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REV.  
A

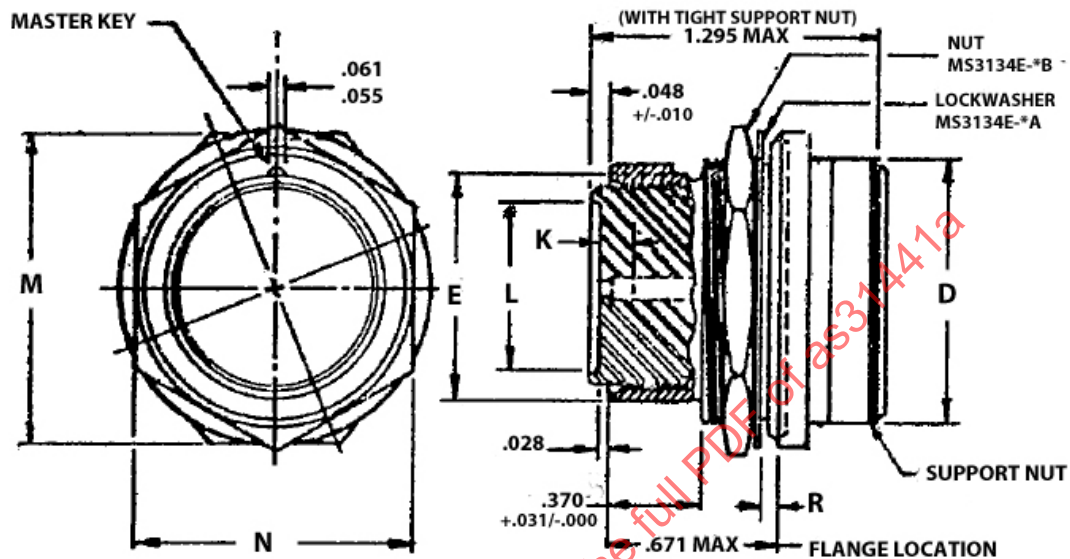
AS31441™

FEDERAL SUPPLY CLASS  
5935

#### RATIONALE

AS31441A 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.

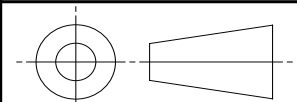


#### STYLE S (SOCKET INSERT)

FIGURE 1 – CONNECTOR CONFIGURATIONS AND DIMENSIONS (CLASS E)

For more information on this standard, visit  
<https://www.sae.org/standards/content/AS31441A/>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS81703

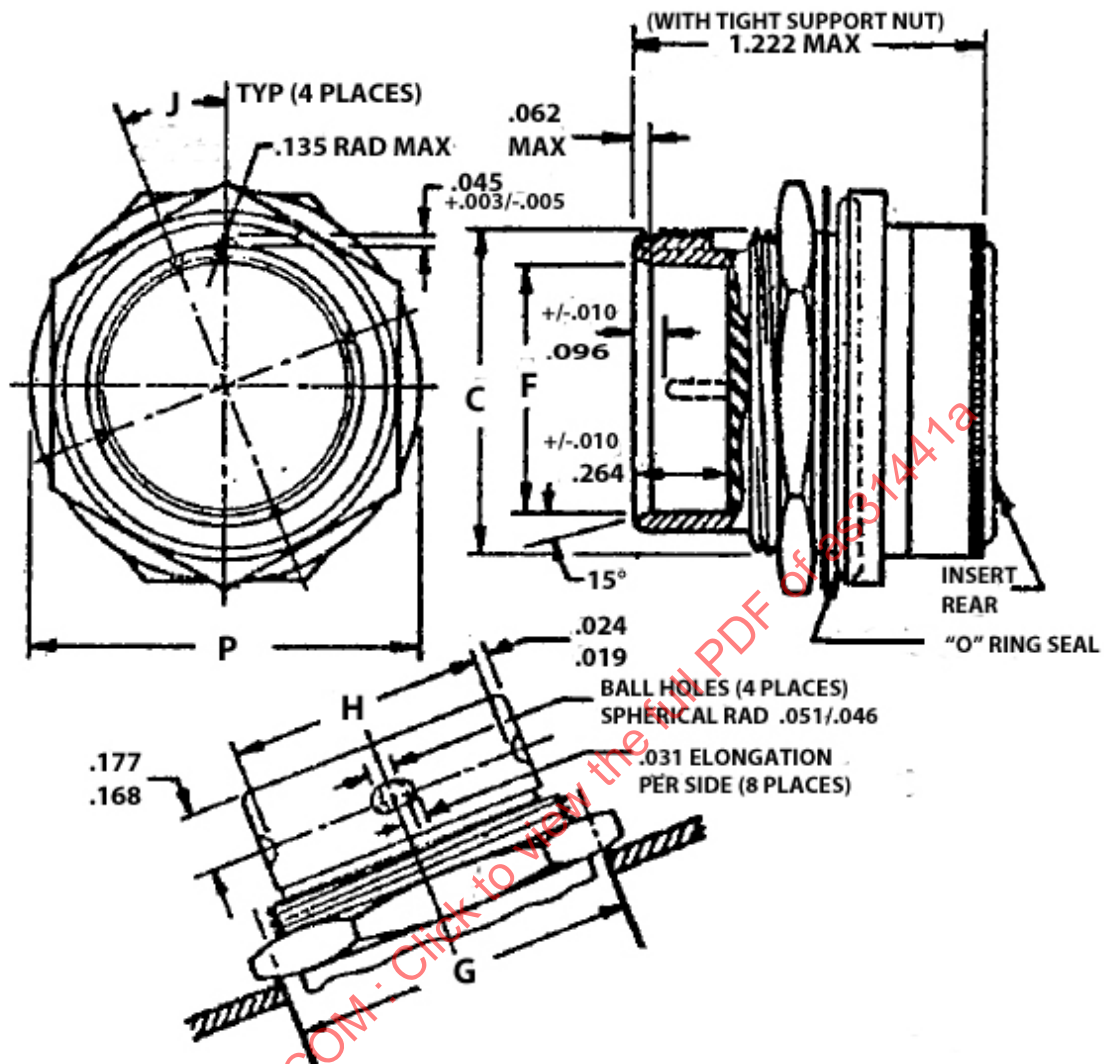


#### AEROSPACE STANDARD

(R) CONNECTOR, RECEPTACLE, ELECTRIC, CRIMP  
TYPE, JAM NUT MOUNTING, PUSH-PULL, COUPLING,  
SERIES 2 (CLASS E AND J)

AS31441™  
SHEET 1 OF 4

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STYLE P (PIN INSERT)

FIGURE 2—CONNECTOR CONFIGURATIONS AND DIMENSIONS (CLASS E-CONTINUED)

TABLE 1 – FIGURE 1 AND 2 DIMENSIONS

| SHELL SIZE DASH NO. | C THREAD SIZE    | D MAX DIA REAR | E $+0.006/-0.004$ SHELL OUTSIDE DIA | F $+0.003/-0.007$ SHELL INSIDE DIA | G $+0.020/-0.005$ MOUNTING HOLE DIA | H $+0.002/-0.005$ BALL HOLE SPACING | J BALL HOLE LOCATION |
|---------------------|------------------|----------------|-------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|----------------------|
| -3                  | 9/16-24 UNEF-2A  | .625           | .435                                | .364                               | .571                                | .396                                | 30 DEGREES           |
| -7                  | 11/16-24 UNEF-2A | .702           | .570                                | .480                               | .696                                | .531                                | 22.5 DEGREES         |
| -12                 | 13/16-20 UNEF-2A | .828           | .704                                | .621                               | .818                                | .666                                |                      |
| -19                 | 1-20 UNEF-2A     | .953           | .843                                | .760                               | 1.010                               | .804                                |                      |
| -27                 | 1 1/8-18 UNEF-2A | 1.102          | .998                                | .915                               | 1.135                               | .959                                |                      |
| -37                 | 1 1/4-18 UNEF-2A | 1.266          | 1.120                               | 1.037                              | 1.260                               | 1.081                               |                      |

TABLE 1 – FIGURE 1 AND 2 DIMENSIONS (CONTINUED)

| SHELL SIZE DASH NO. | K POINT OF SPRING CONTACT                                                          | L INSERT SEAL I.D. | M FLATS FLANGE | N FLATS NUT | P DIA FLANGE 90° FROM FLATS | R MAX PANEL THICKNESS | FOR INSERT ARRANGEMENT SEE DRAWING |
|---------------------|------------------------------------------------------------------------------------|--------------------|----------------|-------------|-----------------------------|-----------------------|------------------------------------|
| -3                  | .138 MAX MEASURE WITH SQUARE NOSE PIN HAVING SAME BASIC DIAMETER OF MATING CONTACT | .264               | .750           | .625        | .750                        | .062                  | AS33698                            |
| -7                  |                                                                                    | .380               | .875           | .812        | .875                        | .093                  | AS33699                            |
| -12                 |                                                                                    | .520               | 1.062          | .937        | 1.062                       |                       | AS33700                            |
| -19                 |                                                                                    | .660               | 1.156          | 1.062       | 1.187                       |                       | AS33701                            |
| -27                 |                                                                                    | .815               | 1.312          | 1.250       | 1.312                       |                       | AS33702                            |
| -37                 |                                                                                    | .937               | 1.420          | 1.375       | 1.500                       |                       | AS33703                            |

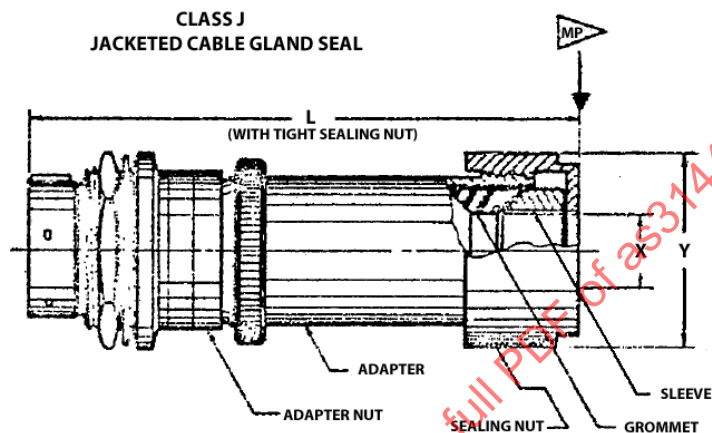


FIGURE 3 – JACKETED CABLE GLAND SEAL – WATERTIGHT TYPE (CLASS J, FOR USE WITH CLASS E CONNECTORS)

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 |
|---------------------|--------------|--------------|------|---------------|--------------------|--------------------|-------------------|------------------------|
|                     |              | MIN          | MAX  |               |                    |                    |                   |                        |
| -3                  | 3.010        | .178         | .210 | .645          | MS3130J-3A         | MS3130J-3B         | MS3130J-3C        | MS3130J-3D             |
| -7                  | 3.994        | .381         | .413 | .926          | MS3130J-7A         | MS3130J-7B         | MS3130J-7C        | MS3130J-7D             |
| -12                 | 4.460        | .412         | .444 | .988          | MS3130J-12A        | MS3130J-12B        | MS3130J-12C       | MS3130J-12D            |
| -19                 | 4.494        | .522         | .554 | 1.113         | MS3130J-19A        | MS3130J-19B        | MS3130J-19C       | MS3130J-19D            |
| -27                 |              | .600         | .632 |               | MS3130J-27A        | MS3130J-27B        | MS3130J-27C       | MS3130J-27D            |
| -37                 | 4.525        | .662         | .694 | 1.176         | MS3130J-37A        | MS3130J-37B        | MS3130J-37C       | MS3130J-37D            |

TABLE 2 - FIGURE 3 DIMENSIONS AND ACCESSORY PART NUMBERS (CONTINUED)

| SHELL SIZE DASH NO. | "O" RING PART NUMBER | MAX CABLE WEIGHT IN POUNDS (ALLOWABLE FORCE IN DIRECTION INDICATED) |
|---------------------|----------------------|---------------------------------------------------------------------|
|                     |                      | MP                                                                  |
| -3                  | MS29513-15           | 2.0                                                                 |
| -7                  | MS29513-17           | 2.7                                                                 |
| -12                 | MS29513-19           | 4.0                                                                 |
| -19                 | MS29513-22           | 5.5                                                                 |
| -27                 | MS29513-24           | 8.0                                                                 |
| -37                 | MS29513-26           | 12.0                                                                |