INCH-POUND
MS27789D
w/AMENDMENT 1
23 January 2014
SUPERSEDING
MS27789D
13 September 2005

DETAIL SPECIFICATION SHEET

SWITCH, TOGGLE, FOUR POLE, ENVIRONMENTALLY SEALED, LEVER LOCK, 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.

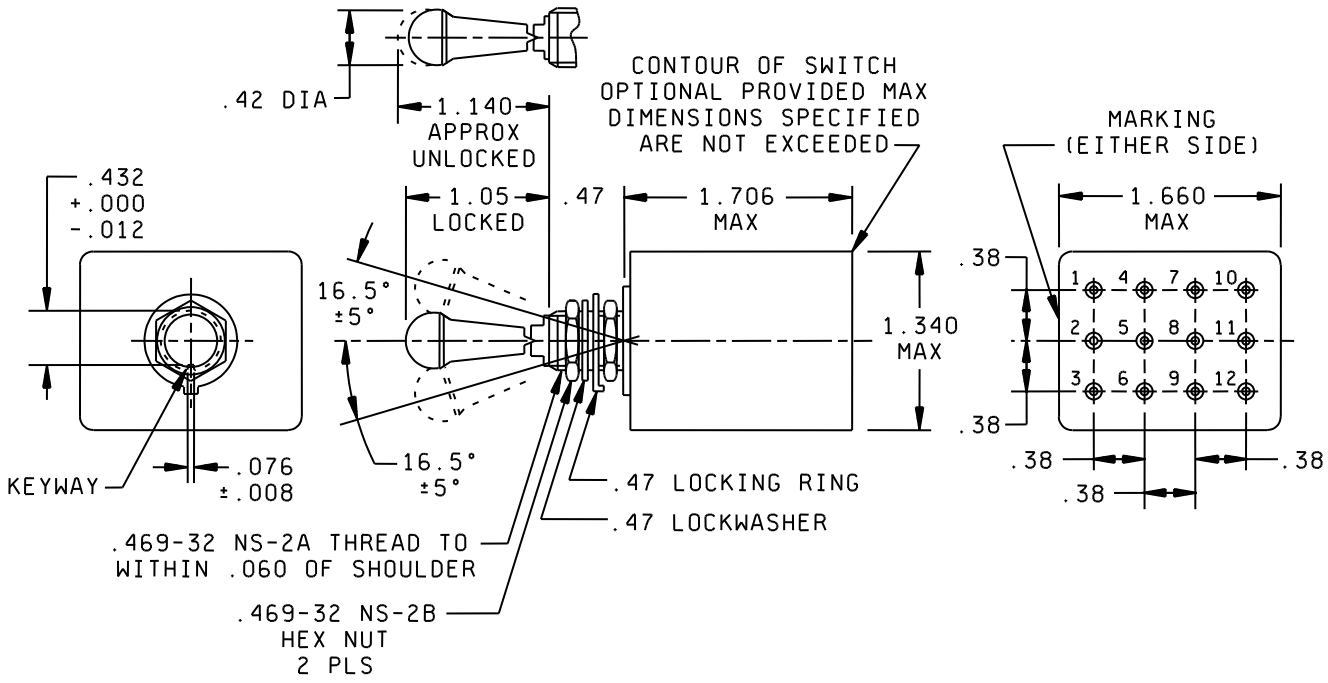
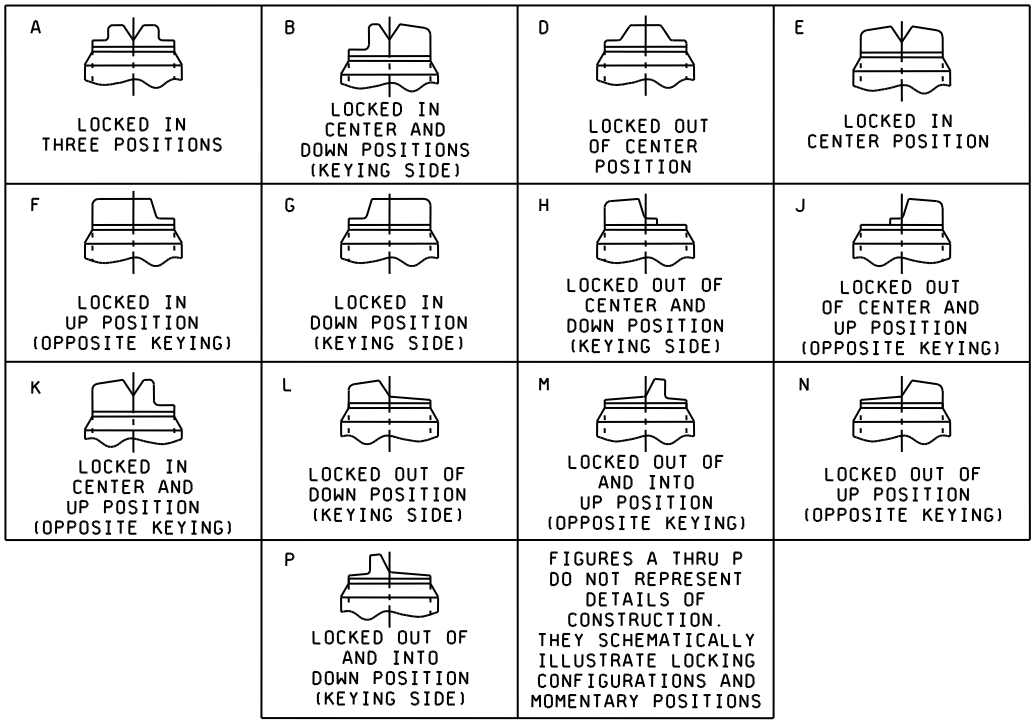


FIGURE1. Dimensions and configuration

LOCKING COMBINATIONS



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.
6. Grommet sealing plug in accordance with MS27488A20.
7. Sealing plugs may be used in nonfunctional grommet holes.
8. Sealing grommet shall seal on a smooth wire insulation of .040 (1.02 mm) to .083 (2.11 mm)
9. Terminal shall adequately accept a wire contact within dimensional limits of SAE-AS39029.
10. The terminal end of switch shall be color coded red to indicate contact size.
11. Direction of internal mechanism movement is opposite to the direction of the toggle movement.
12. Part number example: MS27789-21A (locking combination ‘A’)
13. 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

TABLE I Detail Requirements.

MS part No.	Available locking combinations	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
MS27789-1	ALL	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	7.5	7.5	4	7.5	7.5
MS27789-2	E, F, K, L, M, N	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	7.5	7.5	2	7.5	7.5
MS27789-3	E, L, N	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						
MS27789-21	ALL	1-2 7-8 4-5 on 10-11	Off	2-3 8-9 8-9 on 11-12	5	7.5	7.5	4	7.5	7.5
MS27789-22	D, F, G	Off	None	2-3 8-9 5-6 on 11-12						
MS27789-23	D, F, G	1-2 7-8 4-5 on 10-11	None	2-3 8-9 5-6 on 11-12						
MS27789-24	E, F, K, M	None	Off	2-3 8-9 5-6 on 11-12						
MS27789-25	F	None	Mom. Off	2-3 8-9 5-6 on 11-12	4	7.5	7.5	2	7.5	7.5
MS27789-26	F	1-2 Mom. 7-8 4-5 on 10-11	None	2-3 8-9 5-6 on 11-12						
MS27789-27	E, L, N	1-2 Mom. 7-8 4-5 on 10-11	Off	2-3 Mom. 8-9 5-6 on 11-12						
MS27789-28	E	1-2 Mom. 7-8 4-5 on 10-11	Off	None						
MS27789-29	F	Mom. Off	None	2-3 8-9 5-6 on 11-12						
MS27789-30	F	1-2 Mom. 7-8 4-5 on 10-11	None	Off						
MS27789-31	E, F, K, L, M, N	1-2 Mom. 7-8 4-5 on 10-11	off	2-3 8-9 5-6 on 11-12						
MS27789-32	E	None	1-2 7-8 4-5 on 10-11	2-3 Mom. 8-9 5-6 on 11-12						
MS27789-33	E, F, K, M	None	1-2 7-8 4-5 On 10-11	2-3 8-9 5-6 on 11-12	5	7.5	7.5	4	7.5	7.5

TEST REQUIREMENTS:

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

During all tests, switch shall be fully wired with appropriate wire and terminal contacts.

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.

DETAIL REQUIREMENTS:

Locking arrangement: Positive locking shall be accomplished and shall prevent motion of the toggle lever until the locking mechanism is manually released.

The force required to release the locking mechanism shall be 3 to 5 pounds.

The locking means at the top of the toggle bushing shall be capable of withstanding a torque of 20 inch-pounds applied in both directions immediately following the humidity test.

Weight: .227 pound maximum.

Referenced documents
MIL-DTL-3950
MIL-I-81969
SAE-AS39029

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:
Army – CR
Navy – AS
Air Force - 11
DLA – CC

Preparing activity
DLA -CC

(Project 5930-2011-138)

Review activities
Army – AR, AV, CR4
Navy – EC, MC
Air Force - 99

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