

INCH-POUND

MIL-PRF-8805/70L

6 December 2012

SUPERSEDING

MIL-PRF-8805/70K

21 January 2005

### PERFORMANCE SPECIFICATION SHEET

#### SWITCHES, SENSITIVE, DPDT AND 4PDT, PLUNGER OR ROLLER, 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 switches described herein shall consist of this specification and the latest issue of MIL-PRF-8805.

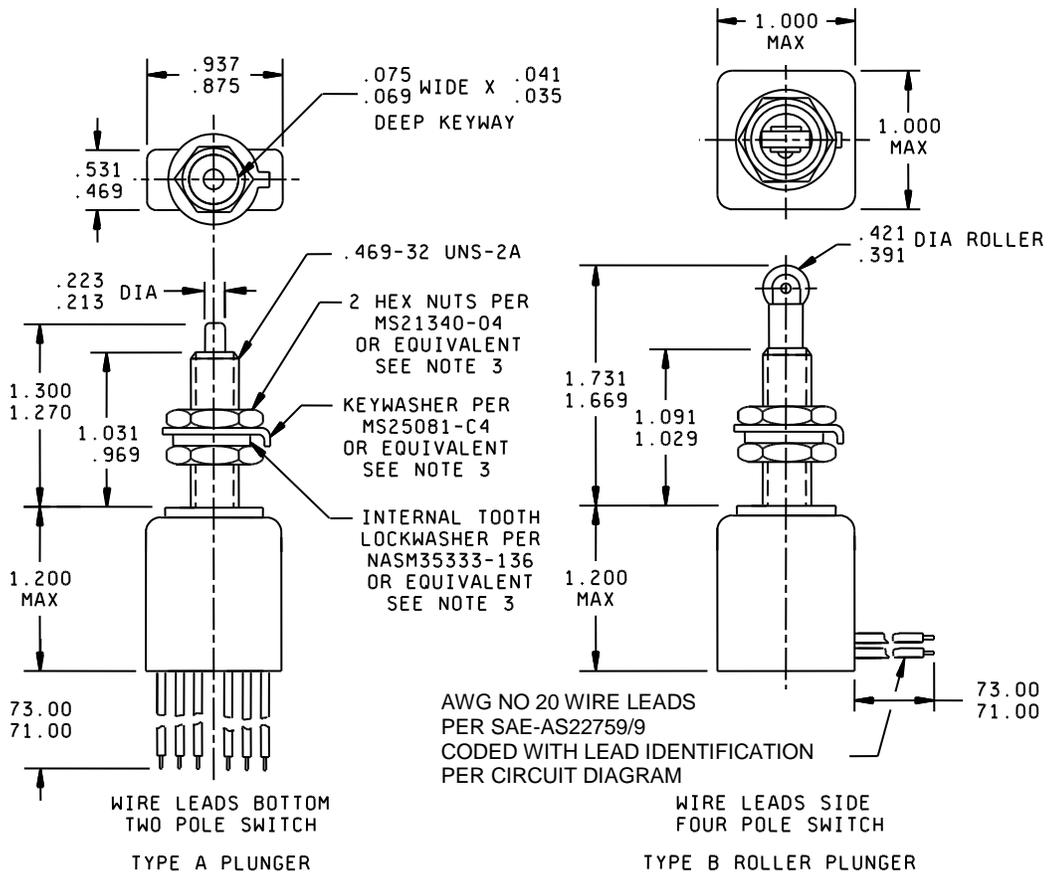
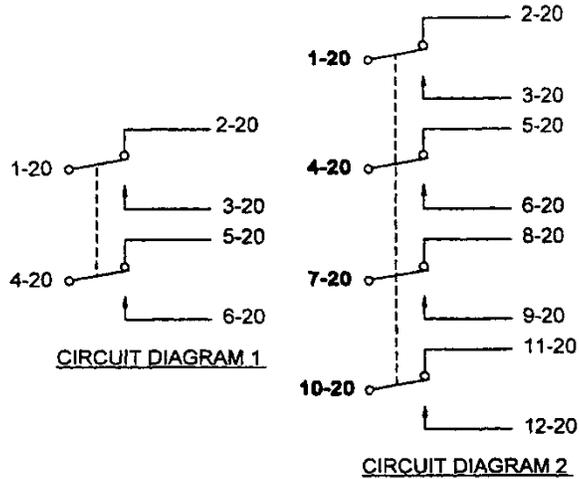


FIGURE 1. Dimensions and configuration.



Inches	mm	Inches	mm	Inches	Mm
.035	0.89	.469	11.91	1.200	30.48
.041	1.04	.531	13.49	1.270	32.26
.047	1.19	.875	22.23	1.300	33.02
.069	1.75	.937	23.80	1.669	42.39
.075	1.91	.969	24.61	1.731	43.97
.213	5.41	1.000	25.40	71.00	1803.4
.223	5.66	1.029	26.14	73.00	1854.2
.391	9.93	1.031	26.19		
.421	10.69	1.091	27.71		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Alternative base metals and protective finishes as approved by the qualifying activity, may be utilized for hexagon nut, lockwasher and keyway washer material. Dimensions shall be in accordance with the referenced hardware specification.

FIGURE 1. Dimensions and configuration - continued

MIL-PRF-8805/70L

REQUIREMENTS:

Dimensions and configurations: See figure 1.

Enclosure design: 5 (hermetic). Basic switch shall be hermetically sealed M8805/68-008 or -022 listed on QPL – 8805. Resilient plunger seal.

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

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

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

Weight:

Two pole switch: 1.6 ounce plus .10 ounce per lead per foot.

Four pole switch: 3.4 ounce plus .10 ounce per lead per foot.

Operating characteristics:

Actuating force: 10 pounds maximum.

Releasing force: 1 pound minimum.

Movement differential: .020 inch (0.51 mm) maximum.

Pretravel: .030 inch (0.76 mm) maximum

Overtravel: .200 inch (5.08 mm) 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-AS33201-7or equivalent, used for circuit protection).

MIL-PRF-8805/70L

Qualification:

Group submission: See table II.

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

TABLE I. Electrical ratings.

Load	Sea level and 70,000 feet
	28 Vdc
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)	M8805/70-038 (all sample units)	M8805/70-033 through – 037, -039, -040 (2 sample units each):  Visual and mechanical inspection only	All

TABLE III. PIN's and configuration.

PIN <u>1</u> /	Resistive Load rating	Circuit Diagram	Type of actuating mechanism	Terminals
	4 Amp			
M8805/70-033	25,000	1	A	Wire leads - bottom
M8805/70-034		1	B	Wire leads - bottom
M8805/70-035		1	A	Wire lead - side
M8805/70-036		1	B	Wire lead - side
M8805/70-037		2	A	Wire leads - bottom
M8805/70-038		2	B	Wire leads - bottom
M8805/70-039		2	A	Wire lead - side
M8805/70-040		2	B	Wire lead - side

1/ PIN's 001 through 032 have been canceled without replacement.

The margins of this specification are marked with vertical lines to indicate where modifications from this amendment 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  
MS21340  
MS25081  
MIL-STD-202  
NASM35333  
SAE-AS33201  
SAE-AS22759/9

Custodians:

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

Preparing activity:

DLA - CC

(Project 5930-2011-122)

Review activities:

Army – AR, 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/>.