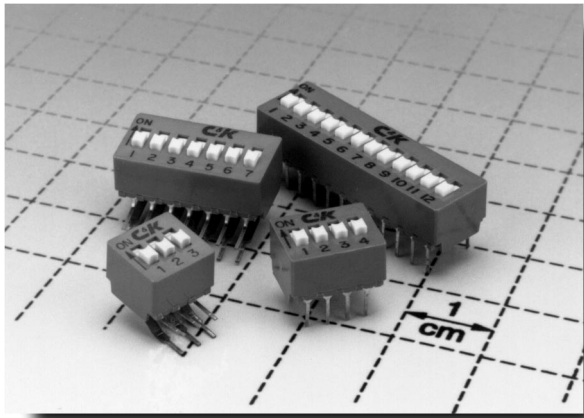


BD Series Standard Profile DIP Switches



Features/Benefits

- Traditional full profile
- Extended actuator for easy actuation
- Open bottom construction allows for solder washing without the need for tape seal

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 BD Series standard profile DIP Switches are shown on pages D-12 thru D-14. All switches supplied in 'OFF' position and in rigid dispensing tubes. Closed base models suitable for no-wash or bottom wash cleaning methods only.

Specifications

SWITCH FUNCTION: SPST - 1 thru 12 position available (except 11 position).

CONTACT RATING:

Carry: 100 mA max. @ 50 V DC.

Switch: 100 mA max. @ 5 V DC or 25 mA max. @ 25 V DC.

MECHANICAL & ELECTRICAL LIFE: 10,000 make-and-break cycles at full load, each circuit.

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

INSULATION RESISTANCE: 10^9 ohms min.

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

CAPACITANCE: 5 pF max. between adjacent terminals.

STORAGE & OPERATING TEMPERATURE: -40°C to 85°C.

SHOCK: Withstands 20g 11 ms sawtooth waveform with no contact opening greater than 10 microseconds.

VIBRATION: No contact opening greater than 10 microseconds and no contact closure when exposed to vibration .06 in DA or 5g, whichever is less, from 10 to 55 Hz, and 10g from 55 to 500 Hz.

SOLDERABILITY: Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).

PACKAGING: Switches supplied in rigid dispensing tubes in full-tube quantities only: this may affect order quantity. Number of switches per tube varies with model, consult Customer Service Center. Switch position 1 denotes pin number 1. All switch actuators in 'OFF' position, standard.

Materials

CASE & COVER: Glass filled polyester (PBT), flame retardant (UL 94V-0).

ACTUATOR: Glass filled nylon 6/6, flame retardant, heat stabilized (UL 94V-0).

CONTACTS: WE#1 over palladium silver over nickel over phosphor bronze.

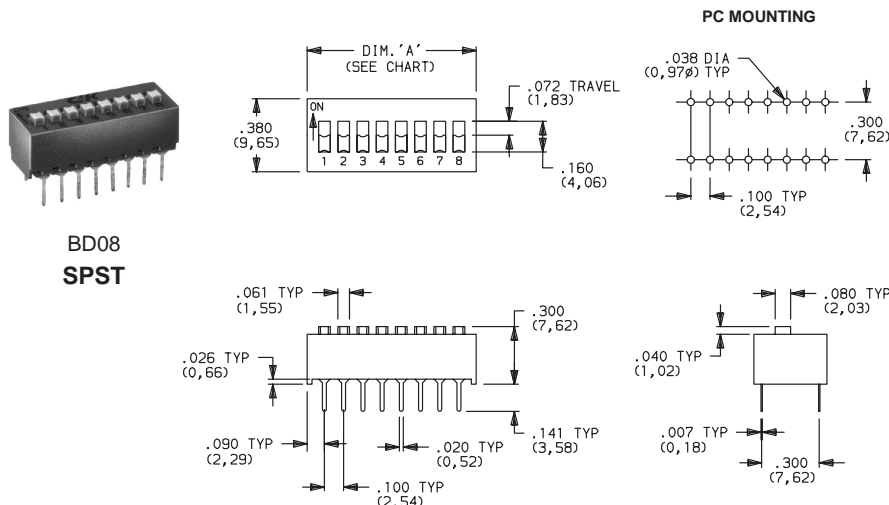
TERMINALS: Phosphor bronze, with tin-lead alloy over nickel plate.

TERMINAL SEAL: Epoxy.

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

Open Base

(Suitable for most cleaning methods)



PART NUMBER	NO. POS.	DIM. 'A'	QUANTITY PER TUBE
BD01	1	.180 (4,57)	115
BD02	2	.280 (7,11)	74
BD03	3	.380 (9,65)	54
BD04	4	.480 (12,19)	43
BD05	5	.580 (14,73)	35
BD06	6	.680 (17,27)	30
BD07	7	.780 (19,81)	26
BD08	8	.880 (22,35)	23
BD09	9	.980 (24,89)	21
BD10	10	1.080 (27,43)	19
BD12	12	1.280 (32,51)	16

Schematic

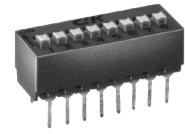
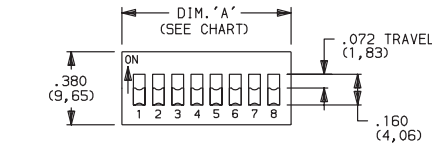
SPST

Closed Base & Epoxy Terminal Seal (Suitable For Bottom Wash Cleaning Methods Only)

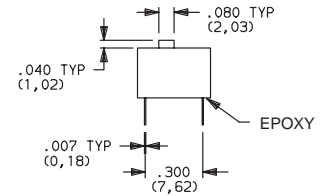
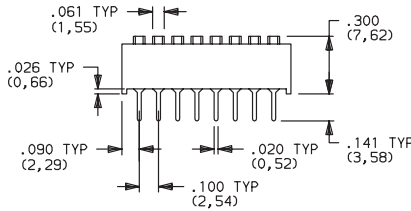
PART NUMBER	NO. POS.	DIM. 'A'	QUANTITY PER TUBE
BD02E	2	.280 (7,11)	74
BD04E	4	.480 (12,19)	43
BD05E	5	.580 (14,73)	35
BD06E	6	.680 (17,27)	30
BD08E	8	.880 (22,35)	23
BD10E	10	1.080 (27,43)	19
BD12E	12	1.280 (32,51)	16

Schematic

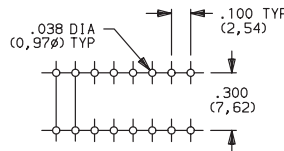
 SPST



**BD08E
SPST**



PC MOUNTING

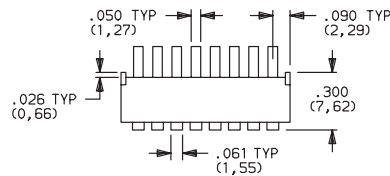


Open Base & AV Right Angle Terminal Style

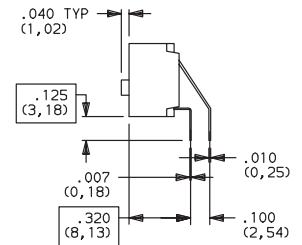
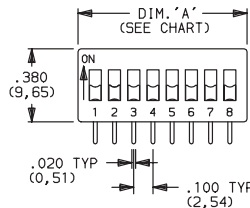
PART NUMBER	NO. POS.	DIM. 'A'	QUANTITY PER TUBE
BD02AV	2	.280 (7,11)	72
BD03AV	3	.380 (9,65)	52
BD04AV	4	.480 (12,19)	42
BD05AV	5	.580 (14,73)	35
BD06AV	6	.680 (17,27)	29
BD07AV	7	.780 (19,81)	26
BD08AV	8	.880 (22,35)	23
BD09AV	9	.980 (24,89)	20
BD10AV	10	1.080 (27,43)	18
BD12AV	12	1.280 (32,51)	15

Schematic

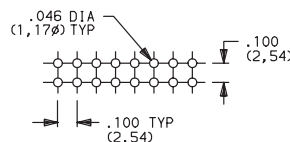
 SPST



**BD08AV
SPST**



PC MOUNTING



NOTE: Boxed dimensions show difference between AV & AV2 terminal styles.



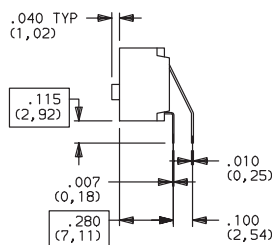
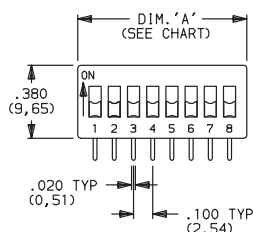
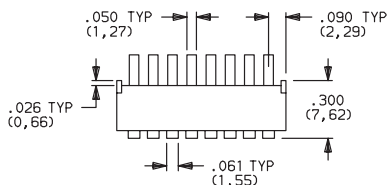
BD Series Standard Profile DIP Switches



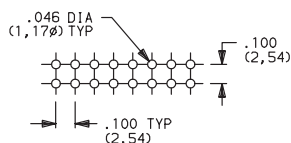
Open Base & AV2 Right Angle Terminal Style



BD08AV2
SPST



PC MOUNTING



PART NUMBER	NO. POS.	DIM. 'A'	QUANTITY PER TUBE
BD02AV2	2	.280 (7,11)	72
BD03AV2	3	.380 (9,65)	52
BD04AV2	4	.480 (12,19)	42
BD05AV2	5	.580 (14,73)	35
BD06AV2	6	.680 (17,27)	29
BD07AV2	7	.780 (19,81)	26
BD08AV2	8	.880 (22,35)	23
BD09AV2	9	.980 (24,89)	20
BD10AV2	10	1.080 (27,43)	18
BD12AV2	12	1.280 (32,51)	15

Schematic

SPST

NOTE: Boxed dimensions show difference between AV & AV2 terminal styles.

DIP Installation, Soldering and Cleaning

All BD Series Standard Profile DIP Switches can be hand soldered or machine soldered without the use of boots, caps, tapes or special attention. Open base washable models have unique design, allowing solvent cleaners and water/detergent solutions to flush and clean the electrical contacts of contaminants and fluxes. Closed base models with epoxy terminal sealing recommended for no-wash or bottom-wash assembly methods only. For best results, follow these recommendations:

- 1) Wave soldering recommended at 500° F solder temperature.
- 2) Hand solder using 30 watt small tip iron controlled at 500° F, 10 seconds max./terminal.
- 3) Open base washable models: Clean flux using forced rinse, high agitation or triple bath cleaning method. DO NOT mask or cover switch in any way during cleaning. Switch is designed for easy solvent flush out.
- 4) Closed base models with epoxy terminal seal: Recommended for no-wash or bottom-wash assembly methods only.
- 5) All switch actuators must be in 'OFF' position during soldering and cleaning processes.