DETAIL SPECIFICATION SHEET

SWITCHES, RADIO-FREQUENCY TRANSMISSION LINE (COAXIAL) (ELECTRICALLY OPERATED) CLASS 4, 1P2T

This specification is approved for use by all Departments and Agencies of the Department of Defense.

Requirements for acquiring the switches described herein shall consist of this specification sheet and MIL-DTL-3928.

FIGURE 1. Switch configuration and schematic, part or identifying numbers M3928/33-01.
MIL-DTL-3928/33

FIGURE 2. Switch configuration and schematic, part or identifying numbers M3928/33-02.
<table>
<thead>
<tr>
<th>Letter</th>
<th>Inches</th>
<th>Millimeters</th>
<th>Letter</th>
<th>Inches</th>
<th>Millimeters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min</td>
<td>Max</td>
<td>Min</td>
<td>Max</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>2.625 ± .020</td>
<td>2.605 2.645</td>
<td>Min</td>
<td>Max</td>
<td></td>
</tr>
<tr>
<td></td>
<td>66.2</td>
<td>67.2</td>
<td>H</td>
<td>2.188 Max</td>
<td>2.188 55.6</td>
</tr>
<tr>
<td>B</td>
<td>.87 ± .010</td>
<td>.86 .88</td>
<td>J</td>
<td>2.500 ± .020</td>
<td>2.48 2.52 63.0 64.0</td>
</tr>
<tr>
<td>C</td>
<td>2.375 ± .020</td>
<td>2.355 2.395</td>
<td>K</td>
<td>.171 ± .010</td>
<td>.161 .181 4.1 4.6</td>
</tr>
<tr>
<td>D</td>
<td>.125 ± .005</td>
<td>.120 .130</td>
<td>L</td>
<td>1.250 ± .020</td>
<td>1.23 1.27 31.2 32.3</td>
</tr>
<tr>
<td>E</td>
<td>.438 ± .020</td>
<td>.418 .458</td>
<td>M</td>
<td>1.875 ± .020</td>
<td>1.855 1.895 47.1 48.1</td>
</tr>
<tr>
<td>F</td>
<td>.375 ± .010</td>
<td>.365 .385</td>
<td>N</td>
<td>.50 ± .005</td>
<td>.495 .505 12.6 12.8</td>
</tr>
<tr>
<td>G</td>
<td>.48 ± .030</td>
<td>.45 .51</td>
<td>P</td>
<td>1.000 ± .005</td>
<td>.995 1.005 25.3 25.5</td>
</tr>
</tbody>
</table>

NOTES:
1. Dimensions are in inches.
2. Metric equivalents may be determined using 1.00 inch = 25.4 mm.
### TABLE I. Electrical and performance characteristics.

<table>
<thead>
<tr>
<th>Part or identifying number</th>
<th>Figure No.</th>
<th>Housing</th>
<th>Frequency range GHz</th>
<th>Frequency rating GHz</th>
<th>VSWR Max</th>
<th>Insertion loss (dB) Max</th>
<th>Isolation (dB) Min</th>
<th>Switch time (ms) Max</th>
<th>Position indication circuit and rating</th>
<th>Life cycles x 1000 Min</th>
<th>Operating current (A) 1/ Max</th>
<th>Holding current (A) 1/ Max</th>
<th>Nominal operating voltage</th>
<th>Pickup voltage (less than)</th>
<th>Dropout voltage (less than)</th>
<th>Power and indicator connector</th>
<th>Weight (oz) Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3928/33-01 NS</td>
<td>1</td>
<td>I</td>
<td>DC-12.4</td>
<td>DC-7.0</td>
<td>1.25:1</td>
<td>0.3</td>
<td>60</td>
<td>20</td>
<td>0.1 A at 30 Vdc</td>
<td>1000 F</td>
<td>.230</td>
<td>.230</td>
<td>28 Vdc</td>
<td>20 Vdc</td>
<td>---</td>
<td>solder lugs</td>
<td>9</td>
</tr>
<tr>
<td>M3929/33-02 NS</td>
<td>2</td>
<td>I</td>
<td>DC-12.4</td>
<td>DC-7.0</td>
<td>1.25:1</td>
<td>0.3</td>
<td>60</td>
<td>20</td>
<td>0.1 A at 30 Vdc</td>
<td>1000 L 2/</td>
<td>.470</td>
<td>---</td>
<td>28 Vdc</td>
<td>20 Vdc</td>
<td>----</td>
<td>solder lugs</td>
<td>11</td>
</tr>
</tbody>
</table>

1/ At nominal voltage and 20°C.
2/ Current Applied 10 ms minimum. Cutthroat circuitry recovery time 100 ms nominal.
MIL-DTL-3928/33

REQUIREMENTS:

Dimensions and configurations: See figures 1 and 2.

Termination: Open.

Nominal impedance: 50 ohms.

RF connections: Connector shall be TNC Female configuration and shall meet the requirement of MIL-PRF-39012.

Electrical and performance characteristics: See table I.

Operating temperature: -55ºC to +85ºC.

RF contacts: Break before make.

Part or Identifying Number: M3928/33- (and dash number from table I).

Referenced documents: In addition to MIL-DTL-3928, this document references the following MIL-PRF-39012

Custodians:
Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5985-2014-037)

Review activities:
Army - MI
Navy - AS, MC, OS
Air Force - 19, 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/.