

### AUTO-DIP® Switch

Automatically  
Insertable, Wave  
Solderable, Board  
Washable DIP Switch

#### Features

##### Optimized Mechanical Features

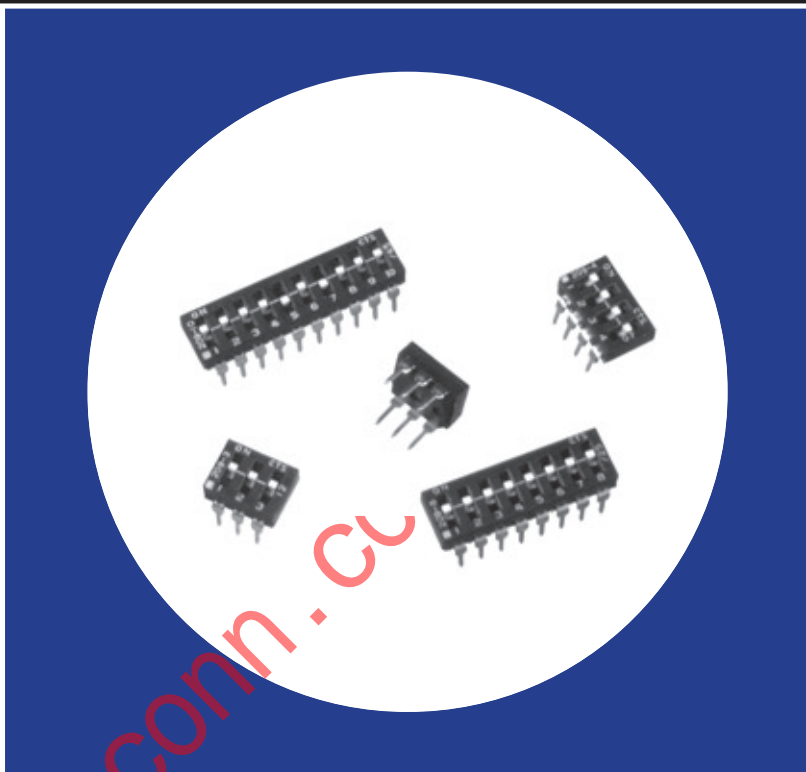
- Fully sealed to withstand insertion shock, wave solder temperatures, and board washing
- Positive detent separated from contactor
- Compatible with Amistar, DynaPert, Universal, NETCO assembly and other machines

##### Optimized Contact System

- Redundant, wiping contact
- Contactor does not deflect during actuation
- Available low profile, medium and extended height actuator

##### Materials

- Series 209 - gold plated beryllium copper contacts
- Series 210 - gold flash plated beryllium copper contacts
- High temperature materials (UL94V-0)
- RoHS compliant



Series 209 – Premium AUTO-DIP Switches  
Series 210 – Economical AUTO-DIP Switches

## Electrical and Mechanical Specifications

#### Switch Function

SPST- 2 through 10 and 12 positions

#### Switch Contact Resistance

| Switch Series | Initial, max. | End of life, max. |
|---------------|---------------|-------------------|
| 209           | 25 milliohms  | 50 milliohms      |
| 210           | 100 milliohms | 500 milliohms     |

#### Insulation Resistance

1,000 megohms minimum between insulated terminals

#### Dielectric Strength

500 VDC for 1 minute between adjacent switches

#### Nonswitching Rating

100 mA or 50 VDC maximum

#### Switch Capacitance

5 pF maximum between adjacent closed switches

#### Actuation Life

Series 209: 2,000 cycles switching @ 100 mA, 20 VDC or @ .1 mA, 5 VDC (dry circuit)

Series 210: 1,000 cycles switching @ 100 mA, 20 VDC or @ .1 mA, 5 VDC (dry circuit)

#### Allowable Solder Time

Up to 5 seconds at 260°C

#### Vibration

Per MIL-STD-202F, method 204D, condition B (.06" or 15 G's between 10 HZ to 2K HZ) with no contact inconsistencies greater than 1 microsecond.

#### Shock

Per MIL-STD-202F, method 213B, condition A (50 G's) with no contact inconsistencies greater than 1 microsecond.

#### Sealing

Standard bottom seal  
Optional top tape seal

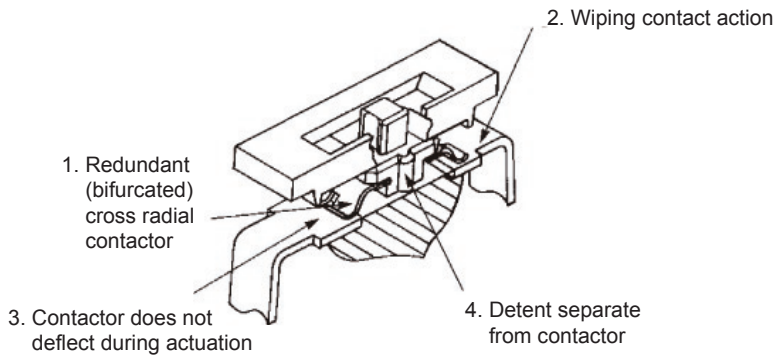
#### Operating Temperature

-40°C to +85°C

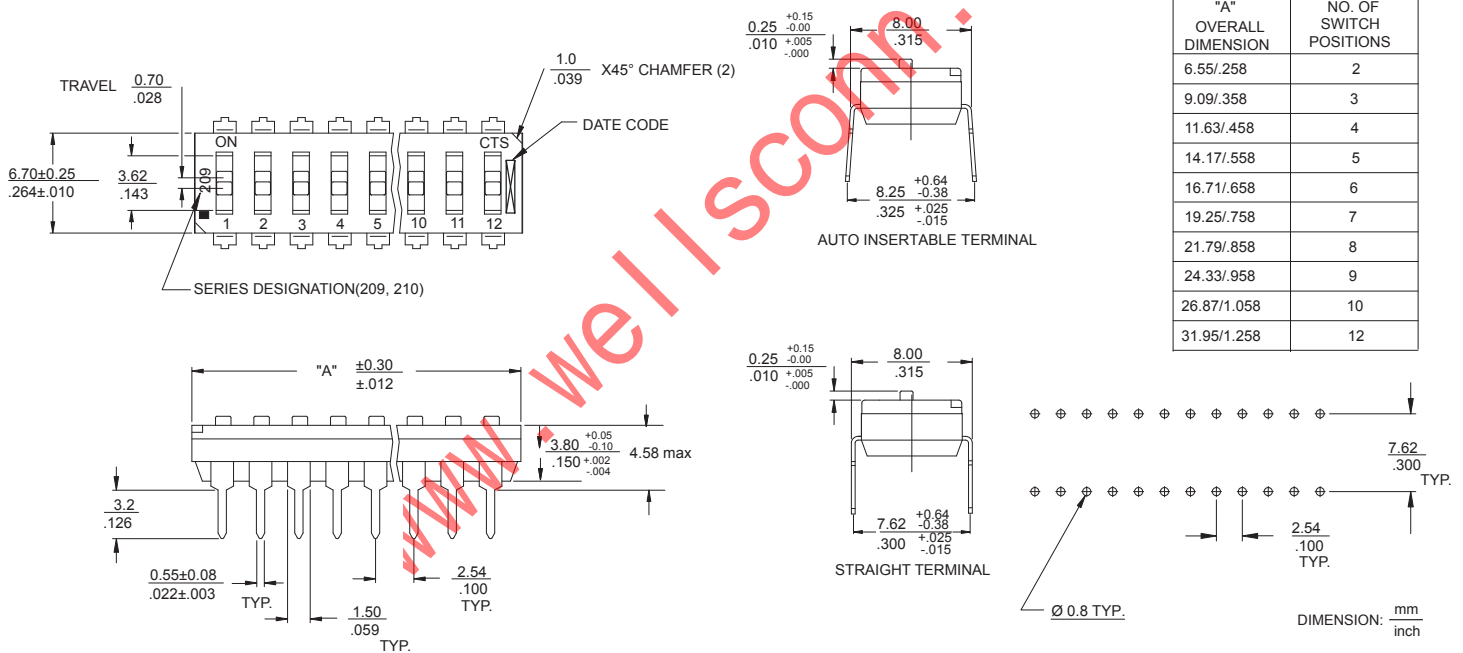
#### Packaging

Standard : Anti-Static tube packaging

# CTS AUTO-DIP® SERIES CONTACT FEATURES



- 1. Value of Redundant (Bifurcated) Contacts:** Redundancy dramatically reduces the probability of contact failure, IMPROVING RELIABILITY.
- 2. Value of Wiping Contact Action:** Clean contact area, IMPROVING RELIABILITY.
- 3. Value of Contactor Not Deflecting During Actuation :** Constant contact pressure eliminates overstressing contacts, IMPROVING RELIABILITY.
- 4. Value of Detent Separate from Contactor:** Separate detent allows optimization of nondeflecting contactor and detent designs, IMPROVING RELIABILITY.



## Ordering Information

