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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

MIL-PRF-8805/110D

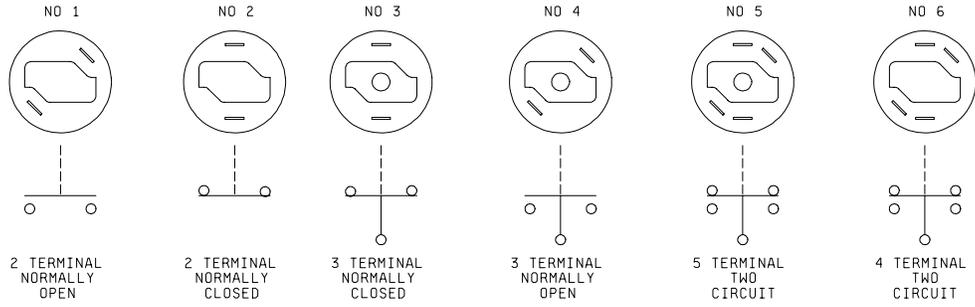
Inches	mm	Inches	mm	Inches	mm
.002	0.05	.115	2.92	.350	8.89
.015	0.38	.125	3.18	.380	9.65
.020	0.51	.150	3.81	.437	11.10
.030	0.76	.160	4.06	.469	11.91
.038	0.97	.180	4.57	.490	12.45
.047	1.19	.190	4.83	.530	13.46
.055	1.40	.215	5.46	.535	13.59
.080	2.03	.245	6.22	.562	14.27
.085	2.16	.250	6.35	.615	15.62
.090	2.29	.260	6.60	.645	16.38
.100	2.54	.305	8.38	.750	19.05
.110	2.79	.343	8.71	.775	19.69

NOTES:

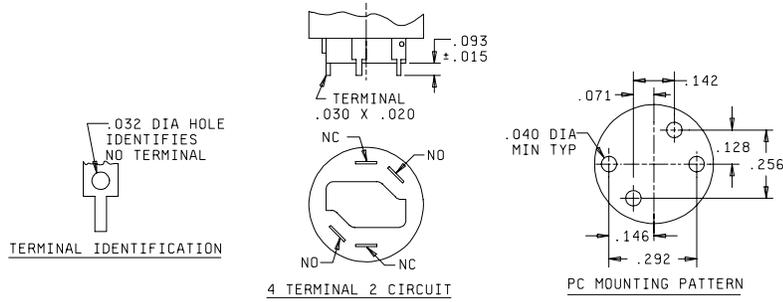
1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are ± 0.015 (0.38 mm).
3. Metric equivalents are given for general information only.
4. Styles 3, 5, and 6 are panel mounted.
5. Mounting thread .469-32NS-02A applies to styles 3 and 6, and shall be furnished with one each mounting nut MS25082-B21 or equivalent and lockwasher NASM 35333-136 or equivalent. Alternative base metals and protective finishes, as approved by the qualifying activity, may be utilized for hardware material.
6. Mounting thread .250-40UNS-2A applies to style 5, and shall be furnished with one each mounting nut MS25082-B14 or equivalent and lockwasher NASM 35333-135 or equivalent. Alternative base metals and protective finishes, as approved by the qualifying activity, may be utilized for hardware material.

FIGURE 1. Configuration and dimensions - Continued.

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TERMINAL CONFIGURATION AND CIRCUIT SCHEMATIC



FOR SOLDER TERMINATION

Normally open (N.O.): Round ended terminal
 Normally closed (N.C.): Square ended terminal

FOR PRINTED CIRCUIT (PC) TERMINATION

Inches	mm	Inches	mm
.015	0.38	.093	2.36
.020	0.51	.128	3.25
.030	0.76	.142	3.61
.032	0.81	.146	3.71
.040	1.02	.256	6.50
.071	1.80	.292	7.42

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are $\pm .015$ (0.38 mm).
4. For solder termination, all circuit schematics are available.
5. For PC termination, circuit schematics 1, 2, and 6 are available.

FIGURE 2. Terminal configuration.

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REQUIREMENTS:

Dimensions and configurations: See figures 1 and 2.

Enclosure design: 2 (dusttight) or 3 (watertight).

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

Shock type: M (100 g's).

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

Weight: .030 pound maximum.

Dielectric withstanding voltage: 1,050 V rms.

After electrical endurance: Between all terminals and mounting plate only.

Operating characteristics:

Actuating force: 27 ±8 ounces, 20 percent variation from specified values acceptable after test.

Total travel: .080 inch maximum.

Strength of actuator: 10 pounds.

Sand and dust: Applicable.

Terminal strength: 5 pounds, all directions.

Mechanical endurance: 100,000 cycles.

Electrical endurance: 50,000 cycles. Electrical ratings, see table I.

TABLE I. Electrical ratings.
Circuit schematics 1, 2, and 6

Load	Sea level				50,000 feet			
	28 V dc		115 V ac, 60 Hz		28 V dc		115 V ac, 60 Hz	
	NO or NC (amperes)	2 circuit <u>1/</u> (amperes)						
Resistive	5	4	5	4	5	4	5	4
Inductive	3	2	3	2	3	2	3	2
Motor	3	---	3	---	---	---	---	---
Lamp	1	---	1	---	---	---	---	---

1/ Independent loads connected to each throw.

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TABLE II. Electrical ratings.
Circuit schematics 3, 4, and 5

Load	Sea level				50,000 feet			
	28 V dc		115 V ac, 60 Hz		28 V dc		115 V ac, 60 Hz	
	NO or NC (amperes)	2 circuit 1/ (amperes)						
Resistive	2.5	2	2.5	2	2.5	2	2.5	2
Inductive	1.5	1	1.5	1	1.5	1	1.5	1
Motor	1.5	---	1.5	---	---	---	---	---
Lamp	.5	---	.5	---	---	---	---	---

1/ Independent loads connected to each throw.

Intermediate current: Applicable 50,000 cycles.

Low level circuit: 25,000 cycles (applicable when specified, see table III).

Logic level circuit: Applicable to electrical rating codes 4, 5, 6, and 8 (see table III).

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

TABLE III. PIN number and characteristics.

Case style <u>1/</u>	Terminal type/ <u>2/</u> electrical rating and seal	Circuit schematic <u>3/ 4/</u>	Button color
1. Style 1	1. Solder/power circuit/dusttight	1. 2 Term N.O.	1. Red
2. Style 2	2. Solder/power circuit/watertight	2. 2 Term N.C.	2. Black
3. Style 3	3. PC/power circuit/dusttight <u>5/</u>	3. 3 Term N.C.	3. Orange
5. Style 5	4. Solder/low level/dusttight	4. 3 Term N.O.	4. Yellow
6. Style 6	5. Solder/low level/watertight	5. 5 Term two ckt	5. Green
7. Style 7	6. PC/low level/dusttight <u>5/</u>	6. 4 Term two ckt	6. Blue
8. Style 8	7. PC/power circuit/watertight <u>5/</u>		7. Violet
	8. PC/low level/watertight <u>5/</u>		8. Gray
			9. White

1/ See figure 1 for case styles.

2/ For group A and incoming inspection, low level switches shall not be subjected to loads greater than 10 milliamperes at an open circuit voltage of 30 millivolts maximum dc or peak ac.

3/ See figure 2 for circuit schematic identification.

4/ Printed circuit board termination applies to circuit schematics 1, 2, and 6 only.

5/ Not available in circuit schematics 3, 4, and 5.

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PIN:

Specification sheet number M8805/110-	dash number <u>7</u>	<u>4</u>	<u>1</u>	<u>2</u>
	Case style	Terminal type/Electrical rating	Circuit schematic	Button color

Example:

M8805/110-7412 designates a switch of case style 7, with solder termination, low level electrical rating, that is dusttight and has a 2 terminal normally open circuit and a black button.

TABLE IV. Qualification inspection.

Inspection	Basic switch	Other switch samples	Extent of approval	
Qualification inspection table of MIL-PRF-8805	Required sample units of the 4 terminal two circuit configuration	Required number of sample units of 3 terminal N.O. or 3 terminal N.C. (groups VII and X tests, qualification inspection table, MIL-PRF-8805)	All	In addition, 2 sample units of each of the other configurations shown on this specification sheet shall be submitted to visual and mechanical inspection.

Referenced Documents:

MIL-PRF-8805
MS 25082
NASM 35333

Custodian:
Navy - EC
DLA - CC

Preparing activity:
DLA - CC

(Project 5930-1862)

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.