

# PERFORMANCE SPECIFICATION SHEET

SWITCH, SENSITIVE, SPDT, UNSEALED, 7 AMPERES OR LOW LEVEL,  
0.156 OR 0.210 MAX WIDTH BASE

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](#).

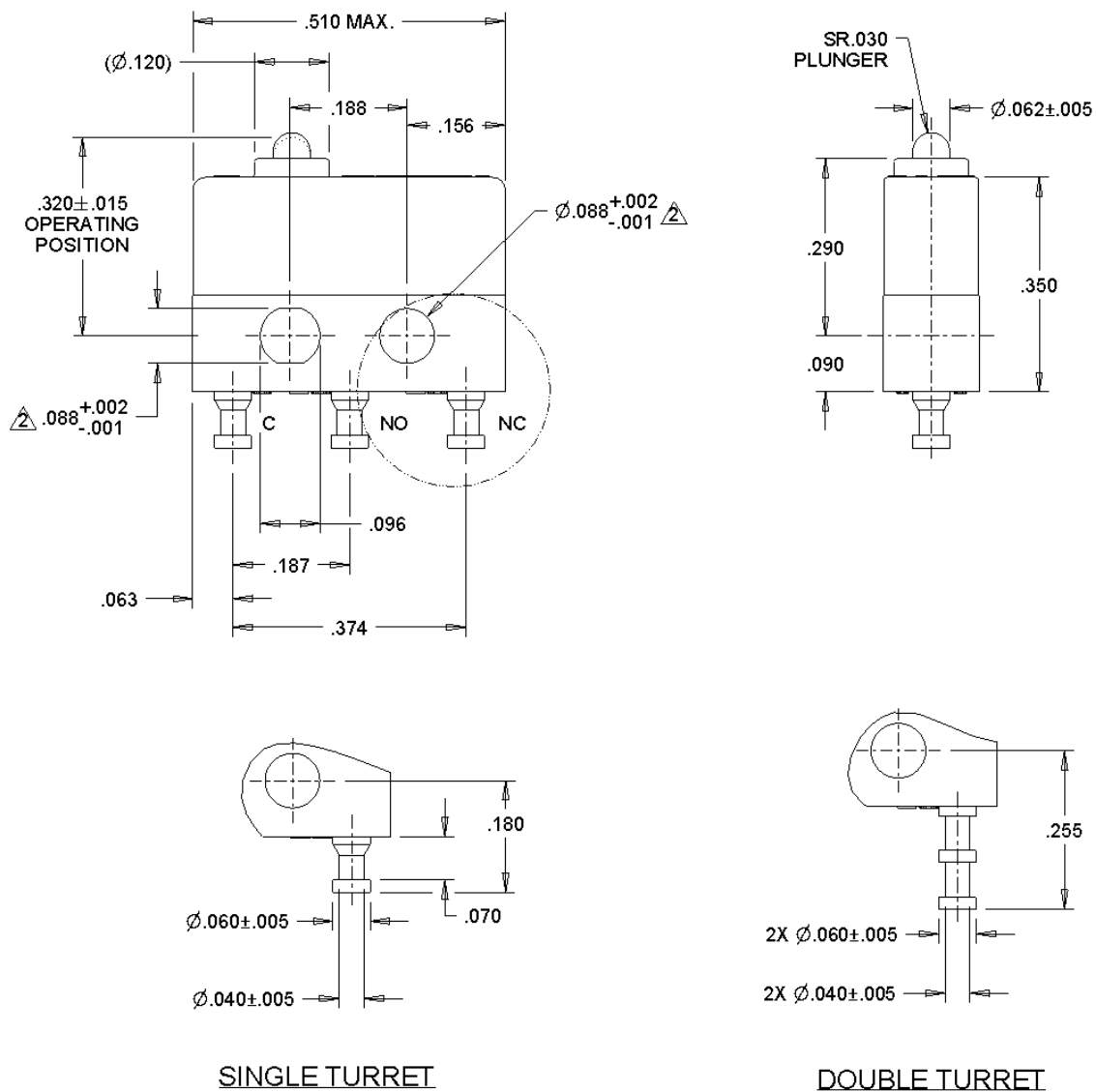


FIGURE 1. Configurations and dimensions



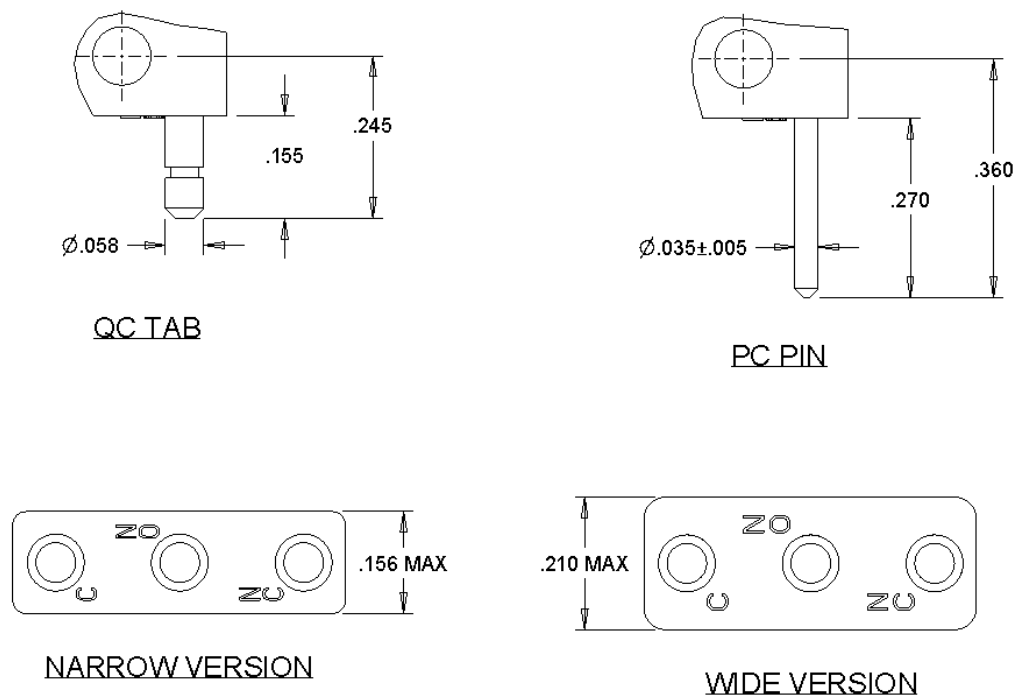


FIGURE 1. Configurations and dimensions – Continued.

NOTES:

1. Unless otherwise specified, dimensions are in inches, tolerances are  $\pm .010$ .
2. Mounting holes will accept pins or screws of .087 maximum diameter on  $.188 \pm .002$  centers.
3. Double turret terminals shall accept two AN-20 wires or equivalent.
4. QC terminals are intended to be used with .058" receptacles.

REQUIREMENTS:

Dimensions and configuration: See figure 1.

Enclosure design: 1 (unsealed)

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

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

Vibration grade: 1 (10 to 500 Hz).

Weight: .003 pounds maximum.

Operating characteristics:

Actuating force: 5 oz. maximum.

Release force: 1 ounce minimum.

Movement differential: .002 or .005 max

Pretravel: .020 inch maximum.

Overtravel: .004 inch minimum.

Terminals: Terminal finish may be .000030 inch minimum to .000100 inch maximum thick gold plate or equivalent.

Terminal strength: 5 pounds, all directions.

Mechanical endurance: 50,000 cycles

Dielectric withstanding voltage:

Sea level: 1050 V rms.

Altitude (50,000 ft): 400 V rms.

Electrical endurance: 25,000 cycles.

Electrical ratings:

Silver contacts (Standard current): See Table I.

Gold contacts (Primary ratings): Low level - 30 millivolts max DC or peak AC, at 10 milliamps max, resistive load. (per [MIL-PRF-8805](#), section 4.7.33).

Gold contacts (Alternate ratings): See Table II.

Application note: The alternate ratings range includes potential arcing loads which could affect switch performance, including contact resistance, etc. So, switches intended for use in applications within the primary (low level) range are only to be tested and used with low level loads.

Switches used in L.E.D. circuits without an inline resistor can experience loads between 1.7 and 4.0 volts at 10 to 20 milliamps. These loads are comparable to low level ratings and can be qualified by similarity. When resistors are included, other voltages are acceptable such as 6, 12, or 24 volts.

Qualification:

Wide and narrow switches are qualified by similarity to [MIL-PRF-8805/4](#) or [MIL-PRF-8805/109](#) respectively.

TABLE I. Electrical ratings: Silver contacts (standard current).

| Load      | Sea level |                 | 50,000 feet |
|-----------|-----------|-----------------|-------------|
|           | 28 V dc   | 115 V ac, 60 Hz | 28 V dc     |
|           | Amperes   | Amperes         | Amperes     |
| Resistive | 7.0       | 7.0             | 4.0         |
| Inductive | 4.0       | 7.0             | 2.5         |
| Lamp*     | 2.5       | 2.0             | 2.5         |

\*Lamp loads apply to legacy designs only and should not be used for new design activity.

TABLE II. Electrical ratings: Gold contacts (low level).

| Load      | Sea level 28 V dc | 50,000 feet 28 V dc |
|-----------|-------------------|---------------------|
|           | Amperes           | Amperes             |
| Resistive | 1.0               | 1.0                 |
| Inductive | 0.5               | 0.5                 |

Part or Identifying Number (PIN) and characteristics.

M8805/117- \_\_\_\_\_

| <u>Switch Width</u> | <u>Terminal Style</u> | <u>Movement<br/>Differential</u> | <u>Contact Material</u>      |
|---------------------|-----------------------|----------------------------------|------------------------------|
| 1. 0.156 Max.       | 1. Single Turret      | 1. 0.002 Max.                    | 1. Silver (Standard Current) |
| 2. 0.210 Max.       | 2. Double Turret      | 2. 0.005 Max.                    | 2. Gold (Low Level)          |
|                     | 3. Quick Connect      |                                  |                              |
|                     | 4. P.C. Pin           |                                  |                              |

Example switch: M8805/117-1421

0.156 Max width, P.C. Pin terminals, 0.005 Max movement differential, silver contacts

Not all combinations of part numbers and characteristics listed are applicable to this slash sheet. See [MIL-PRF-8805/4](#) or [MIL-PRF-8805/109](#) for additional MIL part numbers.

Referenced documents:

[MIL-PRF-8805](#)  
[MIL-PRF-8805/4](#)  
[MIL-PRF-8805/109](#)  
[MIL-STD-202-213](#)

Custodians:

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

Preparing activity:  
 DLA - CC

(Project 5930-2024-062)

Review activities:

Army - AR, AV  
 Navy - AS, MC, OS, SH  
 Air Force - 19  
 NASA - NA

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/>.