

# 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

## Distinctive Characteristics

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

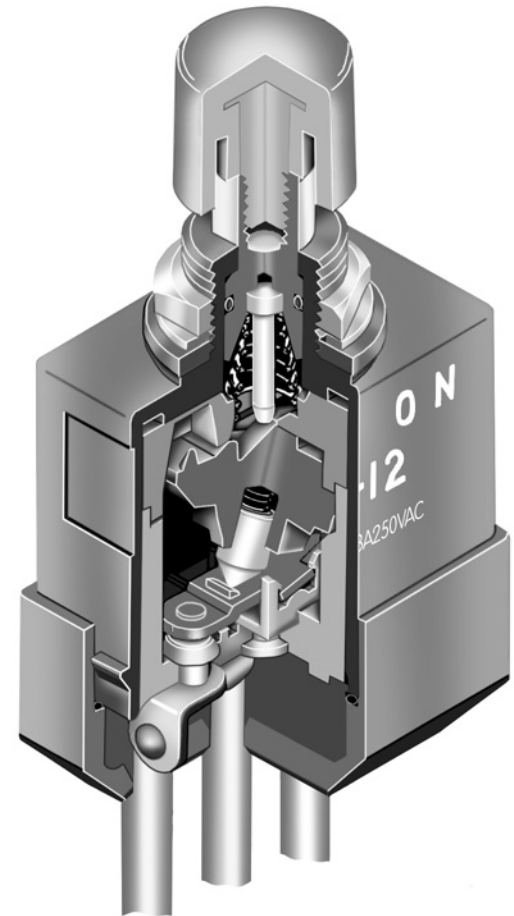
Specially designed contact mechanism for breaking light welds.

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

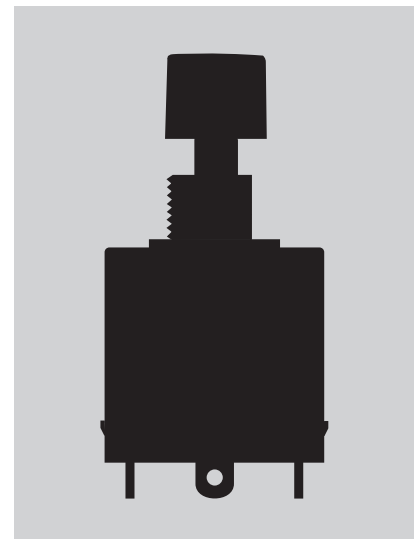
Outer housing of heat resistant resin meets UL 94V-0 flammability standard and provides high arc and tracking resistance.

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



Toggles

Rockers

**Pushbuttons**

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

### TYPICAL SWITCH ORDERING EXAMPLE

**WB**

**1**

**2**

**S**

**D**

**A**

#### Poles

1 SPDT

#### Circuits

2 ON ON  
5 ON (ON)

( ) = Momentary

#### Terminals

S Solder Lug\*  
T Screw Lug  
L Wire Lead

#### Caps

D .520" (13.2mm) Dia.  
E .748" (19.0mm) Dia.

#### Cap Colors

A Black  
B White  
C Red  
\*D Amber  
\*E Yellow  
F Green  
\*G Blue  
\*H Gray  
\* Not available with cap code E

### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**WB12S-DA**



Black .520" (13.2mm) Diameter Cap

SPDT  
ON-ON Circuit

Solder Lug Terminals

\* Wire harness & cable assemblies offered only in Americas

### POLES & CIRCUITS

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

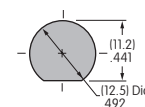
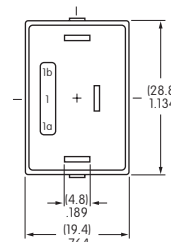
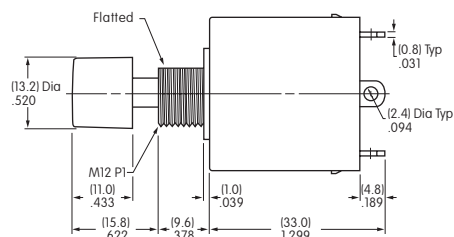
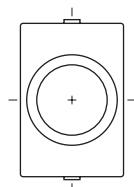
| Terminal Numbers & Wire Colors |       |       |     |
|--------------------------------|-------|-------|-----|
| Models                         | 1a    | 1     | 1b  |
| WB12L, WB15L                   | White | Black | Red |

### TYPICAL SWITCH DIMENSIONS

#### Solder Lug



**WB15S-DA**



Panel Thickness  
.157" (4.0mm)

## TYPICAL SWITCH DIMENSIONS

Screw Lug

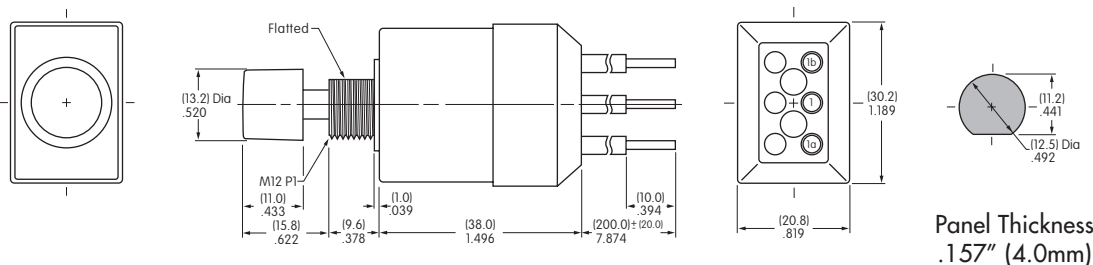
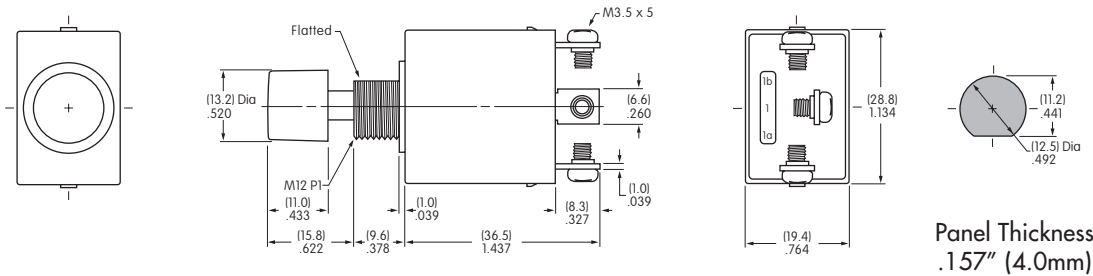


WB12T-DA

Wire Lead



WB12L-DA

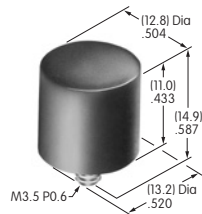


## CAPS & CAP COLORS

**D** AT414  
.520" (13.2mm) Diameter

Colors Available:  
A B C D E F G H

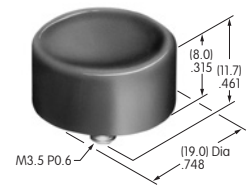
Material: PBT Finish: Glossy



**E** AT412  
.748" (19.0mm) Diameter

Colors Available:  
A B C F

Material: Polystyrene Finish: Glossy

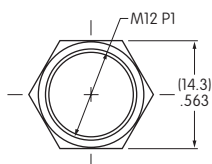


Cap Color Codes: **A** Black **B** White **C** Red **D** Amber **E** Yellow **F** Green **G** Blue **H** Gray

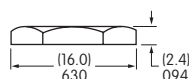
## STANDARD HARDWARE

AT503M  
Hex Face Nut

Material:  
Brass with  
chrome plating

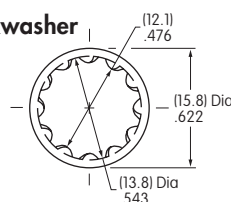


1 supplied  
with each  
switch



AT508  
Internal Tooth Lockwasher

Material:  
Steel with  
zinc/chromate

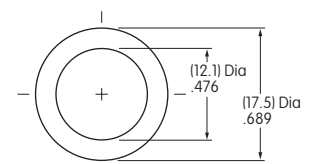


1 supplied  
with each  
switch



AT401P  
O-ring

Material:  
Nitrile  
butadiene  
rubber



1 supplied  
with each  
switch



