

Distinctive Characteristics

Short stroke and light touch.

Antijamming design protects contacts from damage due to excessive downward force on the actuator.

High torque bushing construction prevents rotation or separation from frame during installation.

Stainless steel frame resists corrosion.

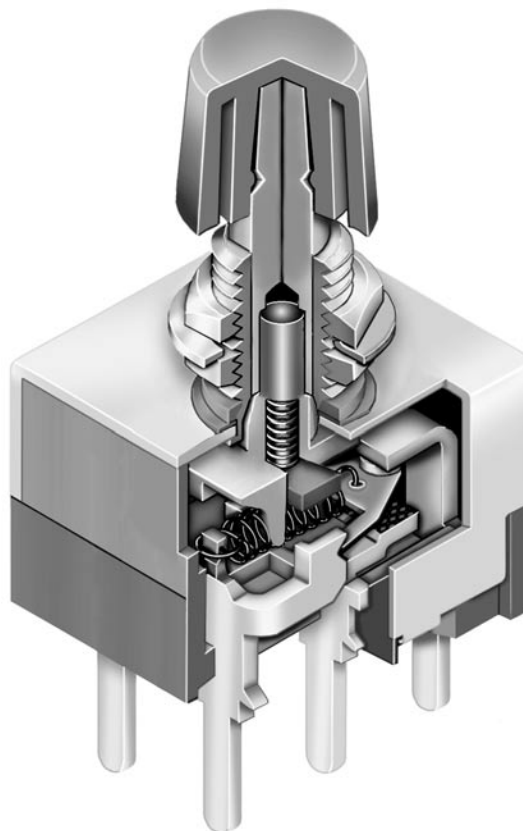
Longer center solder lug terminal simplifies wiring and soldering.

Patented silver contacts of specially composed alloy for hardness.

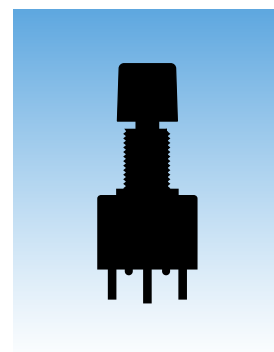
Epoxy sealed terminals prevent entry of solder flux and other contaminants.

Snap-acting mechanism gives smooth actuation and audible feedback.

Prominent external insulating barriers increase insulation resistance and dielectric strength.



Actual Size



General Specifications

Electrical Capacity (Resistive Load)

Power Level (code W): 3A @ 125V AC

Logic Level (code G): 0.4VA maximum @ 28V AC/DC maximum
(Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)

Logic/Power Level (code A): Combines W & G ratings
Note: See Supplement section to find explanation of operating range.

Other Ratings

Contact Resistance: 20 milliohms maximum for silver; 30 milliohms maximum for gold

Insulation Resistance: 1,000 megohms minimum @ 500V DC

Dielectric Strength: 1,000V AC minimum between contacts for 1 minute minimum;
1,500V AC minimum between contacts & case for 1 minute minimum

Mechanical Life: 200,000 operations minimum

Electrical Life: 25,000 operations minimum for silver; 100,000 operations minimum for gold

Nominal Operating Force: Single pole 2.45N; double pole 3.92N

Travel: Pretravel 0.6mm; Overtravel 0.4mm; Total Travel 1mm

Materials & Finishes

Plunger: Brass with nickel plating

Bushing: Brass with nickel plating

Mounting & Body Frames: Stainless steel

Support Bracket: Brass with tin plating

Case: Glass fiber reinforced polyester (UL94V-0)

Base: Diallyl phthalate resin

Movable Contactor: Phosphor bronze with silver or gold plating

Movable Contacts: Silver alloy (code W); copper with gold plating (code G)

Stationary Contacts: Silver with silver plating (code W); copper or brass with gold plating (code G)

Terminals: Copper with silver plating; copper or brass with gold plating

Applicable Environment

Operating Temp Range: -30°C through +85°C (-22°F through +185°F)

Humidity: 90 ~ 95% humidity for 100 hours @ 40°C (104°F)

Vibration: 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range
& returning in 1 minute; 3 right angled directions for 2 hours

Shock: 50G (490m/s²) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

Installation

Mounting Torque: 1.5Nm (13 lb•in) for double nut; 0.7Nm (6 lb•in) for single nut

Cap Installation Force: 80N (18 lbf) maximum downward force on actuator

Processing

Soldering: Wave Soldering Recommended: See Profile B in Supplement section.
Manual Soldering: See Profile B in Supplement section.

Cleaning: These devices are not process sealed. Hand clean locally using alcohol based solution.

Standards & Certifications

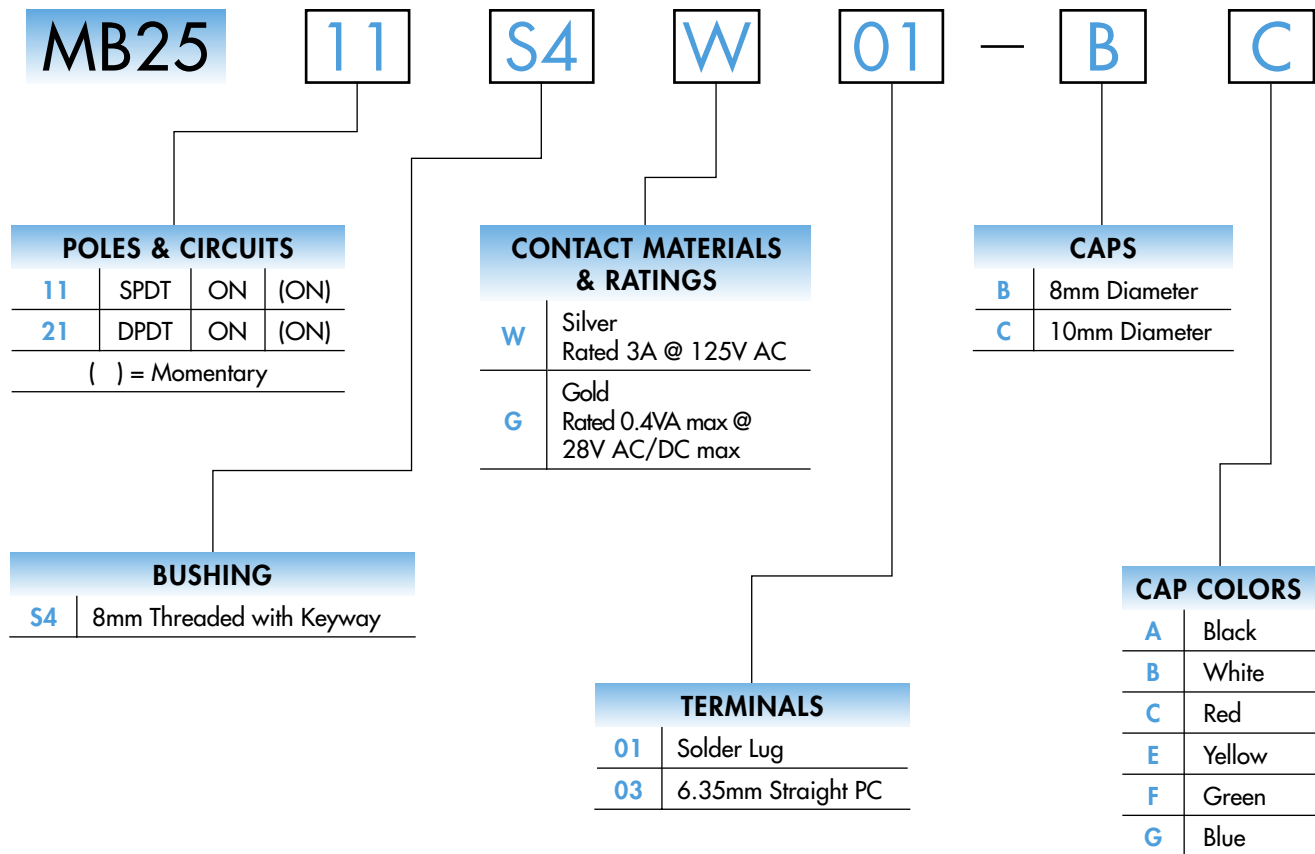
Flammability Standards: UL94V-0 Case

UL & C-UL Recognized: All single & double pole models recognized at 3A @ 125V AC or 0.4VA max. @ 28V AC/DC max.;
UL File No. WOYR2E.44145; add "/U" to end of part number to order UL mark on switch;
C-UL File No. WOYR8E.44145; add "/C-UL" to end of part number to order C-UL mark on switch.

CSA Certified: Single pole models & double pole models certified at 3A @ 125V AC or
0.4VA maximum @ 28V AC/DC maximum; CSA File No. 023535-0-000;
add "/C" to end of part number to order CSA mark on switch.



TYPICAL SWITCH ORDERING EXAMPLE



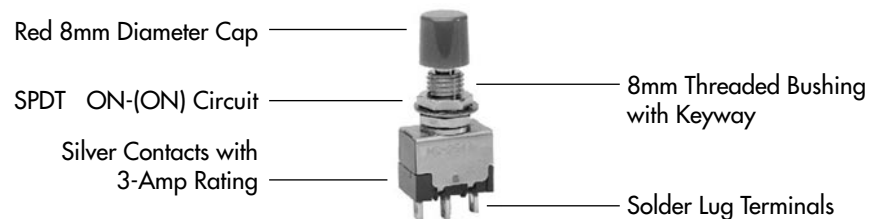
IMPORTANT:








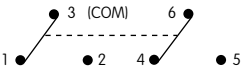
Switches are supplied without UL, C-UL & CSA markings unless specified. Specific models & ratings noted on General Specifications page.

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

MB2511S4W01-BC



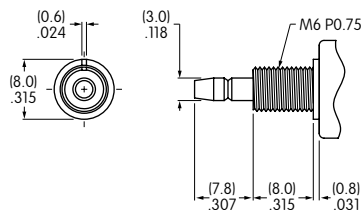
POLES & CIRCUITS

Pole	Model	Plunger Position () = Momentary		Connected Terminals		Throw & Switch Schematics
		Normal  Keyway	Down 	Normal  Keyway	Down 	
SP	MB2511	ON	(ON)	3-1	3-2	SPDT 
DP	MB2521	ON	(ON)	3-1 6-4	3-2 6-5	DPDT 

Note: Terminal numbers are not actually on the switch.

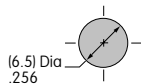
BUSHING

S4 8mm Threaded
with Keyway

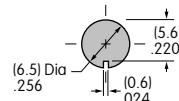


Panel Cutouts

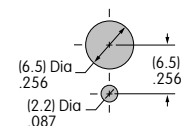
Without Keyway



With Keyway



With Optional Locking Ring

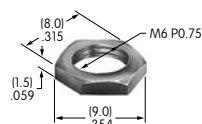


Maximum Panel Thickness with Standard Hardware: 3.4mm

Standard Hardware

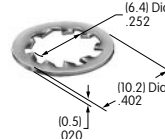
AT513M Threaded Hex Nut

2 included
with each switch
Brass with
nickel plating



AT509 Lockwasher

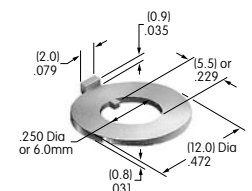
1 included
with each switch
Steel with
zinc/chromate



Optional Hardware

AT507M Locking Ring

Steel with
zinc/chromate



CONTACT MATERIALS & RATINGS



Silver over Silver

Power Level

3A @ 125V AC



Gold over Brass or Copper

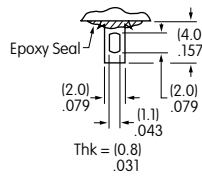
Logic Level

0.4VA maximum @ 28V AC/DC maximum

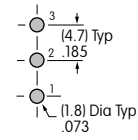
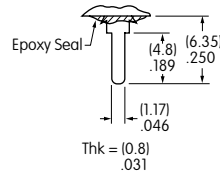
Note: Complete explanation of operating range in Supplement section.

TERMINALS

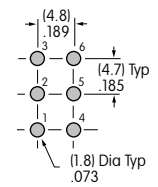
01 Solder Lug



03 6.35mm Straight PC



Single Pole



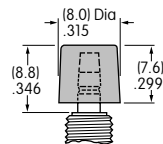
Double Pole

CAPS & CAP COLORS

B AT443 8mm Diameter Cap

Material: Polycarbonate

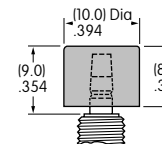
Finish: Glossy



C AT442 10mm Diameter Cap

Material: Polycarbonate

Finish: Glossy



Cap Colors Available:



Black



White



Red



Yellow



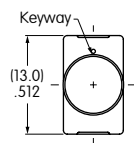
Green



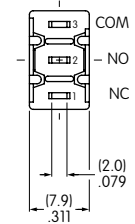
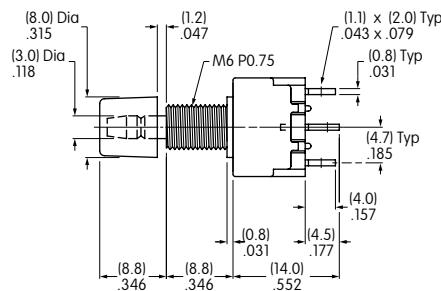
Blue

TYPICAL SWITCH DIMENSIONS

Solder Lug

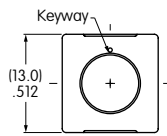


Single Pole

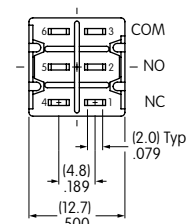
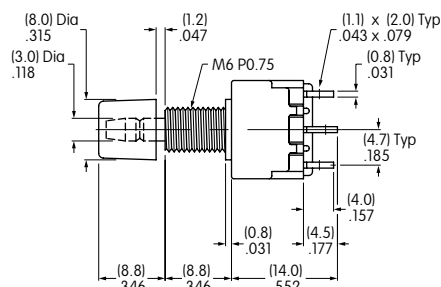


MB2511S4W01-BC

Solder Lug



Double Pole



MB2521S4W01-BC