

INCH-POUND

MS39061C
w/Amendment 2
24 March 2004

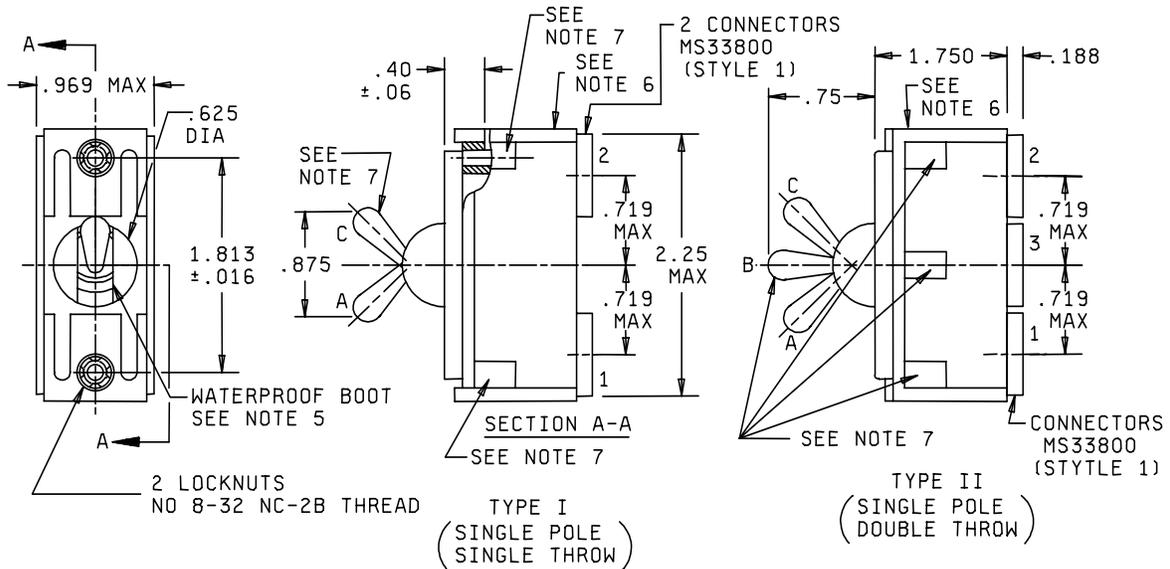
SUPERSEDING
MS39061C
1 December 2000

DETAIL SPECIFICATION SHEET

SWITCH, TOGGLE, SPST, AND SPDT,
24 VOLT DC, 25 AMPERE (WATERPROOF)

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

The requirements for acquiring the product described herein shall consist of this specification and MIL-DTL-13735



Configuration A

FIGURE 1. Dimensions and configuration.

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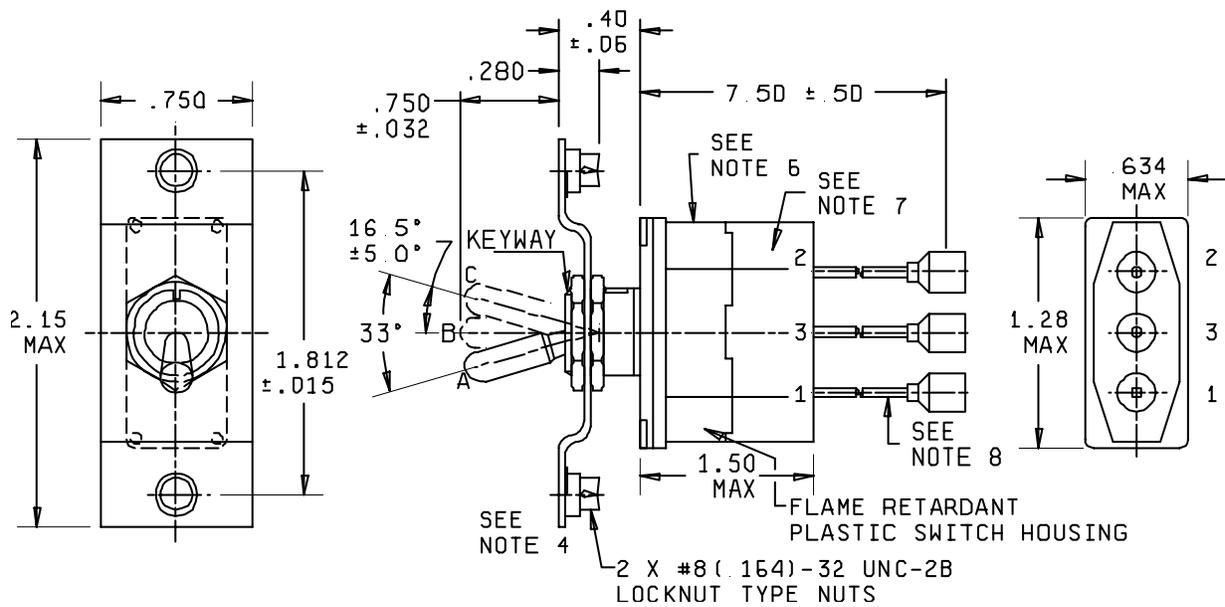
Inches	mm	Inches	mm	Inches	mm	Inches	mm
.016	0.41	.40	10.2	.75	19.1	1.625	41.28
.060	1.52	.625	15.88	.875	22.23	1.813	46.05
.188	4.76	.719	18.26	.969	24.61		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ± 0.030 (0.79 mm) on decimals and $\pm 5^\circ$ on angles.
4. Switch shall withstand a force of 25 pounds applied .125 \pm .031 inch from the end of the switch lever. and the lever dimensions shall be such as to allow for incorporation of the luminous shown on USAF DWG 43A17587.
5. Waterproof boot for switch lever shall meet the environmental requirements of MIL-DTL-13735.
6. Contour of switch optional provided maximum dimensions specified are not exceeded.
7. Marking shall consist of the PIN and Manufacturers Identification in accordance with MIL-STD-130 and lever position identification in accordance with figure 1, configuration A.

FIGURE 1. Dimensions and configurations - continued.

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Configuration B

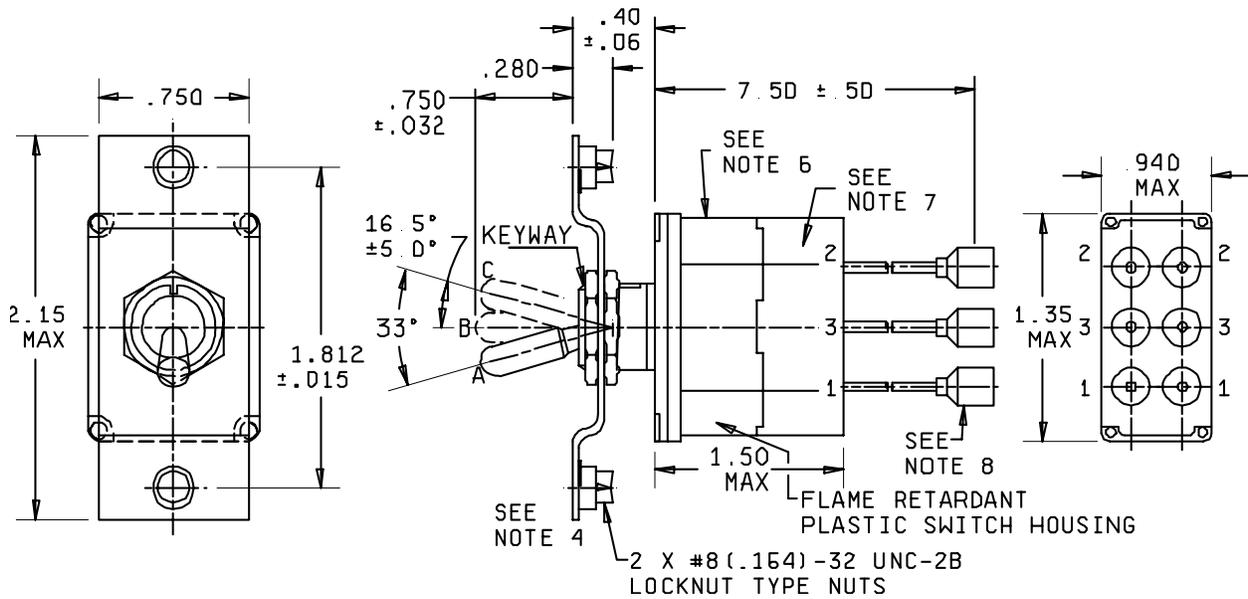
Inches	mm	Inches	mm	Inches	mm	Inches	Mm
.015	.381	.275	6.985	.634	16.104	1.812	46.025
.03	.762	.28	7.112	.75	19.05	2.15	54.61
.032	.813	.40	10.16	1.28	32.512	7.50	190.50
.06	1.524	.50	12.70	1.50	38.10		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .030$ (0.79 mm) on decimals and $\pm .5^\circ$ on angles.
4. Mounting plate shall be rigidly and firmly assembled to the switch as shown.
5. Switch shall withstand a force of 25 pounds applied .125 \pm .031 inch from the end of the switch lever.
6. The lever dimensions shall be such as to allow for incorporation of the luminous shown on USAF DWG 43A17587.
7. Contour of switch optional provided maximum dimensions specified are not exceeded.
8. All exposed terminals shall be encapsulated with potting material. Presence of thin traces of potting material on switch base allowed. All wire leads shall be supplied with connectors in accordance with MS33800 or equivalent.
9. Lead wires shall be 16 AWG, M13486/1-3 in accordance with MIL-DTL-13486, color black. Each lead wire shall be marked with numerals 1 through 3. Non-functional lead wires shall not be supplied.
10. Marking shall consist of the PIN and Manufacturers Identification in accordance with MIL-STD-130 and lever position identification in accordance with figure 1, configuration A.

FIGURE 1. Dimensions and configurations - Continued.

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Configuration C

Inches	mm	Inches	mm	Inches	mm	Inches	mm
.015	.381	.275	6.985	.75	19.05	1.812	46.025
.03	.762	.28	7.112	.940	23.88	2.15	54.61
.032	.813	.40	10.16	1.35	34.29	7.50	190.50
.06	1.524	.50	12.70	1.50	38.10		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .030$ (0.79 mm) on decimals and $\pm .5^\circ$ on angles.
4. Mounting plate shall be rigidly and firmly assembled to the switch as shown.
5. Switch shall withstand a force of 25 pounds applied .125 \pm .031 inch from the end of the switch lever.
6. The lever dimensions shall be such as to allow for incorporation of the luminous shown on USAF DWG 43A17587.
7. Contour of switch optional provided maximum dimensions specified are not exceeded.
8. All exposed terminals shall be encapsulated with potting material. Presence of thin traces of potting material on switch base allowed. All wire leads shall be supplied with connectors in accordance with MS33800 or equivalent.
9. Lead wires shall be 16 AWG, M13486/1-3 in accordance with MIL-DTL-13486, color black. Each lead wire shall be marked with numerals 1 through 3. Non-functional lead wires shall not be supplied.
10. Marking shall consist of the PIN and Manufacturers Identification in accordance with MIL-STD-130 and lever position identification in accordance with figure 1, configuration A.

FIGURE 1. Dimensions and configurations - continued.

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REQUIREMENTS:

Dimension and configuration: See figure 1.

Terminals: MS33800 or equivalent. Wire leads (when applicable), shall be 16 AWG, M13486/1-3 in accordance with MIL-DTL-13486, color black. Each lead wire shall be marked with numerals 1 through 3. Non-functional lead wires shall not be supplied.

Switching characteristics: See table II. Direction of movement of internal mechanism is opposite to the direction of the toggle movement.

Sealing: The switches shall be immersed in an enclosure containing water. The enclosure shall be subjected to a vacuum resulting in an absolute pressure equal to 2.0 ± 0.5 inches of mercury for 5 minutes. The immersed switches shall be observed for leakage as evidenced by a continuous stream of bubbles emanating from the water prior to release of the vacuum.

Electrical ratings: See table I.

Contact voltage drop: Shall not exceed 50 millivolts.

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

TABLE I. Electrical ratings, configurations A, B, and C.

Load	Configuration A	Configuration B	Configuration C
	24 V dc (amperes)	24 V dc (amperes)	24 V dc (amperes)
Resistive	25	25	25
Inductive	15	15	15
Lamp	6	6	6

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TABLE II. Switching characteristics and PIN's for configuration A.

PIN	Type	Configuration <u>1/</u>	Circuit with toggle lever in position		
			A	B Center	C
MS39061-1	I	A or B	On 1 - 2	None	Off
MS39061-2	I	A or B	Mom. on 1 - 2	None	Off
MS39061-3	I	A or B	On 1 - 2	None	Mom. off
MS39061-4	II	A or C	On 2 - 3	Off	On 1 - 3
MS39061-5	II	A or C	On 2 - 3	None	Mom. on 1 - 3
MS39061-6	II	A or C	On 2 - 3	Off	Mom. on 1 - 3
MS39061-7	II	A or C	On 2 - 3	None	On 1 - 3
MS39061-8	II	A or C	Mom. on 2 - 3	Off	Mom. on 1 - 3

1/ Configurations A, B, and C are functionally interchangeable.

Referenced Documents

MIL-DTL13486
MIL-DTL-13735
MS33800D
MIL-STD-130L
USAF DWG 43A17587

Custodians:
Army - AT
DLA - CC

Preparing activity:
DLA - CC

(Project 5930-1835)

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 www.dodssp.daps.mil.