

INCH-POUND

MS27724E

18 April 2011

SUPERSEDING

MS27724D

28 September 1987

### DETAIL SPECIFICATION SHEET

## SWITCH, TOGGLE, FOUR POLE, ENVIRONMENTALLY SEALED, INTEGRATED WIRE TERMINALS

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-3950.

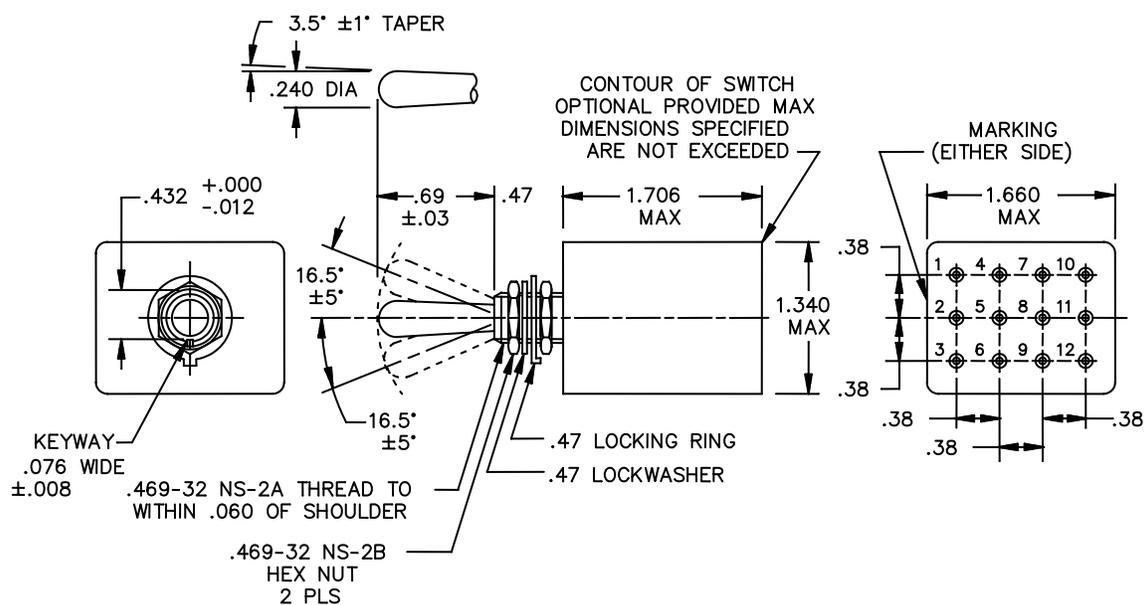


FIGURE1. Dimensions and configuration

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Inches	mm	Inches	mm
.005	0.13	.38	9.7
.008	0.20	.432	10.97
.012	0.30	.469	11.91
.020	0.51	.47	11.9
.03	0.8	.69	17.5
.060	1.52	1.340	34.04
.076	1.93	1.660	42.16
.240	6.10	1.706	43.33

NOTES:

1. Dimensions are 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. For hardware and terminal screw detail specifications, see appendix of MIL-DTL-3950.
5. Contact installing/removal tool in accordance with MIL-I-81969/14-03.
6. Grommet sealing plug, in accordance with MS27488-A16.
7. The sealing grommet shall seal on a smooth wire insulation of .068 (1.73 mm) to .103 (2.62 mm) diameters.
8. Terminal shall adequately accept a wire contact within dimensional limits of SAE-AS39029/1-102.
9. In the event of a conflict between the text of this standard and the reference cited herein, the text of this standard shall take precedence.

FIGURE1. Dimensions and configuration Continued

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REQUIREMENTS

The terminal end of switch shall be color coded blue to indicate contact size.

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

Sealing plugs may be used in nonfunctional grommet holes.

Maximum weight is .225 pound.

Electrical rating: See table I.

TEST REQUIREMENTS:

Test shall be performed in accordance with MIL-DTL-3950 except:

- a. During all test, switches shall be fully wired with appropriate wire and terminal contacts.
- b. Contact voltage drop- the contact voltage drop with two terminals and the switch contact in series shall not exceed 8 millivolts measured from one wire contact through the contacts to the other wire contacts.

TABLE I Detail Requirements.

MS Part number	Circuit with toggle lever in			Current capacity (amperes) 28 volts dc			Current capacity (amperes) 115 volts, 60 and 400 hertz ac		
	Keying side	Center	Opposite keying side	Lamp-load circuit	Resistive circuit	Inductive circuit	Lamp-load circuit	Resistive circuit	Inductive circuit
MS27724-1	1-2 4-5 7-8 ON 10-11	2-3 4-5 7-8 ON 11-12	2-3 5-6 8-9 ON 11-12	5	20	12	4	15	15
MS27724-2	1-2 MOM. 4-5 7-8 ON 10-11	2-3 4-5 7-8 ON 11-12	2-3 5-6 8-9 ON 11-12	4	18	10	2	11	8
MS27724-3	1-2 MOM. 4-5 7-8 ON 10-11	2-3 4-5 7-8 ON 11-12	2-3 MOM. 5-6 8-9 ON 11-12						
MS27724-21	1-2 7-8 4-5 ON 10-11	OFF	2-3 8-9 5-6 ON 11-12	5	20	12	4	15	15
MS27724-22	OFF	NONE	2-3 8-9 5-6 ON 11-12						
MS27724-23	1-2 7-8 4-5 ON 10-11	NONE	2-3 8-9 5-6 ON 11-12						
MS27724-24	NONE	OFF	2-3 8-9 5-6 ON 11-12	4	18	10	2	11	8
MS27724-25	NONE	MOM. OFF	2-3 8-9 5-6 ON 11-12						
MS27724-26	1-2 MOM 7-8 4-5 ON 10-11	NONE	2-3 8-9 5-6 ON 11-12						
MS27724-27	1-2 MOM 7-8 4-5 ON 10-11	OFF	2-3 MOM. 8-9 5-6 ON 11-12						
MS27724-28	1-2 MOM 7-8 4-5 ON 10-11	OFF	NONE						
MS27724-29	MOM. OFF	NONE	2-3 8-9 5-6 ON 11-12						
MS27724-30	1-2 MOM 7-8 4-5 ON 10-11	NONE	OFF	5	20	12	4	15	15
MS27724-31	1-2 MOM 7-8 4-5 ON 10-11	OFF	2-3 8-9 5-6 ON 11-12						
MS27724-32	NONE	1-2 7-8 4-5 ON 10-11	2-3 MOM. 8-9 5-6 ON 11-12						
MS27724-33	NONE	1-2 7-8 4-5 ON 10-11	2-3 8-9 5-6 ON 11-12	5	20	12	4	15	15

Referenced documents

MIL-DTL-3950

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:

Army – CR  
Navy – AS  
Air Force – 85  
DLA – CC

Preparing activity  
DLA – CC

(Project 5930-2011-055)

Review activities

Army – AR, AV, MI  
Navy – EC, MC  
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/> .