

INCH-POUND

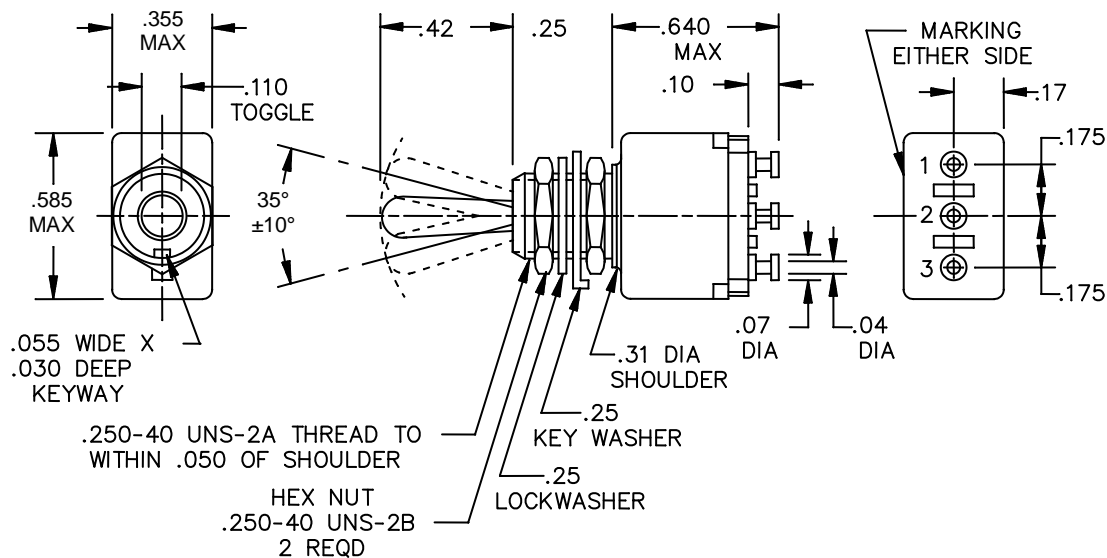
MS27716F  
w/Amendment 1  
4 May 2012SUPERSEDING  
MS27716F  
15 March 2010

## DETAIL SPECIFICATION SHEET

## SWITCH, TOGGLE, MINIATURE, SINGLE POLE, UNSEALED

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-83731.

FIGURE 1. Dimensions and configurations

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Inches	mm	Inches	mm
.030	0.76	.175	4.45
.04	1.02	.250	6.35
.050	1.27	.25	6.4
.055	1.40	.31	7.9
.07	1.78	.345	8.76
.10	2.5	.42	10.7
.110	2.79	.575	14.61
.17	4.3	.640	16.26

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is  $\pm .020$  (0.51 mm) on two place decimals and  $\pm .005$  (0.13 mm) on three place decimals.
4. For hardware detail specification, see supplement of MIL-DTL-83731.
5. Configuration of switch case is optional provided maximum dimensions specified are not exceeded.

FIGURE 1. Dimensions and configurations Continued

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REQUIREMENTS:

In the event of a conflict between the text of this standard and the reference cited herein, the text of this standard and the reference cited herein, the text of this standard shall take precedence.

All switches on this standard are designed so that the movement of the switch mechanism is opposite to that of the toggle lever.

Test voltage for dielectric withstanding voltage at reduced barometric pressure, shall be 400 V rms minimum.

Electrical Endurance shall be performed for 30,000 Cycles.

Mechanical Endurance shall be performed 50,000 cycles at -65°C and then 50,000 cycles at 85°C.

Intermediate current shall be performed for 30,000 cycles.

Terminals shall be molded into the switch case and shall accommodate no. 18 awg wire.

Strength of actuating lever pivot and lever stop: 8 pounds.

Sand and dust: Toggle boots in accordance with MIL-DTL-5423 shall be used.

Maximum weight shall be .015 pound.

Electric rating for 28 volts direct current and 115 volts ac at 400Hz.

Lamp Load is 1 Ampere.

Resistive load is 5 Amperes.

Inductive Load is 2 Amperes.

Table I Detail Requirements

Canceled MS Part NO. <u>1/</u>	Substitute MS Part NO <u>1/</u>	Circuit made with toggle lever in		
		Keying Side 1-2	Center Position	Opposite keying side 2-3
MS27716-21	MS27716-21-1	On	Off	On
MS27716-22	MS27716-22-1	Off	None	On
MS27716-23	MS27716-23-1	On	None	On
MS27716-26	MS27716-26-1	Mom-On	None	On
MS27716-27	MS27716-27-1	Mom-On	Off	Mom-On
MS27716-31	MS27716-31-1	Mom-On	Off	On

1/ The canceled part numbers are no longer procurable; the substitute part numbers have a lower dielectric withstanding voltage at reduced barometric pressure.

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Referenced documents

MIL-DTL-83731  
MIL-DTL-5423

The margins of this amendment are marked with vertical lines to indicate where modifications from this revision 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 – EC  
Air Force – 85  
DLA – CC

Preparing activity:

DLA – CC

Project (5930-2012-029)

Review activities:

Army – AV  
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/>.