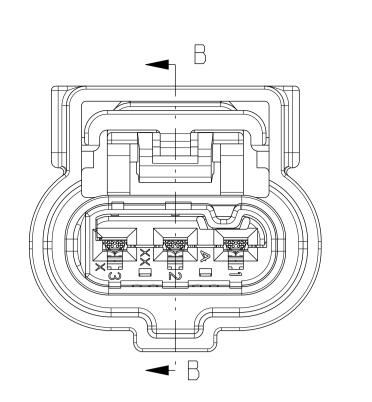
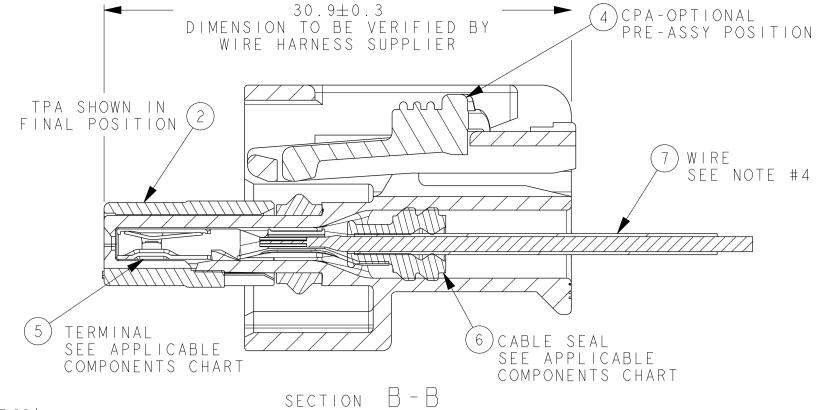


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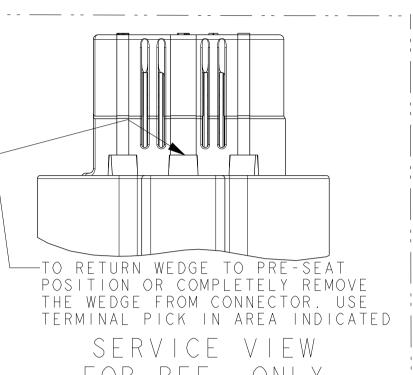
E	ASSEMBLY P/N'S		CONNECTOR TEMPERATURE CLASS PER SAE/USCAR-2 REV 3	KEY OPTIONS	COMPONENTS						
		PCL			INSULATOR (HOUSING) ITEM-I		TPA (DK. BLUE)	RING SEAL (BURNT ORANGE)	RING SEAL (DK. GREEN)	CPA (RED) (OPTIONAL	
							I T E M - 2	ITEM-3		ITEM-4	
					COLOR	PA66 GF 35	PA66 GF 35	SILICONE	FLUROSILICONE	PA66 GF 3	
	54200378	Н	4	А	BLACK	54200382	54200386				
	54200379	Н	4	В	LT. GREY	54200383	54200387	54200392	N A	NA	
	54200380	Н	4	С	BROWN	54200384	54200388	34200392			
	54200381	Н	4	D	DK. GREY	54200385	54200389				
	F534300	Н	3	A	BLACK	54200382	54200386	NA	C434300	NA	
D	F519600	Н	4	А	BLACK	54200382	54200386		NI A	F752210	
	F500900	Н	4	В	LT. GREY	54200383	54200387	5 4 2 0 0 2 0 2			
	F600900	Н	4	С	BROWN	54200384	54200388	54200392	N A		
	F I 7 7 0 I 0	Н	4	D	DK. GREY	54200385	54200389				

	APPLICABLE COMPONENTS											
С	ITEM NO.	ITEM DESCRIPTION	PLATING OR COLOR	FORD COMP PART NUMBER (REFERENCE ONLY)	SUPPLIER	SUPPLIER COMP PART NUMBER	GR I P CODE	WIRE SIZE MATERIAL/SPEC NO				
	5	I.20 SYSTEM TERMINAL	TIN	AU5T-14474-MA	FCI	54001864	18	16/18 AWG 0.75-1.25mm ² COPPER ALLOY / NA				
		I.20 SYSTEM TERMINAL	TIN	AU5T-14474-NA	FCI	54002006	20	20 AWG 0.50mm ² COPPER ALLOY / NA				
		I.20 SYSTEM TERMINAL	TIN/SILVER	AU5T-14474-PA	FCI	54001866	18	16/18 AWG 0.75-1.25mm ² COPPER ALLOY / NA				
		I.20 SYSTEM TERMINAL	TIN/SILVER	AU5T-14474-RA	FCI	54002007	20	20 AWG 0.50mm ² COPPER ALLOY / NA				
В		I.20 SYSTEM TERMINAL	SILVER	AU5T-14474-SA	FCI	F731400	18	0.75-1.25mm ² COPPER ALLOY / NA				
		I.20 SYSTEM TERMINAL	SILVER	AU5T-14474-TA	FCI	F 9 3 I 4 0 0	20	20 AWG 0.50mm ² COPPER ALLOY / NA				
		I.20 SYSTEM TERMINAL	GOLD	AU5T-14474-UA	FCI	54001863	18	0.75-1.25mm ² COPPER ALLOY / NA				
		I.20 SYSTEM TERMINAL	GOLD	AU5T-14474-VA	FCI	54002005	20	20 AWG 0.50mm ² COPPER ALLOY / NA				
ω Λ	6	I.20 SYSTEM CABLE SEAL ROUND	RUST RED	AU5T-10C930-BA	FCI (QSR)	C528010 (A-0419)	-	16/18 AWG 1.00-1.25mm ² SILICONE				
C04 112 F29 PDS		I.20 SYSTEM CABLE SEAL ROUND	BLUE	AU5T-14603-EA	FCI (QSR)	54200391 (A-0131)	-	20 AWG 0.50-0.75mm ² SILICONE				
C04 112		1.20 SYSTEM CAVITY PLUG	GREEN	AU5T-10C930-CA	FCI (QSR)	C628010 (A-0412)	-	- SILICONE				





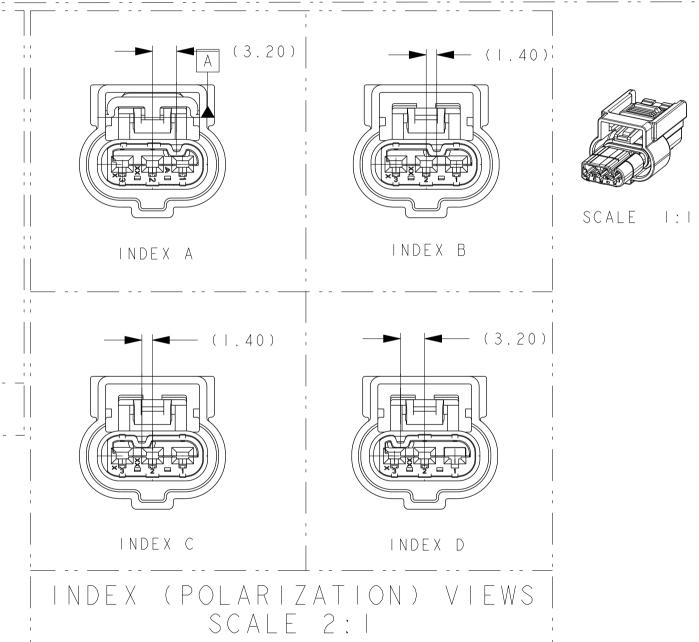
TPA IN FINAL ASSEMBLY POSITION AS SUPPLIED BY WIRE HARNESS MANUFACTURER



CAVITY OPENING MOLDED-OVER-FOR P/N 54200381 ONLY (0.30)(1.50) -SECTION A-A SCALE 2:1 CONSTRUCTION FOR COIL-ON-PLUG VERSION INDEX D SHOWN ASSEMBLY P/N 54200381

NOTES:

- I) VALIDATED TO SAE/USCAR-2 REV 3 WITH THE FOLLOWING EXCEPTION(S): - SECTION 5.4.5 (Misc. Comp. Engage/Disengage)
- CPA LOCKED TO PRE-STAGE 8N-30N (FCI REQUIREMENT) - SECTION 5.4.1 (Terminal - Connector Insertion/Extraction Force)
- INSERTION OF TERMINAL INTO CAVITY NOT TO EXCEED 2 IN - SECTION 5.4.4 (Polarization Feature Effectiveness)
- > 160N FOR ALL COMBINATIONS - SECTION 5.4.2 (Connector-Connector Mating/Unmating Force) >95N UNMATING FORCE.
- 2) VALIDATED TO THE FOLLOWING TEMP, VIBRATION, AND SEALING CLASSES: - GMW3191 SECTION 4.28 V4 T4 (155°C) WITH GOLD OR SILVER TERMINALS
 - SAE/USCAR-2 V3 T4 (I50°C) WITH GOLD OR SILVER TERMINALS
 - SAE/USCAR-2 V3 T3 (125°C) WITH TIN/SILVER TERMINALS
 - SAE/USCAR-2 V2 T3 (125°C) WITH TIN TERMINALS - SAE/USCAR-2 SEALING S3 T4 (I50°C)(ISOI6750 9K EQUIVELENT)
- 3) CONNECTOR MAY BE USED WITH THE FOLLOWING TERMINALS:
 - FCI APEX I.2 TERMINALS LISTED IN THE APPLICABLE COMPONENTS CHART ON THIS DRAWING WITH WIRE SIZES DEFINED IN NOTE 4
- SEE FCI DRAWING C18001-1-2-CUST FOR SPECIFIC TERMINAL DETAILS AND CRIMPING REQUIREMENTS - PLATING OF TERMINALS AND MATING DEVICE BLADES MUST BE COMPATIBLE
- 4) CONNECTOR SYSTEM HAS BEEN VALIDATED TO USCAR-2 REQUIREMENTS WITH THE FOLLOWING RANGE OF WIRE SIZES AND TYPES IN CONJUNCTION WITH APPROPRIATE COMPONENTS FOUND IN THE "APPLICABLE COMPONENTS" CHART:
 - WIRE SIZES: $0.50 \, \text{mm}^2$ $1.25 \, \text{mm}^2$ and $20 \, \text{AWG}$ $16 \, \text{AWG}$ - OUTSIDE DIAMETER: 1.40mm MIN - 2.41mm MAX
- TYPE/STANDARD: MIL123-A, MS-8288, MS-9502, ES-AU5T-1A348-AA, ISO 6722
- WIRE AND INSULATION TYPE MUST BE APPROPRIATE FOR TEMPERATURE CLASS & APPLICATION ENVIRONMENT
- 5) CONNECTOR IS MATE COMPATIBLE WITH DEVICES WHICH CONFORM WITH THE FOLLOWING USCAR INTERFACE SPECIFICATIONS:
 - 120-S-003-1-Z01 (WITH EWCAP-001 TYPE 120-T BLADES) - 120-S-003-1-Z02 (WITH EWCAP-001 TYPE 120-T BLADES)
- 6) ANNUAL QUALITY REQUIREMENTS: - IT IS PERMISSIBLE TO PERFORM CONTINUOUS CONFORMANCE PER FCI SPECIFICATION #AQA-001 INSTEAD OF ANNUAL LAYOUT AND ANNUAL PV REQUIREMENTS OF ISO TS16949 AND SAE/USCAR-2 REV 5. FOR
- TERMINAL TO CONNECTOR AND TPA TO CONNECTOR ONLY. 7) SOURCE ID, MOLD & CAVITY ID SIGNIFIES TOOL OWNERSHIP, FOR REFERENCE
- 8) (K) INDICATES IN-PROCESS INSPECTION FOR MANUFACTURING DIMENSIONS OR SPECIFICATIONS.



12-00271 CHART F752210 WAS 54200016 (NEW CPA) , PCL UPDATED TO 'H' , 0.75-1.25mm² WAS 0.75-1.50mm² NOTES NOTE #4 WAS CORRECTED (0.50-1.25mm² WAS 0.50-1.50mm²) | 11970 | NI3 | CORRECTED DIMENSION: 33.3±0.75 WAS 33.1±0.3 | 11903 | CHART | APPLICIBLE COMPONENTS CHART REVISED CHART F519600 WAS F400900 (CORRECTION) II891 CHART ADDED KEY OPTION D WITH CPA (F177010) II838 CHART APPLICIBLE COMPONENTS CHART REVISED NOTES REVISED NOTE #5 CHART CORRECTED PCL CODES 10700 ALL REVISED AND REDRAWN IN FCI – CUSTOMER FRAME ASSY P/N F5434300 FOR FLUOROSILICONE MATERIAL APPLICATION ADDED, CHART UPDATED WITH FLUOROSILICONE SEAL P/N'S (NOT AVAILABLE). ECN-NO. ZONE CHANGE DESCRIPTION PACKAGING SPEC. APPLICATION SPEC. THIS DRAWING AND ALL OTHER INFORMATION CONTAINED THEREIN IS PROPRIETARY AND THE PROPERTY OF FCI. This drawing may not be copied, reproduced or disclosed to any third party without the expressed written permission USCAR-2 REV 5 NONE TOLERANCES ES I PLACE DIMS ± 0. 2 PLACE DIMS ± 0. (SEE TABLE) FCI COUNTERPART Nr. 3RD ANGLE pro / eng. SEE NOTE 5 COLOUR: SEE TABLE DIMENSION IN MILLIMETERS A | DO NOT MEASURE DRAWING A-126 E CHART ASSEMBLY - 3-WAY FEMALE DATE NAME (1.2MM APEX SEALED CONNECTOR SYSTEM) K29002 BY 2012/02/28 Frank HOLUB SERIAL RELEASED 3 WAY SENSOMATE 1.2 BY **2012/02/29 Matt MAJOR**APPROVED PART NUMBER APPROVED BY 2012/02/29 Jeff CAMPBELL ESR NO. AM030093 CAT. NO. FILE NAME K29002 DOCUMENT UNDER PDS CONTROL NO MODIFICATION ALLOWED OUTSIDE