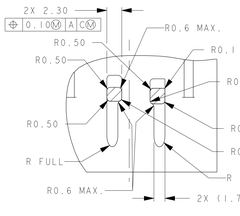
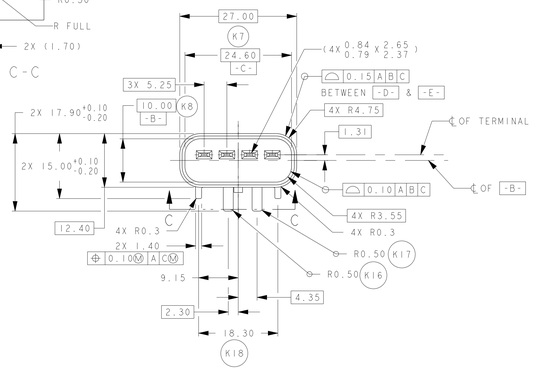
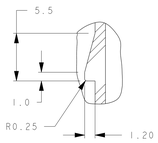


PARTIAL SECTION C-C
SCALE 3:1

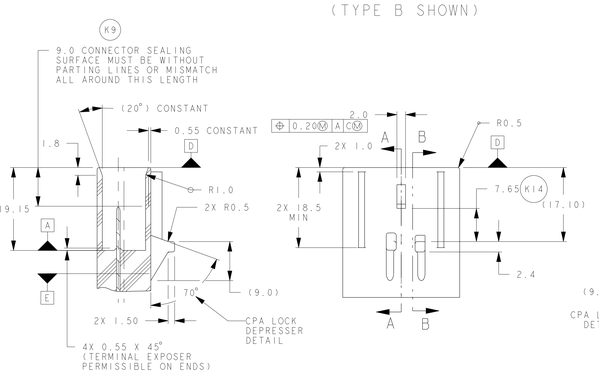


POLARIZING OPTION
FULL SIZE VIEW
(TYPE B SHOWN)

ISO VIEW
SCALE 1:1



DETAIL Z
SCALE 4:1



SECTION B-B

SECTION A-A

MALE TERMINAL (ENGAGEMENT AREA SCALE: 10X)

* B.C. INDICATES BEFORE COINING

MUST BE APPROVED BY THE RESPONSIBLE ENGINEER:

BASE MATERIAL - HIGH CONDUCTIVITY COPPER ALLOY

PLATING NOTES (CONTACT AREA)

TIN (125°C MAXIMUM CONTINUOUS TEMPERATURE)

A. HOT TIN DIP 0.5um TO 2um (20uin TO 80uin)
OR
B. POST ELECTRO MATTE TIN
BARRIER PLATE (OPTIONAL FOR SOLDERABILITY) - UNDERPLATE WITH COPPER 2.5um (100uin) MIN. THICKNESS
TOP LAYER 5.0um±2.5um (200uin±100uin) TIN
PER ASTM B-545-83

PRECIOUS METAL: WHEN SPECIFIED (PER USCAR EWCAP PLATING REQUIREMENTS)

BARRIER PLATE - (OPTIONAL FOR SOLDERABILITY) UNDERPLATE WITH COPPER 2.5um (100uin) MIN THICKNESS PER ATSM __ TBD

INTERMEDIATE LAYER #1 SULFAMATE DUCTILE NICKEL 1.27um - 2.5um (50uin - 100uin) THICK PER ASTM B699 TYPE 2

INTERMEDIATE LAYER #2 OPTIONAL 1.0um (40uin) MIN THICKNESS PALLADIUM ELECTROPLATE PER ASTM B_TBD

TOP LAYER 0.1um (4uin) MIN THICKNESS HARD GOLD OVER LAYER #2
0.5um (20uin) MIN THICKNESS HARD GOLD IF LAYER #2 IS NOT APPLIED, PER ASTM B _TBD

FOR HEAVY DUTY DIESEL ENGINES: WHEN SPECIFIED

TOP LAYER 1.27um (50uin) MIN THICKNESS HARD GOLD ELECTROPLATE PER ASTM B-488 TYPE 2 CODE "C" OVER INTERMEDIATE LAYER #1

OR

INTERMEDIATE LAYER #2 1.27um (50uin) MIN THICKNESS PALLADIUM ELECTROPLATE

TOP LAYER 0.05um (2uin) MIN THICKNESS HARD GOLD ELECTROPLATE

MALE INTERFACE NOTES:

(K) INDICATES IN - PROCESS INSPECTION FOR MANUFACTURING DIMENSION(S) OR SPECIFICATION(S) : 19

WIRING FABRICATORS MUST PURCHASE FROM ENGINEERING APPROVED SOURCES

MATES WITH 4 WAY FEMALE INSULATOR
SEE CHART

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE AS FOLLOWS:

2 PLACE DIMENSIONS ±0.10
1 PLACE DIMENSIONS ±0.25
ANGULAR ±2°

DRAFT PERMISSIBLE WITHIN DIMENSIONAL TOLERANCES ONLY UNLESS OTHERWISE SPECIFIED

MUST CONFORM TO USCAR EWCAP PF-1

PART TO BE MOLDED FREE FROM FLASH, VOIDS, STRESSES, IMPERFECTIONS, AND TOOL MARKS, THAT AFFECT FUNCTION, OR HANDLING OF THE PART

ALL EJECTOR MARKS 0.10 MAXIMUM HIGH TO 0.25mm BELOW THE SURFACE OF THE PART

TOOL MUST BE INTERCHANGEABLE TO PRODUCE ALL KEY TYPES AS CHARTED UNLESS OTHERWISE SPECIFIED

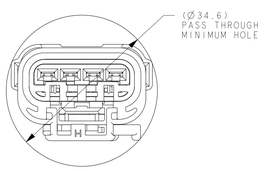
(G) DENOTES GAGE REQUIREMENTS FOR USER AND MANUFACTURER

(K19) PLATE BLADE TERMINAL PER THE ABOVE NOTES.

NOTE: ABOVE NOTES RELATING TO MATERIAL AND PLATING ARE FOR REFERENCE ONLY. PARTS MUST BE VALIDATED TO CUSTOMER REQUIREMENTS.

TYPE B

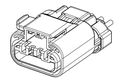
POLARIZATION OPTIONS
FULL SIZE



PASS THRU HOLE
(MINIMUM)

APPLICABLE COMPONENTS

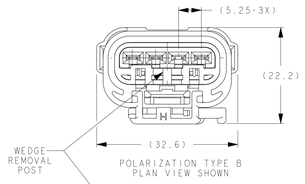
	ITEM	DESCRIPTION	MANDATORY (YES/NO)	TERMINAL CAVITY (min max od)	PLATING	FORD COMP NUMBER	SUPPLIER COMP NUMBER
	7	22 AWG ESB-MIL123-A/A2	YES	0.35	TIN	XF2T-14474-CA	54002231
G1	7	18 AWG ESB-MIL123-A/A2	YES	0.50,0.75 1.00	GOLD INLAY	8U5T-14474-GA	54001876
	7	18/20 AWG ESB-MIL123-A/A2	YES	0.50,0.75 1.00	TIN	F8VB-14474-BA	54001839
G2	7	18/20 AWG ESB-MIL123-A/A2	YES	1.50/2.00 2.50	GOLD INLAY	8U5T-14474-HA	54001446
	7	14/16 AWG ESB-MIL123-A/A2	YES	1.50/2.00 2.50	TIN	F8VB-14474-AA	54001431
F3	7	12 AWG ESB-MIL123-A/A2	YES	4.00	TIN	7L7T-14474-EA	54001227
	8	MALE DELETE CAP	NO	N/A	N/A	DU5T-14A594-AA	F291210
H1	9	CAVITY PLUG	NO	N/A	N/A	9U5T-14666-AA	54200005



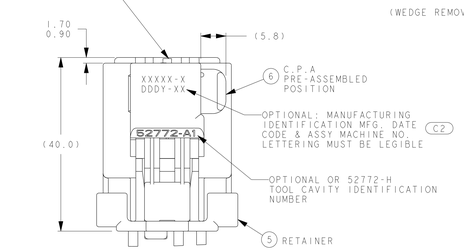
ISO VIEW
SCALE 1:1

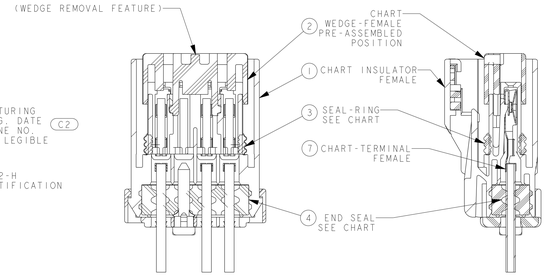
	F1	F2
CHART-ASSEMBLY PART NUMBER	FORD	FCI
	4L3T-14A464-AA	54200410
	AU5T-14A464-HAA	54200495

ITEM	DESCRIPTION	FCI COMP. P/N	COLOR	MATERIAL	REQUIRED		
1	HOUSING 4 WAY APEX FEMALE	54200435	LT.GREY	PA66 GF35	1	1	
2	SPACER 4 WAY APEX FEMALE	54200442	AQUA	PA66 GF35	1	1	
3	INTERFACE SEAL	54200459	RED	SILICONE	1	1	
4	END SEAL (STANDARD) AWG 20 TO 14	54200428	LT.BLUE	SILICONE	1		
4	END SEAL (HYBRID) AWG (2) 20 (2) 12	54200461	BRT.RED	SILICONE		1	H2
5	END SEAL RETAINER	54200440	BLACK	PA66 GF35	1	1	
6	CPA	54200003	RED	PA66 GF35	1	1	
					20 TO 14 ANY CIR.	CIR.1 20-14 CIR.2 20-14 CIR.3 12 CIR.4 12	
					WIRE GAUGE		

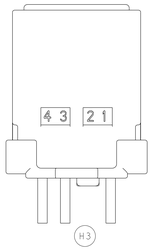


POLARIZATION TYPE B
PLAN VIEW SHOWN

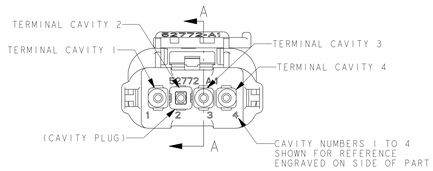




(SECTIONAL VIEW)



SECTION A-A
ROTATED 90°



NOTES:

1. CONNECTOR SYSTEM CONFORMS TO ES-F8DB-14A464-AA SAE/USCAR-2/REV 4) TEMPERATURE CLASS 3
2. CONNECTOR TO CONNECTOR MATING FORCE NOT TO EXCEED 75N PER SAE.USCAR-2 REV 4. ACTUAL MATING FORCE = 42.5N AVERAGE (IN-LINE CONNECTOR SYSTEM)
3. ALL PLASTIC PARTS MUST HAVE MATERIAL IDENTIFICATION SYMBOLS CLEARLY MARKED, WHEREVER PACKAGE SIZE PERMITS
6. FORD MOTOR COMPANY APPROVAL REQUIRED FOR ALL SOURCING AND TOOLING OF THIS PART.
7. FOR ENGINEERING APPROVED SOURCE SEE ENGINEERING RELEASE
8. ENGINEERING APPROVAL OF SAMPLE FROM EACH SUPPLIER IS REQUIRED PRIOR TO AUTHORIZATION OF PART PRODUCTION
9. CHANGES IN DESIGN COMPOSITION OR PROCESSING FROM THE PART PREVIOUSLY APPROVED FOR PART PRODUCTION REQUIRES PRIOR ENGINEERING APPROVAL
10. GENERAL TOLERANCES: ±0.3 ALL ONE PLACE DIMENSIONS
±0.10 ALL TWO PLACE DIMENSIONS
±3.0°ALL ANGULAR DIMENSIONS
11. FEED THROUGH CONDITION I.E MIN HOLE SIZE TO GIVE 2MM TOTAL CLEARANCE ACROSS THE MAXIMUM DIAMETER
12. 0.3mm MAXIMUM RADIUS PERMISSIBLE ON EDGES AND FILLETS SHOWN AS SHARP FOR PLASTIC PARTS
13. ALL RADIUS 0.50
14. PARTS ARE TO BE FREE OF SCRATCHES, DISCOLORATION, SALT RESIDUE OR OTHER IMPERFECTIONS THAT MAY AFFECT FUNCTION OR FIT OF PART
15. DRAWING CONFORMS TO AVP-(T401/T406)-001 REVISION X DATED

NOTES:

PART MUST CONFORM TO ES-F8DB-14A464-AA (D2)
SAE/USCAR-2/REV 4) TEMPERATURE CLASS 3

CHANGES IN DESIGN COMPOSITION OR PROCESSING FROM THE PART PREVIOUSLY APPROVED FOR PART PRODUCTION REQUIRES PRIOR ENGINEERING APPROVAL

PARTS ARE TO BE FREE OF SCRATCHES, DISCOLORATION, SALT RESIDUE OR OTHER IMPERFECTIONS THAT MAY AFFECT FUNCTION OR FIT OF PART

ALL SEALED CONNECTOR APPLICATIONS MUST BE USED WITH FORD WIRE SPEC. ESB-MIL123-A/A2 THIN WALL X-LINK 20, 18, 16 & 14 GAGE WIRES ONLY, UNLESS OTHERWISE SPECIFIED (WIRE INSULATIONS Ø1.70 MIN TO 2.77 MAX)

ALL NON-SEALED APPLICATIONS MAY BE USED WITH ANY WIRE INSULATION 22 GAGE THRU 10 GAGE (EXCEPT AS NOTED) PROVIDING THAT A TERMINAL GRIP FOR THAT CORE/INSULATION COMBINATION IS SHOWN ON THE FEMALE TERMINAL DRAWING

NOTE: MAX. INSULATION GRIP WIDTH = 4.50
MAX. INSULATION CRIMP HEIGHT = 4.50
MAX. INSULATION DIA. = 4.09 (10 GA THIN WALL)

*** SUPPLIER, MOLD AND CAVITY I.D. SIGNIFIES TOOL OWNERSHIP, FOR REFERENCE

SERVICE TOOLING GUIDE INFORMATION PER APEX TRAINING MANUAL

(E) CONNECTOR TO CONNECTOR MATING FORCE NOT TO EXCEED 75N PER SAE.USCAR-2 REV 4. ACTUAL MATING FORCE = 42.5N AVERAGE (IN-LINE CONNECTOR SYSTEM)

LTRS	REVISIONS		
ORIGINATOR	CHECKER	ENG APP	MATL APP
RELEASED 4L3T-14A464-AA FOR PRODUCTION AUTHORITY NB00-11111586-000 20010120			
T.ANGER	T.TAEPKE	W.DIXON	
B1 ADDED TERMINAL CAVITY CALLOUTS 1-4 NB00-1-11143444-104 20020218			
T.ANGER	T.TAEPKE	W.DIXON	
C1 ADDED FCI ASSEMBLY NUMBER C2 REVISED MANUFACTURING IDENTIFICATION NOTES NB00-1-11143444-120 20020313			
T.ANGER	T.TAEPKE	W.DIXON	
D1 CONNECTOR PRIMARY LATCH REVISED D2 NOTES UPDATED AELE-E-11786306020 20060828			
RAJKUMAR	S.SIAN	A.SARAIYA	
E CONNECTOR TO CONNECTOR MATING FORCE NOTE ADDED AELE-E-11786306 032 20070228			
UDHAYANAN	S.SIAN	A.SARAIYA	
F1 RELEASED AU5T-14A464-HAA PER PRODUCTION AUTHORITY F2 ADDED FCI P/N 54200495 ASSY WITH HYBRID ENDSEAL P/N 54200461 REVISED & UPDATED ASSEMBLY P/N CHART F3 ADDED 7L7T-14474-EA FCI 54001227 FOR #12 AWG WIRE F4 INSULATOR REFERENCE VIEWS CHANGED TO TYPE B POL AELE-E-11786306-101 20090515			
A.RAJU	S.SIAN		
G1 ADDED 8U5T-14474-GA FCI 54001876 FOR #18 AWG WIRE G2 ADDED 8U5T-14474-HA FCI 54001446 FOR #14 AWG WIRE AELE-E-11786306-156 20110620			
DRK	S.SIAN	G.LEECE	
H1 ADDED MALE DELETE CAP AND CAVITY PLUG TO APPLICABLE COMPONENTS CHART H2 REVISED MAT SEAL ASSIGNMENT IN BOM CHART H3 ADDED SIDE VIEW TO SHOW CAVITY ID ADD VIEWS RE-ALIGNED AELE-E-11786306-161 20111201			
MAHADEVAN	S.SIAN		

REFERENCE	FCI - AUTOMOTIVE (7362) FOR INFORMATION CONTACT: FCI - AUTOMOTIVE (7362)
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH,SAFETY AND THE ENVIRONMENT	
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION 26	3 RD ANGLE PROJ DIMENSIONS IN MILLIMETERS
CAD TYPE: X-PROE	CAD LOC.: N/A
CAD FILE: H59003/4L3T	DTMC IS MASTER
OPER. NO.	UNIT
DRAWING: 4L3T-14A464-AA	
DESIGN: FCI	DETAIL: MAHADEVAN 20111129
TITLE: SLEEVE ASSEMBLY WIRE CONNECTOR FEMALE (4-WAY APEX)	SHT 1 OF 2
CHECKED: Sucha Sian 20111129	SAFETY
	H3
SCALE: 4X	DATE: 20111129
DIVISION	
PLANT	
FORD MOTOR COMPANY	

4L3T-14A464-AA
AU5T-14A464-HAA

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