INCH-POUND

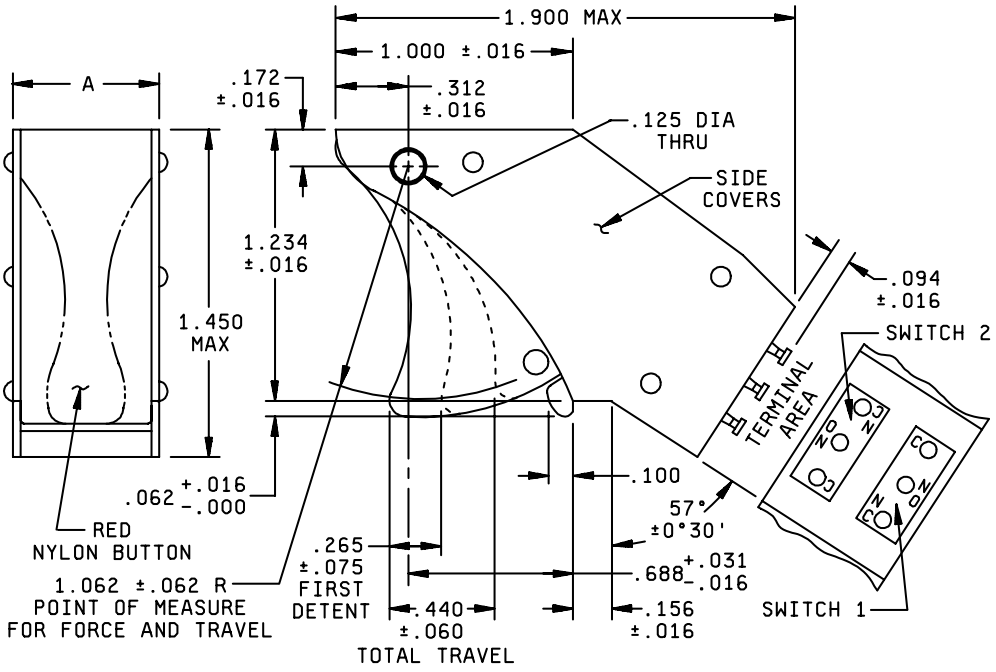
MIL-PRF-8805/111A
31 October 2001
SUPERSEDING
MIL-PRF-8805/111
21 October 1983

PERFORMANCE SPECIFICATION SHEET

SWITCH, ASSEMBLIES, SENSITIVE, TRIGGER, 7 AMPERES, UNSEALED

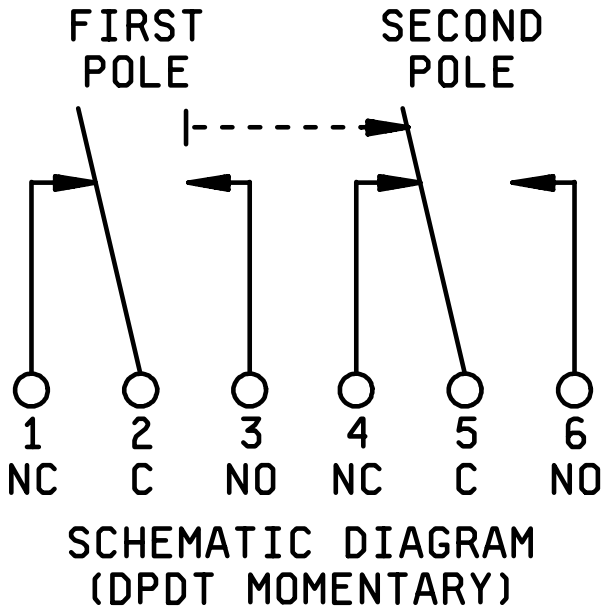
This specification forms a part of MIL-PRF-8805, dated 23 January 1998, and is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-PRF-8805.



Type	Dimension A	Side cover material
Type I	.641 ±.016	Aluminum or equivalent (black anodized
Type II	.762 +.000 -.025	Polyester or equivalent (color: black)

FIGURE 1. Configurations and dimensions.



SCHEMATIC DIAGRAM
(DPDT MOMENTARY)

1st POLE MAKES WITH PARTIAL DEPRESSING OF TRIGGER.
2nd POLE MAKES DEPRESSING TRIGGER THROUGH DETENT TO FULL “IN” POSITION.

Inches	mm	Inches	mm	Inches	mm
.016	.41	.125	3.18	.762	19.35
.025	.63	.156	3.96	1.000	25.40
.031	.79	.172	4.37	1.062	26.97
.060	1.52	.265	6.73	1.234	31.34
.062	1.57	.312	7.92	1.450	36.83
.075	1.90	.440	11.18	1.900	48.26
.094	2.39	.641	16.28		
.100	2.54	.688	17.48		

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1 inch = 25.4 mm..
3. The terminal designation shall be permanently marked.
4. Unless otherwise specified, tolerance is ±.010 (.25 mm).

FIGURE 1. Configurations and dimensions - continued.

REQUIREMENTS:

Dimensions and configuration: See figure 1. Basic switch shall be MS24547-4 (MIL-PRF-8805/4).

Enclosure design: 1 (Unsealed).

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

Shock type: M(100 g).

Vibration grade: 2 (10 to 2,000 Hz).

Weight: 0.8 ounce maximum.

Dielectric withstanding voltage:

Sea level: 1,050 V rms.

Altitude (80,000 ft): 400 V rms. After electrical endurance, the dielectric withstanding voltage points of application between all unconnected terminals of the same pole is not applicable.

Operating characteristics:

Operating force: The actuating force measured at the bottom of the trigger shall be 2.250 ±.500 pounds to make the first pole; 6.500 ±.750 pounds shall be required to pass through the detent, and 6, +0, -3 pounds to continue travel after the detent.

Releasing force: 0.75 pound minimum.

Actuating travel:

Switch 1:

Pretravel: .130 inch minimum from full out.

Overtravel: .015 inch minimum before first detent.

Switch 2:

Pretravel .020 inch minimum beyond first detent

Overtravel: .030 inch minimum before total travel.

Mechanical endurance: 100,000 cycles.

Electrical endurance: 50,000 cycles. After electrical endurance, the contact resistance shall not exceed 1 percent of the load resistance, using the electrical parameters of the minimum current test load.

Electrical ratings: See table I.

TABLE I. Electrical ratings.

Electrical ratings, 28 V dc				
Load	Silver contacts		Gold contacts	
	Sea level	80,000 feet	Sea level	80,000 feet
	amperes	amperes	amperes	amperes
Resistive	7	4	1	1
Inductive	5	2.5	.5	.5

Intermediate current: 50,000 cycles. After minimum current cycling, the contact resistance shall not exceed 1 percent of the load resistance, using the electrical parameters of the minimum current test load.

Part or Identifying Number (PIN): See table II

TABLE II. Part or Identifying Number (PIN's).

PIN M8805/111-	Contact material		Type
	Switch 1	Switch 2	
-01	Silver	Silver	I
-02	Gold	Silver	
-03	Gold	Gold	
-04	Silver	Silver	II
-05	Gold	Silver	
-06	Gold	Gold	

Qualification inspection:

Group submission: See table III. Table III applies provided that qualified MIL-PRF-8805/4 basic switches are utilized.

TABLE III. Qualification inspection.

Examination or test	Test sample	Extent of approval
Group I . Visual and mechanical examination Operating characteristics	M8805/111-01 (all sample units) M8805/111-06 (all sample units)	All PIN's
Group II (4 sample units). Strength of actuating means Thermal shock Vibration Shock (specified pulse) Operating characteristics Dielectric withstanding voltage Visual and mechanical examination	M8805/111-01 (4 sample units) M8805/111-06 (4 sample units)	
Group III . Salt spray (corrosion) Visual and mechanical examination	M8805/111-01 (2 sample units)	
Group IV (4 sample units). Contact resistance Low temperature operation Mechanical endurance at low temperature Mechanical endurance at high temperature Contact resistance Operating characteristics Dielectric withstanding voltage Visual and mechanical examination	M8805/111-01 (4 sample units)	
Group V (2 sample units). Electrical endurance altitude only Dielectric withstanding voltage Operating characteristics	M8805/111-01 (4 sample units) M8805/111-06 (4 sample units)	
Group VI. Intermediate current	M8805/111-01 (2 sample units)	

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

Review activities:
Army - AV, MI
Navy - AS, OS
Air Force - 99

Preparing activity:
DLA - CC

(Project 5930-1126-27)