

# Distinctive Characteristics

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

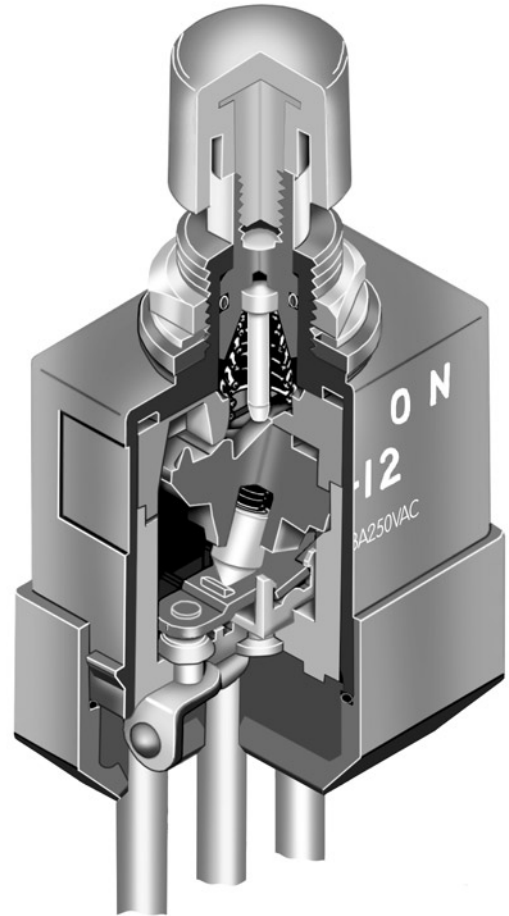
Specially designed contact mechanism for breaking light welds.

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

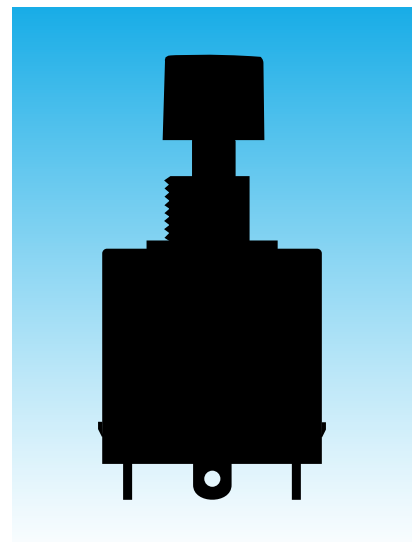
Outer housing of heat resistant resin meets UL 94V-0 flammability standard and provides high arc and tracking resistance.

Solder lug and screw terminal models meet IP67 of IEC60529 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 IEC60529 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 and water (not operable under water).



Actual Size



# General Specifications

## Electrical Capacity (Resistive Load)

**Power Level:** 6A @ 125V AC & 3A @ 250V AC or 6A @ 30V DC

## Other Ratings

**Contact Resistance:** 10 milliohms maximum for solder lug & screw terminal models  
30 milliohms maximum for wire lead terminal models

**Insulation Resistance:** 200 megohms minimum @ 500V DC

**Dielectric Strength:** 1,500V AC minimum for 1 minute minimum

**Mechanical Life:** 30,000 operations minimum

**Electrical Life:** 15,000 operations minimum

**Contact Timing:** Break before make

**Total Travel:** Alternate Action .177" (4.5mm); Momentary Action .110" (2.8mm)

## Materials & Finishes

**Plunger:** Brass with nickel plating

**Bushing & Outer Case:** Fiberglass reinforced polyamide (UL94V-0 outer case)

**Inner Case:** Melamine

**Inner Sealing Ring:** Silicone rubber

**Outer Sealing Ring:** Natural rubber

**Movable Contactor:** Copper with silver plating

**Movable Contacts:** Silver alloy with silver plating

**Stationary Contacts:** Silver alloy with silver plating

**Terminals:** Brass with silver plating for screw lug models;  
brass with tin plating for solder lug & wire lead models

**Wire Lead Covers:** Heat resistant polyvinyl chloride (Leads are AWG 16.)

## Environmental Data

**Operating Temp Range:** -30°C through +70°C (-22°F through +158°F)

**Humidity:** 90 ~ 95% humidity for 96 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/s<sup>2</sup>) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

## Installation

**Mounting Torque:** 1.5Nm (13 lb•in)

**Soldering Time & Temp:** Manual Soldering: See Profile A in Supplement section.

## Standards & Certifications

**Flammability Standards:** UL94V-0 outer case

**Wiring Material Standards:** UL AWM 1015 Recognized at Flammability VW-1;  
Temperature Range -20°C ~ +105°C; Maximum Load 600V; AWG 16  
CSA TEW 105 Certified at Temperature Range -20°C ~ +105°C;  
Maximum Load 600V

### TYPICAL SWITCH ORDERING EXAMPLE

**WB** **1** **2** **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" (13.2mm) Dia.
<b>E</b>	.748" (19.0mm) 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**

SPDT ON-ON Circuit

Black .520" (13.2mm) Dia. Cap

Solder Lug Terminals

### POLES & CIRCUITS

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

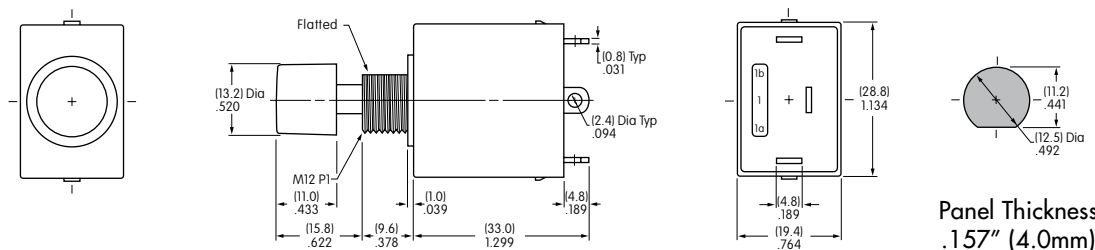
Terminal Numbers & Wire Colors			
Models	1a	1	1b
WB12L, WB15L	White	Black	Red

### TYPICAL SWITCH DIMENSIONS

#### Solder Lug



**WB15S-DA**

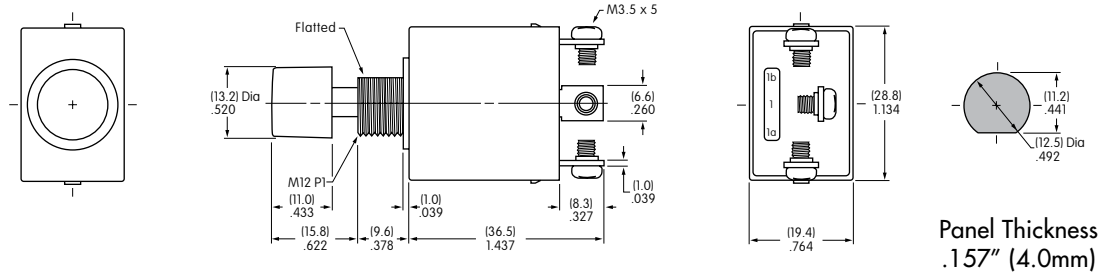


### TYPICAL SWITCH DIMENSIONS

#### Screw Lug



WB12T-DA

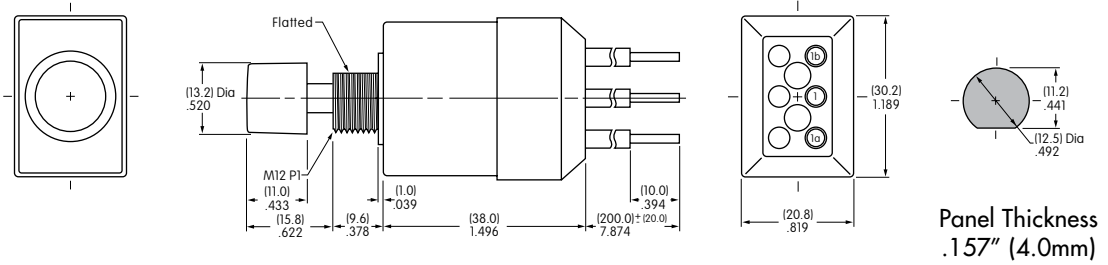


Panel Thickness  
.157" (4.0mm)

#### Wire Lead



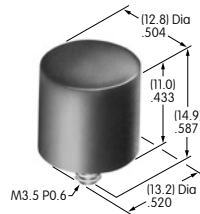
WB12L-DA



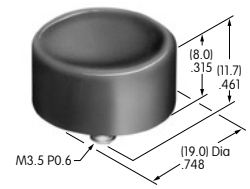
Panel Thickness  
.157" (4.0mm)

### CAPS & CAP COLORS

**D** AT414  
.520" (13.2mm) Diameter  
Colors Available:  
A B C D E F G H  
Material: PBT Finish: Glossy



**E** AT412  
.748" (19.0mm) Diameter  
Colors Available:  
A B C F  
Material: Polystyrene Finish: Glossy

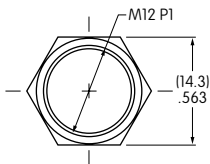


Cap Color Codes: **A** Black **B** White **C** Red **D** Amber **E** Yellow **F** Green **G** Blue **H** Gray

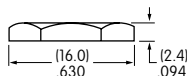
### STANDARD HARDWARE

#### AT503M Hex Face Nut

Material:  
Brass with  
chrome plating

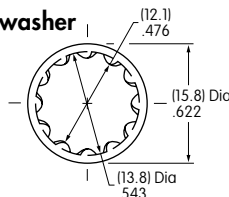


1 supplied  
with each  
switch



#### AT508 Internal Tooth Lockwasher

Material:  
Steel with  
zinc/chromate

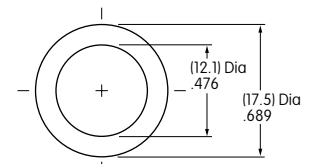


1 supplied  
with each  
switch



#### AT401P O-ring

Material:  
Natural  
rubber



1 supplied  
with each  
switch

