

## 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 &amp; 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 &amp; 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 &amp; 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 &amp; 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 &amp; 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.

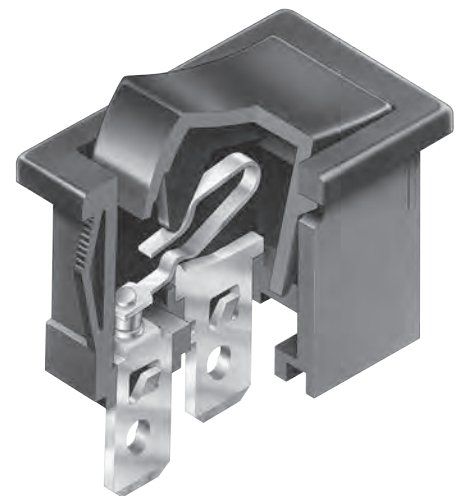
Snap-acting contact mechanism gives smooth actuation and audible feedback.

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.

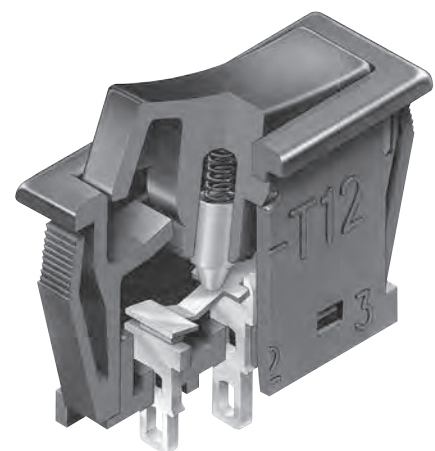
Dust proof construction protects contact area.

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.



## STANDARDS &amp; 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
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TYPICAL ORDERING EXAMPLE

CWT12AAS1



### 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.

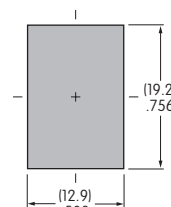
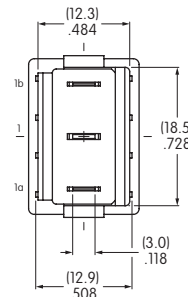
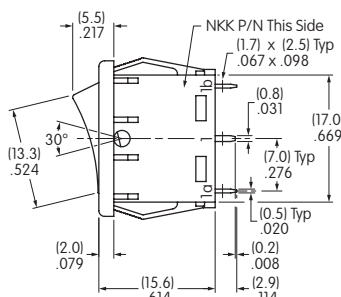
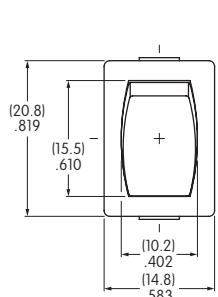


The IEC symbols for On-Off are supplied with Single Throw models only. Orientation of inscription must be selected. Inscription color is white ink on black.

### TYPICAL SWITCH DIMENSIONS FOR CWSA

**Solder Lug**

**Single Pole • No Inscription**



**CWSA12AANS**

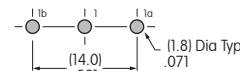
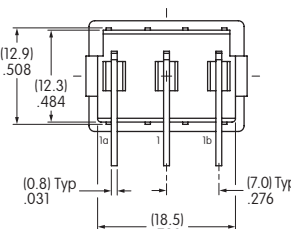
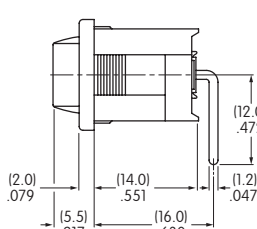
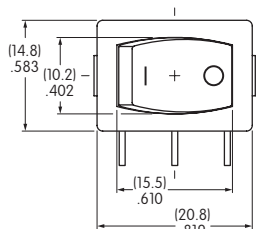
Single throw model does not have terminal 1b

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**

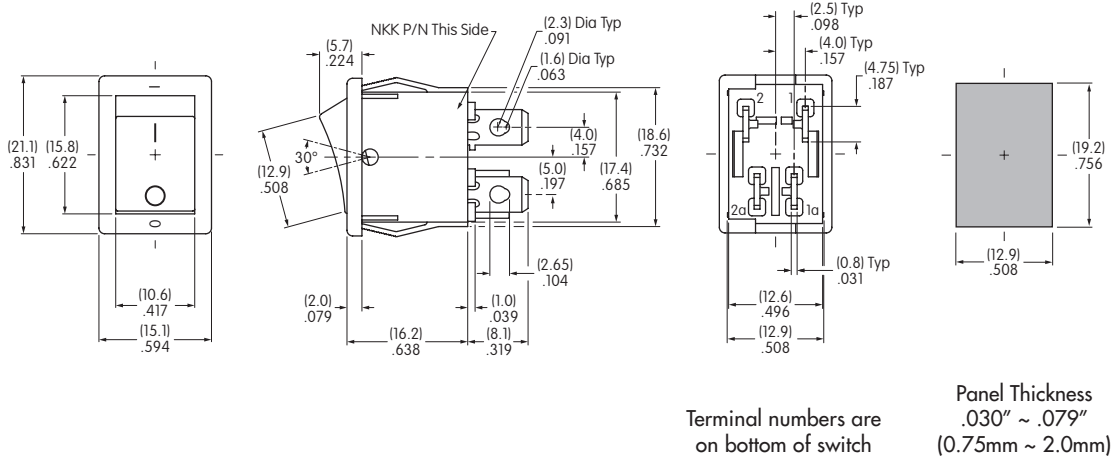
Single throw model does not have terminal 1b

Terminal numbers are on side of switch body

## TYPICAL SWITCH DIMENSIONS FOR CWSB

### Double Pole • Vertical On-Off Inscription

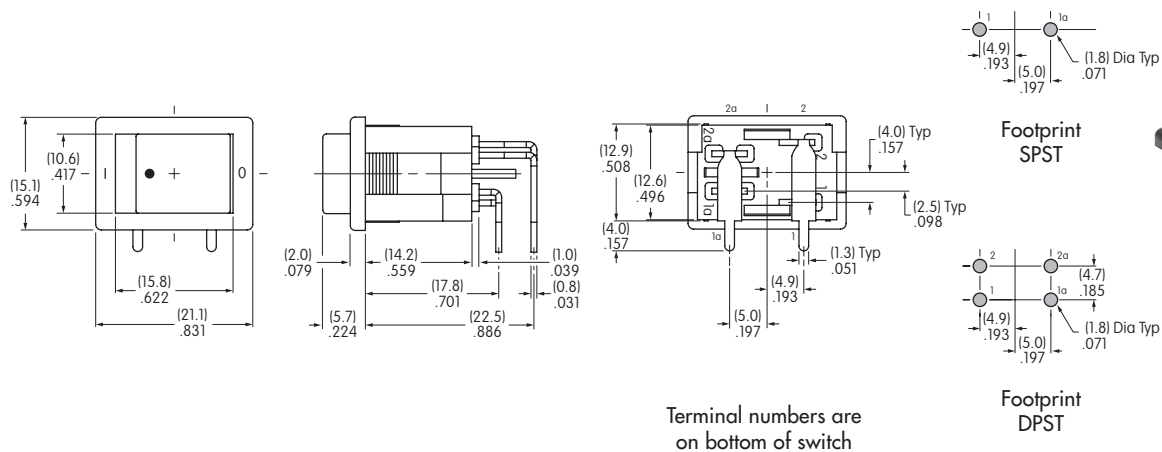
### Quick Connect



**CWSB21AA2F**

### Single Pole • Dot Inscription

### Right Angle

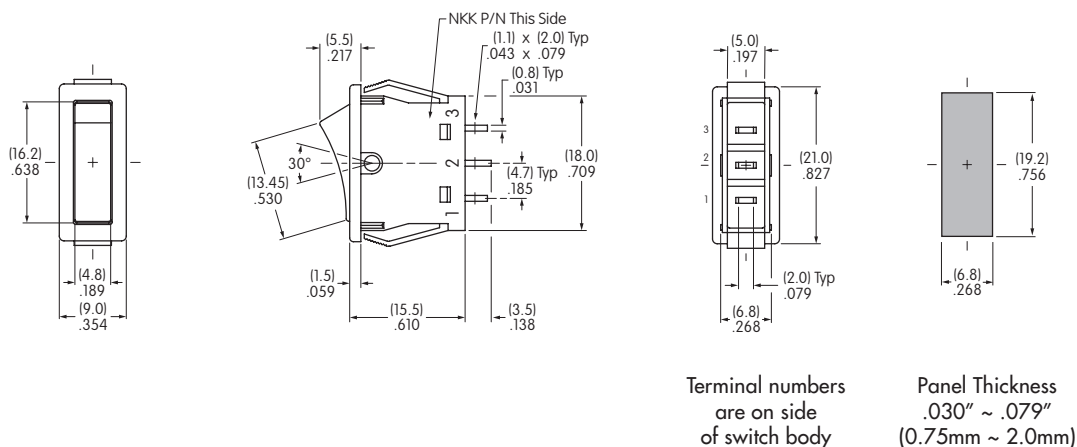


**CWSB11AA3H**

## TYPICAL SWITCH DIMENSIONS FOR CWT

### Single Pole • No Inscription

### Solder Lug



**CWT12AA51**