INCH-POUND
MIL-DTL-3950/17A
22 April 2008
SUPERSEDING
MIL-DTL-3950/17
w/AMENDMENT 3
29 May 2007

DETAIL SPECIFICATION SHEET

SWITCHES, TOGGLE, FOUR POLE, 4 AMPERES, LOW LEVEL, ENVIRONMENTALLY SEALED

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

The requirements for acquiring the switches described herein shall consist of this specification sheet and MIL-DTL-3950.

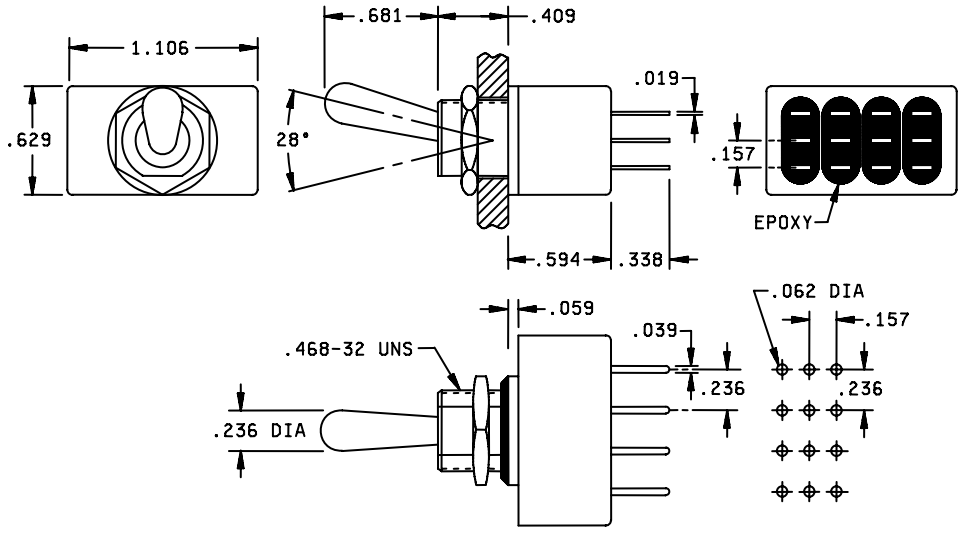


FIGURE 1. PC Terminals.

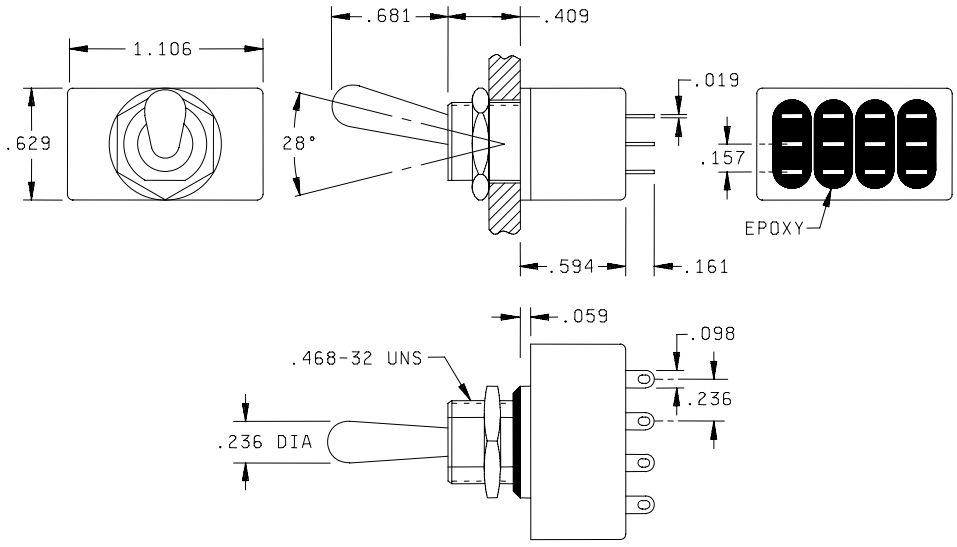


FIGURE 2. Solder Lug Terminals.

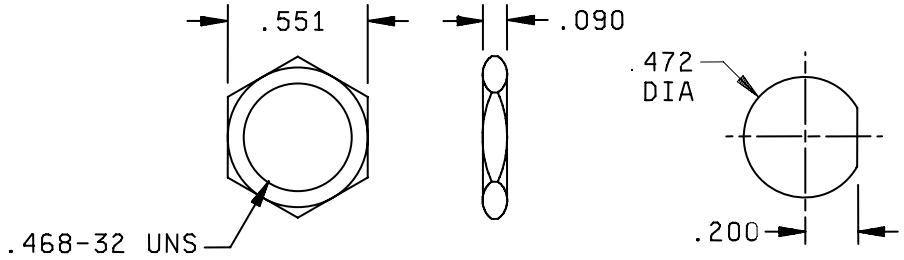


FIGURE 3. Standard Hardware and Panel Cut-out.

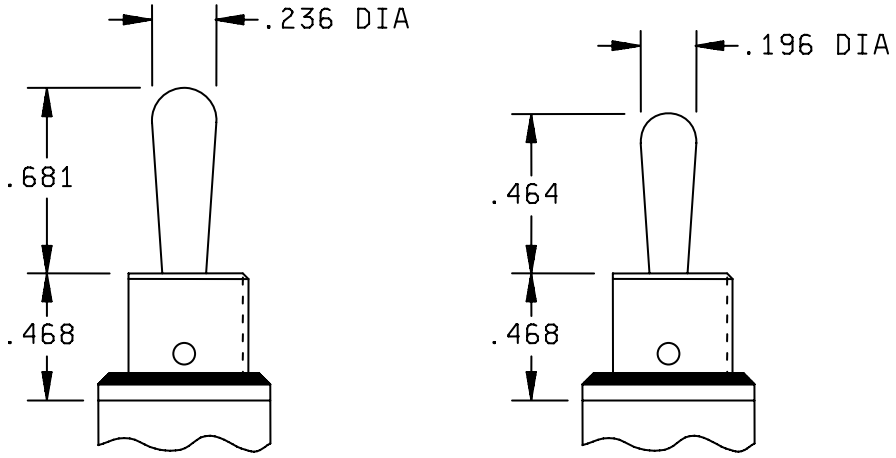
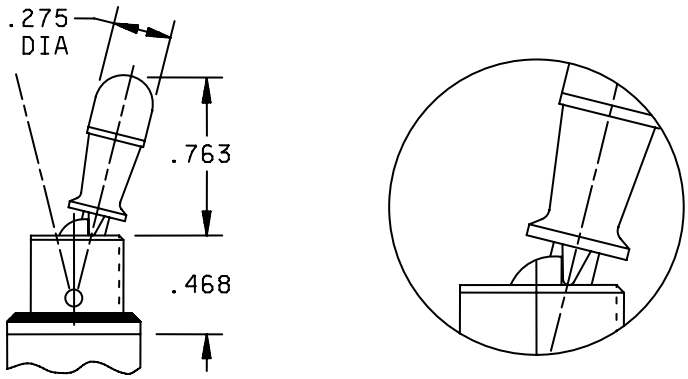
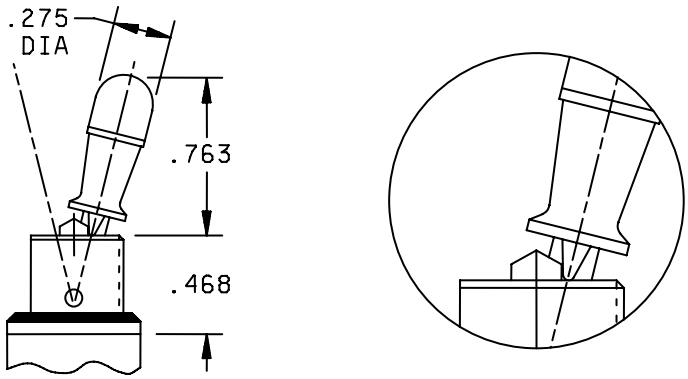


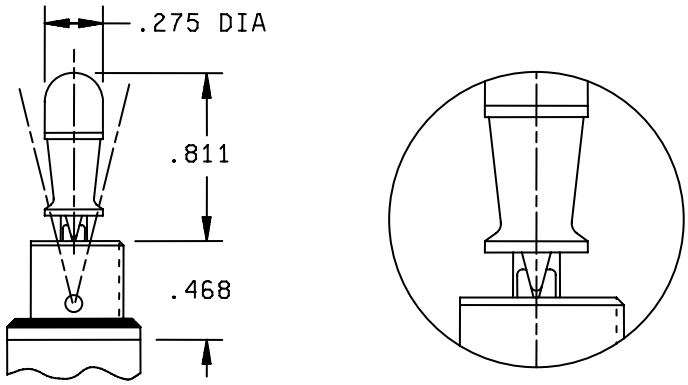
FIGURE 4. Standard and Short Levers Lengths.



1 Locked Position



2 Locked Positions



3 Locked Positions

FIGURE 5. Locking Levers.

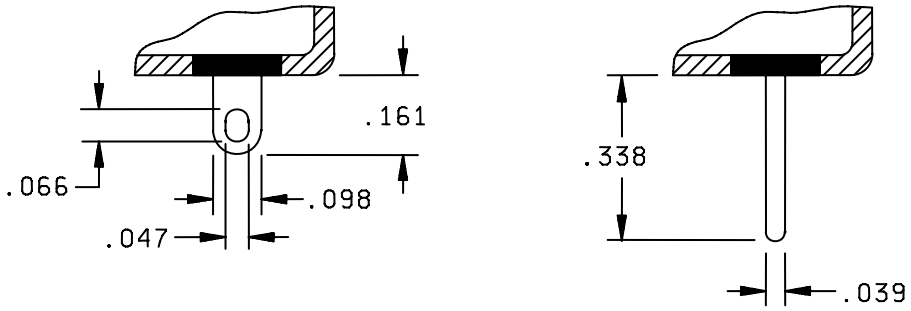


FIGURE 6. Terminal Dimensions

REQUIREMENTS:

Temperature characteristic: -40°C to +85°C.

Shock type: (50 g's sine wave) method 213, test condition A, MIL-STD-202.

Sinusoidal vibration grade: 1 (10 to 500 Hz).

Operating characteristics:

Enclosure Design: 3 (watertight).

Finish: Shall be corrosion resistant, black and lusterless.

Dielectric withstanding voltage:

Sea level: 1,000 V rms between terminals
2,000 V rms between poles
2,000 V rms between terminals and frame

Electrical endurance:
At 2A, 250VAC or 4A, 28VDC: 10,000 cycles.
At low level (50mV, 10mA): 20,000 cycles

Electrical ratings: (Maximum current/voltage rating with resistive load)

2A/250 VAC, 4A/125 VAC, or 4A/28 VDC

Contact bounce: 2ms max.

Sand and dust: Applicable.

Low level circuit: Applicable.

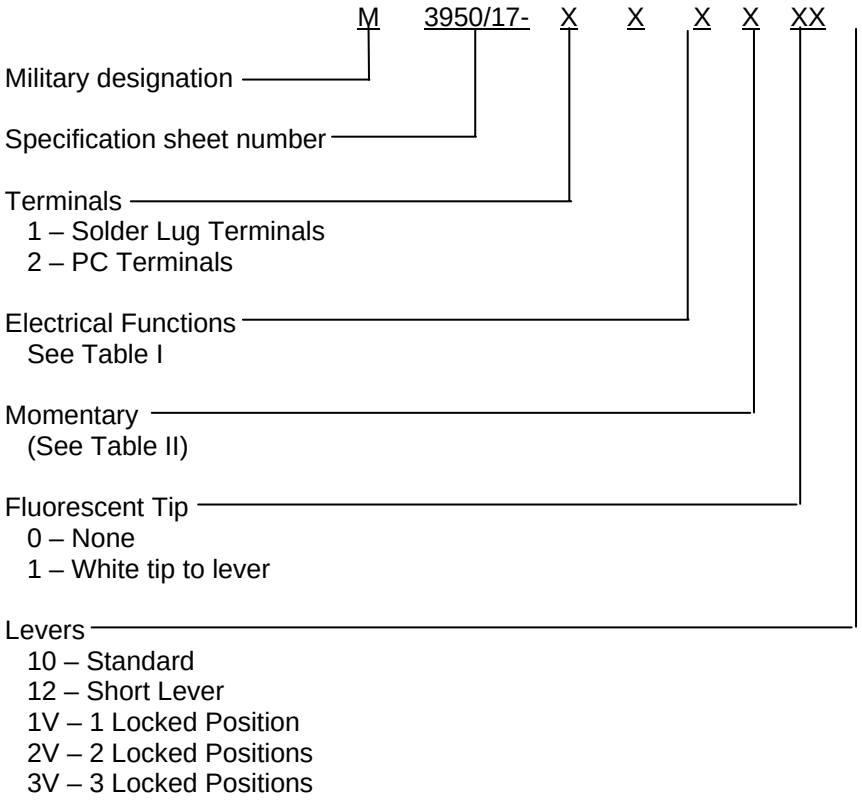
Qualification: Inspection table of MIL-DTL-3950

Inductive Load: Not Applicable.

Lamp Load: Not Applicable.

Seal: Sea level only.

Military Part or Identifying Number (PIN): The PIN shall consist of the prefix M3950/17, followed in order by the appropriate numeric designator for terminal style and plunger length.



Example: M3950/17-24B02V, PC Terminals, Momentary (ON-ON-MOM), No Tip, 2 Locked Position Lever.

TABLE I. Electrical Functions

9	ON	OFF	ON
8	ON	OFF	MOM
7	MOM	Off	MOM
6	ON	-	ON
4	ON	ON	ON

TABLE II. Momentary

A	Non-Momentary		
B 1/	ON	ON	MOM
C 1/	MOM	ON	MOM
D	Momentary		

1/ Function 4 Only.

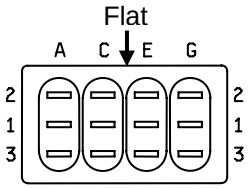


FIGURE 7. Terminal Identification

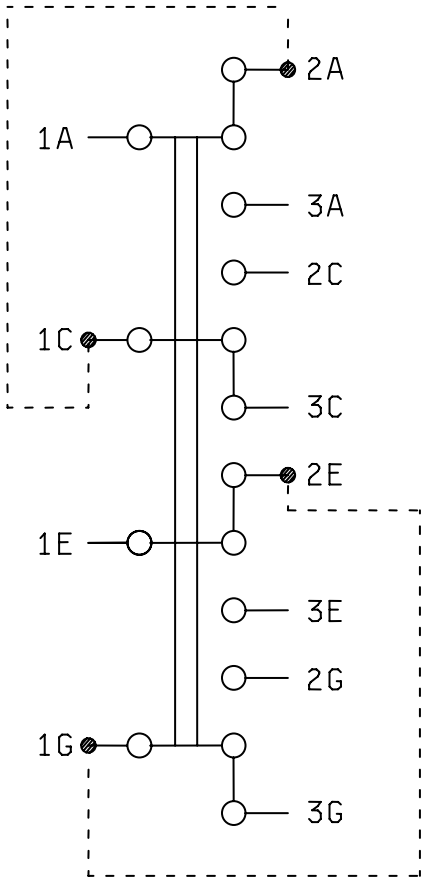


FIGURE 8. Wiring for 3-Way Switches (Function 4).

TABLE III. Lever Positions and Connections

Function	I	II	III (Flat)
6	ON	-	ON
	1A-3A 1C-3C 1E-3E 1G-3G		1A-2A 1C-2C 1E-2E 1G-2G
7	MOM	OFF	MOM
8	ON	OFF	MOM
9	ON	OFF	ON
	1A-2A 1C-2C 1E-2E 1G-2G		1A-3A 1C-3C 1E-3E 1G-3G
4	ON ON MOM	ON ON ON	ON MOM/ MOM/
	1A-2A 1C-2C 1E-2E 1G-2G	1A-2A 1C-3C 1E-2E 1G-3G	1A-3A 1C-3C 1E-3E 1G-3G

The margins of this specification are marked with vertical lines to indicate where modifications from this amendment 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.

Referenced Documents:
MIL-DTL-3950
MIL-STD-202

Custodians:
Navy – EC
DLA – CC

Preparing activity:
DLA - CC

(Project 5930-2008-080)

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 http://assist.daps.dla.mil/ .