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IN REPLY
REFER TO

DSCC-VAT

1 July 2004

MEMORANDUM FOR MILITARY/INDUSTRY DISTRIBUTION

SUBJECT: Initial Draft of MIL-PRF-8805 /11J, /14F, /15G, /17G, /18G, /19F, /23G, /25F, /34E, /38G, /40H, /47G, /48H, /49H, /65D, /76H, /84E, /90F, /96E, /100F, /101K, /104C, /107C, /110D, and /114C.
Project numbers 5930-1838 through -1863.

The drafts of the above subject documents are being sent to you for review and comments. These drafts consist of the following changes:

Updating of referenced documents.
Incorporation of amendments.

If these documents are of interest to you, please provide your comments electronically. This can be in the form of a return e-mail, with or without an attached text file. A 45-day coordination cycle from the date of this letter has been allotted. Please provide your comments within that time period. If no comments are received in the allotted 45 day coordination cycle, concurrence is assumed and all comments received after will be held to the first amendment. If an electronic response is not possible we will still accept comments via letter, facsimile or phone call but only after you have contacted the project officer listed below. The draft documents can be found at the following DSCC-VA web page:

www.dsccl.dla.mil/Programs/MilSpec/initialdrafts.asp

This process still requires military departments to identify their comments as "Essential" or "Suggested". Essential comments must be justified with supporting data. Military review activities should forward comments to their custodians or this office, as applicable, in sufficient time to allow for consolidating the department reply.

If there are any questions, please contact Mark Rush by the preferred method of E-Mail at Mark.Rush@dla.mil or by telephone at commercial 614-692-0550, DSN 850-0550; or by facsimile at 614-693-1644. Our mailing address as a last resort is Defense Supply Center, Columbus, DSCC-VAT, P.O. Box 3990, Columbus, OH 43216-5000. If you have further questions or concerns you may contact me at Kendall.Cottongim@dla.mil, by telephone at 614-692-0676 or by facsimile at 614-692-6939.

/ SIGNED /
KENDALL A. COTTONGIM
Chief
Electronics Components Team

NOTE: This draft, dated July 1, 2004 prepared by DLA-CC, has not been approved and is subject to modification. DO NOT USE PRIOR TO APPROVAL. (Project 5930-1861)

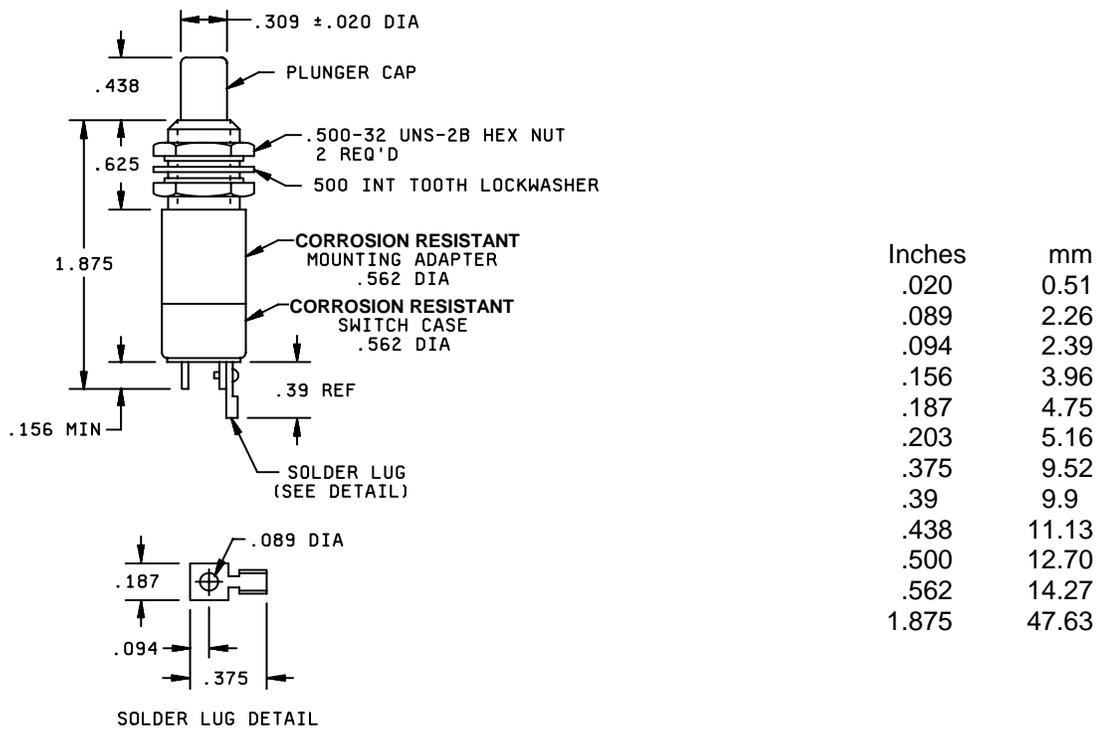
INCH-POUND
MIL-PRF-8805/107C
DRAFT
SUPERSEDING
MIL-PRF-8805/107B
3 September 1999

PERFORMANCE SPECIFICATION SHEET

SWITCHES, PUSH, MOMENTARY AND PUSH-PULL,
10 AMPERES, DUSTTIGHT

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

The complete requirements for acquiring the switches described herein shall consist of this specification and the latest issue of MIL-PRF-8805.

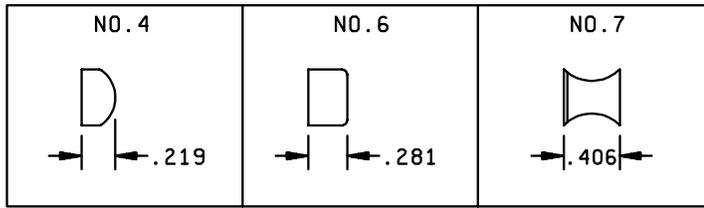
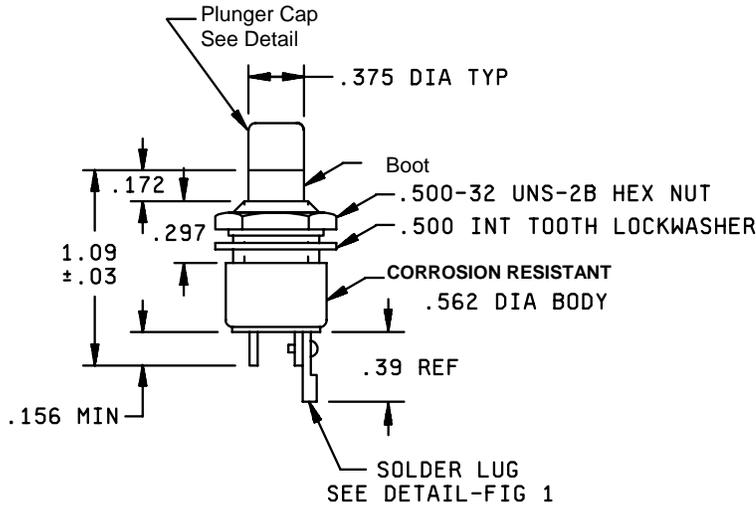


NOTES:

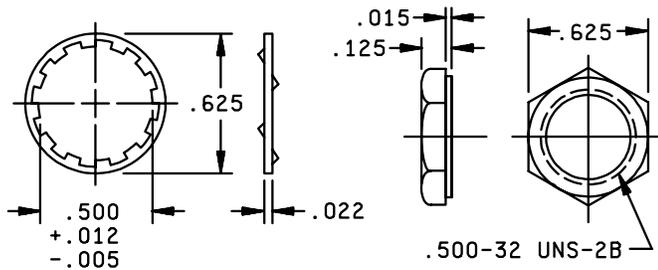
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ± 0.010 (0.25 mm).
4. All terminal threads are .086-56UNC-2B.
5. Hardware for each terminal includes one screw, one terminal lug and one lock washer.
6. See figure 2 for mounting hardware detail.

FIGURE 1. Basic switch with mounting adapter.

MIL-PRF-8805/107C



PLUNGER CAP STYLES



MOUNTING HARDWARE

Inches	mm
.005	0.13
.012	0.30
.015	0.38
.022	0.56
.03	0.76
.125	3.17
.156	3.96
.172	4.37
.219	5.56
.281	7.14
.297	7.54
.375	9.52
.39	9.9
.406	10.31
.500	12.70
.562	14.27
.625	15.88
1.09	27.7

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ± 0.010 (0.25 mm).
4. All terminal threads are .086-56UNC-2B.
5. Hardware for each terminal includes one screw, one terminal lug and one lockwasher.

FIGURE 2. Basic switch without mounting adapter.

REQUIREMENTS:

Design and construction:

Dimensions and configurations: See figures 1, 2, and 3.

Enclosure design: 2 (Dusttight).

Temperature characteristic: 1 (-55° to +85°C).

Shock type: M (100 g, test condition I, method 213 of MIL-STD-202).

Vibration grade: 2 (10 Hz to 2,000 Hz).

Weight (switches with adapter): .050 pound maximum.

Operating characteristics:

Operating force:

Momentary: 4 ± 1 pounds.

Push-pull: $\frac{1}{2}$ to 2 pounds.

Releasing force: 1 pound minimum, momentary.

Total plunger travel:

Switches without adapter: $.085 \pm .015$ inch.

Switches with adapter: .438 inch (approximate).

Overtravel:

Switches with adapter: .312 inch (approximate).

Electrical ratings:

Center terminal (terminal 3, on 3-terminal switches): 3 amperes maximum.

Other than center terminal: See table I.

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TABLE I. Electrical ratings.

Load	Sea level		50,000 feet
	28 V dc (amperes)	115 V ac, 60/400 Hz (amperes)	28 V dc (amperes)
Resistive	10	10	---
Inductive	5	5	5
Lamp	3	3	---

Terminal strength (torque): Not applicable.

Strength of actuator and stop: 75 pounds for 3-terminal circuitry or 40 pounds for all others.

Dielectric withstanding voltage:

At sea level: 1,000 V rms.

After electrical endurance: 200 V rms.

Minimum current (prior to test, switches shall be preconditioned at 85°C for 48 hours):

Circuit schematics 1, 2, and 3: 200,000 cycles.

Circuit schematics 4 and 5: 50,000 cycles.

Mechanical endurance (10 to 15 cpm):

Circuit schematics 1, 2, and 3:

At room temperature: 200,000 cycles.

At -55°C and +85°C: 100,000 cycles each temperature.

Circuit schematics 4 and 5: 50,000 cycles.

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Electrical endurance:

At sea level: 25,000 cycles.

At 50,000 feet: 5,000 cycles.

Sand and dust: Applicable.

Part numbers: Part numbers are assigned as follows:

Example:

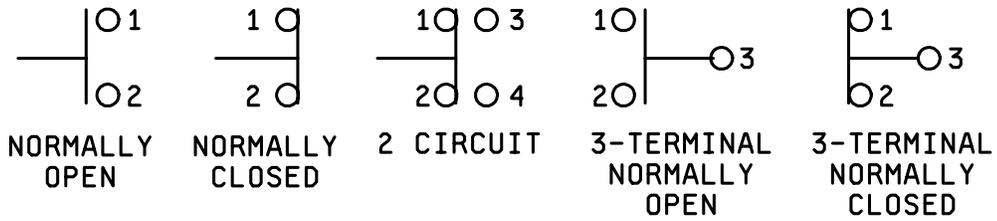
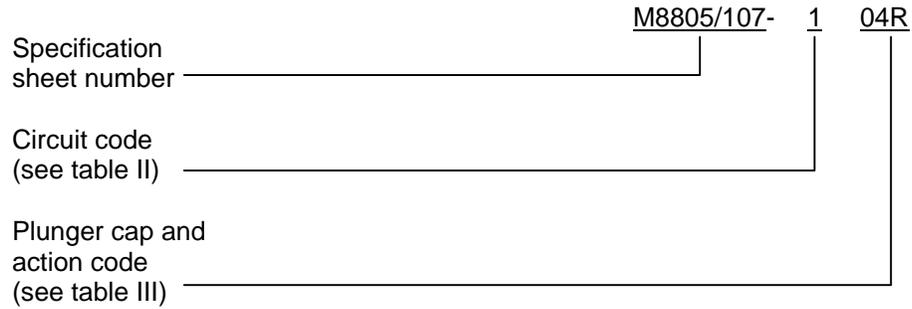


FIGURE 3. Circuit schematic.

TABLE II. Circuit code.

Code	Circuit schematic (see figure 3)
1	Normally open
2	Normally closed
3	Two-circuit
4	Three-terminal normally open
5	Three-terminal normally closed

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TABLE III. Plunger cap and action code.

Code	Item	Action	Plunger cap color
04B	<u>1/</u> Basic switch only, cap style 4	Momentary	Black
04R	<u>1/</u> Basic switch only, cap style 4	Momentary	Red
04W	<u>1/</u> Basic switch only, cap style 4	Momentary	White
06B	<u>1/</u> Basic switch only, cap style 6	Momentary	Black
06R	<u>1/</u> Basic switch only, cap style 6	Momentary	Red
06W	<u>1/</u> Basic switch only, cap style 6	Momentary	White
07B	<u>1/</u> Basic switch only, cap style 7	Push-pull	Black
07R	<u>1/</u> Basic switch only, cap style 7	Push-pull	Red
07W	<u>1/</u> Basic switch only, cap style 7	Push-pull	White
L5C	Basic switch with adapter	Momentary	Chrome
L5R	Basic switch with adapter	Momentary	Red
L5B	Basic switch with adapter	Momentary	Black

1/ Use of switches without mounting adapters is not recommended for applications where side force on button is anticipated. See MIL-PRF-8805/3 for additional styles of switches with mounting adapters.

QUALIFICATION: Qualification will be granted on the basis of similarity when similar items, with mounting adapters, are qualified to MIL-PRF-8805/3.

Referenced Documents:

MIL-PRF-8805
MIL-PRF-8805/3
MIL-STD-202

Custodian:
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC

(Project 5930-1861)

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.