

INCH-POUND

MIL-PRF-8805/84F

6 December 2012

SUPERSEDING

MIL-PRF-8805/84E

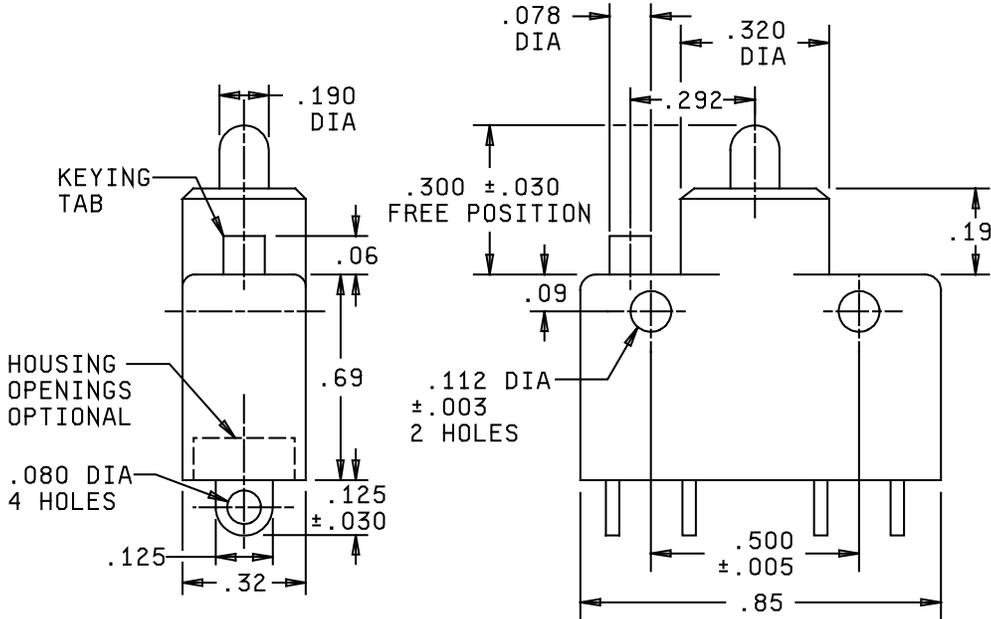
4 October 2004

PERFORMANCE SPECIFICATION SHEET

SWITCHES, SENSITIVE, WATERTIGHT, 10 AMPERES, DOUBLE BREAK

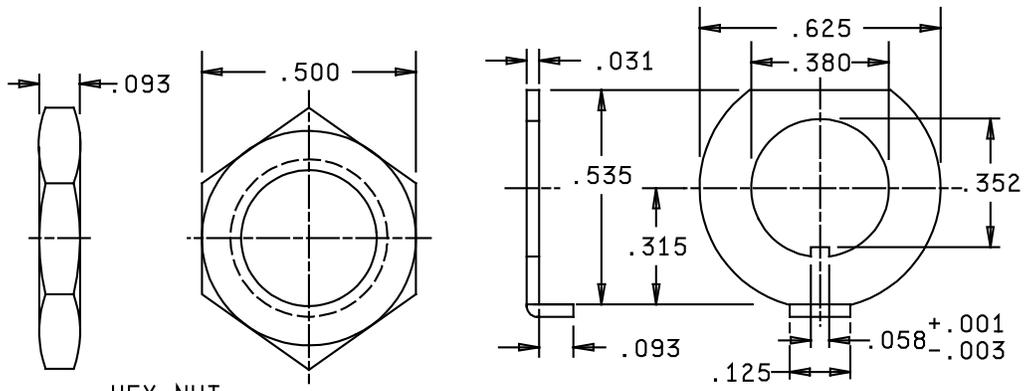
This specification is approved for use by all Departments and Agencies of the Department of Defense.

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



M8805/84-001

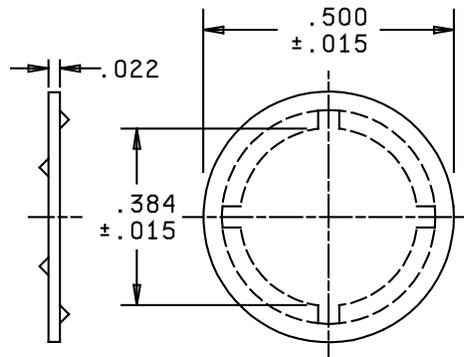
FIGURE 1. Dimensions and configurations.



HEX NUT

Can be replaced by
MS25082-C20

KEYWAY WASHER



INTERNAL TOOTH
LOCKWASHER

Can be replaced by NASM 35333-134

M8805/84-003

FIGURE 1. Dimensions and configurations - Continued.

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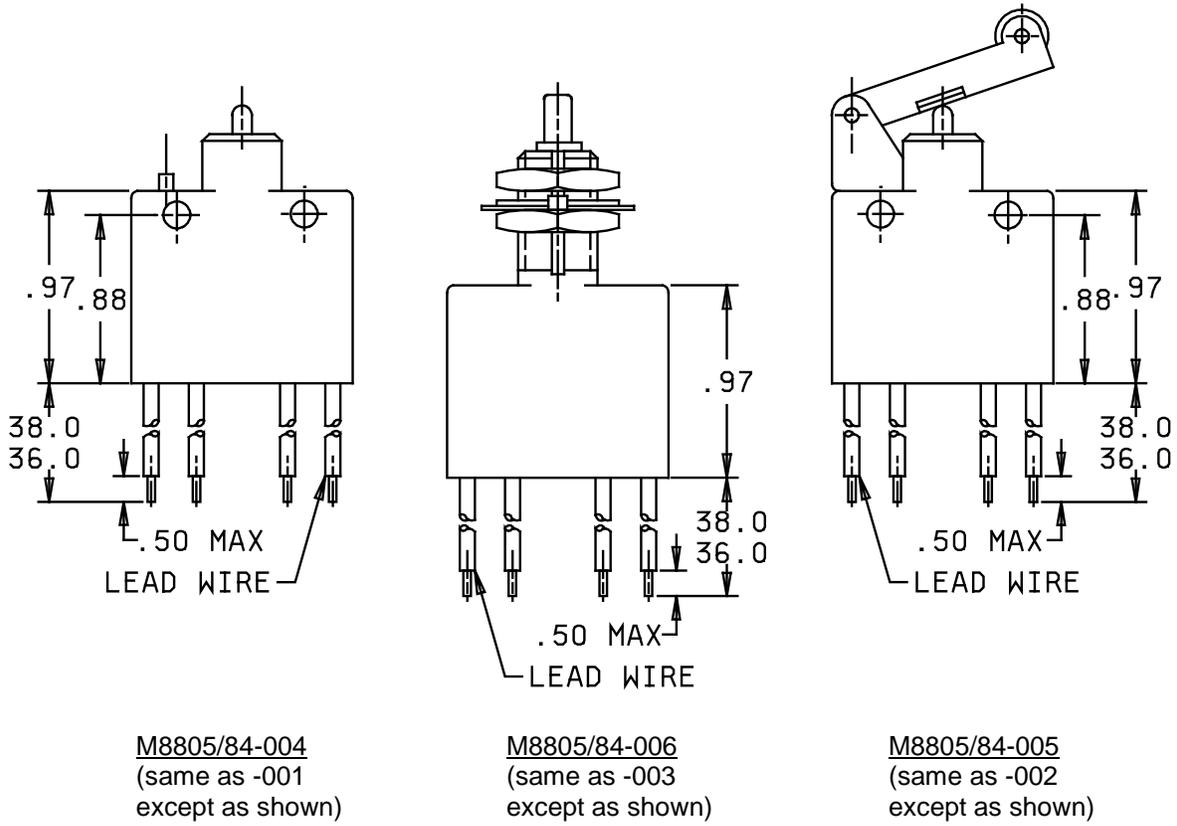
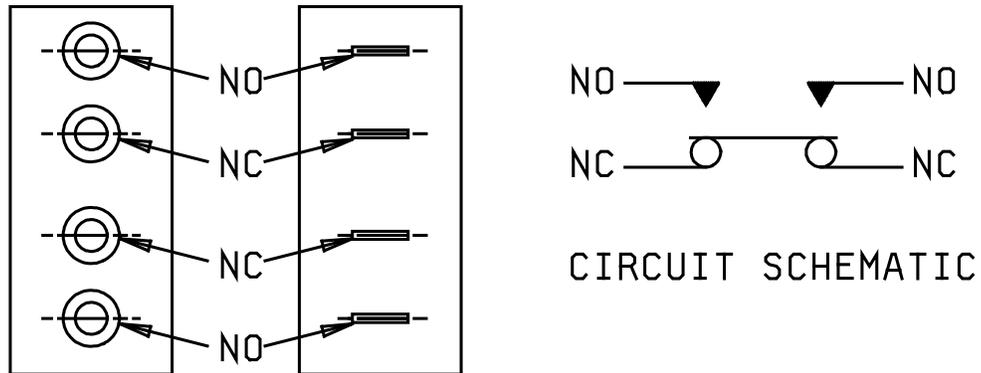


FIGURE 1. Dimensions and configurations - Continued.



TERMINAL IDENTIFICATION

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.002	0.05	.06	1.5	.125	3.18	.352	8.94	.68	17.3
.003	0.08	.062	1.57	.187	4.75	.375	9.53	.69	17.5
.005	0.13	.068	1.73	.19	4.8	.380	9.65	.765	19.43
.010	0.25	.078	1.98	.250	6.35	.384	9.75	.85	21.6
.015	0.38	.080	2.03	.292	7.42	.500	12.70	.88	22.4
.02	0.5	.09	2.3	.300	7.62	.535	13.59	.882	22.40
.022	0.56	.093	2.36	.315	8.00	.562	14.27	.97	24.6
.025	0.64	.109	2.77	.32	8.1	.625	15.88	36.00	914.4
.030	0.76	.112	2.84	.320	8.13	.640	16.26	38.00	965.2
.031	0.79	.120	3.05						

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are ± 0.02 (0.5 mm) on two place decimals and ± 0.010 (0.25 mm) on three place decimals.
4. Terminal designation:
M8805/84-001, M8805/84-002, M8805/84-003: NO and NC stamped on bottom or either side of switch. M8805/84-004, M8805/84-005, M8805/84-006: NO-20 and NC-20 stamped on leads. The marking shall be legible, permanent, shall not impair the wire characteristics, shall appear every 15 inches (381. mm) maximum, and shall appear within three inches (76.2 mm) of the end.
5. Switch design optional within envelope dimensions shown.

FIGURE 1. Dimensions and configurations - Continued.

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REQUIREMENTS:

Dimensions and configurations: See figure 1.

Enclosure design: 3 (watertight).

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

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

Vibration grade: 1 (10 Hz to 500 Hz swept sinusoidal, 10 g's peak).

Finish: Switch housing shall be processed to resist corrosion.

Weight:

- M8805/84-001 - .50 ounce maximum.
- M8805/84-002 - .60 ounce maximum.
- M8805/84-003 – 1.10 ounce maximum.
- M8805/84-004 – 2.30 ounce maximum.
- M8805/84-005 – 2.40 ounce maximum.
- M8805/84-006 – 2.90 ounce maximum.

Operating characteristics: See table I.

Contact resistance (maximum):	M8805/84-001, -002, -003	M8805/84-004, -005, -006
Initial	50 milliohms.	150 milliohms.
After mechanical endurance -	100 milliohms.	200 milliohms.

Terminal strength:		
Force (Static) -	5 lbs.	5 lbs.
Duration of force -	5-10 seconds.	5-10 seconds.

Mechanical endurance: 50,000 cycles.

Electrical endurance: 50,000 cycles.

Electrical ratings: See table II.

Intermediate current: 50,000 cycles.

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

Qualification:

 Group submission – See table III.

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TABLE I. PIN and characteristics. 1/

PIN M8805/84	Type of actuator	Actuating force (maximum)	Releasing force (minimum)	Pretravel (maximum)	Movement differential	Overtravel (minimum)	Strength of actuator
-001 -004	Pin plunger	2.5 lbs	.5 lb	(inch) .050 (1.27 mm)	(inch) .020 ±.010 (.51 ±.25 mm)	(inch) .060 max (1.52 mm)	(lbs) 25
-002 -005	Roller- lever	20 oz	4 oz	.125 (3.18 mm)	.060 max (1.52 mm)	.025 (.64 mm)	10
-003 -006	Overtravel plunger	2.5 lbs	.5 lb	.070 (1.78 mm)	.020 (.51 ±.25 mm)	.187 (4.75 mm)	25

1/ ±20 percent variation in values acceptable after test.

TABLE II. Electrical ratings.

Load	Sea level - 28 V dc		50,000 feet - 28 V dc	
	Single circuit NO or NC (amperes)	2 circuit 1/ (amperes)	Single circuit NO or NC (amperes)	2 circuit 1/ (amperes)
Resistive	10	10	10	10
Inductive	7.5	5	3.5	2
Motor	4	2	---	---
Intermediate current	.04	.04	.04	.04

1/ Both NO and NC circuits under load during electrical endurance test.

TABLE III. Qualification inspection.

Examination or test	Basic switch	Other switch samples	Extent of approval
Qualification inspection table of MIL-PRF-8805	M8805/84-004 (all sample units)	M8805/84-001, M8805/84-002, M8805/84-003, M8805/84-005 M8805/84-006 (2 sample units). Visual and mechanical examination and operating characteristics. M8805/84-002 and -003 strength of actuating means. M8805/84-005 vibration and shock. M8805/84-001 strength of terminals.	All

Changes from previous issue. The margins of this specification 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.

Referenced Documents:

MIL-PRF-8805
MIL-STD-202
MS25082
NASM35333

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:

DLA - CC

(Project 5930-2011-123)

Review activities:

Army - AT, AM, AV, MI
Navy - AS, MC, OS, SH
Air Force - 19, 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.dla.mil/>.