

# C&K SD Series Low Profile DIP Switches



DIP



## Features/Benefits

- Low profile design saves space
- Thru-hole and surface mount models
- Tape and reel packaging available
- Sealed with top tape
- RoHS compliant - options available

## Typical Applications

- Address switch for industrial controls
- Logic switching for computers and peripherals
- Function controlling for numerous applications

## How To Order

Complete part numbers for SD Series are shown on pages I-9 through I-11. All switches supplied in "OFF" position in rigid dispensing tubes or tape and reel packaging.

## Specifications

SWITCH FUNCTION: SPST - 2, 3, 4, 5, 6, 7, 8, 9, 10 & 12 positions

CONTACT RATING:

Carry: 100 mA @ 50 V DC max.

Switch: 0.1 mA @ 5 V DC min to 100 mA @ 25 V DC max.

MECHANICAL AND ELECTRICAL LIFE: 2,000 make-and-break cycles at full load, each circuit.

CONTACT RESISTANCE: Below 50 milliohms typ. initial @ 2-4 V DC, 100mA.

INSULATION RESISTANCE: 10<sup>9</sup> ohms min.

DIELECTRIC STRENGTH: 500 V RMS min. @ sea level between adjacent terminals.

STORAGE TEMPERATURE: -40°C to 85°C.

OPERATING TEMPERATURE: -20°C to 85°C.

OPERATING FORCE: 100-700g initial.

PACKAGING: Thru-hole switches supplied in rigid dispensing tubes in full-tube quantities only; this may effect order quantity. Surface mount switches available in tape and reel packaging by added 'R' to end of part number; 1,000 pieces per reel. Switch position 1 denotes pin number 1. All switch actuators in 'OFF' position, standard.

## Materials

CASE & COVER: Thru-hole: polyester (PBT). Surface mount: (PPA), flame retardant (UL 94V-0).

ACTUATOR: Nylon, flame retardant (UL 94V-0)

CONTACTS: Copper alloy with gold plate.

TERMINALS:

Non-RoHS (K or KR ending part #'s) = Copper alloy with tin/lead plate.

RoHS version (B or BR ending part #'s) = bright tin-plated BeCu.

TERMINAL SEAL: All terminals insert molded.

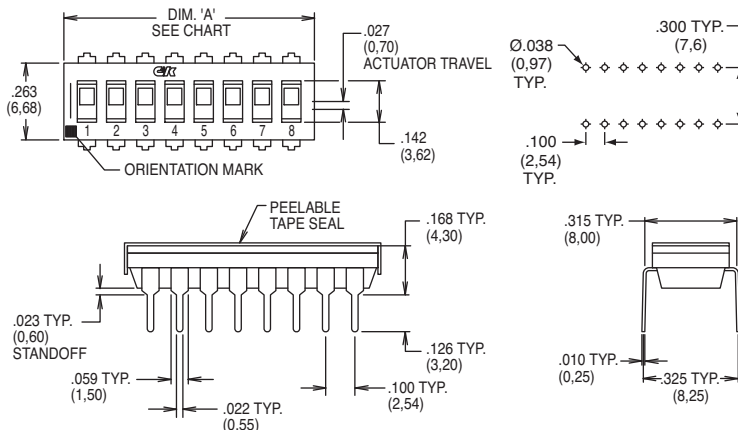
TAPE SEAL: Polyester

**NOTE:** For the latest information regarding RoHS compliance, please go to: [www.ittcannon.com/rohs](http://www.ittcannon.com/rohs).

**Note:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

## Sealed Flush Actuator – With Top Tape, Thru-hole Terminals

Process sealed - withstands soldering and cleaning processes



| ROHS PART NUMBER | TIN LEAD PART NUMBER | NO. POS. | DIM. 'A'      | QUANTITY PER TUBE |
|------------------|----------------------|----------|---------------|-------------------|
| SD02H0B          | SD02H0K              | 2        | .258 (6,55)   | 85                |
| SD03H0B          | SD03H0K              | 3        | .358 (9,09)   | 60                |
| SD04H0B          | SD04H0K              | 4        | .458 (11,63)  | 45                |
| SD05H0B          | SD05H0K              | 5        | .558 (14,17)  | 40                |
| SD06H0B          | SD06H0K              | 6        | .658 (16,71)  | 30                |
| SD07H0B          | SD07H0K              | 7        | .758 (19,25)  | 25                |
| SD08H0B          | SD08H0K              | 8        | .858 (21,79)  | 25                |
| SD09H0B          | SD09H0K              | 9        | .958 (24,33)  | 20                |
| SD10H0B          | SD10H0K              | 10       | 1.058 (26,87) | 20                |
| SD12H0B          | SD12H0K              | 12       | 1.258 (31,95) | 15                |

Schematic  
SPST



Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

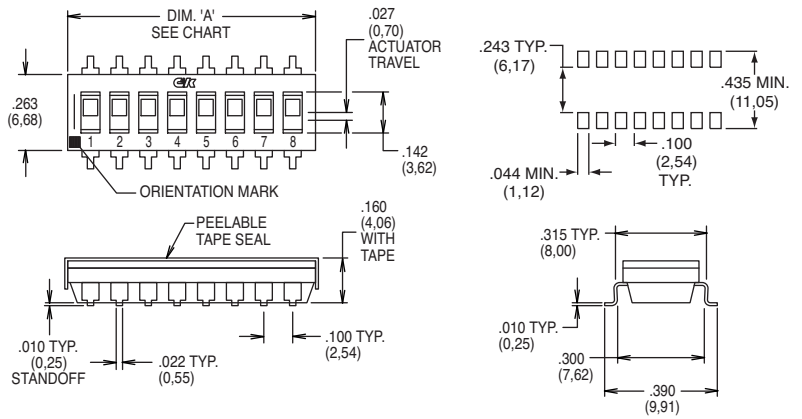
# C&K SD Series Low Profile DIP Switches

## Sealed Flush Actuator – With Top Tape, Surface Mount Terminals

| RoHS PART NUMBER | TIN LEAD PART NUMBER | NO. POS. | DIM. 'A'      | QUANTITY PER TUBE |
|------------------|----------------------|----------|---------------|-------------------|
| SD02H0SB         | SD02H0SK             | 2        | .258 (6,55)   | 85                |
| SD03H0SB         | SD03H0SK             | 3        | .358 (9,09)   | 60                |
| SD04H0SB         | SD04H0SK             | 4        | .458 (11,63)  | 45                |
| SD05H0SB         | SD05H0SK             | 5        | .558 (14,17)  | 40                |
| SD06H0SB         | SD06H0SK             | 6        | .658 (16,71)  | 30                |
| SD07H0SB         | SD07H0SK             | 7        | .758 (19,25)  | 25                |
| SD08H0SB         | SD08H0SK             | 8        | .858 (21,79)  | 25                |
| SD09H0SB         | SD09H0SK             | 9        | .958 (24,33)  | 20                |
| SD10H0SB         | SD10H0SK             | 10       | 1.058 (26,87) | 20                |
| SD12H0SB         | SD12H0SK             | 12       | 1.258 (31,95) | 15                |

Schematic

SPST

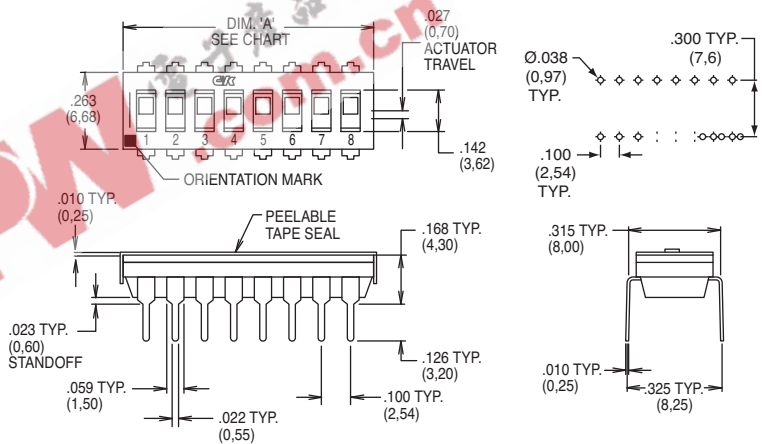


## Sealed Extended Actuator – With Top Tape, Thru-hole Terminals

| RoHS PART NUMBER | TIN LEAD PART NUMBER | NO. POS. | DIM. 'A'      | QUANTITY PER TUBE |
|------------------|----------------------|----------|---------------|-------------------|
| SD02H1B          | SD02H1K              | 2        | .258 (6,55)   | 85                |
| SD03H1B          | SD03H1K              | 3        | .358 (9,09)   | 60                |
| SD04H1B          | SD04H1K              | 4        | .458 (11,63)  | 45                |
| SD05H1B          | SD05H1K              | 5        | .558 (14,17)  | 40                |
| SD06H1B          | SD06H1K              | 6        | .658 (16,71)  | 30                |
| SD07H1B          | SD07H1K              | 7        | .758 (19,25)  | 25                |
| SD08H1B          | SD08H1K              | 8        | .858 (21,79)  | 25                |
| SD09H1B          | SD09H1K              | 9        | .958 (24,33)  | 20                |
| SD10H1B          | SD10H1K              | 10       | 1.058 (26,87) | 20                |
| SD12H1B          | SD12H1K              | 12       | 1.258 (31,95) | 15                |

Schematic

SPST

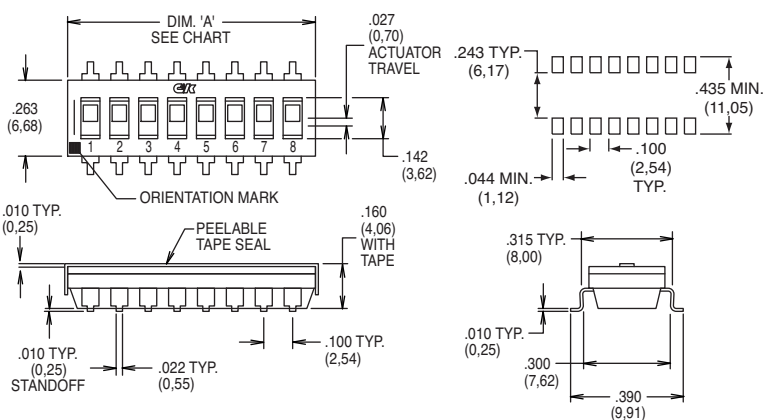


## Sealed Extended Actuator – With Top Tape, Surface Mount Terminals

| RoHS PART NUMBER | TIN LEAD PART NUMBER | NO. POS. | DIM. 'A'      | QUANTITY PER TUBE |
|------------------|----------------------|----------|---------------|-------------------|
| SD02H1SB         | SD02H1SK             | 2        | .258 (6,55)   | 85                |
| SD03H1SB         | SD03H1SK             | 3        | .358 (9,09)   | 60                |
| SD04H1SB         | SD04H1SK             | 4        | .458 (11,63)  | 45                |
| SD05H1SB         | SD05H1SK             | 5        | .558 (14,17)  | 40                |
| SD06H1SB         | SD06H1SK             | 6        | .658 (16,71)  | 30                |
| SD07H1SB         | SD07H1SK             | 7        | .758 (19,25)  | 25                |
| SD08H1SB         | SD08H1SK             | 8        | .858 (21,79)  | 25                |
| SD09H1SB         | SD09H1SK             | 9        | .958 (24,33)  | 20                |
| SD10H1SB         | SD10H1SK             | 10       | 1.058 (26,87) | 20                |
| SD12H1SB         | SD12H1SK             | 12       | 1.258 (31,95) | 15                |

Schematic

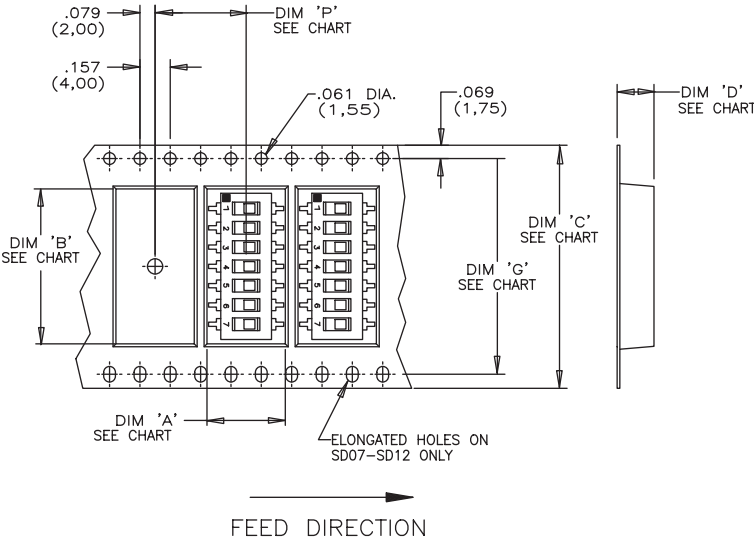
SPST



Dimensions are shown: Inch (mm)  
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## TAPE & REEL PACKAGING – SURFACE MOUNT OPTIONS ONLY



| RoHS PART NUMBER | TIN LEAD PART NUMBER | NO. POS. | DIM. 'A'      | QUANTITY PER REEL |
|------------------|----------------------|----------|---------------|-------------------|
| SD02H0SBR        | SD02H0SKR            | 2        | .258 (6,55)   | 100               |
| SD03H0SBR        | SD03H0SKR            | 3        | .358 (9,09)   | 100               |
| SD04H0SBR        | SD04H0SKR            | 4        | .458 (11,63)  | 100               |
| SD05H0SBR        | SD05H0SKR            | 5        | .558 (14,17)  | 100               |
| SD06H0SBR        | SD06H0SKR            | 6        | .658 (16,71)  | 100               |
| SD07H0SBR        | SD07H0SKR            | 7        | .758 (19,25)  | 100               |
| SD08H0SBR        | SD08H0SKR            | 8        | .858 (21,79)  | 100               |
| SD09H0SBR        | SD09H0SKR            | 9        | .958 (24,33)  | 100               |
| SD10H0SBR        | SD10H0SKR            | 10       | 1.058 (26,87) | 100               |
| SD12H0SBR        | SD12H0SKR            | 12       | 1.258 (31,95) | 100               |

Schematic

SPST

| SWITCH NO. | DIM 'A' POCKET LENGTH @ BOTTOM | DIM 'B' POCKET LENGTH @ BOTTOM | DIM 'C' TAPE WIDTH | DIM 'D' POCKET DEPTH | DIM 'G' SPROCKET HOLE SPACING | DIM 'P' PITCH BETWEEN POCKETS |
|------------|--------------------------------|--------------------------------|--------------------|----------------------|-------------------------------|-------------------------------|
| SD02       | .413(10,5)                     | .315(8,0)                      | .630(16,0)         | .177(4,5)            | N/A                           | .472(12,0)                    |
| SD03       | .406(10,3)                     | .406(10,3)                     | .630(16,0)         | .177(4,5)            | N/A                           | .472(12,0)                    |
| SD04       | .429(10,9)                     | .476(12,1)                     | .954(24,0)         | .177(4,5)            | N/A                           | .472(12,0)                    |
| SD05       | .406(10,3)                     | .602(15,3)                     | .954(24,0)         | .177(4,5)            | N/A                           | .472(12,0)                    |
| SD06       | .406(10,3)                     | .701(17,8)                     | .954(24,0)         | .177(4,5)            | N/A                           | .472(12,0)                    |
| SD07       | .406(10,3)                     | .803(20,4)                     | 1.260(32,0)        | .177(4,5)            | 1.118(28,4)                   | .472(12,0)                    |
| SD08       | .406(10,3)                     | .854(21,7)                     | 1.732(44,0)        | .177(4,5)            | 1.591(40,4)                   | .472(12,0)                    |
| SD09       | .406(10,3)                     | 1.028(26,1)                    | 1.732(44,0)        | .177(4,5)            | 1.591(40,4)                   | .472(12,0)                    |
| SD10       | .406(10,3)                     | 1.055(26,8)                    | 1.732(44,0)        | .177(4,5)            | 1.591(40,4)                   | .472(12,0)                    |
| SD12       | .406(10,3)                     | 1.303(33,1)                    | 1.732(44,0)        | .177(4,5)            | 1.591(40,4)                   | .472(12,0)                    |

### Reel Information

Outside diameter 13.00 (333,0)  
Pilot hole .512 (13,0)