DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, RECTANGULAR, PLUG, MICROMINIATURE, POLARIZED SHELL, PIN CONTACTS, CLASS P, SOLDER TYPE

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-83513.

FIGURE 1. Connector, plug, .050 spacing.
FIGURE 1. Connector, plug, .050 spacing - Continued.
### Table: Dimensions of Cavities

<table>
<thead>
<tr>
<th>Number of cavities</th>
<th>A ±.010</th>
<th>B BSC</th>
<th>C +.010 -.018</th>
<th>D BSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>.778 (19.76)</td>
<td>.2918 (7.412)</td>
<td>.398 (10.11)</td>
<td>.565 (14.35)</td>
</tr>
<tr>
<td>15</td>
<td>.928 (23.57)</td>
<td>.4418 (11.222)</td>
<td>.548 (13.92)</td>
<td>.715 (18.16)</td>
</tr>
<tr>
<td>21</td>
<td>1.07 (27.18)</td>
<td>.5918 (15.032)</td>
<td>.698 (17.73)</td>
<td>.865 (21.97)</td>
</tr>
<tr>
<td>25</td>
<td>1.178 (29.92)</td>
<td>.6918 (17.572)</td>
<td>.798 (20.27)</td>
<td>.965 (24.51)</td>
</tr>
<tr>
<td>31</td>
<td>1.328 (33.73)</td>
<td>.8418 (21.382)</td>
<td>.948 (24.08)</td>
<td>1.115 (28.32)</td>
</tr>
<tr>
<td>37</td>
<td>1.478 (37.54)</td>
<td>.9918 (25.192)</td>
<td>1.098 (27.89)</td>
<td>1.265 (32.13)</td>
</tr>
<tr>
<td>51</td>
<td>1.428 (36.27)</td>
<td>.9418 (23.922)</td>
<td>1.048 (26.62)</td>
<td>1.215 (30.86)</td>
</tr>
</tbody>
</table>

### Table: Dimensions (continued)

<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>
<th>Inches</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>.0019</td>
<td>0.48</td>
<td>.014</td>
<td>0.36</td>
<td>.036</td>
<td>0.91</td>
<td>.088</td>
<td>2.24</td>
<td>.1342</td>
<td>3.409</td>
</tr>
<tr>
<td>.002</td>
<td>0.05</td>
<td>.018</td>
<td>0.46</td>
<td>.045</td>
<td>1.14</td>
<td>.0884</td>
<td>2.245</td>
<td>.135</td>
<td>3.43</td>
</tr>
<tr>
<td>.0038</td>
<td>0.097</td>
<td>.023</td>
<td>0.58</td>
<td>.0452</td>
<td>1.148</td>
<td>.093</td>
<td>2.36</td>
<td>.137</td>
<td>3.48</td>
</tr>
<tr>
<td>.004</td>
<td>0.10</td>
<td>.025</td>
<td>0.64</td>
<td>.0459</td>
<td>1.166</td>
<td>.094</td>
<td>2.39</td>
<td>.154</td>
<td>3.91</td>
</tr>
<tr>
<td>.005</td>
<td>0.13</td>
<td>.027</td>
<td>0.69</td>
<td>.050</td>
<td>1.27</td>
<td>.095</td>
<td>2.41</td>
<td>.179</td>
<td>4.55</td>
</tr>
<tr>
<td>.006</td>
<td>0.15</td>
<td>.032</td>
<td>0.81</td>
<td>.0669</td>
<td>1.669</td>
<td>.110</td>
<td>2.79</td>
<td>.1772</td>
<td>4.501</td>
</tr>
<tr>
<td>.010</td>
<td>0.25</td>
<td>.033</td>
<td>0.84</td>
<td>.070</td>
<td>1.78</td>
<td>.1138</td>
<td>2.89</td>
<td>.180</td>
<td>4.57</td>
</tr>
</tbody>
</table>

### NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are ±.005 (0.13 mm).
4. Metric equivalents are in parentheses or columns.
5. Solder cup will accept size 26 AWG maximum wire.

**FIGURE 1.** Connector, plug, .050 spacing - Continued.
MIL-DTL-83513/6E
w/AMENDMENT 5

NOTES:
1. Engaging face of pin insert shown.
2. Cavity identification numbers are for reference only and do not appear on part.

FIGURE 2. Insert arrangement.
REQUIREMENTS:

Dimensions and configurations: See figure 1. This specification sheet describes the pin side of a rectangular plastic shell connector. This connector uses reverse gender contact, i.e., the live pin recessed in the insulator with the static socket protruding from a shrouded interface.

Material and finish:

Shell: The requirements for shell materials shall be in accordance with MIL-DTL-83513.

Contact identification: See figure 2 for contact layout identification.

Contact connection: The pin contact (being recessed in the insulator) is normally connected to the live side of the circuit.

Current rating, maximum: 3 amperes per contact.

Mounting and mating hardware: Mounting hardware is to be ordered separately. Insert arrangements A through G, are in accordance with MIL-DTL-83513/5, configurations A and B. Insert arrangement H, is in accordance with MIL-DTL-83513/5, configuration C.

Mating hardware torque: Mating hardware torque shall be in accordance with MIL-DTL-83513/5.

Mating receptacle: Mating receptacle in accordance with MIL-DTL-83513/7 or MIL-DTL-83513/9.

Example of Part or Identifying Number (PIN):

M83513/06 - 
| Insert arrangement |
| Specification sheet number |
| (see figure 2) |

A = 9
B = 15
C = 21
D = 25
E = 31
F = 37
G = 51

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.
MIL-DTL-83513/6E
w/AMENDMENT 5

Referenced documents. In addition to MIL-DTL-83513, this document references the following:

MIL-DTL-83513/5
MIL-DTL-83513/7
MIL-DTL-83513/9

CONCLUDING MATERIAL

Custodians:  Preparing activity:
  Army - CR  DLA - CC
  Navy - EC
  Air Force - 85  (Project 5935-2016-122)
  NASA - NA
  DLA - CC

Review activities:
  Army - AT, MI
  Navy - AS, CG, MC, 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.dla.mil/.