C&K SD Series
Low Profile DIP Switches

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: 10^9 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 inital.

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:

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

<u>RoHS version</u> (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.

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

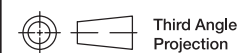## Sealed Flush Actuator – With Top Tape, Thru-hole Terminals

Process sealed - withstands soldering and cleaning processes
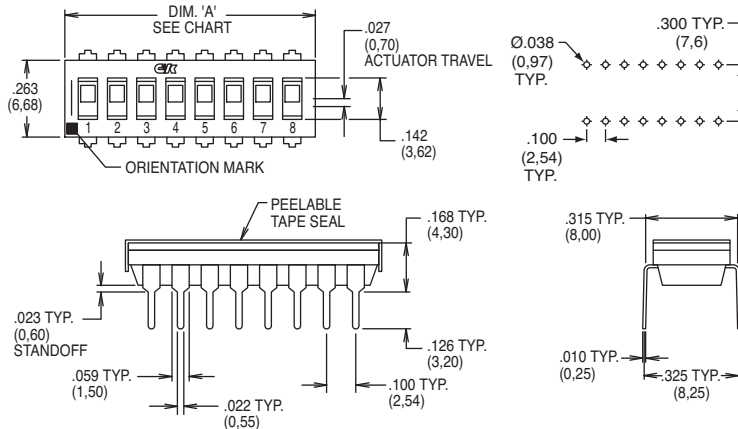
ROHS PART NUMBER	TIN LEAD PART NUMBER	NO. POS.	DIM. 'A'	QUANTITY PER TUBE
SD02H0B	SD02H0K	2	.258 (6,55)	85
SD03H0B	SD03H0K	3	.358 (9,09)	60
SD04H0B	SD04H0K	4	.458 (11,63)	45
SD05H0B	SD05H0K	5	.558 (14,17)	40
SD06H0B	SD06H0K	6	.658 (16,71)	30
SD07H0B	SD07H0K	7	.758 (19,25)	25
SD08H0B	SD08H0K	8	.858 (21,79)	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

Third Angle Projection

Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change
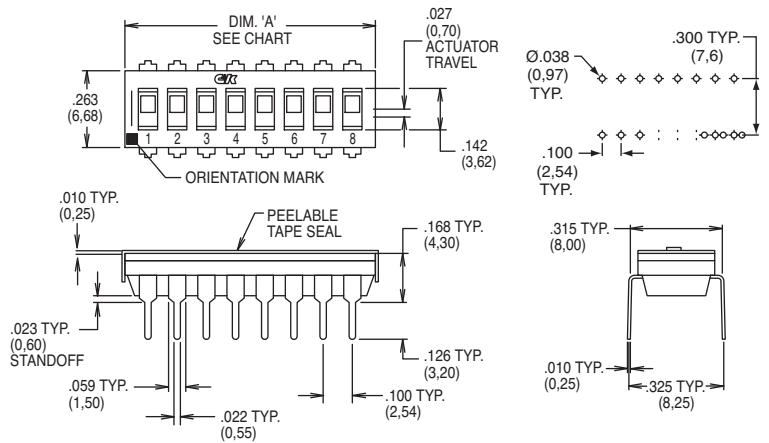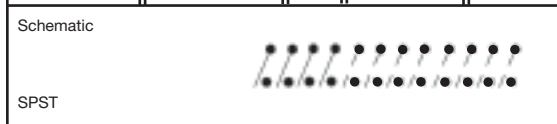
I-9

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Sealed Flush Actuator – With Top Tape, Surface Mount Terminals

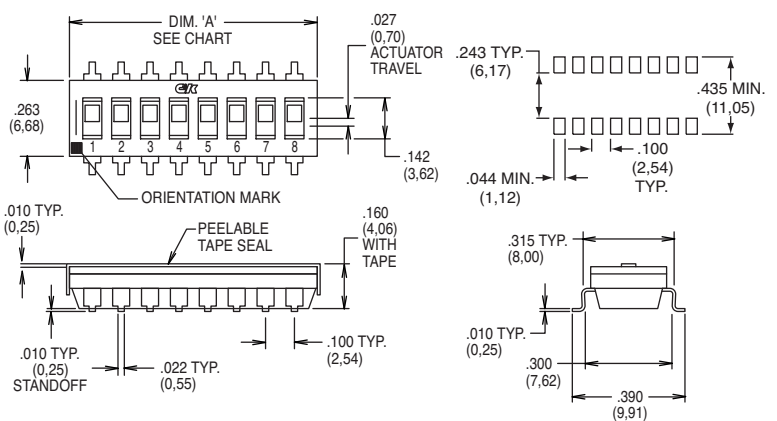| RoHS PART NUMBER	TIN LEAD PART NUMBER	NO. POS.	DIM. 'A'	QUANTITY PER TUBE
SD02H0SB	SD02H0SK	2	.258 (6,55)	85
SD03H0SB	SD03H0SK	3	.358 (9,09)	60
SD04H0SB	SD04H0SK	4	.458 (11,63)	45
SD05H0SB	SD05H0SK	5	.558 (14,17)	40
SD06H0SB	SD06H0SK	6	.658 (16,71)	30
SD07H0SB	SD07H0SK	7	.758 (19,25)	25
SD08H0SB	SD08H0SK	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
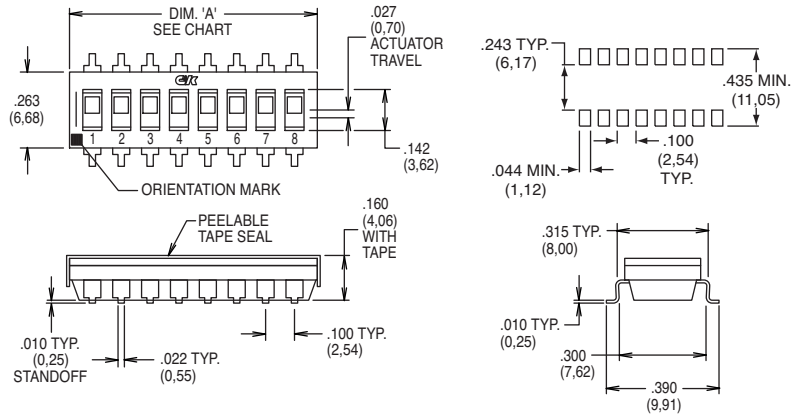
Sealed Extended Actuator – With Top Tape, Thru-hole Terminals

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

Third Angle Projection

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TAPE & REEL PACKAGING – SURFACE MOUNT OPTIONS ONLY

.079 (2,00)
.157 (4,00)
DIM 'P' SEE CHART
.061 DIA. (1,55)
.069 (1,75)
DIM 'D' SEE CHART
DIM 'B' SEE CHART
DIM 'C' SEE CHART
DIM 'G' SEE CHART
DIM 'A' SEE CHART
ELONGATED HOLES ON SD07–SD12 ONLY

FEED DIRECTION
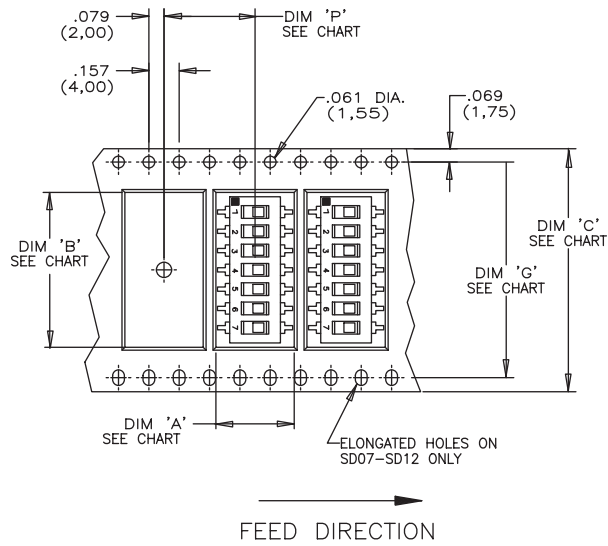
RoHS PART NUMBER	TIN LEAD PART NUMBER	NO. POS.	DIM. 'A'	QUANTITY PER REEL
SD02H0SBR	SD02H0SKR	2	.258 (6,55)	100
SD03H0SBR	SD03H0SKR	3	.358 (9,09)	100
SD04H0SBR	SD04H0SKR	4	.458 (11,63)	100
SD05H0SBR	SD05H0SKR	5	.558 (14,17)	100
SD06H0SBR	SD06H0SKR	6	.658 (16,71)	100
SD07H0SBR	SD07H0SKR	7	.758 (19,25)	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)

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