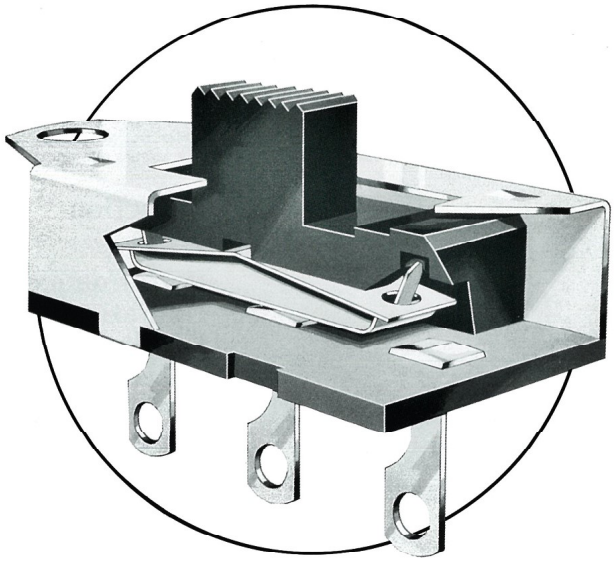
CW INDUSTRIES

# Standard Switches



## Features:

- One thru four poles
- Two thru four positions for switching up to 13.0 @ 125 Vac
- Detent or spring return
- Panel or P.C. Mount
- Top or side actuation
- UL/CSA listed
- Solder, solderless receptacle or wire wrap termination

ISO 9001 REGISTERED

## About CW Slide Switches

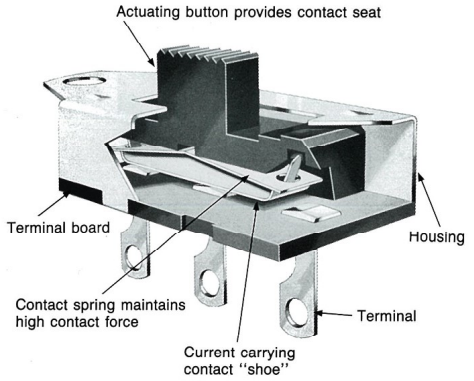
Slide switches became popular in America with industrial expansion after World War I . . . at the same time radios, autos, appliances and countless other consumer products were being developed. CW responded with its line of switches planned to meet the needs of the day. Considered "standard" was its two-position switch intended for chassis mount on two 1.125"-centered mounting holes. Terminals were designed for convenience in hand soldering. Actuation was with a trigger extending out the switch top, and switches were generally constructed for switching up to 1.0 amps at 125 volts ac.

Industry needs changed after World War II. Mass-produced radios, TVs, electrical and electronic instruments, appliances, telephones, automobiles, aircraft and marine equipment, and more recently calculators and computers, have proved to be ideal applications for our very simple and yet very reliable slide switch.

Modern switching requirements have broadened the scope of what is now required . . . higher current ratings . . . more positions . . . more poles . . . varying actuation means . . . many mounting options . . . variety of contact surfaces . . . and the solutions to varying terminating problems.

Since first introducing its slide switches, to satisfy these modern switching requirements, CW has constantly expanded and added options to its original "standard" line . . . all of which will be described on these pages. Other types . . . miniature, microminiature, and power . . . are described in supplemental literature referenced on page 35.

## CW Switch Construction




## Materials

Materials . . . like CW switches . . . have changed over the years. Improvements in available materials are constantly sought out by CW engineers and adapted for use in CW switches if found to be suitable. Considered standard are those materials listed. Adjustments or changes will be made if other materials are found more suitable for your application.

**Buttons** — Type 6/6 Nylon. Black is standard. Colors are available if your quantity is sufficient.
**Housings** — Cold rolled steel
**Housing Plating** — Zinc followed by clear chromate.
**Moving Contact** — Copper, copper alloy or brass.
**Moving Contact Plating** — Silver is standard. Gold (30 microinches of gold over 50 microinches of nickel) is available. Other gold thicknesses are available if your quantities are sufficient.
**Moving Contact Spring** — Phosphor bronze or beryllium copper.
**Terminals** — Copper
**Terminal Plating** — Silver is standard. Gold (30 microinches over 50 microinches of nickel) on many popular types is available. Other gold thicknesses are available if your quantities are sufficient.
**Terminal Board** — N.E.M.A. Grade XP Phenolic Laminate

## Performance Standards and Operating Limitations

When operated within ambient conditions detailed below, CW switches are designed to perform to the standards also listed below:

**Operating Temperature** — 104°C Max
−10°C Min
**Relative Humidity** — Switches will be operable and insulation resistance shall be greater than 100 megohms if allowed to dry for 100 hours at room temperature of 25°C and after exposure for one hour in an atmosphere having 95% relative humidity and a temperature of 50°C.
**High Voltage Breakdown** — Minimum of 1000 volts RMS, 60 Hz for one minute between parts of opposite polarity.
**Contact Resistance** — Less than 0.01 ohm at 20 milliamperes dc.

**LIFE CYCLING (no load):** Switches will be operative after 10,000 (minimum) cycles at the rate of 10 cycles per minute.

**LIFE CYCLING (load):** Switches will be operative after 6000 (minimum) cycles at the rate of 10 cycles per minute at rated load.

### U.L. and C.S.A.

CW Test Laboratories are fully equipped to monitor and test CW switches to U.L. and C.S.A. published standards. Most CW switches are listed by these agencies as having conformed to those standards in tests applied to those switches on a continuing basis. A record of types of CW switches listed by U.L. is retained in U.L. File Number E9556 and in C.S.A. File Number LR20985.

### CW Patents

CW Engineers are constantly trying to upgrade the quality and cost-effectiveness of our switches. Often this results in new inventions. Switch products shown in this catalog may be covered by one or more of the following U.S. patents:

| | |
|---|---|
| 3,270,149 | 3,993,881 |
| 3,271,535 | 4,404,437 |
| 3,911,719 | 4,128,745 |
| 3,461,252 | 4,410,232 |

Other patent applications are pending.