

# General Specifications

Toggles

Rockers

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

B

## CWSA Electrical Capacity

**Power Level:** For Resistive Load 6A @ 250V AC

### Other Ratings

**Contact Resistance:** 20 milliohms maximum

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

**Dielectric Strength:** 1,500V AC minimum between contacts for 1 minute minimum  
3,000V AC minimum between contacts & case for 1 minute minimum

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

**Electrical Life:** 10,000 operations minimum with Resistive Load & 6,000 operations with Inductive Load

**Nominal Operating Force:** 2.50N

**Angle of Throw:** 30°

**Operating Temperature Range:** -10°C ~ +70°C (+14°F ~ +158°F)

### Materials & Finishes

**Rocker:** Polycarbonate

**Housing:** Polyamide

**Movable Contactor:** Brass with silver alloy plating

**Movable Contacts:** Silver alloy

**Stationary Contacts:** Silver alloy

**Base:** Laminated thermosetting sheets

**Contact Terminals:** Copper with silver plating

**Common Terminals:** Brass with silver plating

## CWSB Electrical Capacity

**Power Level:** For Resistive Load 6A @ 250V AC

### Other Ratings

**Contact Resistance:** 20 milliohms maximum

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

**Dielectric Strength:** 1,500V AC minimum between contacts for 1 minute minimum  
3,000V AC minimum between contacts & case for 1 minute minimum

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

**Electrical Life:** 10,000 operations minimum with Resistive Load & 6,000 operations with Inductive Load

**Nominal Operating Force:** 6.50N for single pole models; 10.0N for double pole models

**Angle of Throw:** 30°

**Operating Temperature Range:** -10°C ~ +70°C (+14°F ~ +158°F)

### Materials & Finishes

**Rocker:** Polycarbonate

**Housing:** Polyamide

**Movable Contactor:** Beryllium copper w/silver alloy plating

**Movable Contacts:** Silver

**Stationary Contacts:** Silver alloy

**Base:** Laminated thermosetting sheets

**Terminals:** Brass with silver plating

## CWT Electrical Capacity

**Power Level:** For Resistive Load 6A @ 125V AC; 3A @ 250V AC; 4A @ 30V DC

### Other Ratings

**Contact Resistance:** 20 milliohms maximum

**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:** 50,000 operations minimum

**Electrical Life:** 25,000 operations minimum

**Nominal Operating Force:** 2.0N

**Angle of Throw:** 30°

**Operating Temperature Range:** -25°C ~ +70°C (-13°F ~ +158°F)

### Materials & Finishes

**Rocker:** Glass fiber reinforced polyamide

**Housing:** Polyamide

**Movable Contactor:** Phosphor bronze w/silver plating

**Movable Contacts:** Silver alloy

**Base:** LCP (Liquid Crystal Polymer)

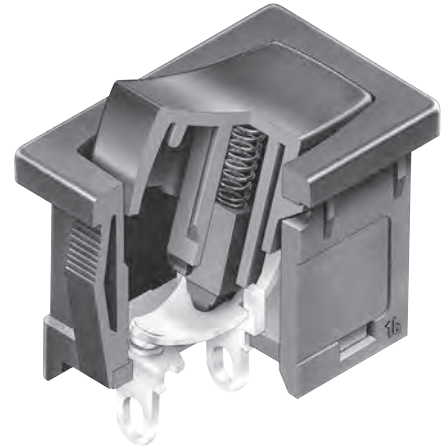
**Contact Terminals:** Brass + silver with silver plating

**Common Terminals:** Brass with silver plating

# Distinctive Characteristics

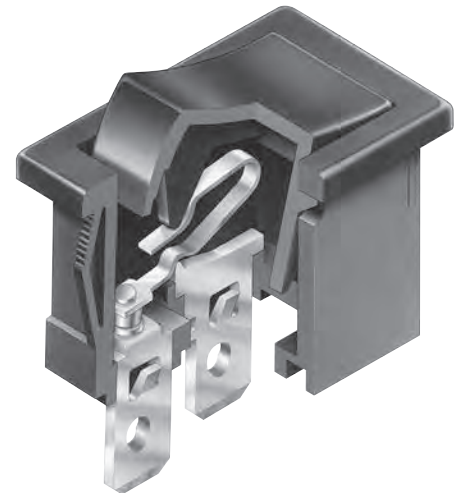
## CWSA

- Low cost molded rocker.
- See-saw contact mechanism
- Stable stationary contact construction for high reliability.
- Easily installed with snap-in mounting.
- Large terminal hole dimensioned .067" x .098" (1.7mm x 2.5mm) simplifies wiring and soldering.
- Wave Soldering (PC version): See Profile A in Supplement section.
- Manual Soldering: See Profile A in Supplement section.



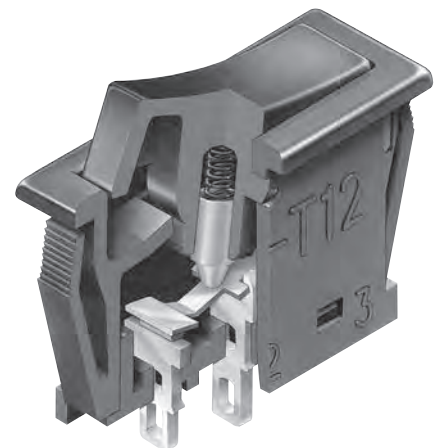
## CWSB

- Low cost molded rocker.
- Snap-acting contact mechanism gives smooth actuation and audible feedback.
- Stable stationary contact construction for high reliability.
- Front panel, snap-in mounting for labor-saving installation.
- Solder lug/quick connect terminals can be used with connectors.
- Manual Soldering: See Profile B in Supplement section.



## CWT

- Low cost molded rocker in compact, slim design.
- See-saw contact mechanism
- Outstanding insulation resistance and dielectric strength.
- Dust proof construction protects contact area.
- Stable stationary contact construction for high reliability.
- Front panel, snap-in mounting for labor-saving installation.
- Terminals are molded in and epoxy sealed to lock out flux, dust, and other contaminants.
- Manual Soldering: See Profile A in Supplement section.



- Supplement
- Accessories
- Indicators
- Touch
- Tilt
- Tactiles
- Slides
- Rotaries
- Key locks
- Programmable
- Illuminated PB
- Pushbuttons
- B** Rockers
- Toggle

## STANDARDS & CERTIFICATIONS

### CWSA



Specific CWSA models listed below are qualified for Underwriters Laboratories Inc. recognition and Canadian Standards Association certification. cULus marking on case is standard as noted in following table.

<u>Model</u>	<u>Ratings @ AC</u>	<u>cULus File No.</u>	<u>Marking on Case</u>
CWSA11	6A @ 250V	E44145	Standard
CWSA12	6A @ 250V	E44145	Standard

### CWSB



Specific CWSB models listed below are qualified for Underwriters Laboratories Inc. recognition and Canadian Standards Association certification. cULus marking on case is standard as noted in following table.

<u>Model</u>	<u>Ratings @ AC</u>	<u>cULus File No.</u>	<u>Marking on Case</u>
CWSB11	6A @ 250V	E44145	Standard
CWSB21	6A @ 250V	E44145	Standard

### CWT



Specific CWT model listed below is qualified for Underwriters Laboratories Inc. recognition and Canadian Standards Association certification. cULus marking on case is standard as noted in following table.

<u>Model</u>	<u>Ratings @ AC</u>	<u>cULus File No.</u>	<u>Marking on Case</u>
CWT12	6A @ 125V 3A @ 250V	E44145	Standard

TYPICAL SWITCH ORDERING EXAMPLES

**CWSA** **1** **1** **A** **A** **N** **S**

Pole	
1	SPST & SPDT

Circuits			
1	ON	NONE	OFF
2	ON	NONE	ON


Cap Color	
A	Black

Housing	
A	Black

Inscription	
For SPST & SPDT	
No Code	None
For SPST	
1	Horizontal
2	Vertical
3	Dot Marking

Terminals	
S	Solder Lug
H	Right Angle PC

**TYPICAL ORDERING EXAMPLE**  
**CWSA11AANS**



**CWSB** **2** **1** **A** **A** **2** **F**

Poles	
1	SPST
2	DPST

Circuit			
1	ON	NONE	OFF


Cap Color	
A	Black

Housing	
A	Black

Inscription	
No Code	None (SPST only)
1	Horizontal
2	Vertical
3	Dot Marking (SPST only)

Terminals	
F	Quick Connect
H	Right Angle PC

**TYPICAL ORDERING EXAMPLE**  
**CWSB21AA2F**



**CWT** **1** **2** **A** **A** **S1**

Pole	
1	SPDT


Circuit			
2	ON	NONE	ON

Cap Color	
A	Black

Housing	
A	Black

Terminals	
S1	Solder Lug

**TYPICAL ORDERING EXAMPLE**  
**CWT12AAS1**



Toggle  
Rockers  
Pushbuttons  
Illuminated PB  
Programmable  
Key locks  
Rotaries  
Slides  
Tactiles  
Tilt  
Touch  
Indicators  
Accessories  
Supplement

## INSCRIPTIONS

**No Code**

**None**

Not available in double pole.

**1**

**Horizontal Orientation**

Only On-None-Off models are available with the horizontal inscription.

**2**

**Vertical Orientation**

Only On-None-Off models are available with the vertical inscription.

**3**

**Dot Marking**

Only Single Pole On-None-Off models are available with the dot inscription.

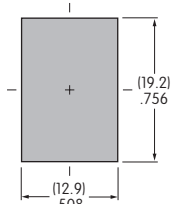
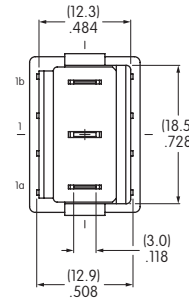
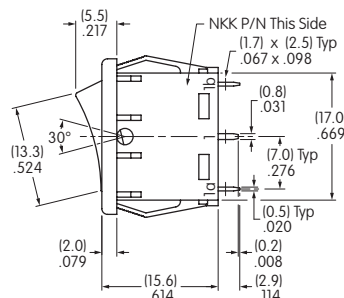
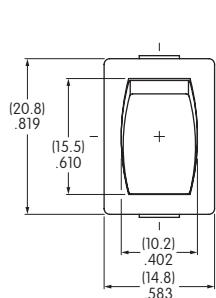


The IEC symbols for On-Off are supplied with Single Throw models only. Orientation of inscription must be selected. Inscription color is white ink on black.

## TYPICAL SWITCH DIMENSIONS FOR CWSA

**Solder Lug**

**Single Pole • No Inscription**



**CWSA12AANS**

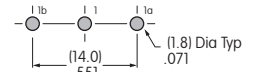
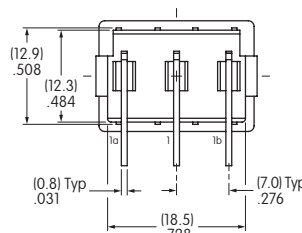
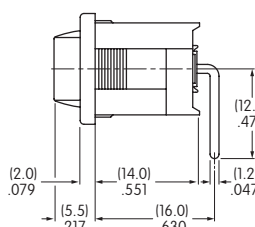
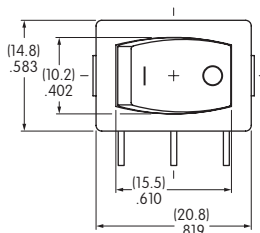
Single throw model does not have terminal 1b

Terminal numbers are on side of switch body

Panel Thickness .030" ~ .079" (0.75mm ~ 2.0mm)

**Right Angle**

**Single Pole • Horizontal On-Off Inscription**



**CWSA11AAN1H**

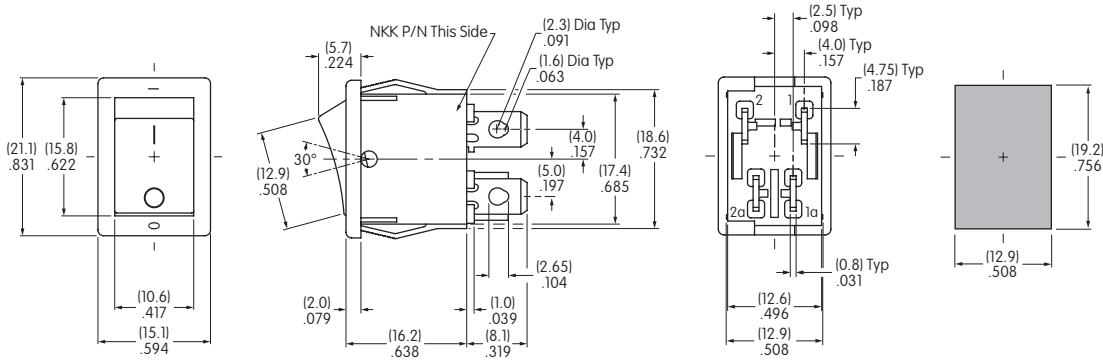
Single throw model does not have terminal 1b

Terminal numbers are on side of switch body

TYPICAL SWITCH DIMENSIONS FOR CWSB

Double Pole • Vertical On-Off Inscription

Quick Connect

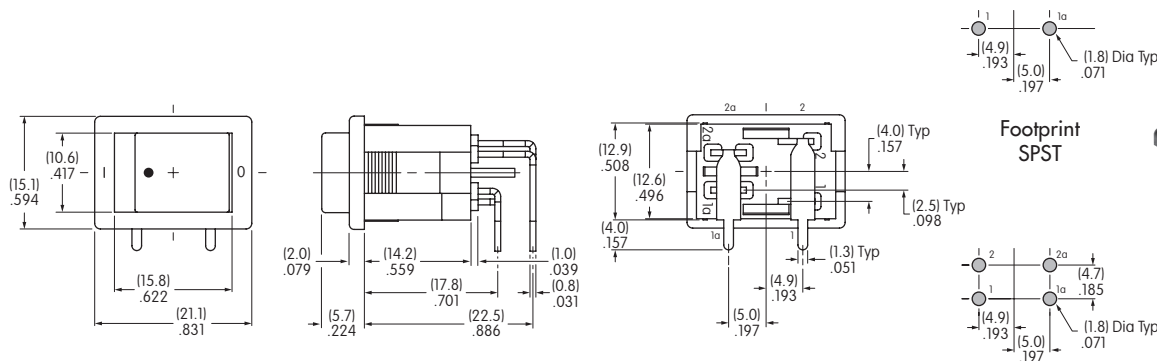


Terminal numbers are on bottom of switch  
Panel Thickness .030" ~ .079" (0.75mm ~ 2.0mm)

CWSB21AA2F

Single Pole • Dot Inscription

Right Angle



Terminal numbers are on bottom of switch

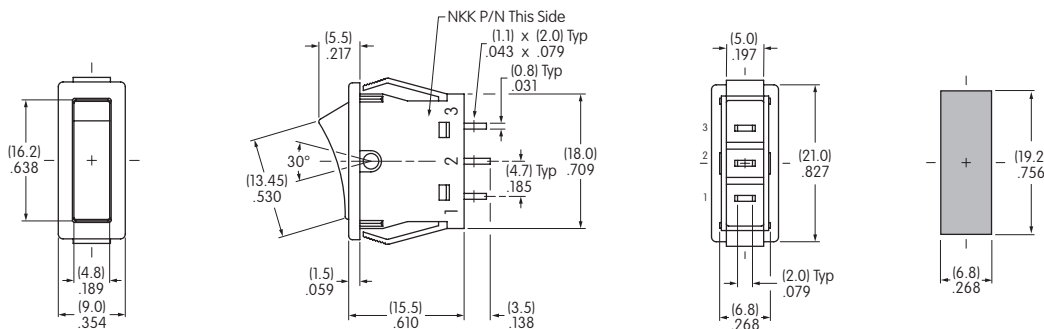
Footprint DPST

CWSB11AA3H

TYPICAL SWITCH DIMENSIONS FOR CWT

Single Pole • No Inscription

Solder Lug



Terminal numbers are on side of switch body

Panel Thickness .030" ~ .079" (0.75mm ~ 2.0mm)

CWT12AA51