INCH-POUND
MS3449E
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SUPERSEDING
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DETAIL SPECIFICATION SHEET
CONNECTORS, RECEPTACLE, ELECTRICAL, SERIES II, SINGLE HOLE MOUNT, BAYONET COUPLING, SOLDER PIN CONTACT, CLASS H

Inactive for new design after 15 December 1998.
This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-26482.


NOTE: For "XX", see note 5 and table I for contact cavities requiring reduced dimensions.

FIGURE 1. Receptacle, class H, dimensions and configurations.


FIGURE 1. Receptacle, class H, dimensions and configurations - Continued.


FIGURE 1. Receptacle, class H, dimensions and configurations - Continued.


PANEL CUTOUT

FIGURE 1. Receptacle, class H, dimensions and configurations - Continued.

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| Contact size | BB | CC | DD | HH | KK |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $.041(1.04)$ | $.088(2.24)$ | $.048(1.22)$ | $.188(4.78)$ | $.110(2.79)$ |
|  | $.039(0.99)$ | $.061(1.55)$ | $.042(1.07)$ | $.109(2.77)$ | $.068(1.73)$ |
| 16 | $.0635(1.61)$ | $.116(2.95)$ | $.075(1.91)$ | $.251(6.38)$ | $.141(3.58)$ |
|  | $.0615(1.56)$ | $.096(2.44)$ | $.069(1.75)$ | $.172(4.37)$ | $.109(2.77)$ |
| 12 | $.095(2.41)$ | $.150(3.81)$ | $.122(3.10)$ | $.251(6.38)$ | $.141(3.58)$ |
|  | $.093(2.36)$ | $.130(3.30)$ | $.112(2.84)$ | $.172(4.37)$ | $.109(2.77)$ |


| Shell size | A | B | $\begin{gathered} \mathrm{D} \\ (\operatorname{dia} \mathrm{ID}) \end{gathered}$ | E | F |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | $\begin{aligned} & .954(24.23) \\ & .923(23.44) \end{aligned}$ | $\begin{aligned} & 1.078(27.38) \\ & 1.047(26.59) \end{aligned}$ | . 361 (9.17) | . 536 (13.61) | $\begin{aligned} & .707(17.96) \\ & .691(17.55) \end{aligned}$ |
| 10 | $\begin{aligned} & 1.078(27.38) \\ & 1.047(26.59) \end{aligned}$ | $\begin{aligned} & 1.203(30.56) \\ & 1.172(29.77) \end{aligned}$ | . 489 (12.42) | . 661 (16.79) |  |
| 12 | $\begin{aligned} & 1.266(32.16) \\ & 1.235(31.37) \end{aligned}$ | $\begin{aligned} & 1.391(35.33) \\ & 1.360(34.54) \end{aligned}$ | . 606 (15.39) | . 824 (20.93) |  |
| 14 | $\begin{aligned} & 1.391(35.33) \\ & 1.360(34.54) \end{aligned}$ | $\begin{aligned} & 1.516(38.51) \\ & 1.485(37.72) \end{aligned}$ | . 731 (18.57) | . 948 (24.08) |  |
| 16 | $\begin{aligned} & 1.516(38.51) \\ & 1.485(37.72) \end{aligned}$ | $\begin{aligned} & 1.641(41.68) \\ & 1.610(40.89) \end{aligned}$ | . 856 (21.74) | 1.072 (27.23) |  |
| 18 | $\begin{aligned} & 1.641(41.68) \\ & 1.610(40.89) \end{aligned}$ | $\begin{aligned} & 1.766(44.86) \\ & 1.735(44.07) \end{aligned}$ | . 961 (24.41) | 1.197 (30.40) |  |
| 20 | $\begin{aligned} & 1.828(46.43) \\ & 1.797(45.64) \end{aligned}$ | $\begin{aligned} & 1.954(49.63) \\ & 1.923(48.84) \end{aligned}$ | 1.086 (27.58) | 1.322 (33.58) | $\begin{aligned} & .772 \text { (19.61) } \\ & .754 \text { (19.15) } \end{aligned}$ |
| 22 | $\begin{aligned} & 1.954(49.63) \\ & 1.923(48.84) \end{aligned}$ | $\begin{aligned} & 2.078(52.78) \\ & 2.047(51.99) \end{aligned}$ | 1.211 (30.76) | 1.447 (36.75) |  |
| 24 | $\begin{aligned} & 2.078(52.78) \\ & 2.047 \text { (51.99) } \end{aligned}$ | $\begin{aligned} & 2.203(55.96) \\ & 2.172(55.17) \end{aligned}$ | 1.336 (33.93) | 1.572 (39.93) | $\begin{aligned} & .803 \text { (20.40) } \\ & .705(17.91) \\ & \hline \end{aligned}$ |

FIGURE 1. Receptacle, class H, dimensions and configurations - Continued.

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| Shell size | G | J | K | L | $\stackrel{N}{\text { UNEF-2A }}$ | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | $\begin{aligned} & .113(2.87) \\ & .097(2.46) \end{aligned}$ | $\begin{aligned} & .378 \text { (9.60) } .358 \text { (9.09) } \end{aligned}$ | . 572 (14.53) | . 820 (20.83) | .5625-24 | $\begin{aligned} & .134(3.40) \\ & .074(1.88) \end{aligned}$ |
| 10 |  |  | . 697 (17.70) |  | .6875-24 |  |
| 12 |  |  | . 895 (22.73) |  | .875-20 |  |
| 14 |  |  | 1.010 (25.65) |  | 1.000-20 |  |
| 16 |  |  | 1.135 (28.83) |  | 1.125-18 |  |
| 18 |  |  | 1.260 (32.00) |  | 1.250-18 |  |
| 20 | $\begin{aligned} & .148(3.76) \\ & .128(3.25) \end{aligned}$ |  | 1.385 (35.18) | . 920 (23.37) | 1.375-18 | . 099 (2.51) |
| 22 |  |  | 1.510 (38.35) |  | 1.500-18 | . 039 (0.99) |
| 24 |  | $\begin{aligned} & .405(10.29) \\ & .385(9.78) \end{aligned}$ | 1.635 (41.53) | . 951 (24.16) | 1.625-18 | $\begin{aligned} & .069(1.75) \\ & .009(0.23) \end{aligned}$ |


| Shell size | R | S | V | X | Max weight lbs (grams) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | . 609 (15.47) | $\begin{aligned} & .187(4.75) \\ & .062(1.57) \end{aligned}$ | $\begin{aligned} & .204(5.18) \\ & .144(3.66) \end{aligned}$ | . 525 (13.34) | . 0430 (19.50) |
| 10 | . 734 (18.64) |  |  | . 650 (16.51) | . 0610 (27.67) |
| 12 | . 921 (23.39) |  |  | . 813 (20.65) | . 0880 (39.92) |
| 14 | 1.046 (26.57) |  |  | . 937 (23.80) | . 1100 (49.90) |
| 16 | 1.171 (29.74) |  |  | 1.061 (26.95) | . 1310 (59.42) |
| 18 | 1.296 (32.92) |  |  | 1.186 (30.12) | . 1720 (78.02) |
| 20 | 1.484 (37.69) | $\begin{aligned} & .250(6.35) \\ & .062(1.57) \end{aligned}$ | . 169 (4.29) | 1.311 (33.30) | . 2110 (95.71) |
| 22 | 1.609 (40.87) |  | . 109 (2.77) | 1.436 (36.47) | . 2420 (109.77) |
| 24 | 1.734 (44.04) |  | $\begin{aligned} & .139(3.53) \\ & .079(2.01) \end{aligned}$ | 1.561 (39.65) | . 2930 (132.90) |

FIGURE 1. Receptacle, class H, dimensions and configurations - Continued.

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| Inches | mm |
| :---: | :---: |
| .005 | 0.13 |
| .008 | 0.20 |
| .010 | 0.25 |
| .011 | 0.28 |
| .016 | 0.41 |
| .018 | 0.46 |
| .019 | 0.48 |
| .020 | 0.51 |
| .022 | 0.56 |
| .048 | 1.22 |
| .054 | 1.37 |
| .057 | 1.45 |
| .060 | 1.52 |
| .093 | 2.36 |
| .098 | 2.49 |
| .216 | 5.49 |
| .278 | 7.06 |

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, dimensional tolerances shall be . $\mathrm{XX} \pm .01$ inches ( 0.25 mm ) and $. X X X \pm .005$ inches ( 0.13 mm ). Angular tolerances shall be $\mathrm{X}^{\circ} \pm 1^{\circ}$.
4. Polarizing stripes, color optional.
5. Insert arrangements requiring reduced diameters for raised seal barrier on outer row of contact cavities as indicated (see table I).
6. True position (TP) tolerances specified are in accordance with ASME Y14.5.

FIGURE 1. Receptacle, class H , dimensions and configurations - Continued.

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TABLE I. Contact cavities requiring reduced diameters (XX) for pins in outer row of contact cavities. 1/

| Shell size | Insert arrangement | Contact cavities |
| :---: | :---: | :---: |
| 8 | -33 and -98 | A, B, C |$|$| 12 | -10 | A, G B C, D, E, F, G, H |
| :---: | :---: | :---: |
| 14 | -12 | A, C, E, G, J, L |
| 14 | -18 | B, D, F, H, K, M |
| 14 | -26 | A, B, C, D, E, F, G, H, J, K, <br> L, M, N, P, R |
| 16 | -32 | A, B, C, D, E, F, G, H, J, K, <br> L, M, N, P, R, S, T |
| 18 | -41 | A, B, C, D, E, F, G, H, J, K, <br> L, M, N, P, R, S, T, U, V, <br> W, X, Y |
| 22 |  |  |

$\underline{1 / T h e ~ r e d u c e d ~ d i a m e t e r ~ " ~} X X$ " refers to the diameters of the raised seal barriers (pin barrier rings) to ensure proper sealing of pin and socket after mating. See MIL-DTL-26482, connector intermateability control dimensions (series 1 and series 2 ) figure for reduced diameter " XX " for contact size 20 only.

## REQUIREMENTS:

Dimensions and configuration: See figure 1 and table I.
Connector mating: This connector mates with MS3475 and MS3476, connector plugs.
For insert arrangement: See MIL-STD-1669.
Intermateability dimensions are in accordance with MIL-DTL-26482.

## Material:

Shell types A and B, 300 series stainless steel in accordance with ASTM A582/A582M and ASTM A276.
Shell type C, cold rolled steel in accordance with ASTM A108.

## Finish:

Shell types A and B, passivated in accordance with ASTM A967.
Shell type C, . 0001 inch $(2.54 \mu \mathrm{~m})$ tin minimum in accordance with ASTM B545 or ASTM B339 over nickel in accordance with SAE AMS-QQ-N-290. The use of pure tin, as an underplate or final finish, is prohibited both internally and externally. Tin content of connectors, their components and solder shall not exceed 97 percent, by mass. Tin shall be alloyed with a minimum of 3 percent lead, by mass.

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Part or Identifying Number (PIN) example:


Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Referenced documents. In addition to MIL-DTL-26482, this document references the following:

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MS3186
MS3475
MS3476
MIL-STD-1669
ASME Y14.5
ASTM A108
ASTM A276
ASTM A582/A582M
ASTM A967
ASTM B339
ASTM B545
SAE AMS-QQ-N-290
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## CONCLUDING MATERIAL

| Custodians: | Preparing activity: |
| :--- | :---: |
| Army - CR | DLA - CC |
| Navy - AS | (Project 5935-2011-005) |
| Air Force - 85 |  |
| DLA - CC |  |
| Review activities: |  |
| Army - AR, AV, MI |  |
| Navy - EC, SH |  |
| Air Force - 99 |  |

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.daps.dla.mil.

