

# Distinctive Characteristics

Single unit construction of the bushing and case gives added protection from environmental elements.

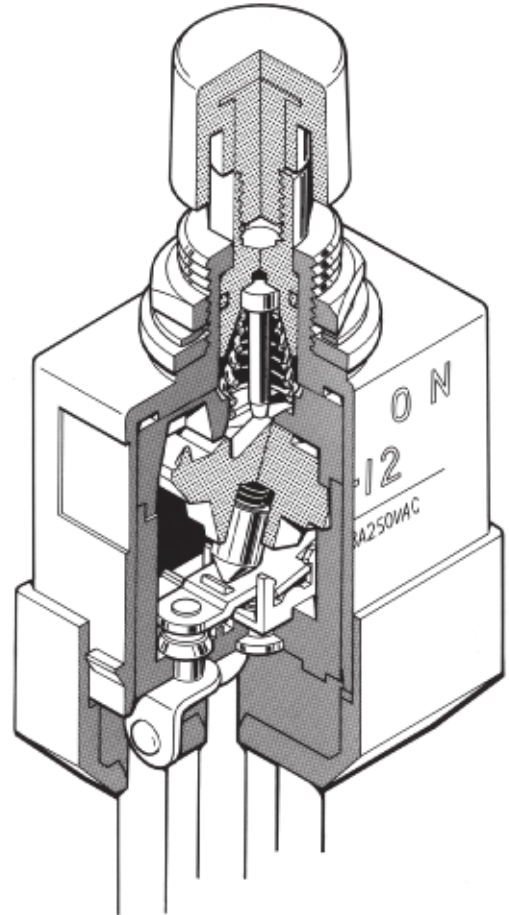
Specially designed contact mechanism for breaking light welds.

Minimal contact bounce is achieved with specially designed interlocked switching mechanism.

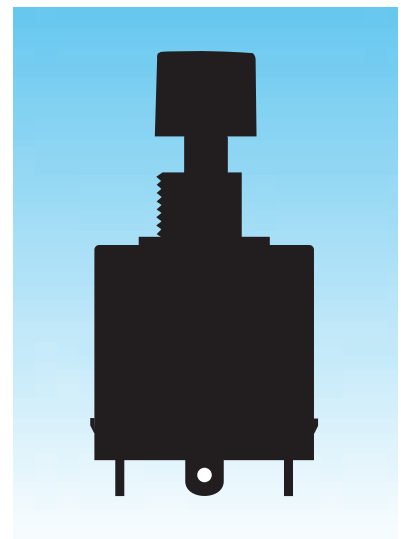
Outer housing of heat resistant resin meets UL 94V-0 flammability standard and provides high arc and tracking resistance.

Solder lug and screw terminal models meet IP67 of IEC529 Standards at front panel (dust tight and water protected for temporary immersion). Behind panel standard is IP60 (dust tight but not water protected).

Wire lead models conform fully to IP67 of IEC529 Standards at front and behind panel (dust tight and water protected for temporary immersion). These models are epoxy sealed at the switch base and covered by an outer case for further protection from dust, water, oil, and gas. (Switches cannot be operated under water or oil.)



Actual Size



# General Specifications

## Ratings

<b>Electrical Capacity (Resistive Load):</b>	6A @ 125V AC & 3A @ 250V AC or 6A @ 30V DC
<b>Contact Resistance:</b>	10 milliohms maximum for solder lug & screw terminal models 30 milliohms maximum for wire lead terminal models
<b>Insulation Resistance:</b>	200 megohms minimum @ 500V DC
<b>Dielectric Strength:</b>	1,500V AC minimum for 1 minute minimum
<b>Mechanical Life:</b>	30,000 operations minimum
<b>Electrical Life:</b>	15,000 operations minimum
<b>Contact Timing:</b>	Break before make

## Materials & Finishes

<b>Plunger:</b>	Brass with nickel plating
<b>Bushing &amp; Outer Case:</b>	Fiberglass reinforced polyamide (UL94V-0 outer case)
<b>Inner Case:</b>	Melamine
<b>Inner Sealing Ring:</b>	Silicone rubber
<b>Outer Sealing Ring:</b>	Natural rubber
<b>Movable Contactor:</b>	Copper with silver plating
<b>Movable Contacts:</b>	Silver alloy plus copper with silver plating
<b>Stationary Contacts:</b>	Silver alloy plus copper with silver plating
<b>Terminals:</b>	Brass with silver plating for screw lug models; copper with tin plating for solder lug & wire lead models
<b>Wire Lead Covers:</b>	Heat resistant polyvinyl chloride (Leads are AWG 16.)

## Environmental Data

<b>Operating Temp Range:</b>	-30°C through +70°C (-22°F through +158°F)
<b>Humidity:</b>	90 ~ 95% humidity for 96 hours @ 40°C (104°F)
<b>Vibration:</b>	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
<b>Shock:</b>	50G (490m/s <sup>2</sup> ) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

## Installation

<b>Soldering Time &amp; Temperature:</b>	3 seconds @ 350°C
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## Standards & Certifications

<b>Flammability Standards:</b>	UL94V-0 outer case
<b>Wiring Material Standards:</b>	UL AWM 1015 Recognized at Flammability VW-1; Temp Range -20°C ~ +105°C; Max Load 600V; AWG16. CSA TEW 105 Certified at Temp Range -20°C ~ +105°C; Max Load 600V

### TYPICAL SWITCH ORDERING EXAMPLE

**WB** | **1** | **5** | **S** — **D** | **A**

POLES	
<b>1</b>	SPDT

TERMINALS	
<b>S</b>	Solder Lug
<b>T</b>	Screw Lug
<b>L</b>	Wire Lead

CAPS	
<b>D</b>	.520" Dia.
<b>E</b>	.748" Dia.

CAP COLORS	
<b>A</b>	Black
<b>B</b>	White
<b>C</b>	Red
* <b>D</b>	Amber
* <b>E</b>	Yellow
<b>F</b>	Green
* <b>G</b>	Blue
* <b>H</b>	Gray

CIRCUITS		
<b>2</b>	ON	ON
<b>5</b>	ON	(ON)
( )	= Momentary	

**DESCRIPTION FOR TYPICAL ORDERING EXAMPLE**  
**WB12S-DA**

Black .520" Dia. Cap

SPDT ON-ON Circuit

Solder Lug Terminals

\* Not available with cap code E



### POLES & CIRCUITS

Pole	Model	Actuator Position ( ) = Momentary		Connected Terminals		Throw & Schematics
		Normal 	Down 	Normal 	Down 	
SP	<b>WB12</b>	ON	ON	1-1b	1-1a	Note: Terminal numbers are not actually on wire lead models. SPDT
SP	<b>WB15</b>	ON	(ON)	1-1b	1-1a	

### STANDARD WIRE COLOR SCHEME

Wire leads are covered with heat resistant vinyl in accordance to UL 1015 and CSA TEW 105 Standards for Appliance Wiring Material (AWM).

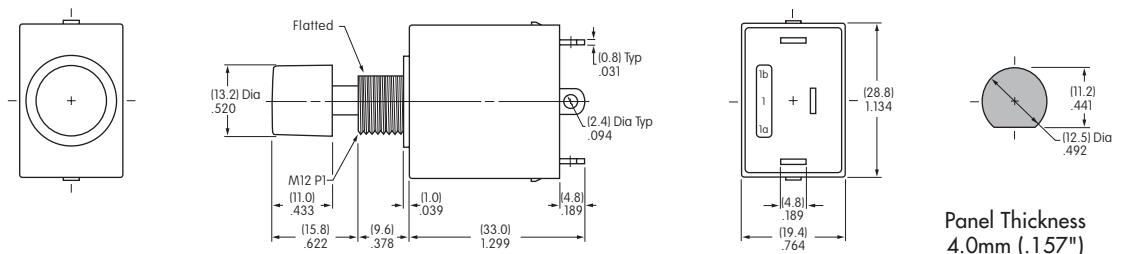
Terminal Numbers & Wire Colors			
Models	1a	1	1b
WB12L, WB15L	White	Black	Red

### TYPICAL SWITCH DIMENSIONS

#### Solder Lug



**WB15S-DA**

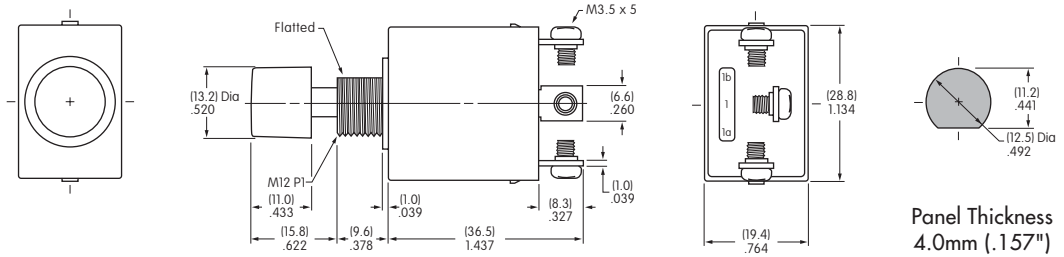


### TYPICAL SWITCH DIMENSIONS

#### Screw Lug



WB12T-DA

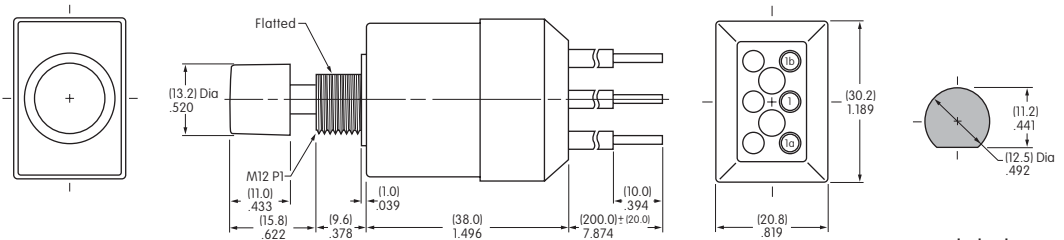


Panel Thickness  
4.0mm (.157")

#### Wire Lead



WB12L-DA



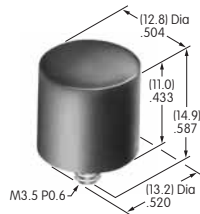
Panel Thickness  
4.0mm (.157")

### CAPS & CAP COLORS

**D** AT414  
.520" Diameter

Colors Available:  
A B C D E F G H

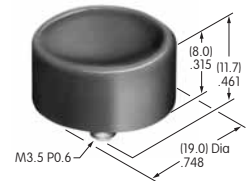
Material: PBT Finish: Glossy



**E** AT412  
.748" Diameter

Colors Available:  
A B C F

Material: Polystyrene Finish: Glossy



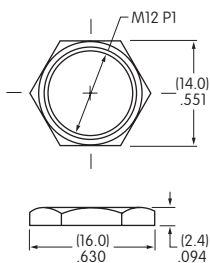
Cap Color Codes: **A** Black **B** White **C** Red **D** Amber **E** Yellow **F** Green **G** Blue **H** Gray

### STANDARD HARDWARE

AT503M  
Hex Face Nut

Material:  
Brass with  
tin plating

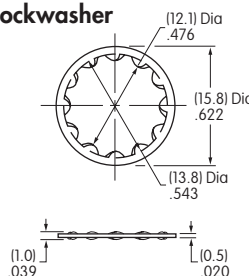
1 supplied  
with each  
switch



AT508  
Internal Tooth Lockwasher

Material:  
Steel with  
chromate  
over zinc

1 supplied  
with each  
switch



AT401P  
O-ring

Material:  
Natural  
rubber

1 supplied  
with each  
switch

