

INCH POUND

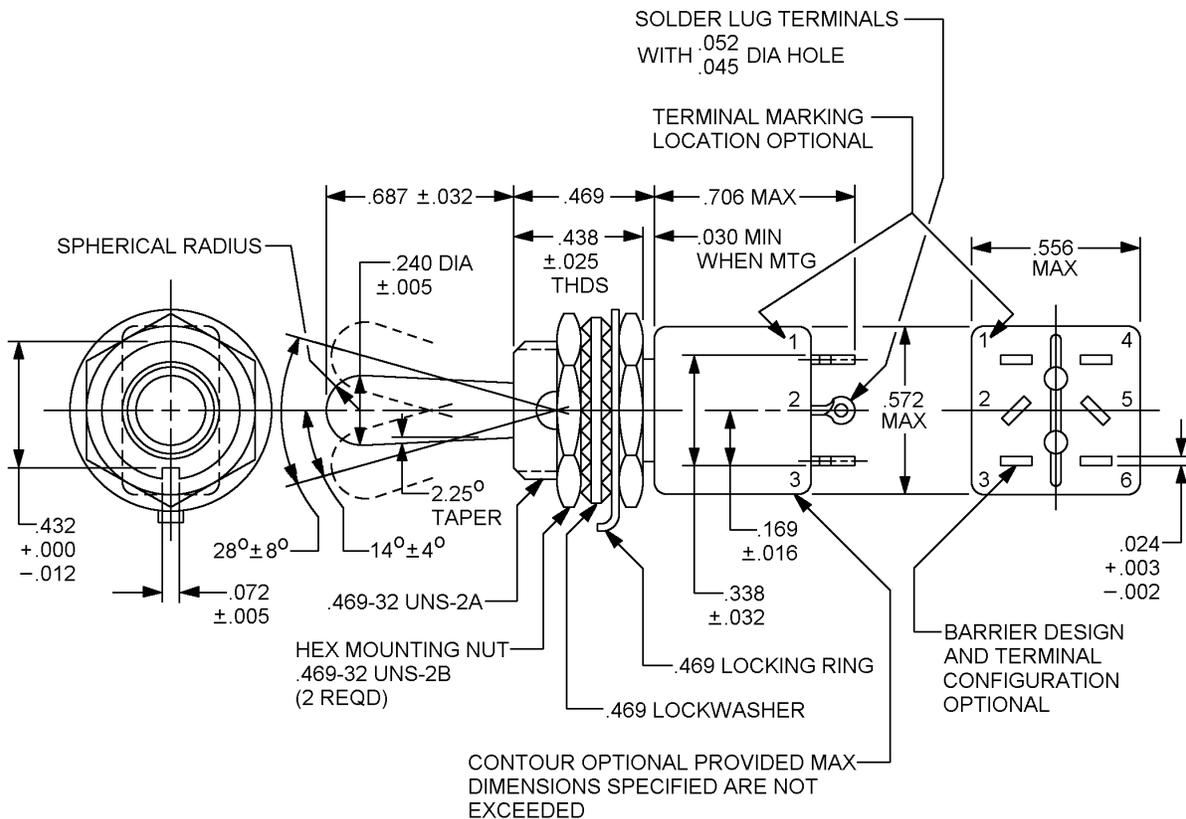
MS90311K  
w/Amendment 1  
15 April 2010SUPERSEDING  
MS90311K  
1 April 2005

## DETAIL SPECIFICATION SHEET

SWITCH, TOGGLE, POSITIVE BREAK, MINIATURE TOGGER SEALED,  
SOLDER LUG, DOUBLE POLE, .469 MOUNTING BUSHING

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

The complete requirements for acquiring the switch described herein shall consist of this specification and the latest issue of MIL-DTL-8834.

FIGURE 1. Dimensions and configuration.

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Inches	mm	Inches	mm	Inches	mm
.002	0.05	.030	0.76	.432	10.97
.003	0.08	.032	0.81	.438	11.13
.005	0.13	.045	1.14	.469	11.91
.010	0.25	.052	1.32	.556	14.12
.012	0.30	.072	1.83	.572	14.53
.016	0.41	.169	4.29	.687	17.45
.024	0.61	.240	6.10	.706	17.93
.025	0.64	.338	8.59		

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest 0.01 mm) are given for general information only.
3. Unless otherwise specified, tolerances are  $\pm 0.010$  (0.25 mm) on decimals and  $\pm 5^\circ$  on angles.
4. For hardware detail specifications, see appendix of MIL-DTL-8834.

FIGURE 1. Dimensions and configuration - Continued.

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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: .0429 pound (19.4 grams).

Dielectric withstanding voltage: 50,000 feet.

Toggle seal test: Method I for series 700 and 800. Method II for series 200 and 300

Shock: Method I and Method II (high impact). The switch shall be electrically and mechanically operative at the conclusion of the shock test except there can be mechanical transfer of the contact mechanism at all levels when tested in accordance with Method II (high impact).

Terminal strength: 5 pounds normal to the mounting plane and 2 pounds in other planes.

Altitude: 50,000 feet.

Electrical ratings: See table I.

Part or Identifying Number (PIN): See table I.

TABLE I. Detail requirements.

MS dash no. <u>1/</u>		Circuit made between terminals as indicated with toggle lever in these positions <u>2/</u>			Current capacity in amperes						Life low current level switching 5 mV
					Resistive load			Inductive load			
					Opposite keyway side <u>5/</u>	Center position	Keyway side <u>5/</u>	28 V dc	115 volts		
60 hertz ac	400 hertz ac	60 hertz ac	400 hertz ac								
-711	-211	On 2-3 5-6	Off	On 1-2 4-5	5	2	3	1 <u>3/</u>	1	2	25 $\mu$ A <u>4/</u>
-721	-221		None								
-731	-231			On 1-2 4-5							
-741	-241		None								
-771	-271	Mom-on 2-3 5-6	Off	Mom-on 1-2 4-5							
-781	-281	None									
-811	-311	On 2-3 5-6									

1/ Direction of movement of internal mechanism is opposite to the direction of the toggle movement.

2/ With time constant of  $.020 \pm .002$  seconds.

3/ Contact resistance not to exceed 50 ohms during life, low current level switching.

4/ Non-functional terminals shall not be supplied.

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Referenced documents:  
MIL-DTL-8834

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.

Custodians:  
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DLA - CC  
  
(Project 5930-2010-020)

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