

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.

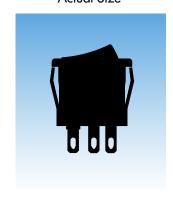
Stable stationary contact construction for high reliability.

Offset terminal alignment gives outstanding insulation resistance and dielectric strength.

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









General Specifications

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 Polyamide Housing:

Beryllium copper with silver plating **Movable Contactor:**

Movable Contacts: Silver alloy **Stationary Contacts:** Silver alloy

Switch Terminals: Brass with silver plating Lamp Terminals: Brass with silver plating

Environmental Data

-10°C through +50°C (+14°F through +122°F) **Operating Temp Range:**

> 90 ~ 95% humidity for 96 hours @ 40°C (104°F) **Humidity:**

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.

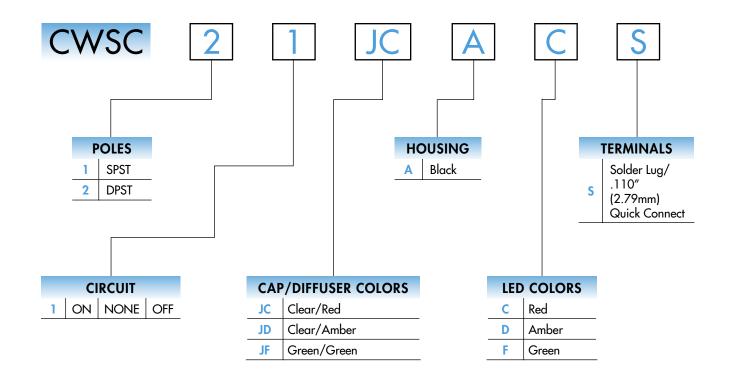
Standards & Certifications

All models recognized at 9A @ 125V AC & 6A @ 250V AC; **UL & C-UL Recognized:**

UL File No. WOYR2.E44145; C-UL File No. WOYR8.E44145; C-UL₁₅ marking on case is standard.



TYPICAL SWITCH ORDERING EXAMPLE



TYPICAL ORDERING EXAMPLE

CWSC21JCACS



IMPORTANT:



Switches are supplied with C-UL $_{\rm us}$ marking on case. Specific models & ratings noted on General Specifications page.



LED Miniature Power Rockers Series CWSC

POLE & CIRCUITS												
		Rocker Position			Connected Terminals			Throw & Switch/Lamp Schematics				
		Down	Center	Up	Down	Center	Up	Notes: Terminal numbers and polarity are actually on the switch.				
Pole	Model	_		_								
SP	CWSC11	ON	NONE	OFF	1-1a	OPEN	OPEN	SPST (+10-0-1)				
DP	CWSC21	ON	NONE	OFF	1-1a 2-2a	OPEN	OPEN	DPST 1 (COM) 2 0 (+10 (+10 (+10 (+10 (+10 (+10 (+10 (+				

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



Black Housing with Snap-in Mounting

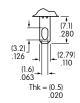
On Off (IO) symbols are molded on the bezel.



TERMINALS



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.

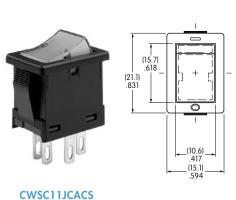
If the source voltage exceeds the rated voltage, a ballast resistor is required. The resistor value can be calculated by using the formula in the Supplement.

(+)0 (-)	Colors:	C Red	D Amber	F Green		
Forward Peak Current	I _{FM}	30mA	30mA	30mA		
Continuous 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	$\Delta I_{_{\rm F}}$	0.41mA/°C	0.29mA/°C	0.39mA/°C		
Ambient Temperature Range		−10°C ~ +50°C				

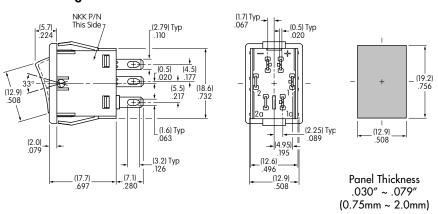


TYPICAL SWITCH DIMENSIONS

LED Illuminated

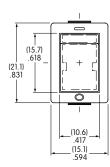


Single Pole



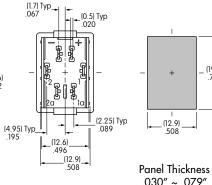
LED Illuminated





NKK P/N This Side (2.79) Typ .110 (5.7) 224 \oplus (0.5) (4.5) \[\int .020 \dot .177 \] \[\int (5.5) \dot \dot .217 \] (1.6) Typ .063 _(3.2) Typ .126 (2.0) -(7.1) -280

Double Pole



CWSC21JCACS

.030" ~ .079" $(0.75 \text{mm} \sim 2.0 \text{mm})$

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