

REV.
A

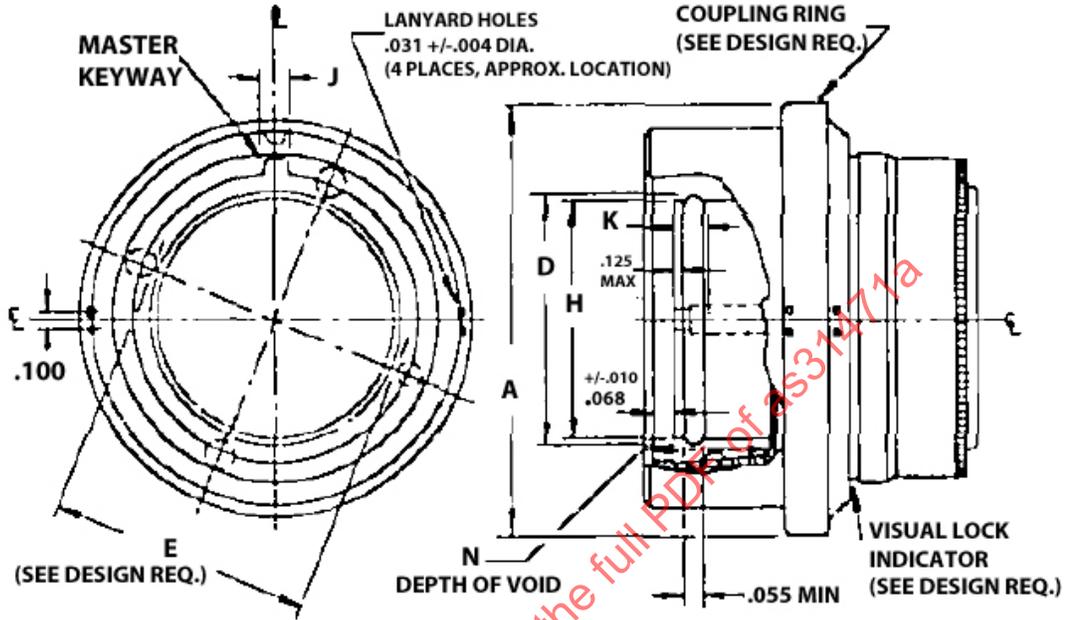
AS31471™

FEDERAL SUPPLY CLASS
5935

RATIONALE

AS31471A HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF SAE AS81703.

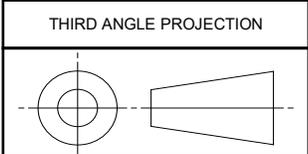


STYLE S (SOCKET INSERT)

FIGURE 1 – CONNECTOR CONFIGURATIONS AND DIMENSIONS

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<https://www.sae.org/standards/content/AS31471A/>



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS81703



AEROSPACE STANDARD

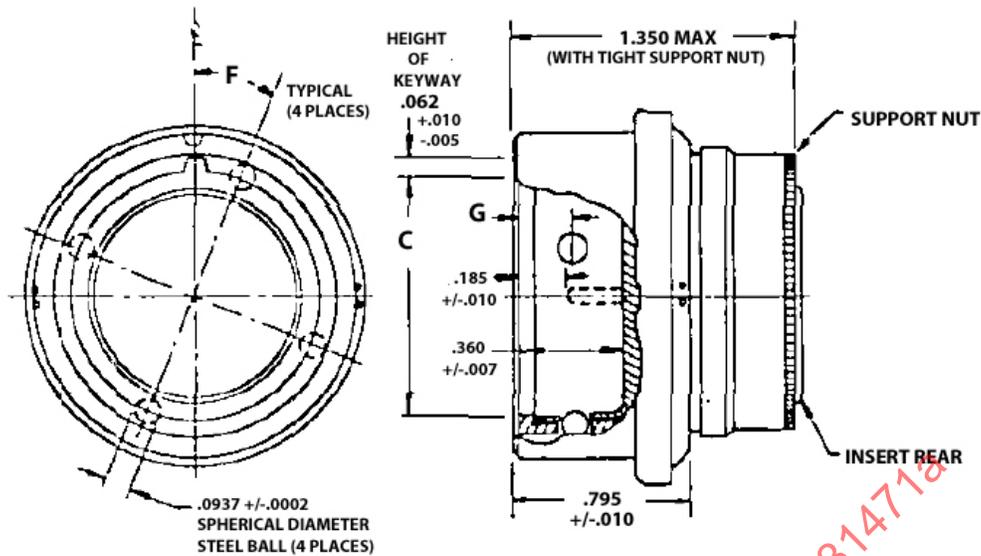
(R) CONNECTOR, PLUG, ELECTRIC,
CRIMP TYPE, PUSH-PULL, COUPLING,
SERIES 2 (CLASS E AND J)

AS31471™
SHEET 1 OF 5

REV.
A

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ISSUED 2004-06 REVISED 2011-08 REAFFIRMED 2021-05



STYLE P (PIN INSERT)

FIGURE 2 – CONNECTOR CONFIGURATIONS AND DIMENSIONS (CONTINUED)

TABLE 1 – FIGURE 1 AND 2 DIMENSIONS

SHELL SIZE DASH NO.	A MAX. DIA. COUPLING RING	C MIN. SHELL I.D.	D ± .006 AVERAGE DIA. INSERT SEAL	E MIN. DIA. BALL SPACING	F BALL LOCATION (ANGULAR)	G +.002/- .005 BALL LOCATION (DEPTH)
-3	.840	.444	.374	.391	30°	.202
-7	.970	.579	.490	.526	22.5°	
-12	1.090	.713	.630	.661		
-19	1.280	.852	.770	.799		
-27	1.455	1.007	.925	.954		
-37	1.590	1.127	1.047	1.076		

TABLE 1 – FIGURE 1 AND 2 DIMENSIONS (CONTINUED)

H DIA. OF INSERT	J MAX. WIDTH OF KEYWAY	K POINT OF SPRING CONTACT	N ± .031 DEPTH OF VOID	FOR INSERT ARRANGEMENT SEE DRAWING
.344	.114	.138 MAX MEASURE WITH SQUARE NOSE PIN HAVING SAME BASIC DIAMETER OF MATING CONTACT	.310 IN DISENGAGED POSITION	AS33698
.460				AS33699
.600				AS33700
.740				AS33701
.895				AS33702
1.017				AS33703

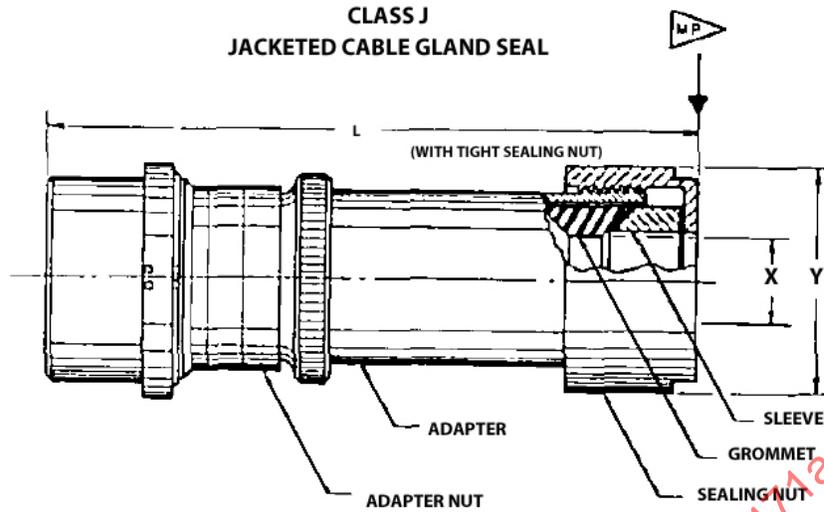


FIGURE 3 – JACKETED CABLE GLAND SEAL

TABLE 2 – FIGURE 3 DIMENSIONS AND ACCESSORY PART NUMBERS

SHELL SIZE DASH NO.	L LENGTH MAX.	X INSIDE DIA.		Y MAX. DIA. NUT	ADAPTER MS3130J-*A	GROMMET MS3130J-*B	SLEEVE MS3130J-*C	SEALING NUT MS3130J-*D	MAX CABLE WEIGHT IN POUNDS (ALLOWABLE FORCE IN DIRECTION INDICATED)
		MIN	MAX						
-3	3.088	.178	.210	.645	MS3130J-3A	MS3130J-3B	MS3130J-3C	MS3130J-3D	2.0
-7	4.072	.381	.413	.926	MS3130J-7A	MS3130J-7B	MS3130J-7C	MS3130J-7D	2.7
-12	4.538	.412	.444	.988	MS3130J-12A	MS3130J-12B	MS3130J-12C	MS3130J-12D	4.0
-19	4.572	.522	.554	1.113	MS3130J-19A	MS3130J-19B	MS3130J-19C	MS3130J-19D	5.5
-27		.600	.632		MS3130J-27A	MS3130J-27B	MS3130J-27C	MS3130J-27D	8.0
-37	4.603	.662	.694	1.176	MS3130J-37A	MS3130J-37B	MS3130J-37C	MS3130J-37D	12.0

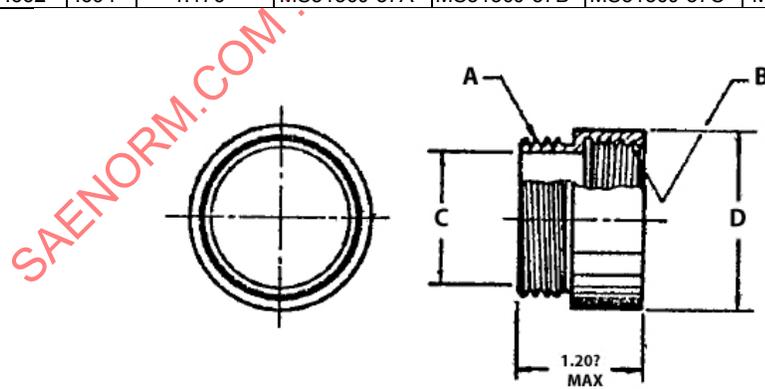


FIGURE 4 – MS3140J-*A, ADAPTER NUT, JACKETED CABLE SEALING

	AEROSPACE STANDARD	AS31471™ SHEET 3 OF 5	REV. A
	(R) CONNECTOR, PLUG, ELECTRIC, CRIMP TYPE, PUSH-PULL, COUPLING, SERIES 2 (CLASS E AND J)		

TABLE 3 – FIGURE 4 DIMENSIONS

SHELL SIZE DASH NO.	A THREAD	B THREAD	C I.D.	D O.D.
-3	1/2 – 28 UNEF	1/2 – 28 UNEF	.379	.576
-7	5/8 – 24 UNEF	5/8 – 24 UNEF	.479	.687
-12	3/4 – 20 UNEF	3/4 – 20 UNEF	.594	.812
-19	7/8 – 20 UNEF	7/8 – 20 UNEF	.733	.937
-27	1 – 20 UNEF	1 – 20 UNEF	.868	1.087
-37	1 3/16 – 18 UNEF	1 3/16 – 18 UNEF	1.024	1.250

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

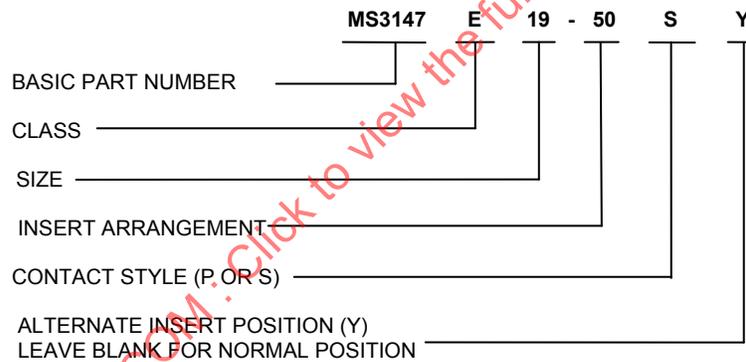
1. DESIGN:

CONNECTORS AND ACCESSORIES SHALL BE DESIGNED IN ACCORDANCE WITH FIGURES 1 THROUGH 3 AND TABLES 1 AND 2. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE ±.016 INCHES. ANGULAR TOLERANCES ARE +/- .5 DEGREES. DIMENSIONS LOCATING TRUE POSITION ARE BASIC. TRUE POSITION TOLERANCES SPECIFIED ARE IN ACCORDANCE WITH ASME-Y14.5 -DIMENSIONING AND TOLERANCING. IN FIGURE 1, THE COUPLING RING AND BALLS ARE SHOWN IN THE ENGAGED POSITION FOR CLARITY. THIS POSITION SHALL ONLY BE POSSIBLE WHEN ENGAGED TO THE RECEPTACLE. IN THE NORMAL DISENGAGED POSITION, THE FOLLOWING IS TRUE:

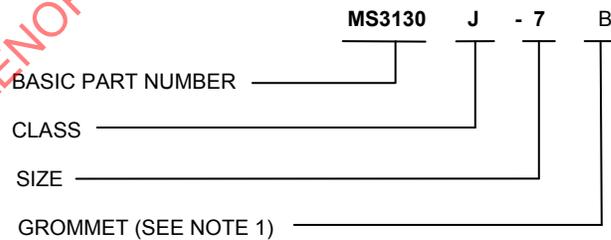
- A. THE VISUAL LOCK INDICATOR IS NOT IN VIEW
- B. THE BALLS ARE RELEASED WHEN "E" MINIMUM EQUALS "C".

2. THE PART NUMBERS SHALL BE AS SHOWN IN THE EXAMPLES BELOW:

CONNECTOR PART NUMBER:



ADAPTER/ACCESSORY PART NUMBER:



NOTES:

- 1. A - INDICATES ADAPTER
- B - INDICATES GROMMET
- C - INDICATES SLEEVE
- D - INDICATES SEALING NUT
- (THESE PARTS ARE INTENDED FOR USE WITH CLASS J CONNECTORS)