| INCH-POUND |
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| MS27722D |
| 7 May 2003 |
| SUPERSEDING |
| MS27722C |
| 28 September 1987 |

## MILITARY SPECIFICATION SHEET <br> SWITCH, TOGGLE, ONE POLE, ENVIRONMENTALLY SEALED, INTEGRATED WIRE TERMINALS

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 and MIL-S-3950.


FIGURE 1. Dimensions and configuration.


RECOMMENDED PANEL CUTOUT

| Inches | mm | Inches | mm | Inches | mm |
| :---: | :--- | :---: | :---: | :---: | :---: |
| .008 | 0.20 | .240 | 6.10 | .47 | 11.90 |
| .012 | 0.30 | .375 | 9.52 | .480 | 12.19 |
| .03 | 0.8 | .38 | 9.70 | .635 | 16.13 |
| .062 | 1.57 | .432 | 10.97 | .69 | 17.50 |
| .076 | 1.93 | . .445 | 11.30 | 1.270 | 32.26 |
| .130 | 3.30 | .469 | 11.91 | 1.662 | 42.21 |

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .020$ ( 0.51 mm ) for two place decimals and $\pm .005$ ( 0.13 mm ) for three place decimals.
4. Contact installing and removal tool in accordance with M81969/14-03.
5. For hardware detail specifications, see appendix of MIL-S-3950
6. Grommet holes or access to grommet holes, on nonfunctional terminals, optional.
7. The terminal end of the switch shall be color coded blue to indicate contact size.
8. Sealing plugs may be used in nonfunctional grommet holes when applicable.

FIGURE 1. Dimensions and configuration

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## REQUIREMENTS:

Switching characteristics: See table I. Direction of movement of internal mechanism is opposite to the direction of the toggle movement.

Maximum weight: .105 pound.
Grommet sealing plug: MS27488-16-1.
Sealing grommet: Sealing grommet shall seal on a smooth wire insulation of $.068(1.73 \mathrm{~mm})$ to .103 $(2.62 \mathrm{~mm}$ ) diameters.

Part or Identifying Number (PIN): See table I.
Electrical ratings: See table I.
Hardware: For detailed specifications, see appendix of MIL-S-3950.
Tests shall be performed in accordance with MIL-S-3950 except:
a. During all tests, switches shall be fully wired with the appropriate wire and terminal contacts.
b. Contact Voltage drop: The contract voltage drop with two terminals and the switch contact in series shall not exceed 8 millivolts measured from one wire contact through the contact to the other wire contacts.

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TABLE I. Switching characteristics and electrical ratings.

| PIN's | Circuit with toggle lever in |  |  | Current capacity (amperes) 28 V dc |  |  | Current capacity (amperes) 115 V ac, 60 and 400 Hz |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Keying side | Center | Opposite keying side | Lamp load | Resistive load | Inductive load | Lamp load | Resistive load | Inductive load |
| MS27722-21 | $1-2 \mathrm{On}$ | Off | 2-3 On | 5 | 20 | 15 | 3 | 15 | 10 |
| MS27722-22 | Off | None | 2-3 On |  |  |  |  |  |  |
| MS27722-23 | $1-2 \mathrm{On}$ | None | 2-3 On |  |  |  |  |  |  |
| MS27722-24 | None | Off | 2-3 On |  |  |  |  |  |  |
| MS27722-25 | None | Mom off | 2-3 On | 4 | 15 | 10 | 2 | 15 | 7 |
| MS27722-26 | 1-2 Mom on | None | 2-3 On |  |  |  |  |  |  |
| MS27722-27 | 1-2 Mom on | Off | 2-3 Mom on |  |  |  |  |  |  |
| MS27722-28 | 1-2 Mom on | Off | None |  |  |  |  |  |  |
| MS27722-29 | Mom off | None | 2-3 On |  |  |  |  |  |  |
| MS27722-30 | 1-2 Mom on | None | Off |  |  |  |  |  |  |
| MS27722-31 | 1-2 Mom on | Off | 2-3 On |  |  |  |  |  |  |
| MS27722-32 | None | On 1-2 | 2-3 Mom on |  |  |  |  |  |  |
| MS27722-33 | None | On 1-2 | 2-3 On | 5 | 20 | 15 | 3 | 15 | 10 |

Custodians:
Air Force - 11
Army - CR
Navy - AS
DLA - CC
Review activities:
Air Force - 99
Army - AR, AV, EA, MI
Navy - MC

Preparing activity:
DLA - CC
(Project 5930-1737)

