

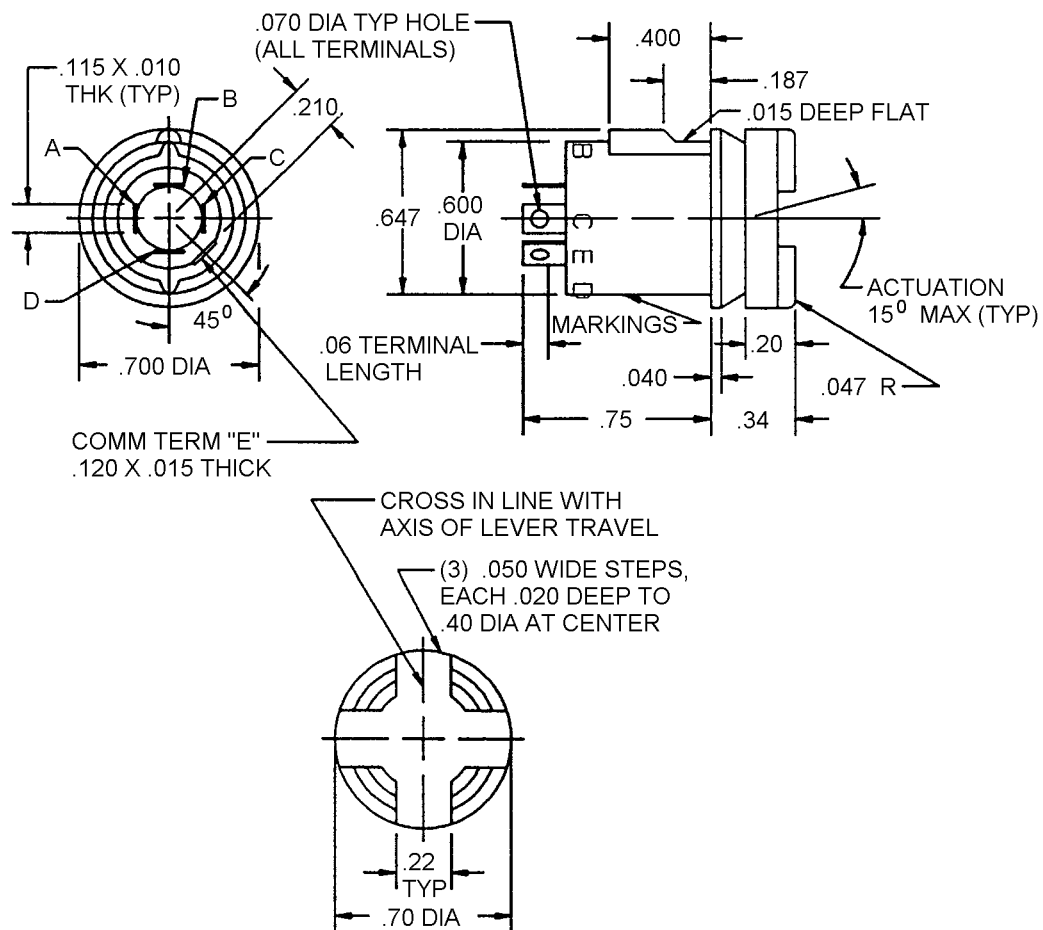
INCH-POUND
MIL-DTL-9419/2E
25 April 2003
SUPERSEDING
MIL-S-9419/2D
26 June 1995

DETAIL SPECIFICATION SHEET

SWITCHES, TOGGLE, FOUR POSITION ON, MOMENTARY, CENTER OFF
(.600 DIA),

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

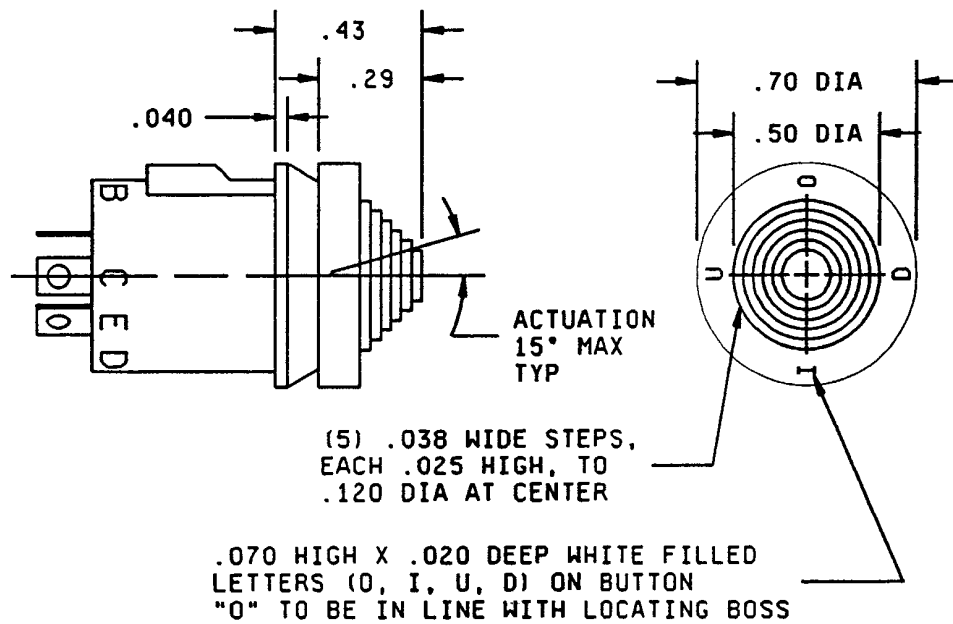
The requirements for acquiring the product described herein shall consist of this specification and MIL-DTL-9419.



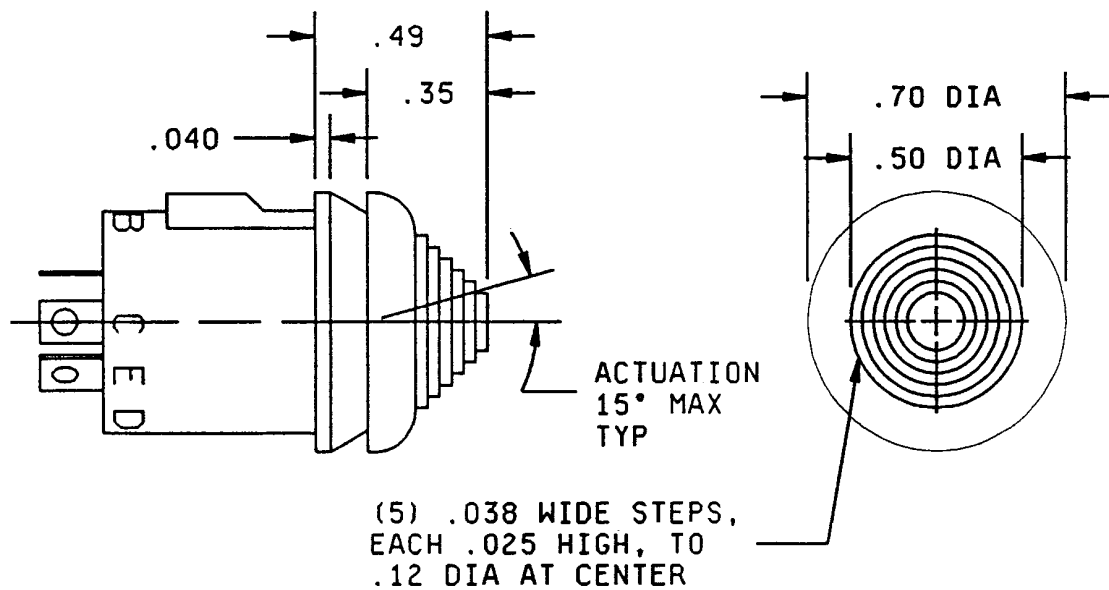
TOGGLE STYLE A

FIGURE 1. Dimensions and configurations..

MIL-DTL-9419/2E



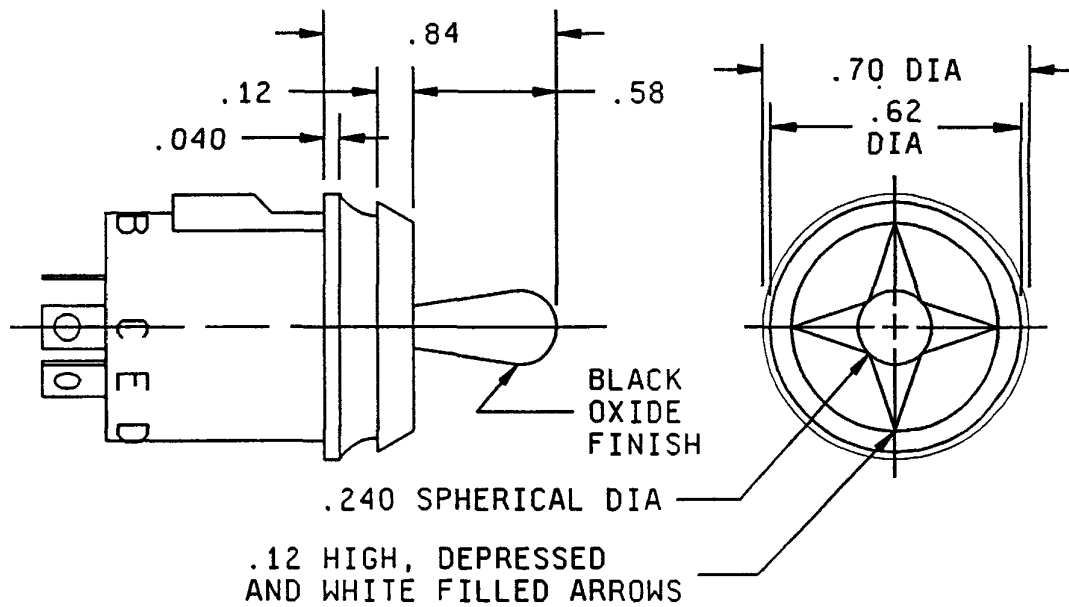
TOGGLE STYLE B



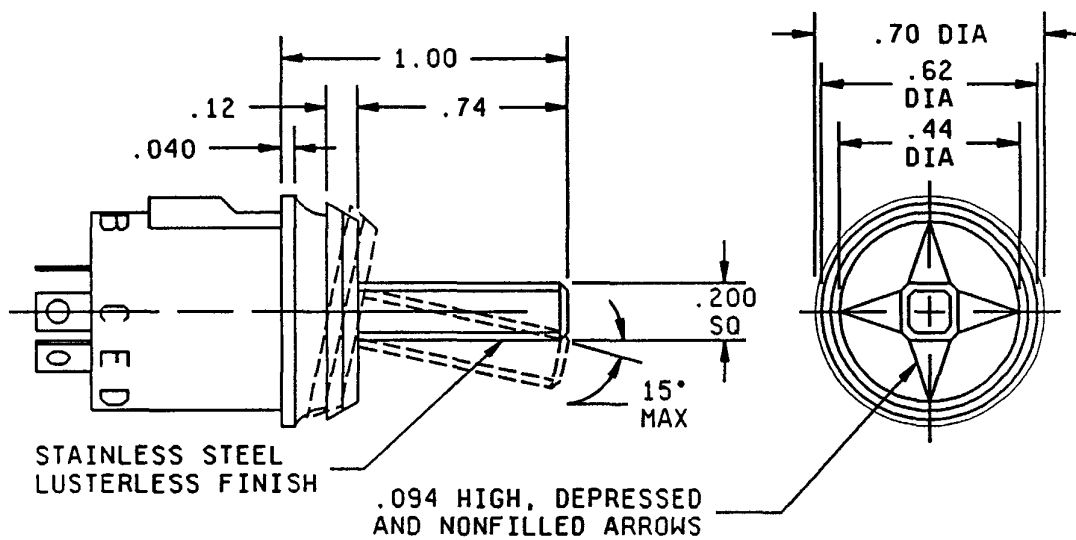
TOGGLE STYLE C

FIGURE 1. Dimensions and configurations - Continued.

MIL-DTL-9419/2E



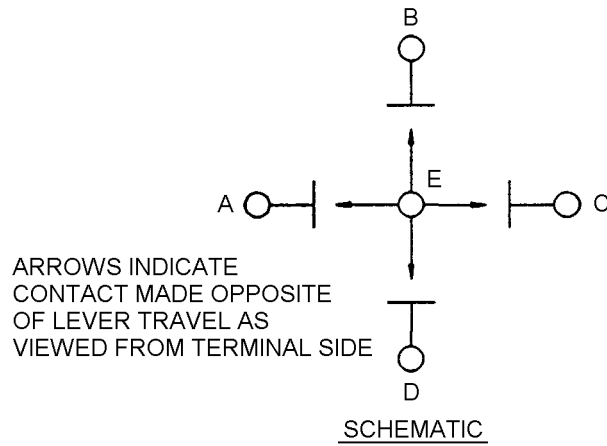
TOGGLE STYLE D



TOGGLE STYLE E

FIGURE 1. Dimensions and configurations - Continued.

MIL-DTL-9419/2E



Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.015	0.38	.047	1.19	.200	5.08	.430	10.92	.647	16.43
.020	0.51	.050	1.27	.220	5.59	.440	11.18	.700	17.78
.025	0.64	.070	1.78	.240	6.10	.490	12.45	.740	18.80
.030	0.76	.100	2.54	.255	6.48	.500	12.70	.750	19.05
.034	0.86	.115	2.92	.295	7.49	.580	14.73	.840	21.34
.038	0.97	.120	3.05	.340	8.64	.600	15.24	1.000	25.40
.040	1.02	.125	3.18	.350	8.89	.618	15.70		
.046	1.17	.187	4.75	.400	10.16	.625	15.88		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .03$ (0.76 mm) for two place decimals and ± 2 degrees on angles.
4. Housing and actuator color: Black, except for white markings as required on toggle styles B and D..

FIGURE 1. Dimensions and configurations - Continued.

MIL-DTL-9419/2E

REQUIREMENTS:

Design and construction: No snap feel, no manual breaking of welded contacts, silver plating may be used, contacts close in opposite direction of travel.

Dimensions and configurations: See figure 1.

Actuating lever: Two-piece metal mast with spring loaded electrical conductivity from the common terminal to the actuating lever.

Electrical ratings: 1 ampere inductive at 28 V dc. De-rated 50 percent at altitude (60,000 feet).

Actuating force: 16 ounces \pm 6 ounces (10 ounces \pm 3 ounces for style D).

Actuating lever travel: 15 degrees maximum from center.

Strength of actuating lever pivot, lever stop, and cap:

- 5 inch-pound torque.

- 50-pound load 45 degrees (20-pound load at 45 degrees for style D and E).

- 50-pound load to top of cap.

- 8-ounce drop at 4 inches.

Strength of terminals: 15 pounds.

Electrical endurance: Normal: 25,000 cycles.

Electrical overload: 2 amperes at 28 V dc for 100 cycles.

Seal: Military Part or Identifying Numbers (PINS) M9419/2-002, -003, and -005 shall be tested in accordance with method 112, MIL-STD-202, test condition C, leakage rate sensitivity (1×10^{-6} atm cc/s) and procedure I, II, III, or IV. For qualification, specimen numbers 3 and 4 shall be tested following acceleration (see table I).

Altitude: Except de-rate inductive load by 50 percent.

PIN: The PIN shall consist of the prefix M9419/2 followed by the appropriate three-digit PIN from table I.

Example: M9419/2-002 is a four position toggle, with style A cap and additional sealing.

MIL-DTL-9419/2E

TABLE I. PIN's.

PIN M9419/2-	Cap style	Additional sealing in accordance with MIL-STD-202, method 112
001	A	
002	A	X
003	B	X
004	C	
005	D	X
006	E	

Custodians:
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC
(Project 5930-1736)

Review activities:
Air Force - 99