

AUTO-DIP[®] Switch Automatically Insertable, Wave Solderable, Board Washable DIP Switch

Features

Optimized Mechanical Features

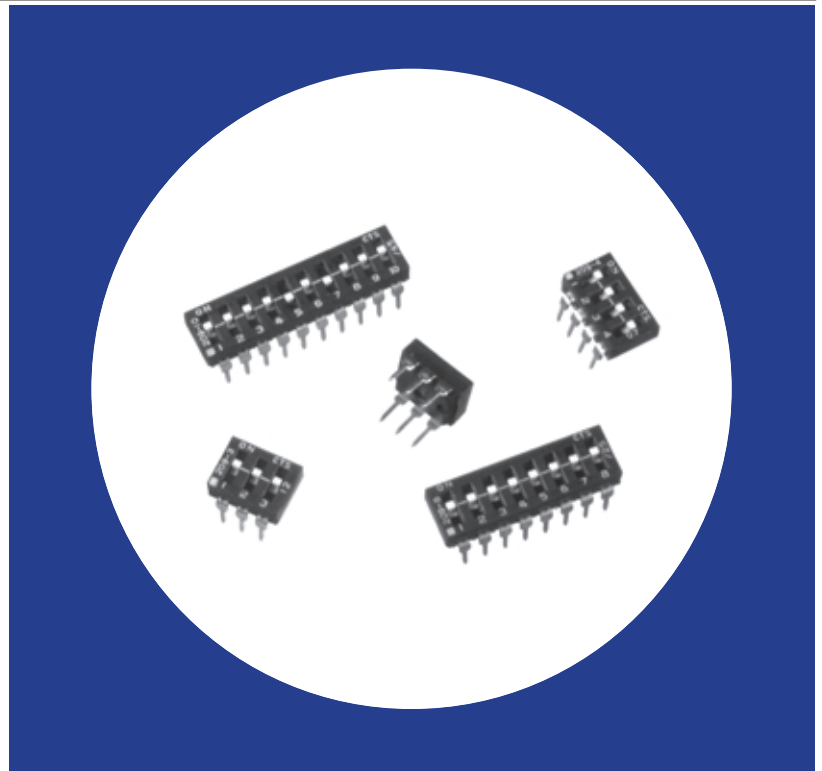
- Fully sealed to withstand insertion shock, wave solder temperatures, and board washing
- Positive detent separated from contactor
- Compatible with Amistar, DynaPert, Universal, NETCO assembly and other machines

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 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

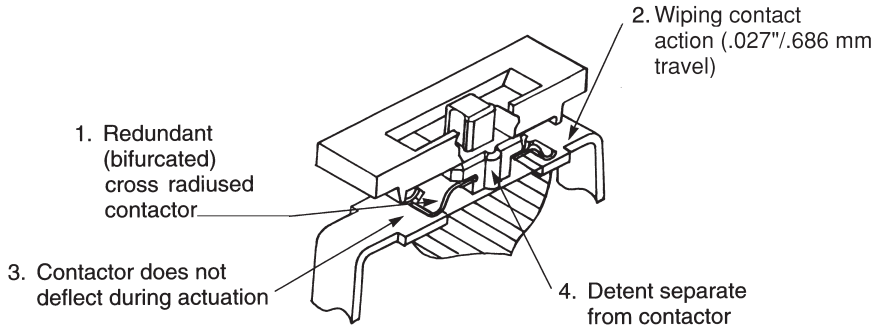
Operating Temperature

-40°C to +85°C

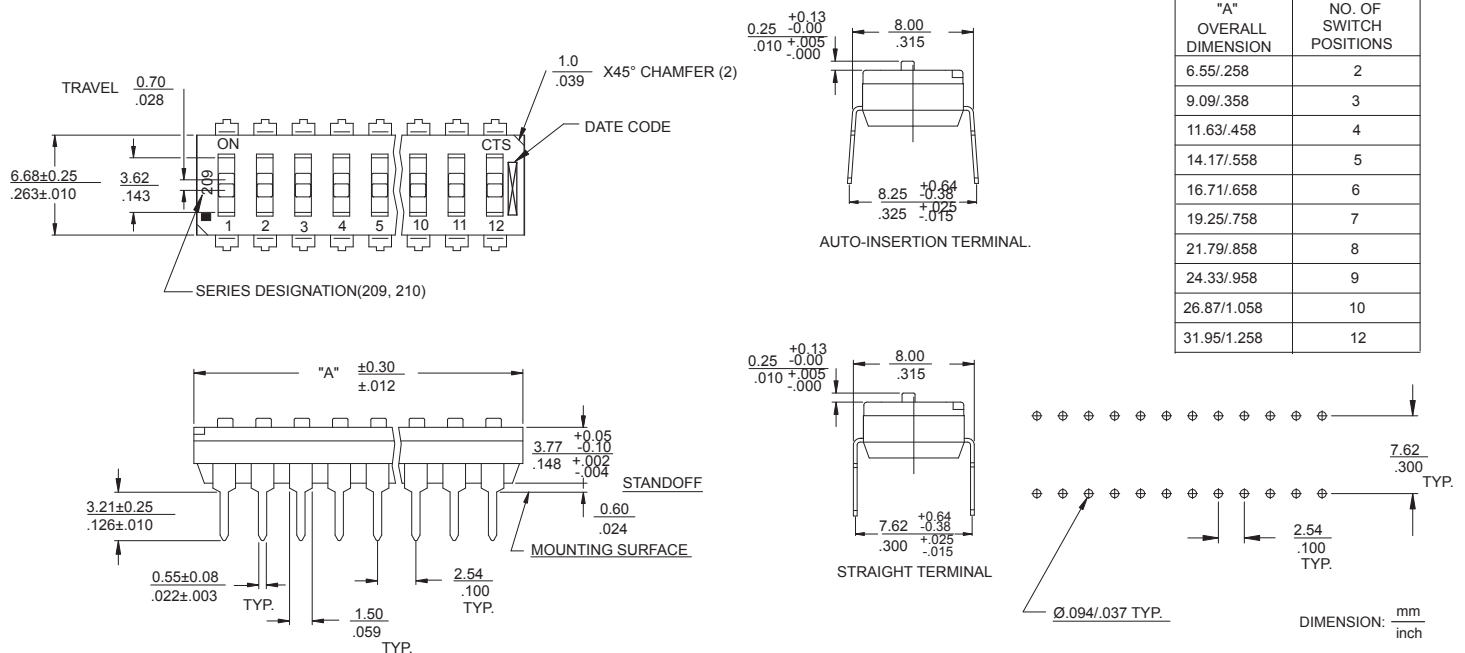
Packaging

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