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sales@integrated-circuit.com

Series CWSC

LED Miniature Power Rockers

General Specifications

Toggles

Rockers **B**

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

Electrical Capacity (Resistive Load)

Power Level: 9A @ 125V AC or 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
Nominal Operating Force: Single Pole 4.50N; Double Pole 10.0N
Angle of Throw: 33°

Materials & Finishes

Rocker: Polycarbonate
Housing: Polyamide
Movable Contact: Beryllium copper with silver plating
Movable Contacts: Silver alloy
Stationary Contacts: Silver alloy
Switch Terminals: Brass with silver plating
Lamp Terminals: Brass with silver plating

Environmental Data

Operating Temp Range: -10°C through +50°C (+14°F through +122°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/s²) 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: File No. E44145
 All models recognized at 9A @ 125V AC & 6A @ 250V AC.
 cULus marking on case is standard.

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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.

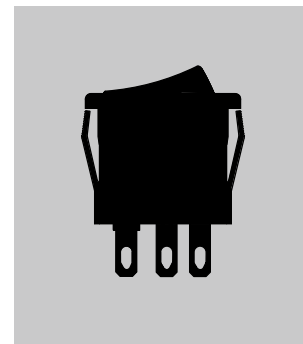
Stable stationary contact construction for high reliability.

Offset terminal alignment gives outstanding insulation resistance and dielectric strength.

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



Actual Size

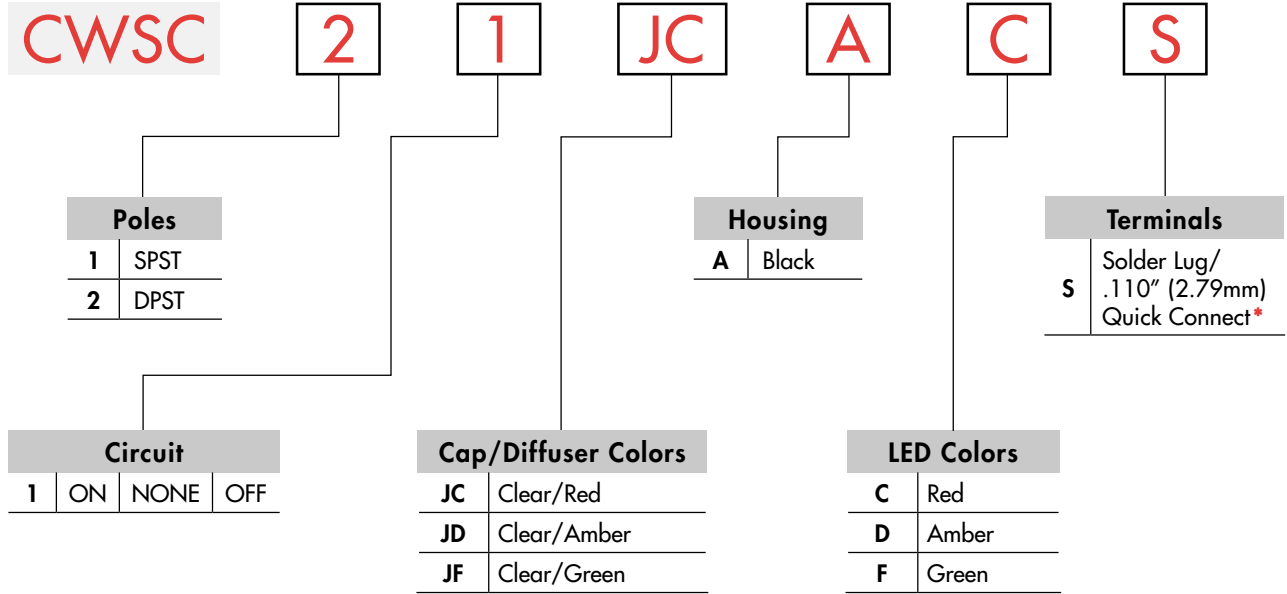


- Toggles
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- Programmable Illuminated PB
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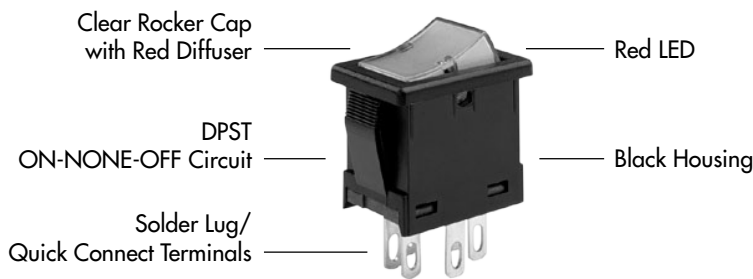
TYPICAL SWITCH ORDERING EXAMPLE



* Wire harness & cable assemblies offered only in Americas

TYPICAL ORDERING EXAMPLE

CWSC21JCACS



IMPORTANT:



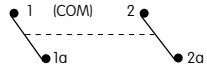



Switches are supplied with cULus marking on case. Specific models & ratings noted on General Specifications page.

LED Miniature Power Rockers

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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	CWSC11	ON	NONE	OFF	1-1a	OPEN	OPEN		SPST  
DP	CWSC21	ON	NONE	OFF	1-1a 2-2a	OPEN	OPEN		DPST  

CAP TYPES & COLORS

Rocker Cap/Diffuser

Caps are factory assembled and are not available separately.



Cap/Diffuser Colors Available

- JC** Clear/Red
- JD** Clear/Amber
- JF** Clear/Green

HOUSING

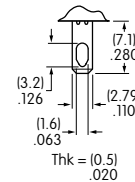
- A** Black Housing with Snap-in Mounting

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



TERMINALS

- S** Solder Lug/ .110" (2.79mm) 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°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.

		C	D	F
		Red	Amber	Green
	Colors:			
	Forward Peak Current	I_{FM}	30mA	30mA
Typical Forward Current	I_F	20mA	20mA	20mA
Forward Voltage	V_F	1.95V	2.0V	2.1V
Reverse Peak Voltage	V_{RM}	5V	5V	5V
Current Reduction Rate above 25°C	ΔI_F	0.41mA/°C	0.29mA/°C	0.39mA/°C
Ambient Temperature Range		-10°C ~ +50°C		

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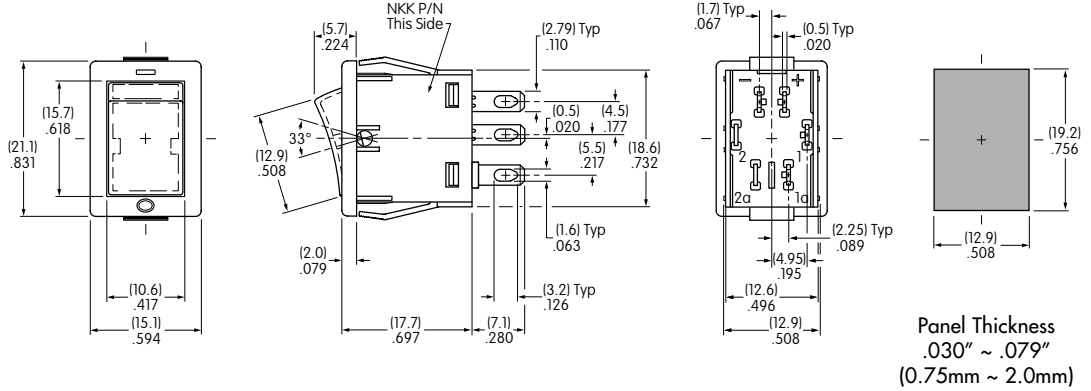
Series CWSC

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TYPICAL SWITCH DIMENSIONS

LED Illuminated

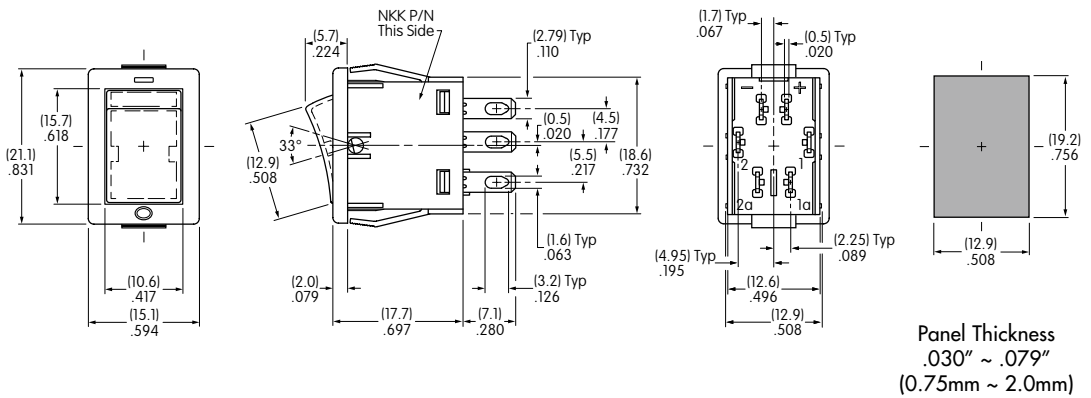
Single Pole



CWSC11JCACS

LED Illuminated

Double Pole



CWSC21JCACS

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