

PERFORMANCE SPECIFICATION SHEET

SWITCHES, SENSITIVE, LEAF, SPDT, 4 AMPERES, HERMETIC

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-PRF-8805.

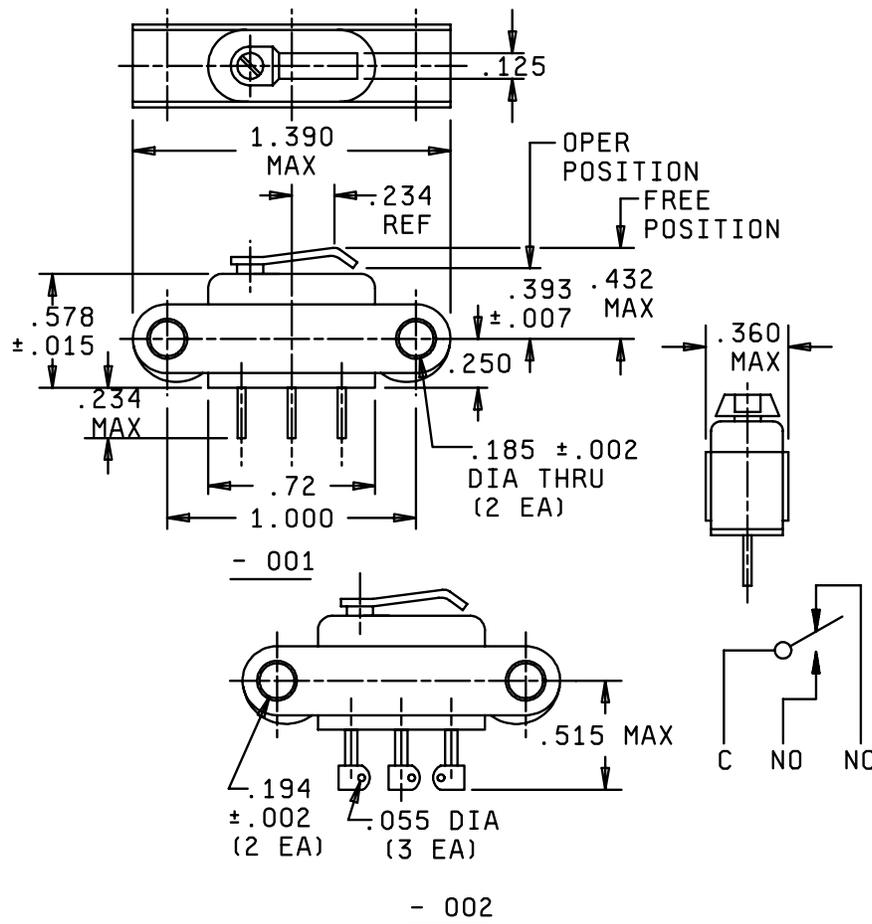
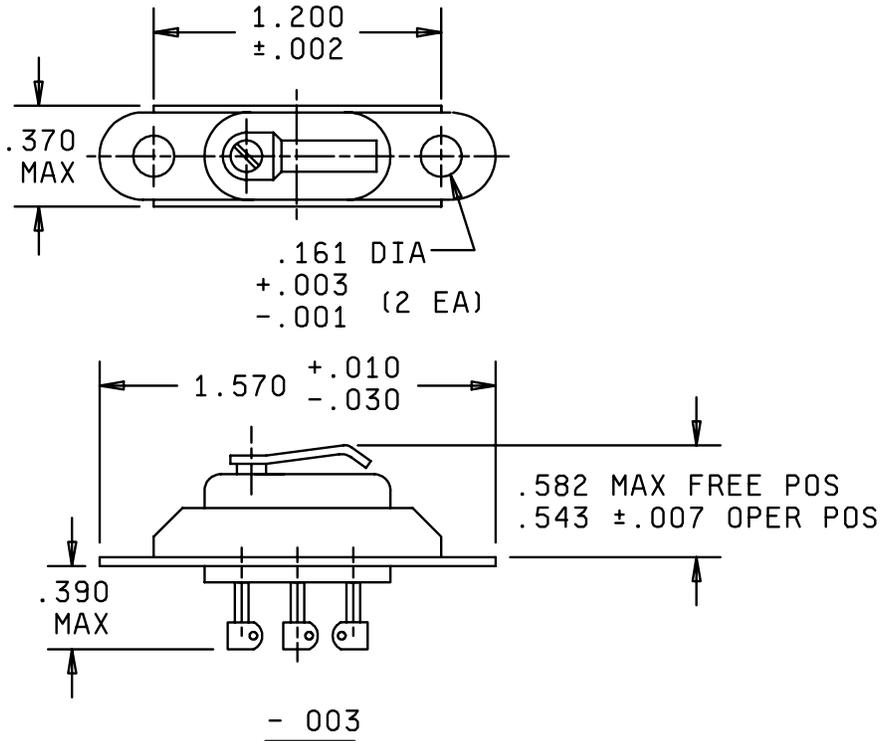


FIGURE 1. Dimensions and configuration.

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Inches	mm	Inches	mm	Inches	Mm
.001	.03	.125	3.18	.432	10.97
.002	.05	.161	4.09	.515	13.08
.003	.08	.185	4.70	.543	13.79
.005	.13	.194	4.93	.578	14.68
.007	.18	.234	5.94	.582	14.78
.010	.25	.250	6.35	.72	18.30
.015	.38	.360	9.14	1.000	25.40
.02	.50	.370	9.40	1.200	30.50
.030	.76	.390	9.91	1.390	35.31
.055	1.40	.393	9.98	1.570	39.88

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are  $\pm 0.02$  (0.51 mm) for two place decimals and  $\pm 0.005$  (.13 mm) for 3 place decimals.
4. Switch configuration optional provided dimensions specified are not exceeded.

FIGURE 1. Dimensions and configuration - continued

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REQUIREMENTS:

Dimensions and configurations: See figure 1.

Enclosure design: 5 (Hermetic).

Temperature characteristic:

- M8805/82-001: (- 65°C to + 350°C).
- M8805/82-002: (-125°F to + 350°F).
- M8805/82-003: (- 125°F to + 350°F).

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

Vibration grade: 2 (10 Hz to 2,000 Hz ), except that the acceleration level shall be 30 G (M8805/82-001) or 40 G (M8805/82-002 and -003).

Weight: See table I.

Operating characteristics: See table I.

Contact resistance: 125 milliohms maximum initial, 1.0 ohm maximum during and after life test.

Dielectric withstanding voltage:

Sea level: 1,250 V rms for one second.

Low level circuit (M8805/82-002 and -003 only): 15,000 cycles.

Electrical and mechanical endurance: 15,000 cycles at 10 to 12 cycles per minute.

Short circuit: 90 amperes maximum.

Electrical ratings: See table II.

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

TABLE I. PIN's and operating characteristics.

PIN	Actuating force	Release force	Differential travel	Over travel	Maximum weight	Termination
M8805/82-001	26 oz max.	6 oz min.	.020 inch max	.006 inch min.	.025 pound	Braze or weld
M8805/82-002	32 oz max.	6 oz min.	.020 inch max.	.006 inch min.	.025 pound	Solder
M8805/82-003	32 oz max.	6 oz min.	.020 inch max.	.006 inch min.	.025 pound	Solder

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TABLE II. Electrical ratings.

PIN	Load	Sea level and 70,000 feet 115 V ac, 400 Hz and 28 V dc
		<u>Amperes</u>
M8805/82-001	Resistive	4
	Inductive	3
	Lamp	1.5
M8805/82-002 And M8805/82-003	Resistive	2
	Inductive	.5
	Lamp	.5
Low level circuit test applicable		

Qualification:

Group submission: See table III.

TABLE III. Qualification testing – group submission.

Examination or test (See qualification inspection table of MIL-PRF-8805)	Sample	Extent of approval
Groups I, II, III, VI, VII, and VIII. Group VII test are required at sea level only.	M8805/82-001	All PINs
Visual and mechanical examination	M8805/82-003	
Group I Visual and mechanical examination Solderability Operating characteristics	M8805/82-002	
Group II Thermal shock Vibration Dielectric withstanding voltage Operating characteristics		

QUALITY ASSURANCE:

Group A inspection:

Seal: Only the watertight test shall be performed, in Group A. Switches need not be removed from underwater during the test.

M8805/82-002 and -003: Do not exceed low level electrical ratings during any testing.

Group B inspection: M8805/82-001 shall be submitted to the tests of the group B inspection table of MIL-PRF-8805. In addition, M8805/82-002 shall be submitted to the tests of table IV.

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TABLE IV. Group B inspection requirements for M8805/82-002.

Examination or test	Sample numbers											
	1	2	3	4	5	6	7	8	9	10	11	12
Solderability -----	X	X										
Thermal shock -----	X	X										
Mechanical endurance at low temperature -----					X							
Contact resistance -----					X	X						
Overload cycling -----							X	X	X	X		
Inductive load, dc -----									X	X		
Resistive load, ac -----							X	X				
Low level circuit -----											X	X
Dielectric withstanding voltage -----							X	X	X	X		
Operating characteristics -----	X	X	X	X	X	X	X	X	X	X		
Seal -----	X	X	X	X								

Referenced Documents

- MIL-PRF-8805
- MIL-STD-202

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:

- Army - CR
- Navy - EC
- Air Force - 11
- DLA - CC

Preparing activity:

DLA - CC

(Project 5930-2006-006)

Review activities:

- Army – AM, AT, 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 <http://assist.daps.dla.mil/> .