

INCH-POUND
 MS21433F
 5 October 2011
 SUPERSEDING
 MS21433E
 4 September 1991

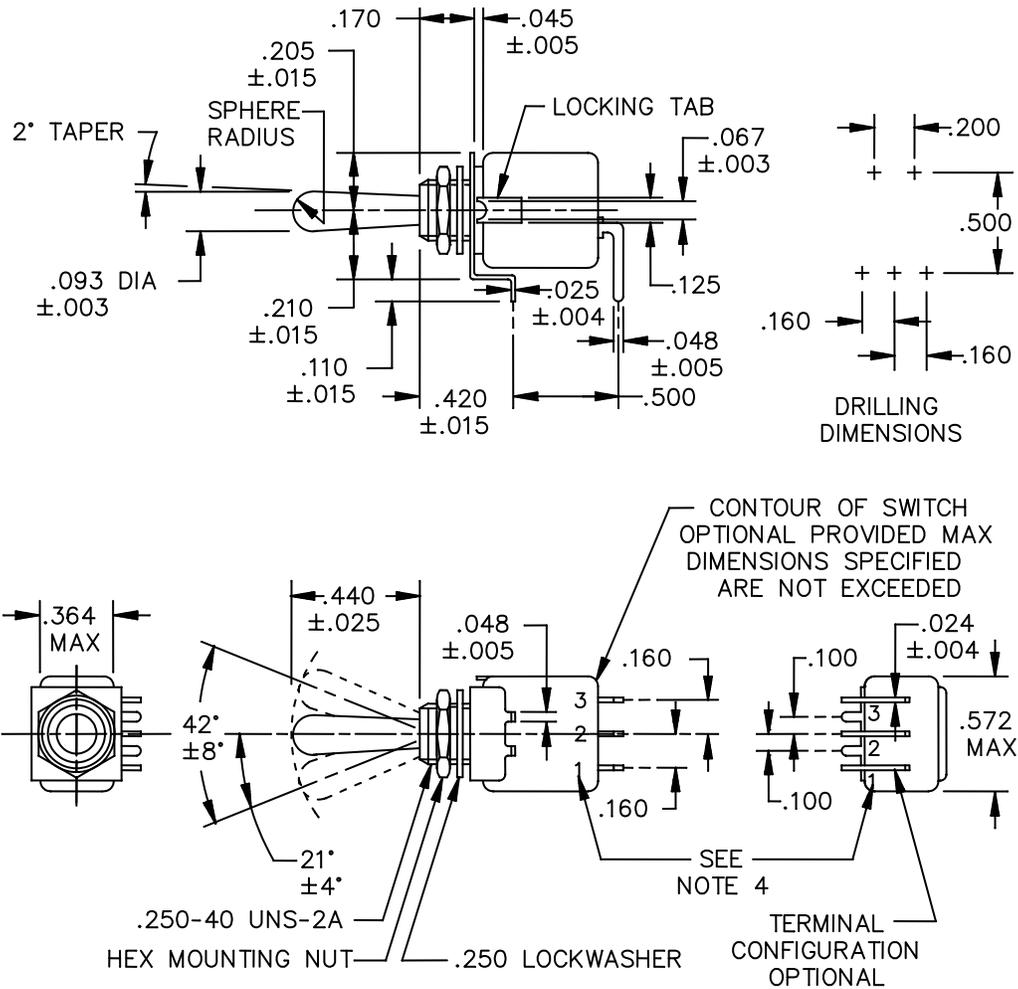
DETAIL SPECIFICATION SHEET

SWITCH, TOGGLE, POSITIVE BREAK, MINIATURE, TOGGLE SEALED,
 SINGLE POLE, PRINTED CIRCUIT BOARD TERMINALS, RIGHT ANGLE MOUNT

Inactive for new design after 5 October 2011

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

The requirements for acquiring the products described herein shall consist of this specification sheet and MIL-DTL-8834.



-FIGURE 1. Dimensions and configuration.

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Inches	mm	Inches	mm	Inches	mm		
.003	0.08	.045	1.14	.125	3.18	.250	6.35
.004	0.10	.048	1.22	.160	4.06	.364	9.25
.005	0.13	.067	1.70	.170	4.32	.420	10.67
.015	0.38	.093	2.36	.200	5.08	.440	11.18
.024	0.61	.100	2.54	.205	5.21	.500	12.70
.025	0.64	.110	2.79	.210	5.33	.572	14.53

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are ± 0.10 (0.25 mm) on decimals and $\pm 5^\circ$ on angles.
4. Terminals need not be marked. Terminal identification is shown for reference purposes only.

FIGURE 1. Dimensions and configuration - Continued.

REQUIREMENTS:

For hardware detail specifications, see appendix of MIL-DTL-8834.

In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence.

Shock: Method I and method II (high impact). The switches shall be rigidly mounted to the shock test equipment by means of their terminals and mounting tab. The switch shall be electrically and mechanically operative at the conclusion of the test and there shall be no mechanical transfer during the test.

Terminals: Gold plated.

Weight: .0165 pound maximum (6.15 grams).

Strength of terminals: Terminals shall be subjected to a five-pound pull for 5 to 10 seconds with the long dimension of the terminal contact vertical. The force shall be applied to the terminal at a point .06 inch (1.5 mm) below the bottom of the switch base, and in a direction parallel to the axis of the toggle lever in its center position. Two outboard terminals shall be tested. However, a terminal shall be tested only once in one direction.

Altitude: 50,000 feet.

Strength of actuator. Lever pivot and lever stop 6 pounds.

Mounting bracket: Brass, tin plated, or coated.

For hardware detail specifications, see appendix of MIL-DTL-8834.

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TABLE I. Detail requirements.

MS dash no	Circuit made between terminals as indicated with the toggle lever in these positions: <u>1/</u>			Current capacity in amperes						Low current level switching 5 mV
				Resistive load			Inductive load			
	Opposite locking tab side	Center position	Locking tab side <u>4/</u>	28 volts dc	115 volts		28 volts dc	115 volts		
60 Hertz ac					400 Hertz ac	60 Hertz ac		400 Hertz ac		
-211	on 2-3	off	on 1-2	5	2	3	1	1	2	25 μ A <u>3/</u>
-221		none	off							
-231			on 1-2							
-241		none								
-271	mom-on 2-3	off	mom-on 1-2				<u>2/</u>	1	2	
-281	none									
-311	on 2-3									
-321 <u>5/ 6/</u>	none	on 2-3								

- 1/ Direction of movement of internal mechanism is opposite to the direction of the toggle movement.
- 2/ With time constant of .020 \pm .002 second.
- 3/ Contact resistance not to exceed 50 Ω during life, low current level switching.
- 4/ Non-functional terminals shall not be supplied.
- 5/ Dielectric withstanding voltage: 1,200 V rms at sea level (center on circuits).
- 6/ Delayed action of the switch toggle lever may cause circuit to close or open before snap action mechanism trips.

Referenced documents:
MIL-DTL-8834

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:
Navy - AS
Air Force - 85
DLA - CC

Preparing activity:
DLA – CC

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Review activities:
Navy - EC
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.daps.dla.mil/>.