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-38999.

FIGURE 1. Plug, classes E, T and P.
FIGURE 1. Plug, classes E, T and P - Continued.
### Table 1: Shell Size Specifications

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>L max</th>
<th>Q dia max</th>
<th>R dia max</th>
<th>W ± 0.015</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1.026</td>
<td>.750</td>
<td>.316</td>
<td>.547</td>
</tr>
<tr>
<td>12</td>
<td>1.020</td>
<td>.859</td>
<td>.436</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>.766</td>
<td>1.031</td>
<td>.549</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>1.156</td>
<td>.675</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>1.281</td>
<td>.799</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>1.406</td>
<td>.893</td>
<td>.524</td>
</tr>
<tr>
<td>22</td>
<td></td>
<td>1.531</td>
<td>1.018</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>1.104</td>
<td>1.641</td>
<td>1.143</td>
<td>.575</td>
</tr>
</tbody>
</table>

### Table 2: Inches to Millimeters Conversion

<table>
<thead>
<tr>
<th>Inches</th>
<th>mm</th>
<th>Inches</th>
<th>mm</th>
<th>Inches</th>
<th>mm</th>
<th>Inches</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>.005</td>
<td>0.13</td>
<td>.524</td>
<td>13.31</td>
<td>.844</td>
<td>21.44</td>
<td>1.143</td>
<td>29.03</td>
</tr>
<tr>
<td>.006</td>
<td>0.15</td>
<td>.547</td>
<td>13.89</td>
<td>.859</td>
<td>21.82</td>
<td>1.156</td>
<td>29.36</td>
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<tr>
<td>.010</td>
<td>0.25</td>
<td>.549</td>
<td>13.94</td>
<td>.893</td>
<td>22.68</td>
<td>1.268</td>
<td>32.21</td>
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<tr>
<td>.015</td>
<td>0.38</td>
<td>.575</td>
<td>14.61</td>
<td>.953</td>
<td>24.21</td>
<td>1.281</td>
<td>32.54</td>
</tr>
<tr>
<td>.036</td>
<td>0.91</td>
<td>.675</td>
<td>17.15</td>
<td>1.018</td>
<td>25.86</td>
<td>1.406</td>
<td>35.71</td>
</tr>
<tr>
<td>.316</td>
<td>8.03</td>
<td>.750</td>
<td>19.05</td>
<td>1.020</td>
<td>25.91</td>
<td>1.531</td>
<td>38.89</td>
</tr>
<tr>
<td>.391</td>
<td>9.93</td>
<td>.766</td>
<td>19.46</td>
<td>1.031</td>
<td>26.19</td>
<td>1.641</td>
<td>41.68</td>
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<tr>
<td>.436</td>
<td>11.07</td>
<td>.799</td>
<td>20.29</td>
<td>1.080</td>
<td>27.43</td>
<td>1.766</td>
<td>44.86</td>
</tr>
</tbody>
</table>

### Notes:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. For main key polarization and key positions, see MIL-DTL-38999.
4. Dimensions and tolerances are in accordance with ASME Y14.5.
5. Applicable potting forms for class P: SAE-AS85049/58 and SAE-AS85049/75.
6. To the end of teeth.

**FIGURE 1.** Plug, classes E, T and P - Continued.
REQUIREMENTS:

Dimensions and configurations: See figure 1.

Interface dimensions shall be in accordance with MIL-DTL-38999.

Mating connectors: MIL-DTL-38999/10, MS27472, MS27474, MS27475, MS27476, MS27477, MS27478, MS27479, MS27497, MS27499, MS27508 and MS27513.

Insert arrangements: See MIL-STD-1560.

For class E, compression nut in accordance with SAE-AS85049/27 shall be included.

Part or Identifying Number (PIN) example:

<table>
<thead>
<tr>
<th>MS number</th>
<th>Class</th>
<th>Shell size</th>
<th>Finish</th>
<th>Insert arrangement number</th>
<th>Contact style (P or S)</th>
<th>Polarizing positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS27473</td>
<td>T</td>
<td>24</td>
<td>F</td>
<td>61</td>
<td>P</td>
<td>A</td>
</tr>
</tbody>
</table>

Note: For the normal position only, no letter designator is marked on the part, and no letter designator is included in the PIN to indicate the “normal” position. A letter designator is required for all other polarization positions.

Restrictions.
Class E is inactive for new design.
Class P is inactive for new design for the Air Force.
Finish F is not for Navy use. Finish F is inactive for new design for the Air Force.

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. 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.
Referenced documents. In addition to MIL-DTL-38999, this document references the following:

- MIL-DTL-38999/10
- MIL-STD-1560
- MS27472
- MS27474
- MS27475
- MS27476
- MS27477
- MS27478
- MS27479
- MS27497
- MS27499
- MS27508
- MS27513
- ASME Y14.5
- SAE-AS85049/27
- SAE-AS85049/58
- SAE-AS85049/75

CONCLUDING MATERIAL

Custodians:
- Army - CR
- Navy - AS
- Air Force – 85
- DLA - CC

Preparing activity:
- DLA - CC

Review activities:
- Army - AR, MI
- Navy - EC, MC, OS
- Air Force - 19, 99
- DLA – IS

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.dla.mil.