



SECTION B-B WEDGE IN PRE-ASSEMBLY POSITION AS SUPPLIED BY CONNECTOR MANUFACTURER

SERVICE VIEW FOR REF. ONLY

SECTION A-A SCALE 2:1

INDEX (POLARIZATION) VIEWS SCALE 2:1

NOTES:

- 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 2IN
  - SECTION 5.4.4 (Polarization Feature Effectiveness) >160N FOR ALL COMBINATIONS
  - SECTION 5.4.2 (Connector-Connector Mating/Unmating Force) >95N UNMATING FORCE.
- 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 (150°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 (150°C) (ISO16750 9K EQUIVALENT)
- CONNECTOR MAY BE USED WITH THE FOLLOWING TERMINALS:
  - FCI APEX 1.2 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
- 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: 0.50mm<sup>2</sup> - 1.50mm<sup>2</sup> and 20AWG - 16AWG
  - OUTSIDE DIAMETER: 1.40mm MIN - 2.41mm MAX
  - TYPE/STANDARD: MIL-123-A, MS-8288, MS-9502, ESAU5T-1A348-AA, ISO 6722
  - WIRE AND INSULATION TYPE MUST BE APPROPRIATE FOR TEMPERATURE CLASS & APPLICATION ENVIRONMENT
- CONNECTOR IS MATE COMPATIBLE WITH DEVICES WHICH CONFORM WITH THE FOLLOWING USCAR INTERFACE SPECIFICATIONS:
  - 120-S-003-1-Z01
  - 120-S-003-1-Z02
- 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.
- SOURCE ID, MOLD & CAVITY ID SIGNIFIES TOOL OWNERSHIP, FOR REFERENCE
- (K) INDICATES IN-PROCESS INSPECTION FOR MANUFACTURING DIMENSIONS OR SPECIFICATIONS.

ASSEMBLY P/N'S	PCL	CONNECTOR TEMPERATURE CLASS PER SAE/USCAR-2 REV 3	KEY OPTIONS	COMPONENTS					
				INSULATOR (HOUSING)		TPA (DK. BLUE)	RING SEAL (BURNT ORANGE)	RING SEAL (DK. GREEN)	CPA (RED) (OPTIONAL)
				ITEM-1	ITEM-2	ITEM-3	ITEM-4		
54200378	C	4	A	COLOR PA66 GF 35	PA66 GF 35	SILICONE	FLUROSILICONE	PA66 GF 35	
54200379	C	4	B	BLACK	54200382	54200386	54200392	NA	
54200380	C	4	C	LT. GREY	54200383	54200387			
54200381	C	4	D	BROWN	54200384	54200388			
54200381	C	4	D	DK. GREY	54200385	54200389			
F534300	D	3	A	BLACK	54200382	54200386	NA	C434300	NA
F400900		4	A	BLACK	54200382	54200386	54200392	NA	54200016
F500900		4	B	LT. GREY	54200383	54200387			
F600900		4	C	BROWN	54200384	54200388			

APPLICABLE COMPONENTS							
ITEM NO.	ITEM DESCRIPTION	PLATING OR COLOR	FORD COMP PART NUMBER	SUPPLIER	FCI COMPONENT PART NUMBER	GRIP/WIRE SIZE	MATERIAL/SPEC NO
5	1.20 SYSTEM TERMINAL	TIN	AU5T-14474-MA	FCI	54001864	16/18 AWG 1.00-1.50mm <sup>2</sup>	COPPER ALLOY / NA
	1.20 SYSTEM TERMINAL	TIN	AU5T-14474-NA	FCI	54002006	20 AWG 0.50-0.75mm <sup>2</sup>	COPPER ALLOY / NA
	1.20 SYSTEM TERMINAL	TIN/SILVER	AU5T-14474-PA	FCI	54001866	16/18 AWG 1.00-1.50mm <sup>2</sup>	COPPER ALLOY / NA
	1.20 SYSTEM TERMINAL	TIN/SILVER	AU5T-14474-RA	FCI	54002007	20 AWG 0.50-0.75mm <sup>2</sup>	COPPER ALLOY / NA
	1.20 SYSTEM TERMINAL	SILVER	AU5T-14474-SA	FCI	F731400	16/18 AWG 1.00-1.50mm <sup>2</sup>	COPPER ALLOY / NA
	1.20 SYSTEM TERMINAL	SILVER	AU5T-14474-TA	FCI	F931400	20 AWG 0.50-0.75mm <sup>2</sup>	COPPER ALLOY / NA
	1.20 SYSTEM TERMINAL	GOLD	AU5T-14474-UA	FCI	54001863	16/18 AWG 1.00-1.50mm <sup>2</sup>	COPPER ALLOY / NA
	1.20 SYSTEM TERMINAL	GOLD	AU5T-14474-VA	FCI	54002005	20 AWG 0.50-0.75mm <sup>2</sup>	COPPER ALLOY / NA
6	1.20 SYSTEM CABLE SEAL OVAL	GREEN	AU5T-14603-FA	FCI (LEXINGTON)	54200393 (LSR-3115)	16/18 AWG 1.00-1.50mm <sup>2</sup>	SILICONE
	1.20 SYSTEM CABLE SEAL ROUND	BROWN		FCI (QSR)	C705300	18/20 AWG	FLUROSILICONE
	1.20 SYSTEM CABLE SEAL ROUND	BLUE	AU5T-14603-EA	FCI (QSR)	54200391 (A-0131-QSR)	20 AWG 0.50-0.75mm <sup>2</sup>	SILICONE

10700	ALL	REVISED AND REDRAWN IN FCI - CUSTOMER FRAME.	
---	D16	ASSY P/N F5434300 FOR FLUROSILICONE MATERIAL APPLICATION ADDED, CHART UPDATED WITH FLUROSILICONE SEAL P/N'S (NOT AVAILABLE).	
ECN NO.	ZONE	CHANGE DESCRIPTION	
PRODUCT SPEC.	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 OF FCI. FCI April 1999
USCAR-2 REV 5	NONE	NONE	
TOLERANCES: 1 PLACE DIMS ± 0.25 2 PLACE DIMS ± 0.13		(SEE TABLE)	SURFACE FINISH
COUNTERPART: HIRSCHMANN INTERFACE		SEE TABLE	
DO NOT MEASURE DRAWING	TOOL NO.	A-126	ECO Loc. Code AN
DATE	NAME	TITLE	DRAWING NUMBER
20180705	J. LAURIN	CHART ASSEMBLY - 3-WAY FEMALE	K29002
20181021	Frank HOLZER	(12MM APEX SEALED CONNECTOR SYSTEM)	STATE
20181021	Bob CUE	3-WAY CAM CRANK COIL SENSOR	PART NUMBER
20181021	RICK JOHANNES	ECN NO. AWD30093	REV.
FILE NAME	K29002	DOCUMENT UNDER PDS CONTROL. NO MODIFICATION ALLOWED OUTSIDE	See Table

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