

March 17, 2003

**New Product**  
**CONTACT**

No.092



# Illuminated Rocker Switches

with bright LED

# CWSC

## Single Pole Models

### Visible Status Indication

Full-face and even illumination with bright LED in red, green or amber.

### Snap-in Mount for Easy Installation

### Shield above Contacts

prevents rocker contamination by carbon created during arcing.

### Snap-action Contact Mechanism

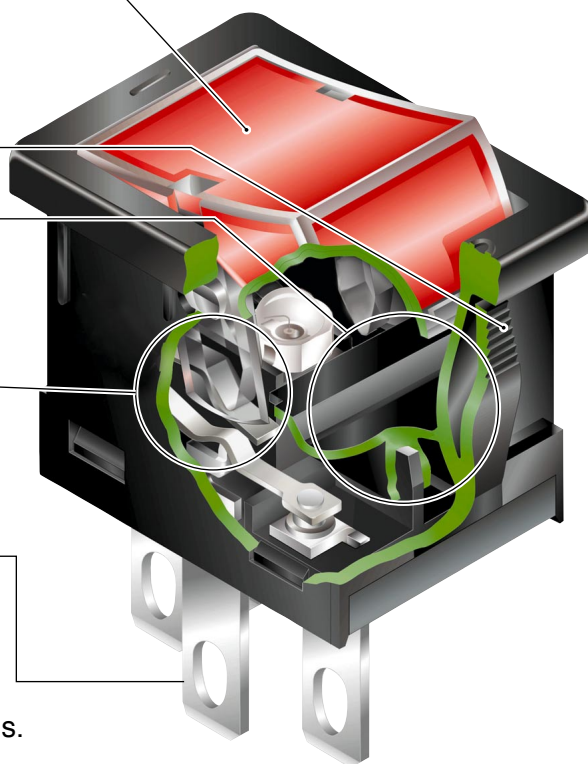
provides smooth actuation and audible feedback.

### Solder Lug/Quick Connect (#110) Terminals

can be soldered or used with connectors.

### UL & C-UL

Pending for 9A at 125V AC & 6A at 250V AC ratings.



### ► Applications

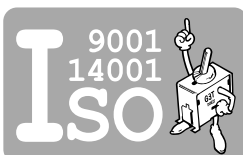
Tele- & Wireless Telecommunications, Electronic Measurement Equipment,  
Factory & Office Automation, Consumer Electronics

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► Specifications

Switch	
Electrical Capacity	9A at 125V AC 6A at 250V AC
Contact Resistance	20mΩ max.
Insulation Resistance	500MΩmin. at 500V DC
Dielectric Strength	1.5kV AC min. between contacts 3kV AC min. between contacts & panel
Mechanical Life	30,000 operations min.
Electrical Life	10,000 operations min.
Operating Temp. Range	-10 through +50°C
Rocker Angle of Throw	33 ±4°
Soldering Time & Temperature	3 seconds at 350°C max. for manual soldering



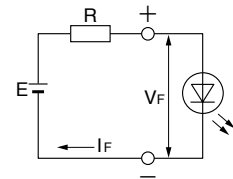
Bright LED (Ta = 25°C)				
LED Type	Intensity Level 1			Unit
	C	D	F	
LED Color	Red	Amber	Green	
Forward Peak Current I <sub>FM</sub>	30			mA
Forward Current I <sub>F</sub>	20			mA
Forward Voltage V <sub>F</sub>	1.95	2.0	2.1	V
Reverse Peak Voltage V <sub>RM</sub>	5			V
Current Deduction Rate Above 25°C ΔI <sub>F</sub>	0.41	0.29	0.39	mA/°C
Operating Temp. Range	-10 through +50			°C

**Ballast Resistor Calculation for LED**

A ballast resistor must be connected in series with LED. The following circuit diagram and formula will assist in calculating the value of the required ballast resistor.

$$R = \frac{E - V_F}{I_F}$$

- R = Resistor Value (Ω)
- E = Source Voltage (V)
- V<sub>F</sub> = Forward Voltage (V)
- I<sub>F</sub> = Forward Current (mA)



► Switch Dimensions

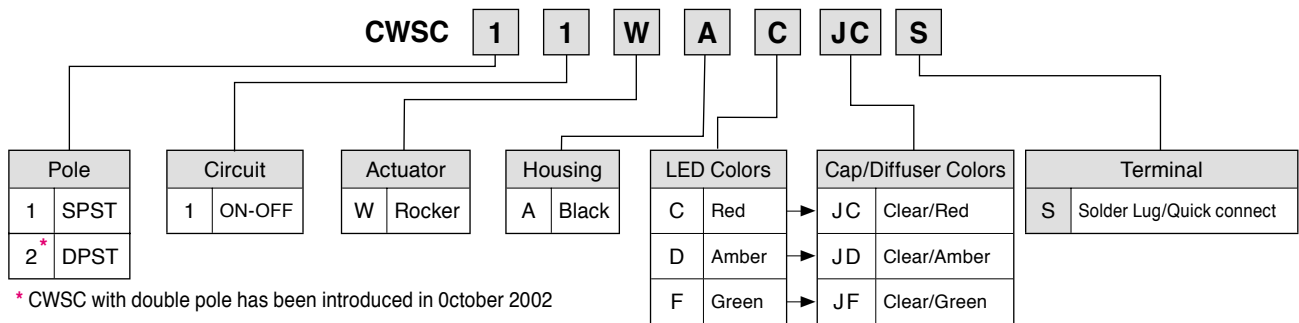
**CWSC11WACJCS**

**Panel Cutout**

LED circuit is isolated.

Recommended panel thickness : 0.75 to 2.00 mm

► Part Number Structure



**Part Numbers**

CWSC11WACJCS, CWSC11WADJDS, CWSC11WAFJFS

► Release

**March 17, 2003**

► Note

Series CWSC is now available in single pole and double pole. CWSC single pole replaces CWSB single pole (CWSB11CAJCF, CWSB11DAJDF, CWSB11FAJFF), which will be discontinued in October 2003.

