## Distinctive Characteristics

Full face, bright LED illumination in choice of red, amber, or green for visible status indication.

9-amp or 6-amp electrical capacity in compact body.

Interior shield prevents contamination of the rocker by carbon from arcing.

Front panel, snap-in mounting assures labor-saving installation.

Single-break, snap-acting contact mechanism gives smooth actuation and audible feedback.

Quick-make, quick-break characteristic limits arcing and prolongs electrical life.

Stable stationary contact construction for high reliability.


Offset terminal alignment gives outstanding insulation resistance and dielectric strength.

Solder lug/.110" quick connect terminals can be used with connectors.

Actual Size


# General Specifications <br> Electricall Capacity (Resistive Load) <br> Power Level: $\quad 9 \mathrm{~A} @ 125 \mathrm{~V}$ AC or $6 \mathrm{~A} @ 250 \mathrm{~V}$ AC <br> <br> Other Ratings <br> <br> Other Ratings <br> Contact Resistance: Insulation Resistance: <br> Dielectric Strength: <br> 20 milliohms maximum <br> 500 megohms minimum @ 500V DC <br> $1,500 \mathrm{~V}$ AC minimum between contacts for 1 minute minimum; <br> $3,000 \mathrm{~V}$ AC minimum between contacts \& case for 1 minute minimum <br> Mechanical Life: <br> 30,000 operations minimum <br> 10,000 operations minimum <br> Nominal Operating Force: <br> Single Pole 4.50N; Double Pole 10.0N <br> Angle of Throw: <br> $33^{\circ}$ 

## Materials \& Finishes

Rocker:
Housing:
Movable Contactor:
Movable Contacts:
Stationary Contacts: Switch Terminals: Lamp Terminals:

Polycarbonate
Polyamide
Beryllium copper with silver plating
Silver alloy
Silver alloy
Brass with silver plating
Brass with silver plating

## Environmental Data

Operating Temp Range:
$-10^{\circ} \mathrm{C}$ through $+50^{\circ} \mathrm{C}\left(+14^{\circ} \mathrm{F}\right.$ through $\left.+122^{\circ} \mathrm{F}\right)$
Humidity: $\quad 90 \sim 95 \%$ humidity for 96 hours @ $40^{\circ} \mathrm{C}\left(104^{\circ} \mathrm{F}\right)$
Vibration: $\quad 10 \sim 55 \mathrm{~Hz}$ with peak-to-peak amplitude of 1.5 mm traversing the frequency range
\& returning in 1 minute; 3 right angled directions for 2 hours
Shock: $\quad 50 G\left(490 \mathrm{~m} / \mathrm{s}^{2}\right)$ acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

## Installation

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

## Standards \& Certifications

UL \& C-UL Recognized: All models recognized at 9A @ 125V AC \& 6A @ 250V AC;
UL File No. WOYR2.E44145;
C-UL File No. WOYR8.E44145;
$\mathrm{C}-\mathrm{UL}_{\text {Us }}$ marking on case is standard.

## LED Miniature Power Rockers

## TYPICAL SWITCH ORDERING EXAMPLE



TYPICAL ORDERING EXAMPLE
CWSC21JCACS


## IMPORTANT:

Switches are supplied with C-UL marking on case. Specific models \& ratings noted on General Specifications page.

## POLE \& CIRCUITS

|  |  | Rocker Position |  |  | Connected Terminals |  |  | Throw \& Switch/Lamp Schematics |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pole | Model | Down | Center | Up | Down | Center | Up | Notes: Terminal numbers and polarity are actually on the switch. |
| SP | CWSC 11 | ON | NONE | OFF | 1-1a | OPEN | OPEN | SPST |
| DP | CWSC21 | ON | NONE | OFF | 1-1a 2-2a | OPEN | OPEN |  |

## CAP TYPES \& COLORS

## Rocker

Cap/Diffuser

Caps are factory assembled and are not available separately.


## Cap/Diffuser Colors Available



Clear/Red


Clear/Amber

Clear/Green

## HOUSING

## TERMINALS



Black Housing with Snap-in Mounting

On Off (I O) symbols are molded on the bezel.


5 Solder Lug/
. $110^{\prime \prime}$ ( 2.79 mm ) Quick Connect


## LED SPECIFICATIONS \& COLORS

The LED is factory assembled and not available separately. LED circuit is isolated and requires an external power source. Polarity marks are on the bottom of the switch.

The electrical specifications shown are determined at a basic temperature of $25^{\circ} \mathrm{C}$.

If the source voltage exceeds the rated voltage, a ballast resistor is required. The resistor value can be calculated by using the formula in the Supplement.

| (H) OH | Colors: | C <br> Red | Amber | Green |
| :---: | :---: | :---: | :---: | :---: |
| Forward Peak Current | $\mathrm{I}_{\text {FM }}$ | 30 mA | 30 mA | 30 mA |
| Continuous Forward Current | $I_{\text {F }}$ | 20 mA | 20 mA | 20 mA |
| Forward Voltage | $V_{F}$ | 1.95 V | 2.0 V | 2.1 V |
| Reverse Peak Voltage | $V_{\text {RM }}$ | 5 V | 5 V | 5 V |
| Current Reduction Rate above $25^{\circ} \mathrm{C}$ | $\Delta I_{F}$ | $0.41 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ | $0.29 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ | $0.39 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ |
| Ambient Temperature Range |  | $-10^{\circ} \mathrm{C} \sim+50^{\circ} \mathrm{C}$ |  |  |

## TYPICAL SWITCH DIMENSIONS

## LED Illuminated



## LED Illuminated

Double Pole
 .030" ~ . 079"

