8 TERMINAL	TIN	14
54001802	10762772	APEX 2.8 TERMINAL	TIN	18
54240002	13770939	APEX 150 2.8mm SEAL PLUG - FBWLE	NATURAL	-
54241629	13613164	APEX 150 UNIVERSAL SEAL PLUG	NATURAL	-
F379410	13979933	APEX 2.8 TERMINAL	TIN	14, 16
F176410	15543466	APEX 2.8 TERMINAL	TIN	18, 20

COMMON PART NUMBER CHART ONE EACH INCLUDED IN ASSEMBLY				
ITEM	PART NUMBERS		DESCRIPTION	MATERIAL
	MVL	DELPHI		
5	54241687	33503289	RING SEAL	SILICONE
6	54251497	33511964	MATT SEAL	SILICONE

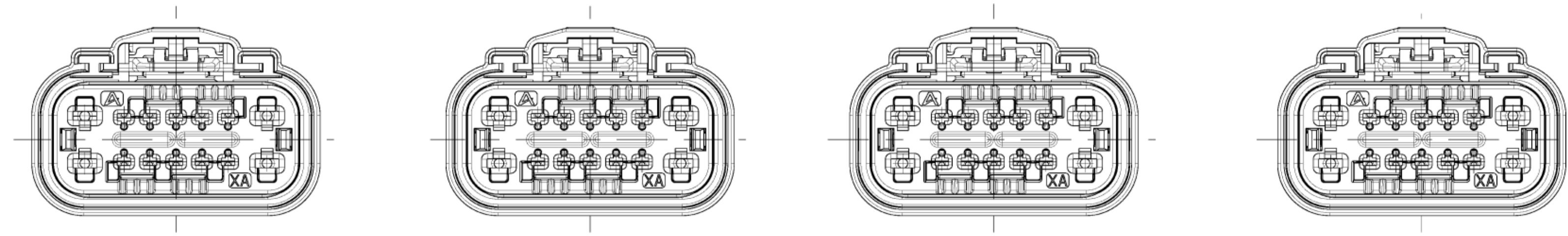
NOTES:

- TEMPERATURE CLASS: 3 (-40° C TO +125° C)
- SEE CHART FOR TEST METHOD  
SEE CHART
- CONNECTOR MAY BE USED WITH THE FOLLOWING RANGE OF WIRE SIZES AND TYPES:
  - APEX 150 TERMINALS:
    - SIZE: 22AWG TO 18AWG (Ø 1.50 TO Ø 2.41 INSULATION O.D.)
    - TYPE: TXL (MIL123-A / M5-8298)
    - ALTERNATELY:
      - SIZE: 0.75mm<sup>2</sup> TO 1.0mm<sup>2</sup> (Ø 1.70 TO Ø 2.40 INSULATION O.D.)
      - TYPE: FLR2X (125° C PE-X) or FLRYW (125° C PVC)
      - (STRUCTURE & PROPERTIES PER 1506722)
  - APEX 2.8 TERMINALS:
    - SIZE: 18AWG TO 12AWG (Ø 1.90 TO Ø 3.35 INSULATION O.D.)
    - TYPE: TXL (MIL123-A / M5-8298)
    - ALTERNATELY:
      - SIZE: 1.00mm<sup>2</sup> TO 2.50mm<sup>2</sup> (Ø 1.90 TO Ø 3.00 INSULATION O.D.)
      - TYPE: FLR2X (125° C PE-X) or FLRYW (125° C PVC)
      - (STRUCTURE & PROPERTIES PER 1506722)
- CONNECTOR MAY BE USED WITH THE FOLLOWING TERMINALS:
  - MVL APEX150 AND APEX 2.8 WITH WIRE SIZES DEFINED IN NOTE 3
  - SEE MVL DRAWINGS J54009-CUST AND C15004-CUST FOR SPECIFIC PART NUMBERS AND GRIPING REQUIREMENTS.
  - CONTACT MVL ENGINEERING REGARDING USE OF OTHER WIRE SIZES AND/OR TYPES
- ANNUAL QUALITY REQUIREMENTS:
  - IT IS PERMISSIBLE TO PERFORM CONTINUOUS CONFORMANCE PER MVL SPECIFICATION #QA-001 INSTEAD OF ANNUAL LAYOUT AND ANNUAL PV REQUIREMENTS OF 05-9000 SECTION 2 AND SAE/USCAR-2, REV.4 FOR TERMINALS TO CONNECTOR AND TPA TO CONNECTOR ONLY.
- PART VALIDATION:
  - SHORTING BAR PER SAE/USCAR-2 REV.4 TEMP CLASS 1, (-40° C +85° C)
  - IN-LINE PER SAE/USCAR-2 REV.4 TEMP CLASS 3 (-40° C +125° C)
  - IN-LINE PER SAE/USCAR-20 REV.2



"OPTION - A" "OPTION - B" "OPTION - C" "OPTION - D"

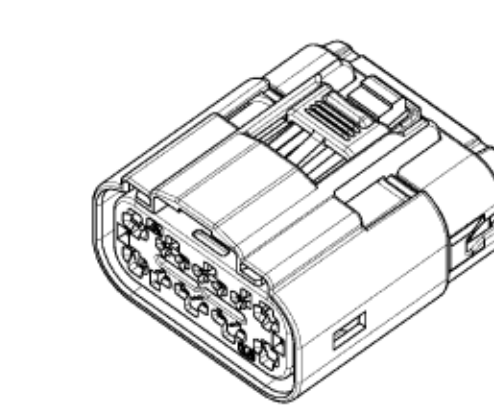
FEMALE ASSEMBLY WITHOUT SHORTING BAR ACTUATING CAM



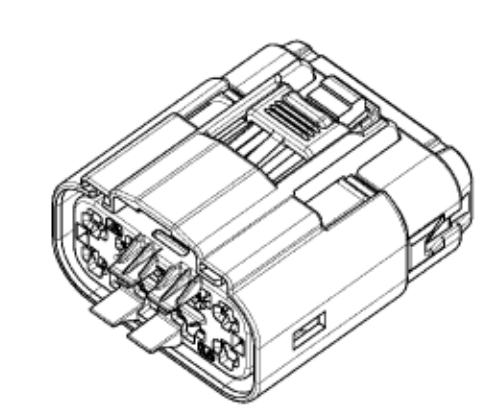
"OPTION - E" "OPTION - F" "OPTION - G" "OPTION - H"

FEMALE ASSEMBLY WITH SHORTING BAR ACTUATING CAM ON TPA

POLARIZATION OPTIONS



VIEW WITHOUT SHORTING BAR ACTUATING CAM



VIEW WITH SHORTING BAR CAM

ISO-VIEWS, FULL SIZE

**SEE SHEET #1 FOR REVISION RECORD**

REV. NO.	DATE	DESCRIPTION
1		
2		
3		
4		

PROJECT: APEX 150  
 DRAWING: K53001  
 TITLE: ASSEMBLY 14-WAY HYBRID FEMALE  
 PART NUMBER: K53002 AF  
 SERIAL RELEASED