INCH-POUND
MS27784D
18 April 2011

SUPERSEDING
MS27784C
28 September 1987

DETAIL SPECIFICATION SHEET

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 complete requirements for acquiring the switch described herein shall consist of this specification and the latest issue of MIL-DTL-3950.

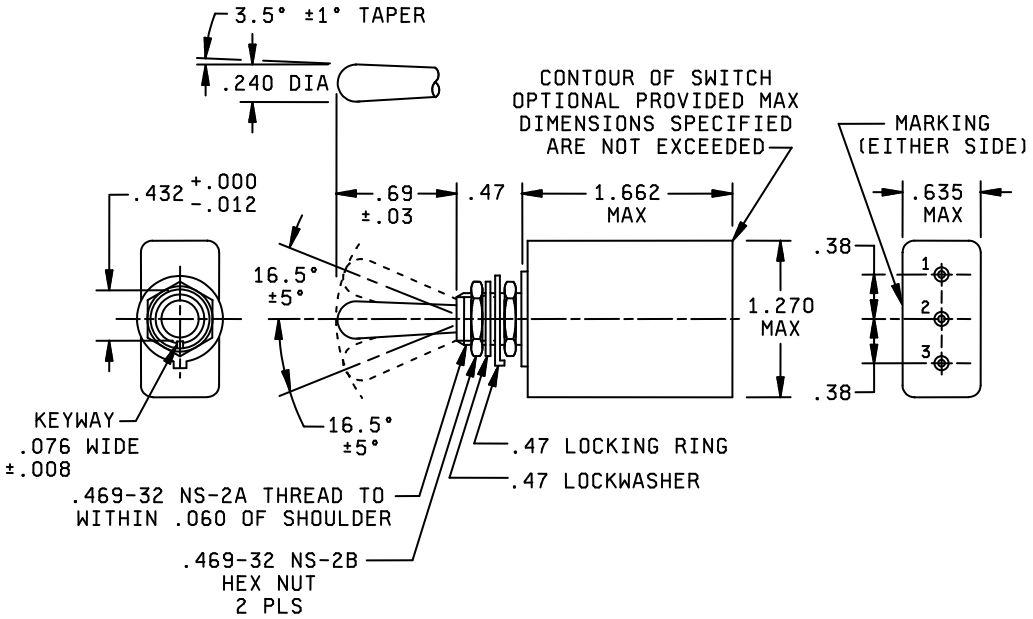

FIGURE1. Dimensions and configuration

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	.635	16.13
.060	1.52	.69	17.5
.076	1.93	1.270	32.26
.240	6.10	1.662	42.21

NOTES:

1. Dimensions are inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ± .020 (0.51 mm) for two place decimals and ± .005 (0.13 mm) for three place decimals.
4. For hardware detail specifications see appendix of MIL-DTL-3950.
5. Contact installing/ removal tool in accordance with MIL-I-81969/14-02.
6. Grommet sealing plug, in accordance with MS27488-A20.
7. Terminal shall adequately accept a wire contact within dimensional limits of SAE-AS39029/1-101.
8. Part number example: MS27783-21.
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

REQUIREMENTS

The Sealing grommet shall seal on a smooth wire insulation of .040 (1.02 mm) to .083 (2.11mm) diameters

The terminal end of switch shall be color coded red 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 .09 pound.

Electrical rating: See table I.

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
MS27784-21	1-2 ON	OFF	2-3 ON	5	7.5	7.5	3	7.5	7.5
MS27784-22	OFF	NONE	2-3 ON						
MS27784-23	1-2 ON	NONE	2-3 ON						
MS27784-24	NONE	OFF	2-3 ON						
MS27784-25	NONE	MOM. OFF	2-3 ON	4	7.5	7.5	2	7.5	7
MS27784-26	1-2 MOM. ON	NONE	2-3 ON						
MS27784-27	1-2 MOM. ON	OFF	2-3MOM. ON						
MS27784-28	1-2 MOM. ON	OFF	NONE						
MS27784-29	MOM. OFF	NONE	2-3 ON						
MS27784-30	1-2 MOM. ON	NONE	OFF						
MS27784-31	1-2 MOM. ON	OFF	2-3 ON						
MS27784-32	NONE	ON 1-2	2-3 MOM ON						
MS27784-33	NONE	ON 1-2	2-3 ON	5	7.5	7.5	3	7.5	7.5

Test Requirements

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

a) During all tests. Switches shall be fully wired with appropriate wire and terminal contacts.
b) Contact voltage drop- the contact 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.

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 5930-2011-065)

Review activities
Army –AV
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/ .