



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Distinctive Characteristics

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

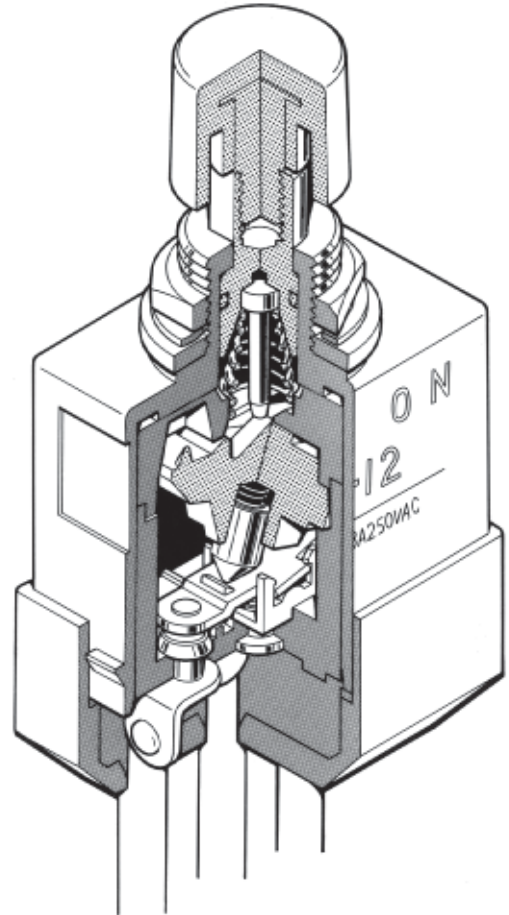
Specially designed contact mechanism for breaking light welds.

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

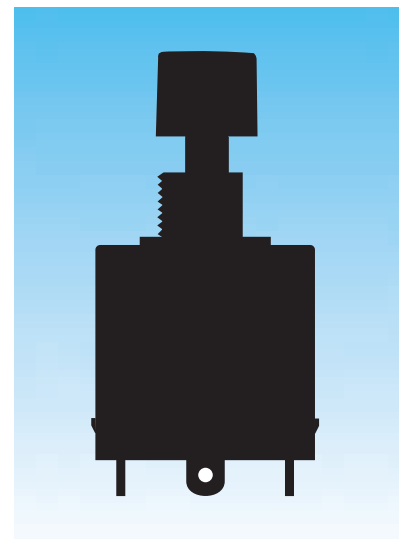
Outer housing of heat resistant resin meets UL 94V-0 flammability standard and provides high arc and tracking resistance.

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

Electrical Capacity (Resistive Load):	6A @ 125V AC & 3A @ 250V AC or 6A @ 30V DC
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

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 plus copper with silver plating
Stationary Contacts:	Silver alloy plus copper with silver plating
Terminals:	Brass with silver plating for screw lug models; copper 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 ²) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

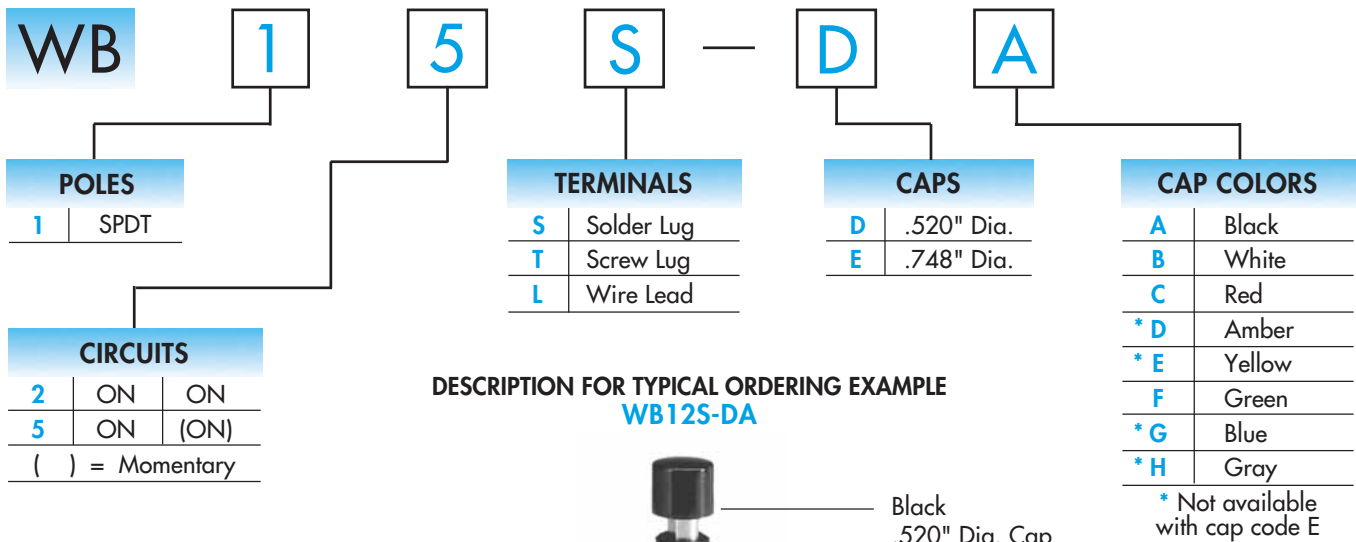
Installation

Soldering Time & Temperature:	3 seconds @ 350°C
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Standards & Certifications

Flammability Standards:	UL94V-0 outer case
Wiring Material Standards:	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



POLES & CIRCUITS

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

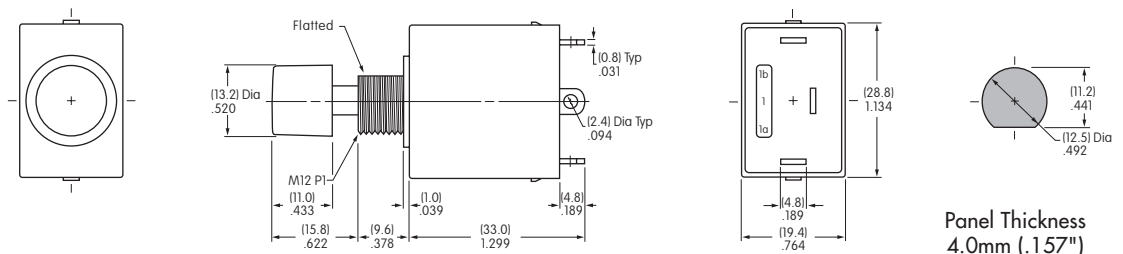
Terminal Numbers & Wire Colors			
Models	1a	1	1b
WB12L, WB15L	White	Black	Red

TYPICAL SWITCH DIMENSIONS

Solder Lug



WB15S-DA

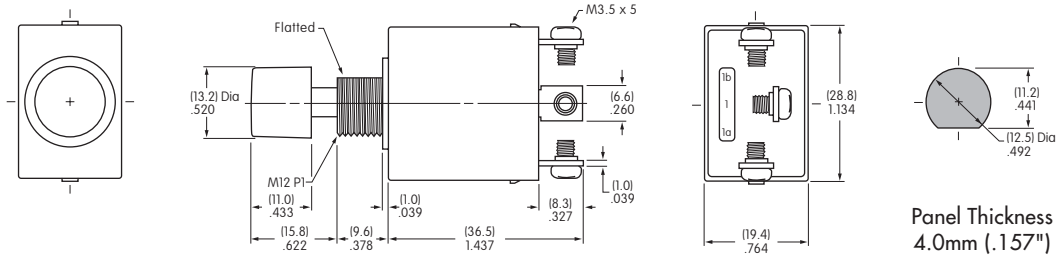


TYPICAL SWITCH DIMENSIONS

Screw Lug



WB12T-DA

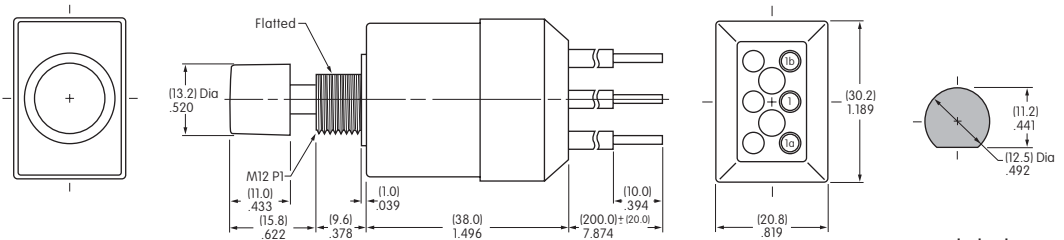


Panel Thickness
4.0mm (.157")

Wire Lead



WB12L-DA



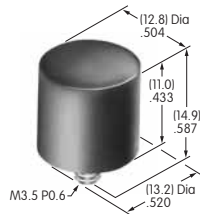
Panel Thickness
4.0mm (.157")

CAPS & CAP COLORS

D AT414
.520" Diameter

Colors Available:
A B C D E F G H

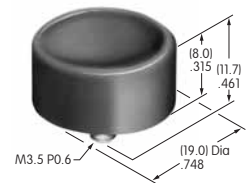
Material: PBT Finish: Glossy



E AT412
.748" Diameter

Colors Available:
A B C F

Material: Polystyrene Finish: Glossy



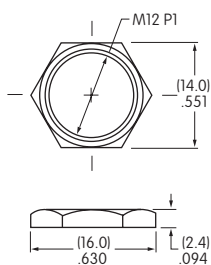
Cap Color Codes: **A** Black **B** White **C** Red **D** Amber **E** Yellow **F** Green **G** Blue **H** Gray

STANDARD HARDWARE

AT503M
Hex Face Nut

Material:
Brass with
tin plating

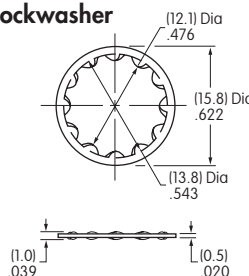
1 supplied
with each
switch



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

