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ELECTRONICS

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Jameco Part Number 778251

## AUTO-DIP<sup>®</sup> Switch Automatically Insertable, Wave Solderable, Board Washable DIP Switch

### Features

#### Optimized Mechanical Features

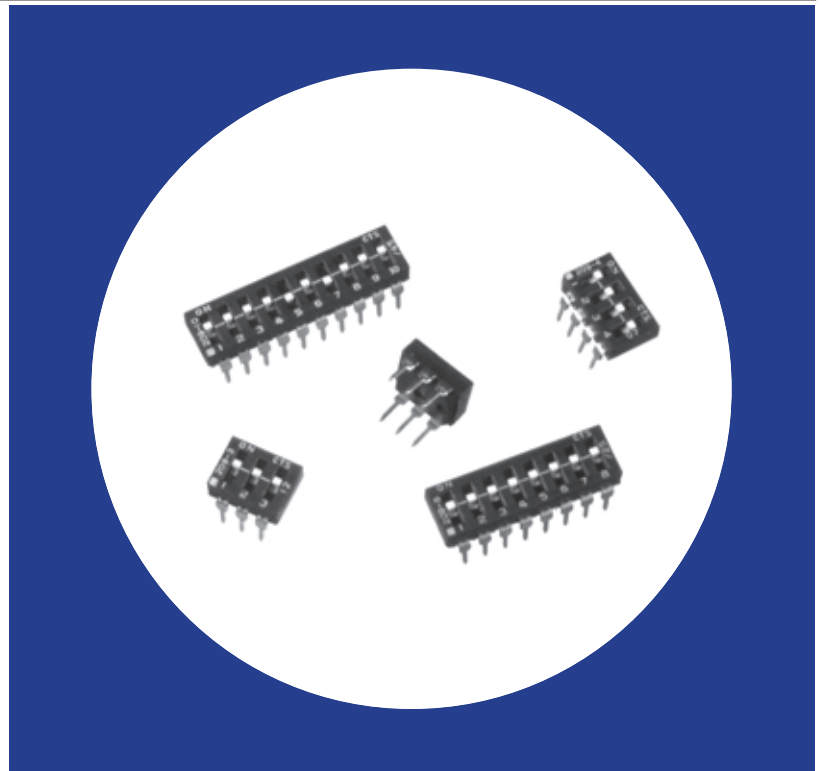
- Fully sealed to withstand insertion shock, wave solder temperatures, and board washing
- Positive detent separated from contactor
- Compatible with Amistar, DynaPert, Universal, NETCO assembly and other machines

#### 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 housing heat deflection temperature assures contact and seal integrity after wave soldering
- All plastics rated UL 94 V-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 minimum 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 Wave Solder Time

Up to 5 seconds with 260°C solder

### 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

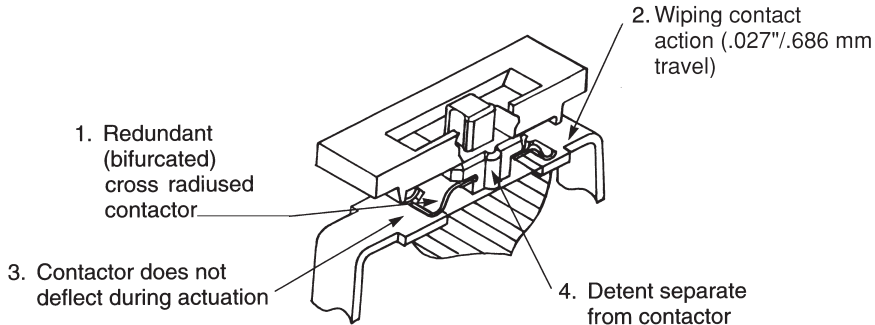
### Operating Temperature

-40°C to +85°C

### Packaging

Standard : Anti-Static tube packaging

# CTS AUTO-DIP® SERIES CONTACT FEATURES



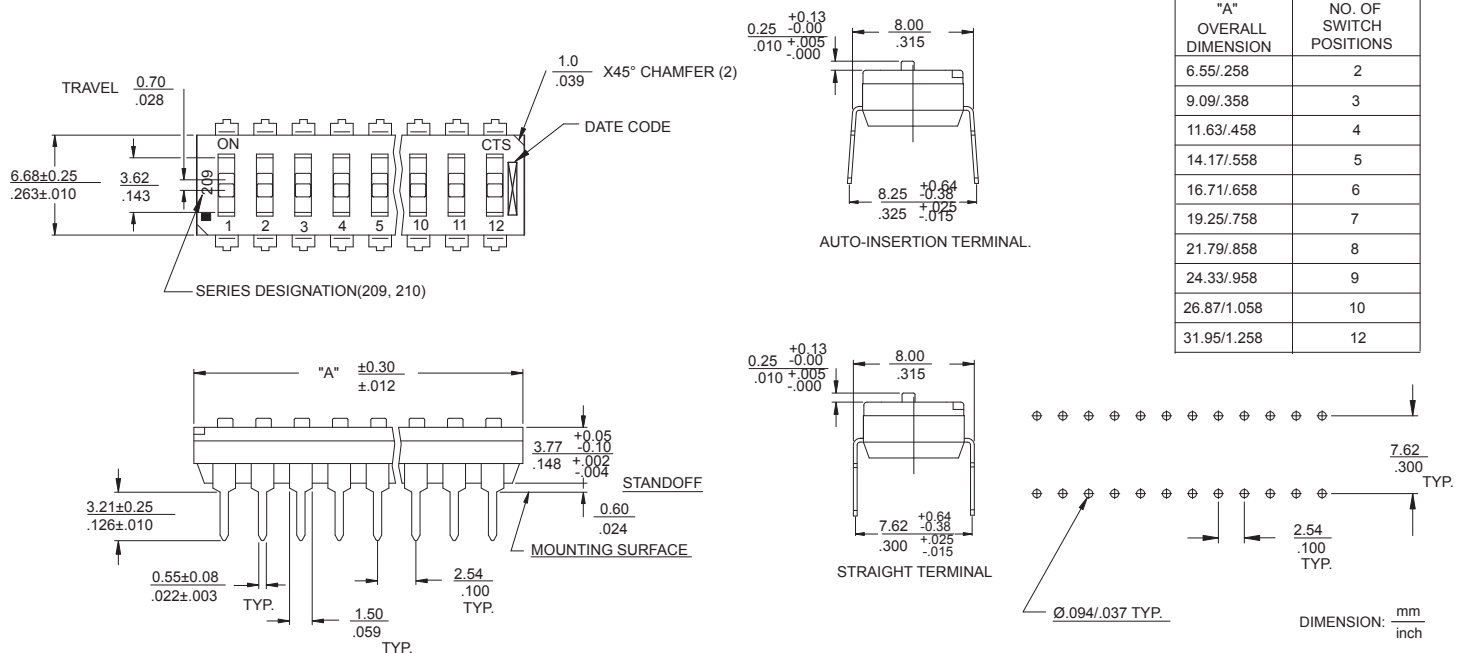
## 1. Value of Redundant (Bifurcated)

**Contacts:** Redundancy dramatically reduces the probability of contact failure, IMPROVING RELIABILITY.

## 2. Value of Wiping Contact Action: Cleans 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

**209/210 - 08 M S T F D - P**

**XX:** # OF POSITIONS

**E:** EXTENDED HEIGHT ACTUATOR(0.6mm/.024")

**M:** MEDIUM ACTUATOR(0.25mm/.010")

**LP:** LOW PROFILE (Flush)

**F:** SHIP AT OFF POSITION  
**BLANK:** SHIP AT ON POSITION

**\* T:** TOP TAPE SEAL(Optional)  
**\* Not available on Extended actuator construction**

**S:** BOTTOM SEAL(Standard)

**D:** straight terminal  
**BLANK:** auto-insertable terminal

**P:** RoHS COMPLIANT  
**BLANK:** RoHS COMPLIANT FOR SHIPMENT FROM 7/01/06