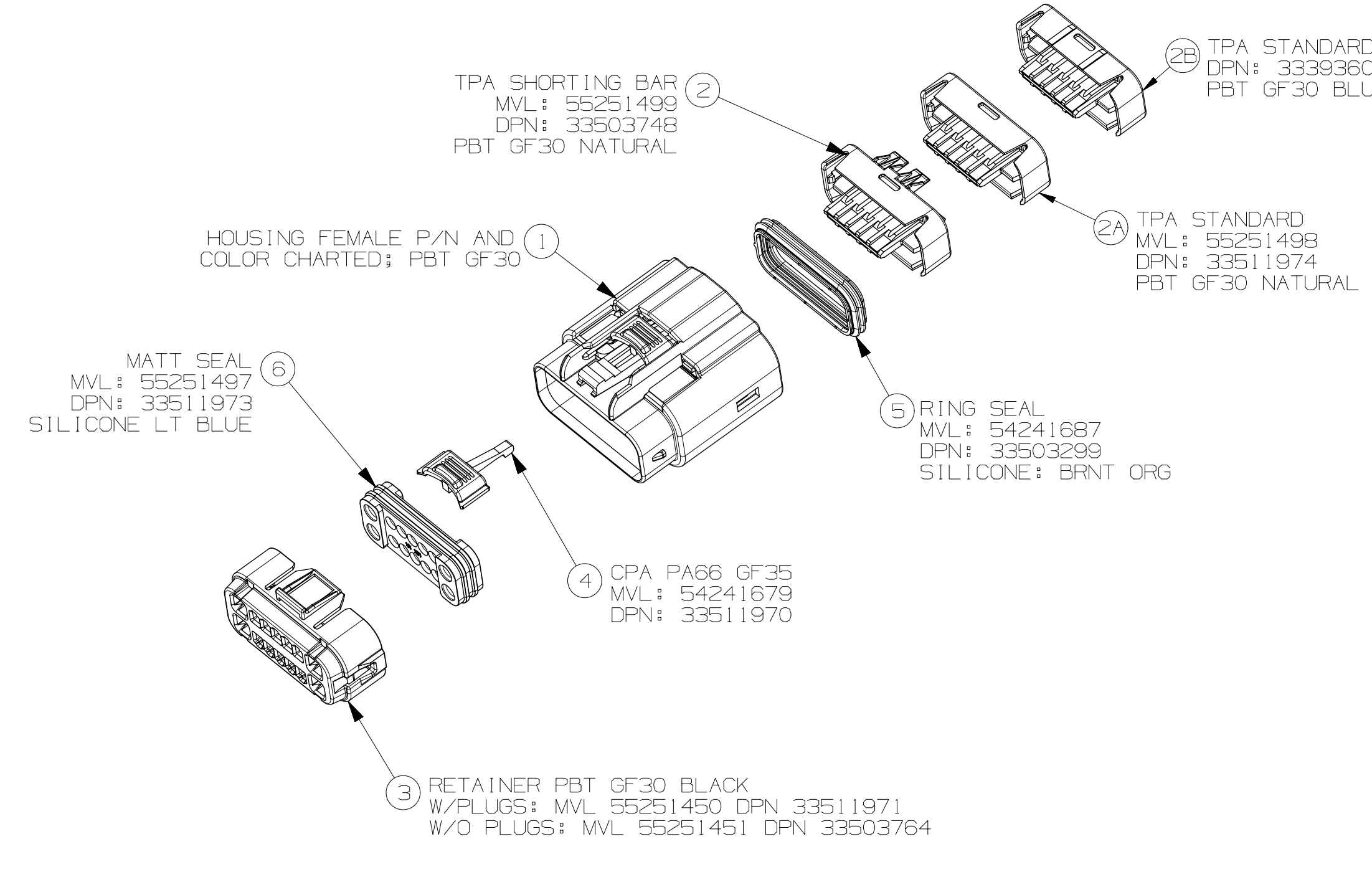


ASSEMBLY NUMBERS WITH CPA W/O CPA REV LEVEL KEY OPTIONS COLOR HOUSING TPA RETAINER Plugged (X) Seal Positions OPEN CIRCUITS MATING P/N REFERENCE

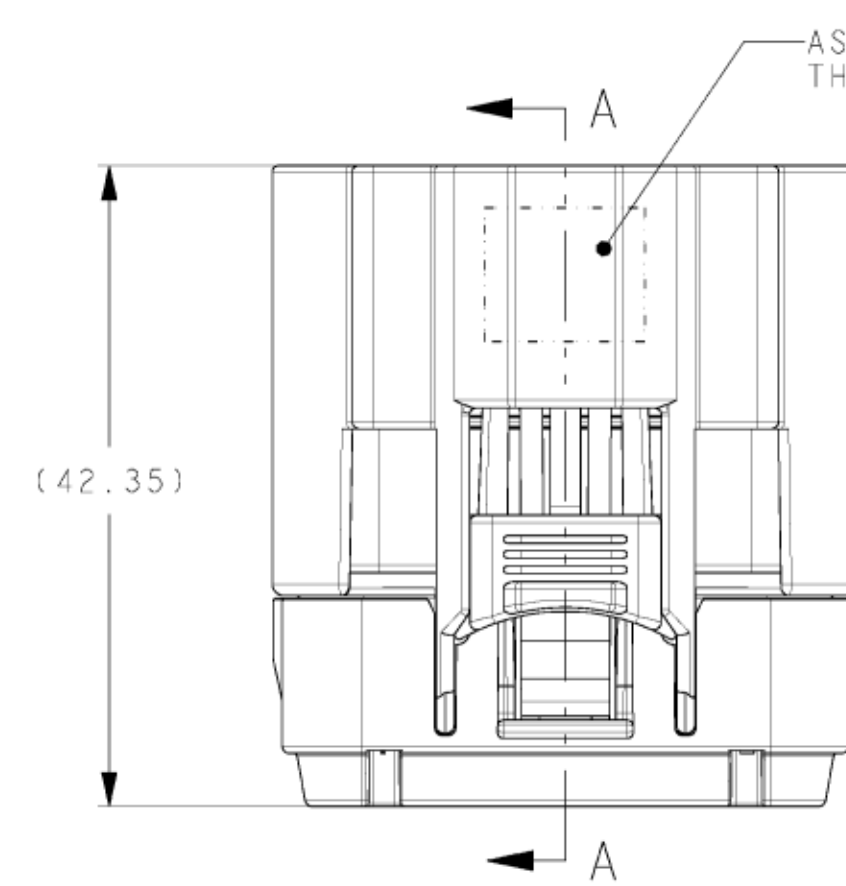
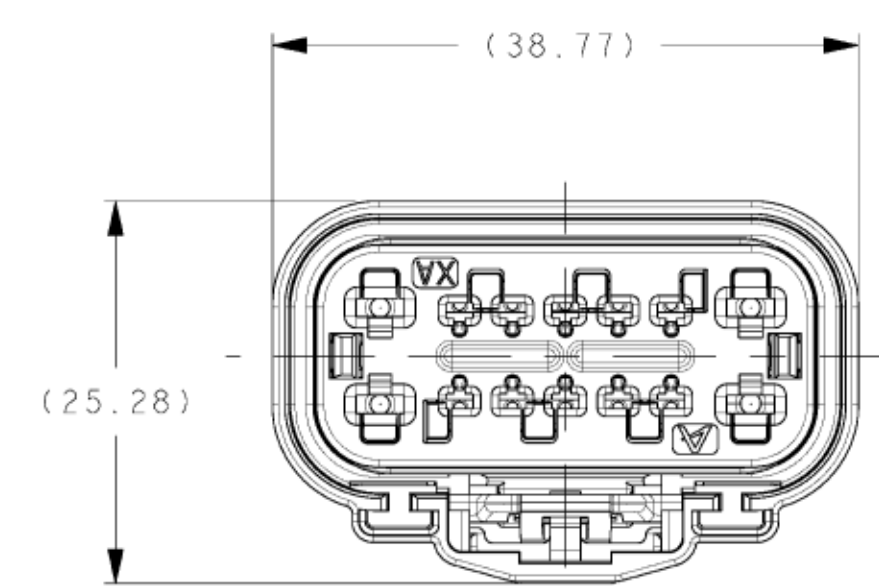
ASSEMBLY NUMBERS WITH CPA W/O CPA REV LEVEL KEY OPTIONS COLOR HOUSING TPA RETAINER Plugged (X) Seal Positions OPEN CIRCUITS MATING P/N REFERENCE



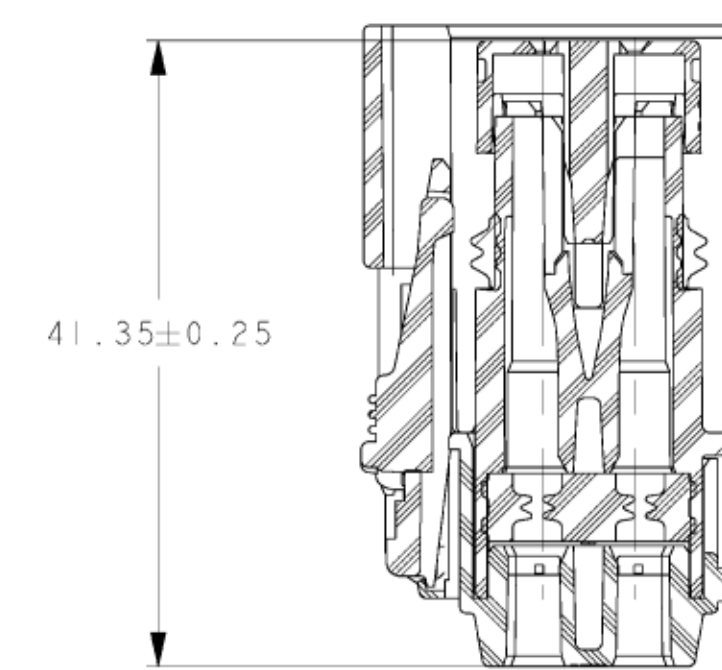
- NOTES: 1) MAXIMUM TEMPERATURE CLASS: CLASS I (125C); 2) TEST METHOD PER: SEE CHART; 3) ALLOWED WIRE SIZE RANGE; 4) CONNECTOR MAY BE USED WITH THE FOLLOWING TERMINALS; 5) ANNUAL QUALITY REQUIREMENTS.

Table with columns: DWG. NO., DATE, DWRG. DESCRIPTION, and detailed revision history for drawing ECD 43502.

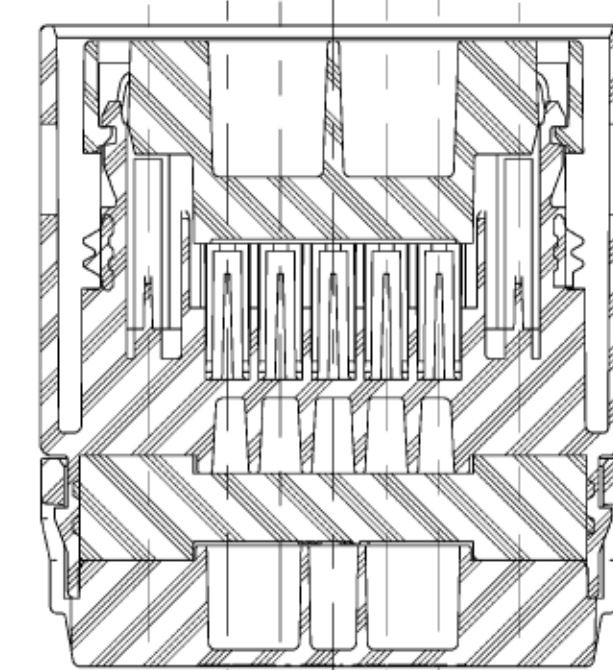
DATE: 11/20/14



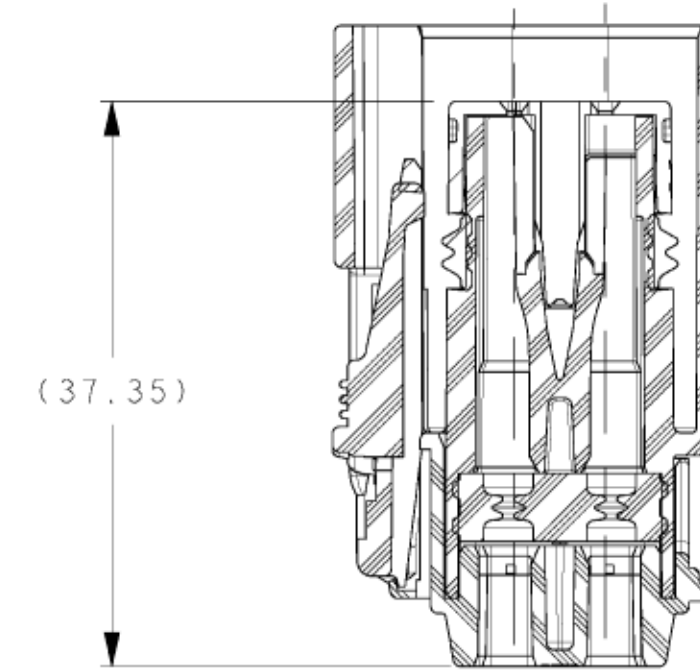
SCALE 2:1



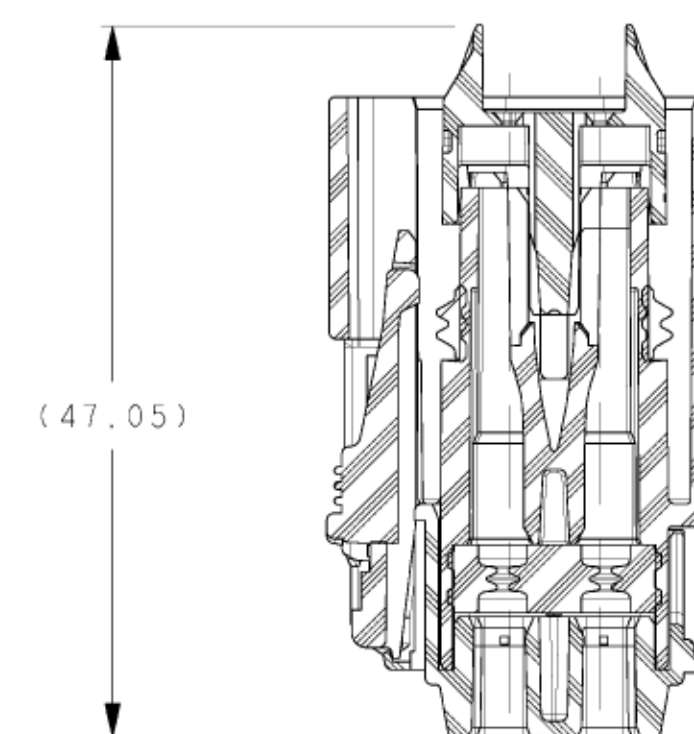
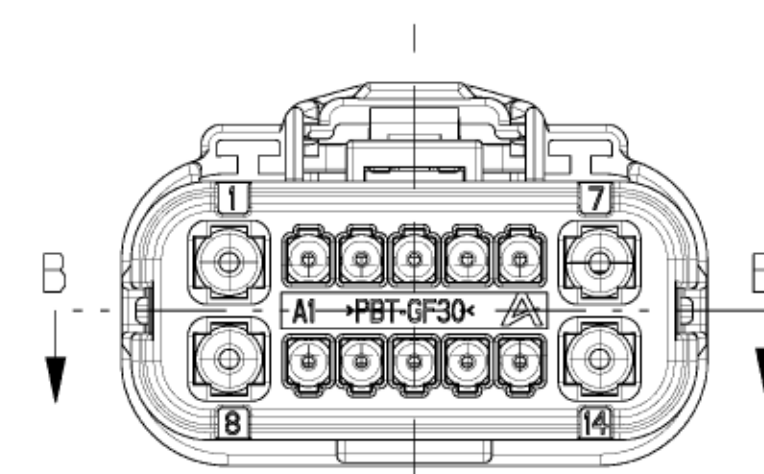
SECTION A-A
CPA & TPA IN PRE-ASSEMBLED POSITION



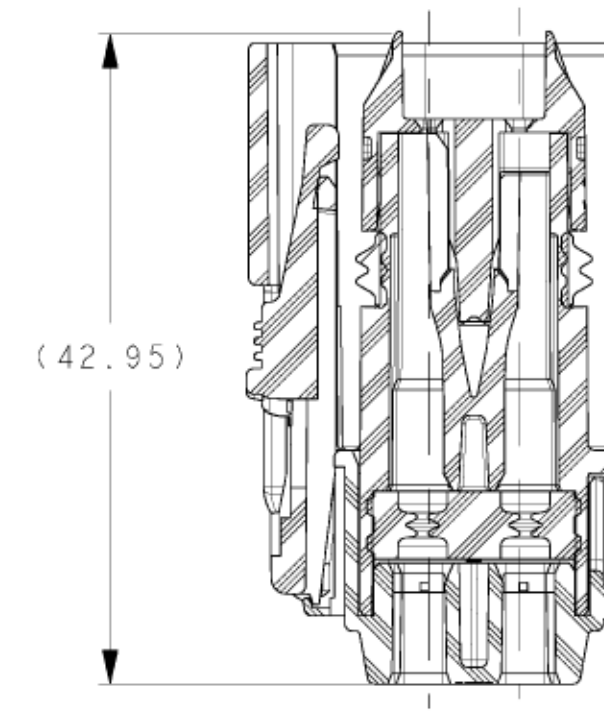
SECTION B-B



SECTION
CPA & TPA IN FINAL POSITION



SECTION A-A
TPA IN PRE-LOCK POSITION



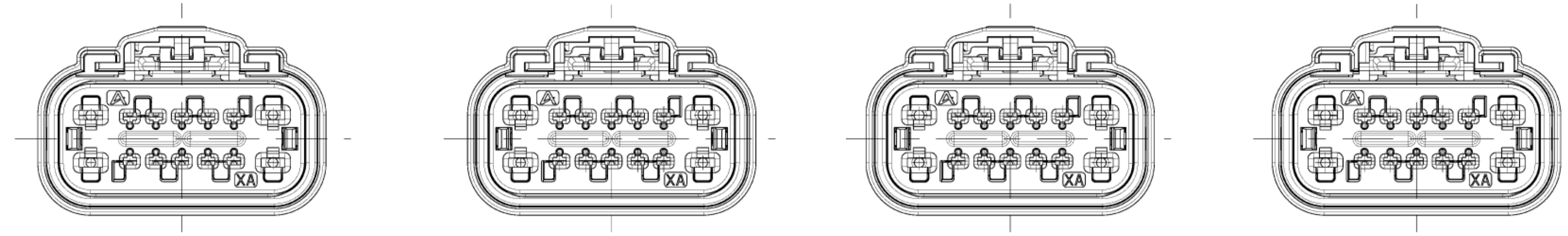
SECTION A-A
TPA IN FINAL LOCK POSITION

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
	MVL	DELPHI	
5	54241687	33503289	RING SEAL SILICONE
6	54251497	33511964	MATT SEAL SILICONE

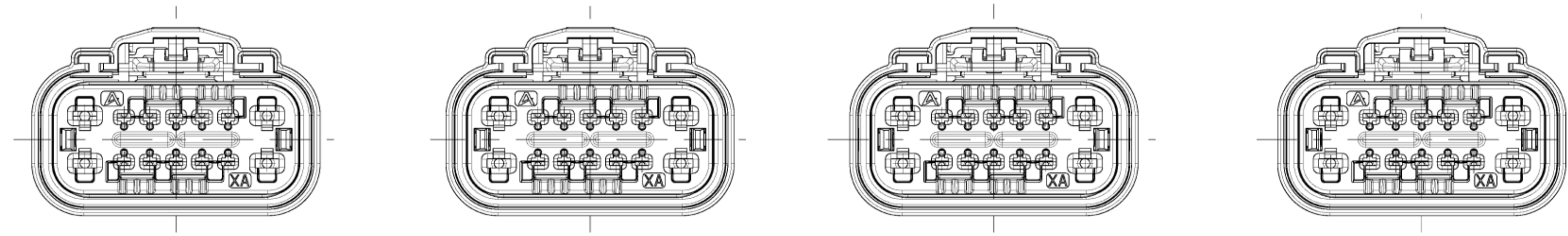
NOTES:

- 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 (MIL-123-A / M5-8298)
 - ALTERNATELY:
 - SIZE: 0.75mm² TO 1.0mm² (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 (MIL-123-A / M5-8298)
 - ALTERNATELY:
 - SIZE: 1.00mm² TO 2.50mm² (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 GRIPPING 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 +125° 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"

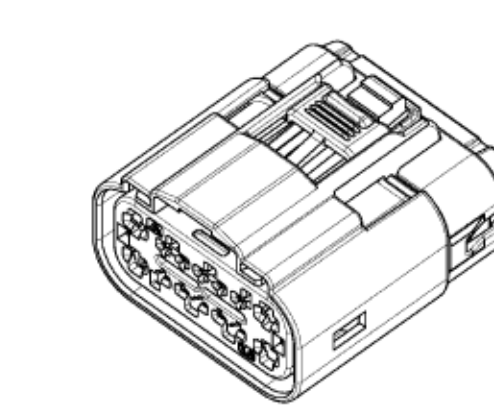
FEMALE ASSEMBLY WITHOUT SHORTING BAR ACTUATING CAM



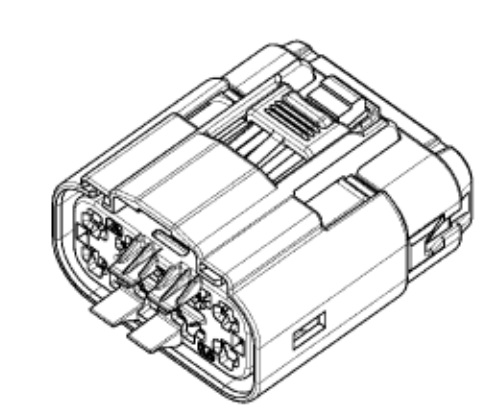
"OPTION - E" "OPTION - F" "OPTION - G" "OPTION - H"

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		

PROJECT: APEX 150
 DRAWING: K53001
 TITLE: ASSEMBLY 14-WAY HYBRID FEMALE
 PROJECT: APEX 150 14-WAY K53 HYBRID
 PART NUMBER: K53002 AF
 SERIAL RELEASED

DELPHI
 DELPHI PROGRAM DEVELOPMENT/ELECTRIC ARCHITECTURE