

INCH-POUND

MIL-PRF-8805/82F

28 June 2022

SUPERSEDING

MIL-PRF-8805/82E

31 January 2006

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](#).

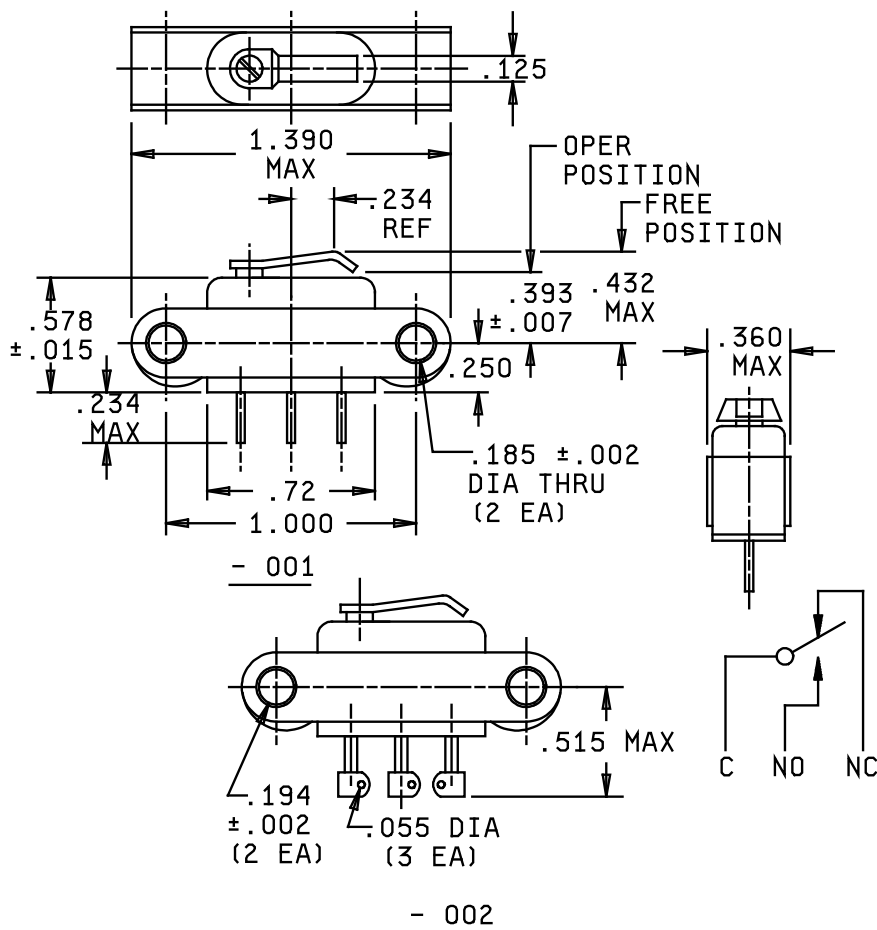
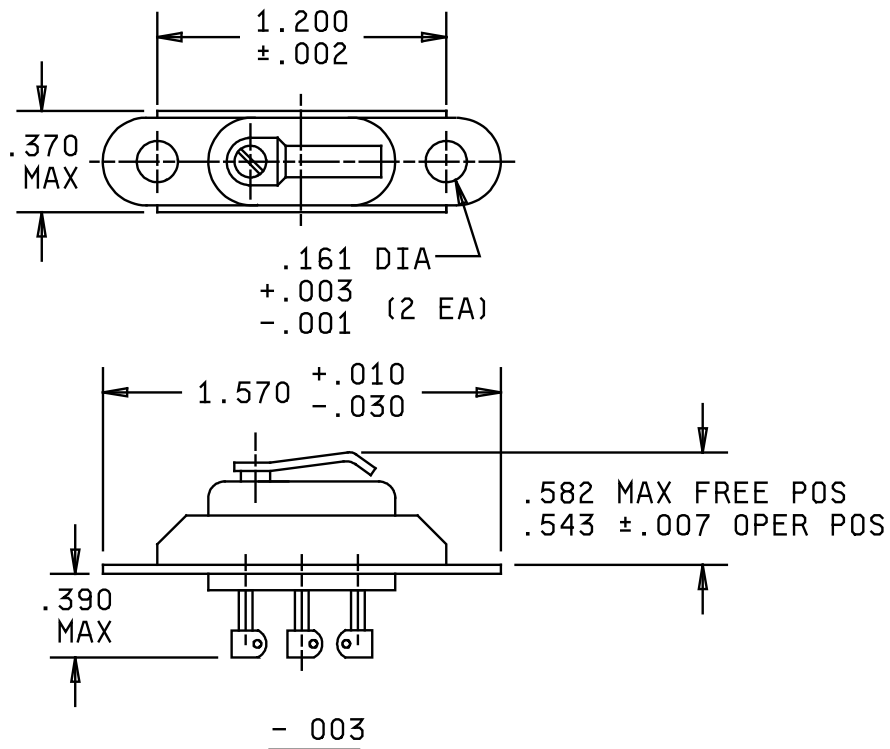


FIGURE 1. Dimensions and configuration.





NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are $\pm .02$ for two place decimals and $\pm .005$ for 3 place decimals.
3. Switch configuration optional provided dimensions specified are not exceeded.

FIGURE 1. Dimensions and configuration - continued

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, [MIL-STD-202-213](#)).

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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

TABLE II. Electrical ratings.

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

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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 Group II Thermal shock Vibration Dielectric withstanding voltage Operating characteristics	M8805/82-002	

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	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-202-213](#)

The margins of this specification are marked with vertical lines to indicate where changes from the previous issue 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 and relationship to the previous issue.

Custodians:

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

Preparing activity:

DLA - CC

(Project 5930-2022-056)

Review activities:

Army – AM, AT, AV, MI
Navy – AS, MC, OS, SH
Air force – 19

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/>.