

PERFORMANCE SPECIFICATION SHEET

SWITCHES, SENSITIVE, SPDT, PLUNGER, 4 AMPERES, HERMETICALLY SEALED CONTACTS, RESILIENT SEALED PLUNGER

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

The complete requirements for acquiring the switch described herein shall consist of this specification and the latest issue of [MIL-PRF-8805](#).

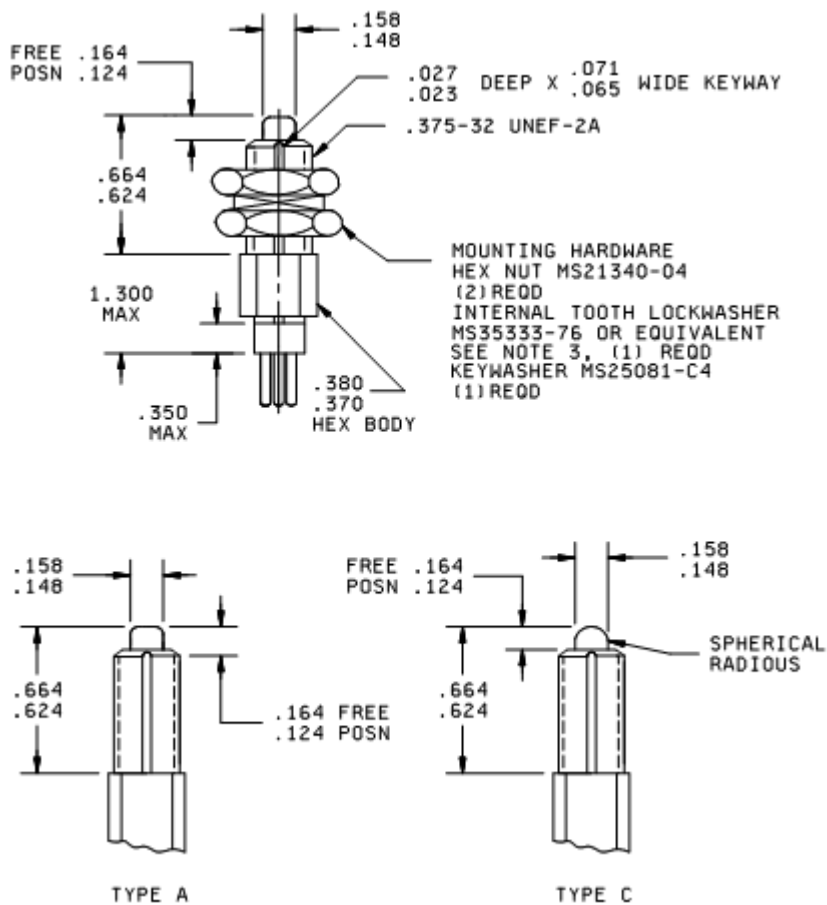
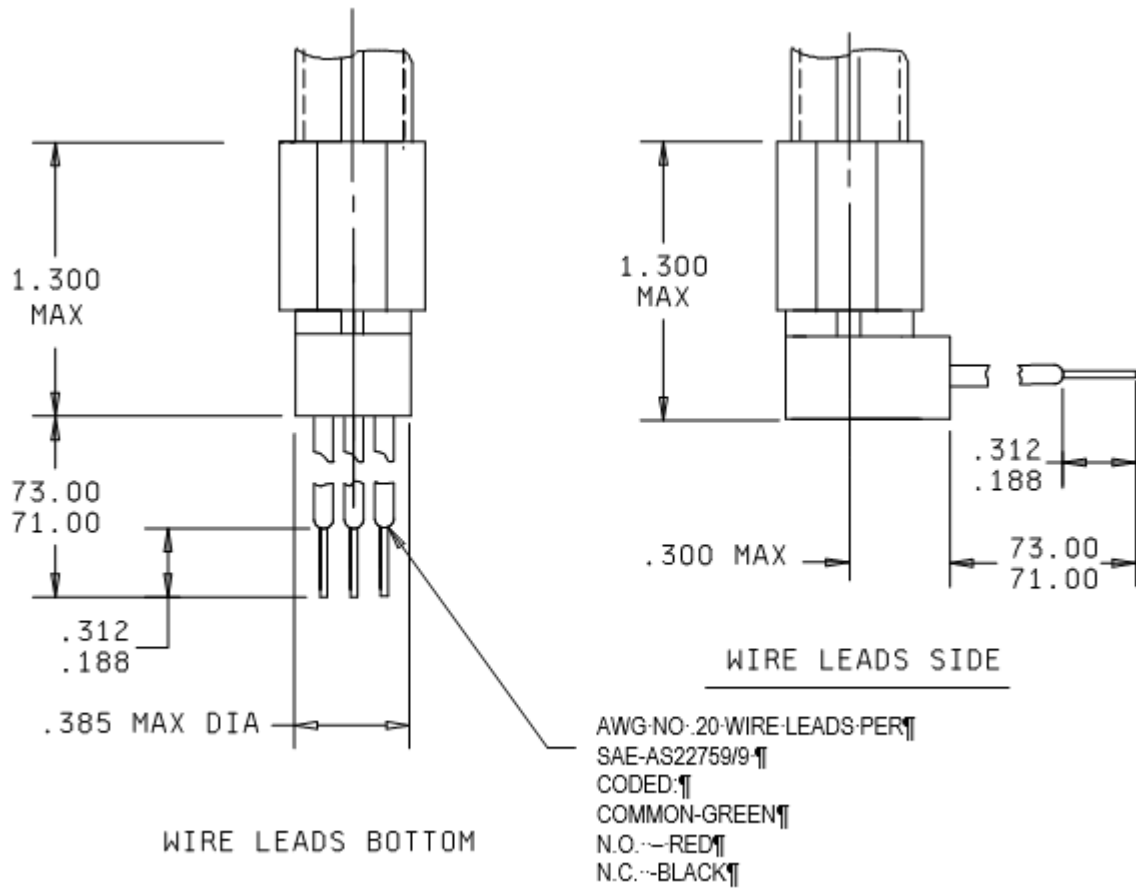


FIGURE 1. Dimensions and configuration.



NOTES:

1. Dimensions are in inches.
2. Alternative base metals and protective finishes, as approved by the qualifying activity, may be utilized for lock washer. Dimensions shall be in accordance with the referenced hardware specification.
3. MS21340-04 details are found in [MS21340](#). MS25081-C4 details are found in [MS25081](#). MS35333-76 details are found in [NASM35333](#).

FIGURE 1. Dimensions and configuration – continued

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REQUIREMENTS:

Dimensions and configurations: See figure 1.

Enclosure design: 5 (hermetic). Basic switch shall be hermetically sealed M8805/68-022 listed on QPL-8805.

Resilient plunger seal. M8805/68-022 details are found in [MIL-PRF-8805/68](#).

Temperature characteristic: 2 (- 65°C to + 125°C).

Shock type: M (100 g, test condition I, [MIL-STD-202-213](#)).

Vibration grade: 3 (10 Hz to 3,000 Hz swept sinusoidal).

Operating characteristics:

Actuating force: 6.5 pounds maximum.

Releasing force: 1.5 pound minimum.

Pretravel: .020 inch maximum

Movement differential: .005 inch maximum.

Overtravel: .125 inch minimum.

Contact resistance: .04 ohm + 0.011 ohm per lead per foot.

Dielectric withstanding voltage:

Sea level and 70,000 feet: 1,050 V rms (terminal to case), 800 V rms (terminal to terminal).

Seal test: Not required.

Mechanical endurance: 50,000 cycles.

Electrical endurance: 25,000 cycles

Intermediate current: 25,000 cycles.

Low level: 25,000 cycles.

Electrical ratings: see table I.

Short circuit: 20 times rated resistive load ([SAE-AS33201](#); PIN MS3320-7 ½, or equivalent used for circuit protection).

Weight: 1.0 ounce plus 0.1 ounce per lead per foot.

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Qualification:

Group A Inspection: In accordance with [MIL-PRF-8805](#), in addition switches shall be tested for insulation resistance as defined in [MIL-PRF-8805](#). The insulation resistance shall be not less than 100 Megohms when tested at $500 \pm 10\%$ VDC.

Group submission: See table II.

Military Part or Identifying Number (PIN): See tables III and IV.

Table I. Electrical ratings.

Load	Sea level and 70,000 feet (28 V dc) (amperes)
Resistive	4
Inductive	1
Lamp	2

Table II. Qualification.

Inspection	Basic Switch	Other switch samples	Extent of approval
Qualification inspection table of MIL-PRF-8805 , groups I through IV inclusive (seal test not required)	M8805/73-013 (all sample units)	M8805/73-013 through -016 (2 sample units each): Visual and mechanical inspection only	All

Table III. PIN's and configurations.

PIN ^{1/}	Electrical Endurance Cycles @ Resistive Load Ratings	Type of Actuating Mechanism	Terminals
M8805/73-013	4 Amp	A	Wire leads – bottom
M8805/73-014		A	Wire lead – side
M8805/73-015		C	Wire leads – bottom
M8805/73-016	25,000	C	Wire lead – side

^{1/} PIN's -001 through -012 have been canceled and are no longer procurable. Use PIN's -013 through -016.

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Table IV. Substitution information for canceled PIN's. 1/

Canceled PIN's M8805/73-		Substitute PIN's M8805/73-
4 Amp	7 Amp	4 Amp
003	009	013
005	010	014
007	011	015
008	012	016

1/ The canceled PIN's are no longer procurable. Substitute, PIN configurations are interchangeable and are rated at 4 amperes for 25,000 cycles..

Referenced documents. In addition to [MIL-PRF-8805](#), this document references the following:

[MIL-PRF-8805/68](#)
[MIL-STD-202-213](#)
[MS21340](#)
[MS25081](#)
[NASM35333](#)
[SAE-AS22759/9](#)
[SAE-AS33201](#)

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 5930-2024-038)

Review activities:
 Army – AR, 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/>.