REV.

AS34671

# reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions. SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user." SAE reviews each technical report at least every five years at which time it may be revised,

**RATIONALE** 

REVISION IS REQUIRED TO CORRECT THE FEATURE LINE FOR THE .218-.185 DIMENSION IN FIGURE 1, THE LEFT SIDE BOUNDARY LINE SHOULD BE THE END OF THE SHELL.

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS81703.

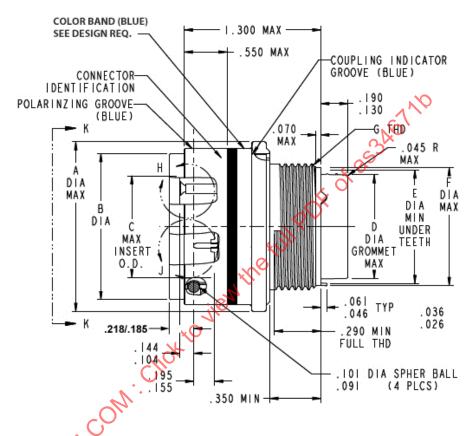


FIGURE 1 - CONNECTOR CONFIGURATIONS AND DIMENSIONS (CONNECTOR VIEW)

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SSUED 2004-06 THIRD ANGLE PROJECTION

CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS81703



## AEROSPACE STANDARD

CONNECTOR, PLUG, ELECTRIC, CRIMP TYPE, PUSH-PULL COUPLING, SERIES 3 (CLASS L AND E)

AS34671 SHEET 1 OF 5 REV. В

**REVISED 2015-02** 

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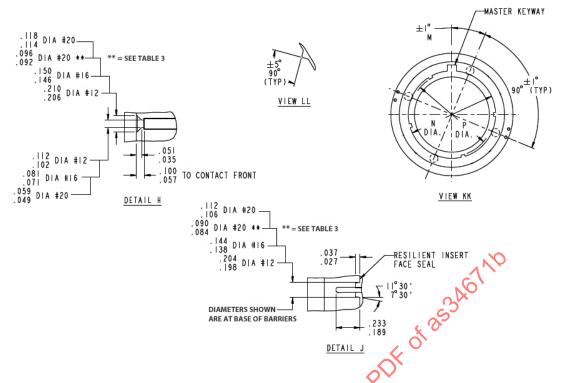


FIGURE 2 - CONNECTOR CONFIGURATIONS AND DIMENSIONS (DETAIL VIEWS)

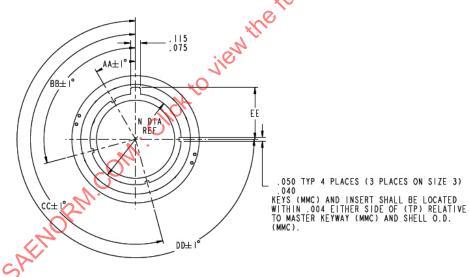
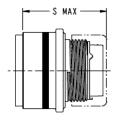
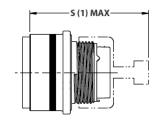
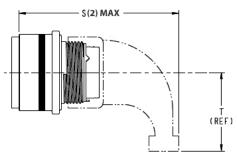


FIGURE 3 - CONNECTOR KEY POSITIONS







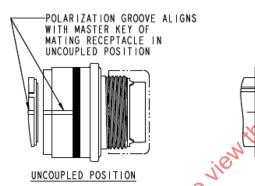


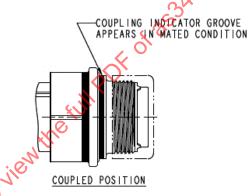
ASSEMBLED TO STRAIGHT BACKSHELL LESS STRAIN RELIEF (SEE DESIGN REQUIREMENTS)

ASSEMBLED TO STRAIGHT BACKSHELL
WITH STRAIN RELIEF
(SEE DESIGN REQUIREMENTS)

ASSEMBLED TO 90° BACKSHELL WITH STRAIN RELIEF
(SEE DESIGN REQUIREMENTS)

### FIGURE 4 - BACKSHELL ACCESSORIES





# FIGURE S- COUPLING DETAILS

### TABLE 1 - CONNECTOR DIMENSIONS

SHELL SIZE	_	O B	C MAX.	D MAX.	E MIN.	F	
DASH	A	SHELL	INSERT	GROMMET	UNDER	MAX.	
NO.	DIA.	I.D.	O.D.	O.D.	TEETH	DIA.	G THREAD
-3	.805	.657/ .648	.330	.351	.441	.509	9/16-24 UNEF-2A
-7	.937	.793/ .782	.451	.531	.613	.687	3/4-20 UNEF-2A
-12	1.065	.942/. 932	.553	.665	.731	.812	7/8-20 UNEF-2A
-19	1.245	1.073/1.063	.738	.790	.861	.937	1-20 UNEF-2A
-27	1.423	1.226/1.216	.854	.869	.919	.992	1 1/16-18 UNEF-2A
-37	1.558	1.348/1.338	.978	.994	1.044	1.117	1 3/16-18 UNEF-2A
-61	1.865	1.614/1.604	1.271	1.280	1.361	1.427	1 1/2-18 UNEF-2A



# **AEROSPACE STANDARD**

### TABLE 1 - CONNECTOR DIMENSIONS (CONTINUED)

SHELL							
SIZE							
DASH				S	S (1)	S (2)	T
NO.	M	N	Р	MAX.	MAX.	MAX.	(REF)
-3	30 DEGREES	.454/ .446	.405/ .398		1.919	2.127	.850
-7		.589/ .581	.540/ .533			2.327	.950
-12	22	.723/ .715	.675/ .668	4.500		2.407	1.010
-19	DEGREES	.862/ .854	.813/ .806	1.569		2.540	1.070
-27	_30_	1.017/1.009	.968/ .961		2.154	2.668	1.130
-37	FEET	1.139/1.131	1.090/1.083			2.784	1.190
-61		1.427/1.419	1.378/1.371			3.046	1.335

### **TABLE 2 - KEYWAY POSITIONS**

SHELL SIZE DASH					346
NO.	AA	BB	CC	DD	O EE
-3	23	97	187	N/A	.31/.29
-7	DEGREES	DEGREES	DEGREES	277 DEGREES	.37/.35
-12				QV	.44/.42
-19	30 DEGREES	105 DEGREES	195 DEGREES	270 DEGREES	.51/.49
-27					.59/.57
-37					.65/.63
-61			111.		.79/.77

### TABLE 3 - INSERT ARRANGEMENTS REQUIRING REDUCED DIAMETER SEAL BARRIER

INSERT ARRANGEMENTS REQUIRING REDUCED DIAMETERS FOR SOCKET CONTACT CHAMFER LEAD-INS AND PIN CONTACT RAISED SEAL BARRIERS (ON OUTER ROW CONTACTS OF INSERT ARRANGEMENTS INDICATED BELOW)

(APPLICABLE TO THE .096/.092 SIZE 20 DIAMETER IN DETAIL H AND THE .090/.084 DIAMETER SIZE 20 IN DETAIL J)

SHELL SIZE

INSERT ARRANGEMENT

CONTACT CAVITIES

12

12-50

5, 6, 8, 9, 11, AND 12

REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS81703.

### 1. DESIGN:

CONNECTORS AND ACCESSORIES SHALL BE DESIGNED IN ACCORDANCE WITH FIGURES 1 THROUGH 5 AND TABLES 1 AND 2. DIMENSIONS ARE IN INCHES AND APPLY AFTER PLATING. TOLERANCES SHALL BE .XX = ±.01 AND .XXX = ±.005. ANGULAR TOLERANCES SHALL BE X DEGREES = ±1 DEGREE 0 FEET AND X DEGREES X FEET = ±30 FEET. COLOR BAND SHALL BE .100 INCHES WIDE MAXIMUM. BAND LOCATION MUST BE SUCH THAT IT IS VISIBLE WHEN THE CONNECTOR IS MOUNTED. CONNECTOR ASSEMBLY MUST INCLUDE A BACKSHELL TO MEET THE MOISTURE SEALING REQUIREMENTS OF AS81703. SEE AS85049/31, /51, /52, OR /60 FOR APPLICABLE BACHSHELL ACCESSORIES.

### 2. MATERIALS:

SHELL - 6061-T6 PER AMS-QQ-A-367 OR EQUIVALENT.

COUPLING RING - ALUMINUM ALLOY PER AS81703.

### 3. FINISH:

SHELL AND COUPLING RING - ELECTROLESS NICKEL IN ACCORDANCE WITH ASTM B733-90 OR EQUIVALENT.

	AEROSPACE STANDARD		
INTERNATIONAL	CONNECTOR, PLUG, ELECTRIC, CRIMP TYPE, PUSH-PULL COUPLING, SERIES 3 (CLASS L AND E)	<b>AS34671</b> SHEET 4 OF 5	REV. B