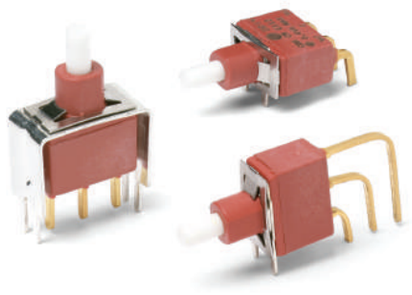
E010 Series
Sealed Momentary Pushbutton Switches



Features/Benefits

- *Process sealed, withstands soldering and cleaning*
- *Long life contact design*
- *Snap-fitting plunger available, accepts a variety of caps*
- *RoHS compliant models available*

Typical Applications

- *Instrumentation*
- *Telecommunications and networking equipment*
- *Computers and peripherals*

c UL us
Models Available

Specifications

CONTACT RATING: Q contact material: 4 AMPS @ 125 V AC or 28 V DC. See page A-50 for additional ratings.

ELECTRICAL LIFE: 40,000 make-and-break cycles at full load.

CONTACT RESISTANCE: Below 20 mΩ typ. initial @ 2–4 V DC, 100 mA, for both silver and gold plated contacts.

INSULATION RESISTANCE: $10^9\Omega$ min.

DIELECTRIC STRENGTH: 1000 Vrms min. @ sea level.

OPERATING TEMPERATURE: -30°C to 75°C.

CAP INSTALLATION FORCE: 10 lbs. max. permissible.

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

NOTE: Any models supplied with P, Q, B or G contact material are RoHS compliant.

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

Materials

CASE & BUSHING: Glass filled nylon 6/6, flame retardant (UL 94V-0).

PLUNGER: Glass filled nylon or glass filled polyester (PBT) (UL 94V-0), with internal o-ring seal standard.

SWITCH SUPPORT: Brass or steel, matte-tin plated.

SWITCH SUPPORT RETAINER: Stainless steel.

END CONTACTS: Q contact material: Coin silver, silver plated. See A-50 for additional ratings.

CENTER CONTACTS & ALL TERMINALS: Q contact material: Copper alloy, silver plated. See page A-50 for additional ratings.

TERMINAL SEAL: Epoxy.

HARDWARE: Nut & locking ring-Brass, nickel plated. Lockwasher-Steel, nickel plated.

Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages A-47 thru A-51. For additional options not shown in catalog, consult Customer Service Center. All models are process sealed to withstand machine soldering temperatures and pressure wash cleaning methods.

Switch Function
E112 SPDT On-Mom.

Plunger
S .222" high
L .338" high
M .331" high, snap-fitting

Bushing
D1 Unthreaded
Y Threaded, keyway

Terminations
A Right angle, PC thru-hole
AV2 Vertical right angle, PC thru-hole
C PC Thru-hole
A3 Right angle, snap-in, PC thru-hole
AV3 Vertical right angle, snap-in, PC thru-hole
R2 Right angle with PCB
V3 .460" high, V-bracket
V4 .630" high, V-bracket
V6 .460" high, V-bracket
V8 .953" high, V-bracket
V31 .460" high, snap-in V-bracket
V81 .953" high, snap-in V-bracket
V91 1.150" high, snap-in V-bracket
W .750" long, wire wrap
Z Solder lug

Contact Material
B Gold
P Gold, matte-tin
Q Silver
G Gold over silver

Seal
E Epoxy

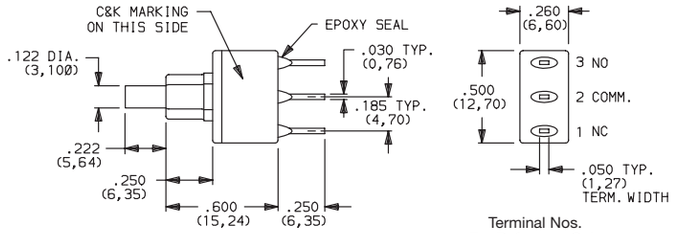
Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

E010 Series
Sealed Momentary Pushbutton Switches

SWITCH FUNCTION

NO. POLES	MODEL NO.	SWITCH FUNCTION POS. 1 (C&K marking this side)	SWITCH FUNCTION POS. 2 (C&K marking this side)	CONNECTED TERMINALS POS. 1 (C&K marking this side)	CONNECTED TERMINALS POS. 2 (C&K marking this side)	SCHEMATIC
SP	E112	ON	MOM.	2-1	2-3	SPDT: 2 (COMM), NC 1, 3 NO

SPDT



Terminal Nos. For Reference Only

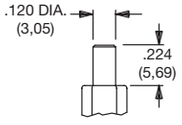
Part number shown: E112SD1CQE

MOM. = Momentary

All models cULus with all options when ordered with G or Q contact material.

PLUNGER

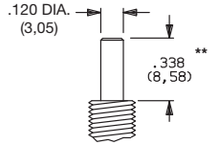
S .218" HIGH



Standard with D1 bushing (as shown).

† Subtract .100 (2,54) from plunger length when ordered with Y bushing.

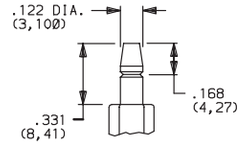
L .338" HIGH



Standard with Y bushing (as shown).

** Add .100 (2,54) from plunger length when ordered with D1 bushing.

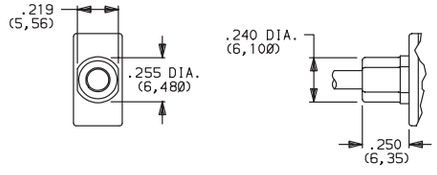
M .331" HIGH, SNAP-FITTING



NOTE: Caps available for all plunger options, see pages A-50 and A-51.

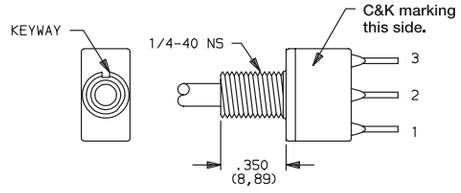
BUSHING

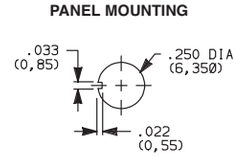
D1 UNTHREADED



S plunger standard with D1 bushing.

Y THREADED, KEYWAY





L plunger standard with Y bushing. Available only with C, Z terminations.
Hardware: One dress nut part number 299D01201, one hex nut and lockwasher supplied standard.

Withstands 4 in./lbs. without distortion.

NOTE: Internal o-ring actuator seal standard for all bushing options.

Third Angle Projection

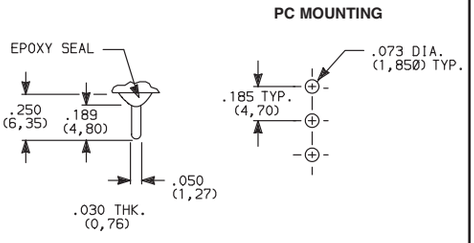
Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change

E010 Series
Sealed Momentary Pushbutton Switches

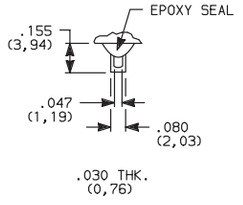
TERMINATIONS

C PC THRU-HOLE



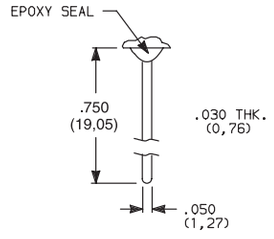
SPDT

Z SOLDER LUG



SPDT Not available with P contact materials.

W WIRE WRAP

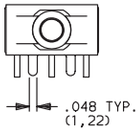


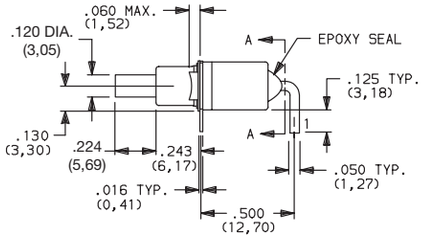
SPDT

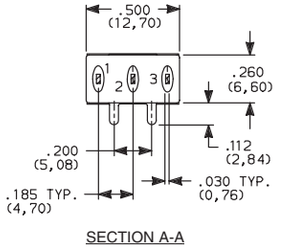
A RIGHT ANGLE, PC THRU-HOLE



E112SD1ABE
SPDT

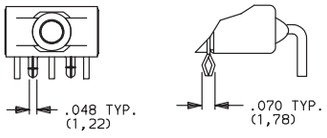




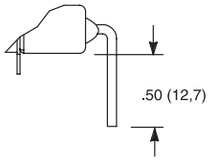


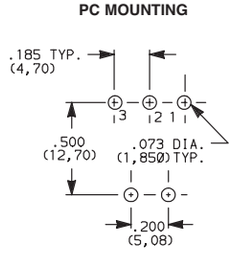
SECTION A-A

A3 RIGHT ANGLE, SNAP-IN, PC THRU-HOLE



AW RIGHT ANGLE, EXTENDED, PC THRU-HOLE



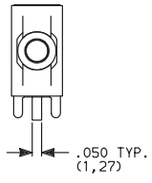


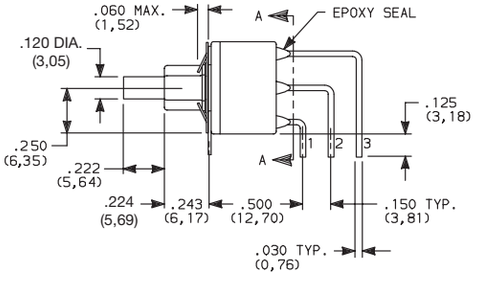
NOTE: Terminal bend radii and lead-in manufacturing option.
Available with D1 bushing only.

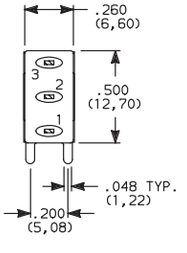
AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



E112SD1AV2BE
SPDT

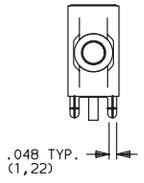


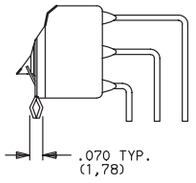


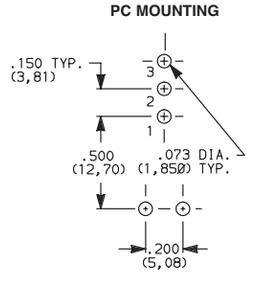


SECTION A-A

AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH







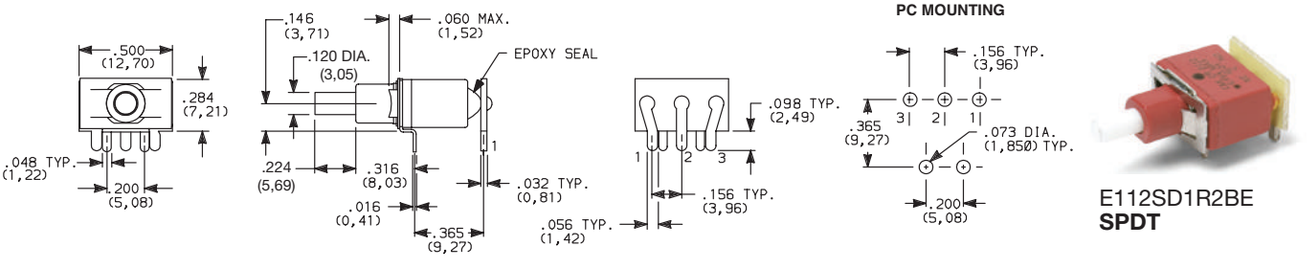
NOTE: Terminal bend radii and lead-in manufacturing option.
Available with D1 bushing only.

Third Angle Projection

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

TERMINATIONS

R2 RIGHT ANGLE WITH PCB

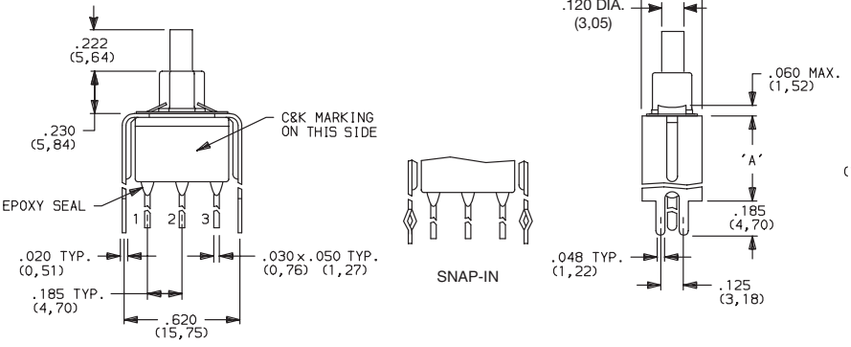


E112SD1R2BE
SPDT

NOTE: Available with D1 bushing and B contact material only.

V3, V4 VERTICAL MOUNT, V-BRACKET

V31, V91 VERTICAL MOUNT, V-BRACKET, SNAP-IN





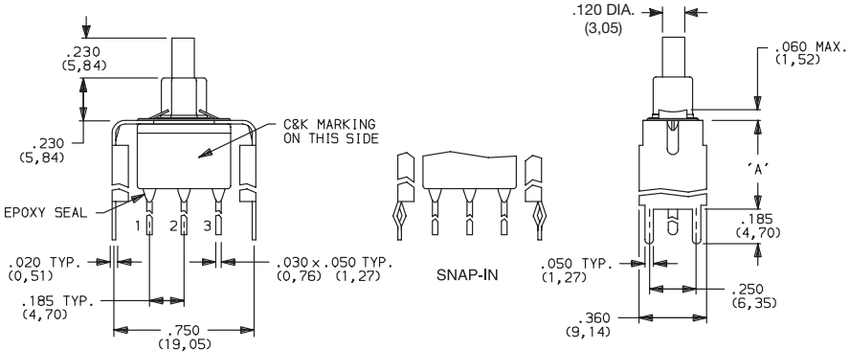
E112SD1__BE
SPDT

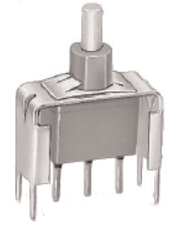
OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V4	.630 (16,00)
V91	1.150 (29,21)

NOTE: Available with D1 bushing only.

V6, V8 VERTICAL MOUNT, V-BRACKET

V81 VERTICAL MOUNT, V-BRACKET, SNAP-IN





E112SD1__BE
SPDT

OPTION CODE	DIM 'A'
V6	.460 (11,68)
V8, V81	.953 (24,21)

NOTE: Available with D1 bushing only.

Third Angle Projection

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

E010 Series
Sealed Momentary Pushbutton Switches

CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
B	GOLD [1]	GOLD [1]	LOW LEVEL/DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.
P		MATTE-TIN [6]		
Q	SILVER [4,5]	SILVER [5]	POWER	4 AMPS @ 125 V AC 0R 28 V DC.
G	GOLD OVER SILVER [2,3]	GOLD [3]	LOW LEVEL/DRY CIRCUIT OR POWER	0.4 VA MAX. @ 20 V AC OR DC MAX. OR 4 AMPS @ 125 V AC 0R 28 V DC.

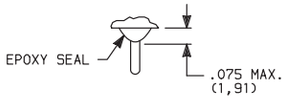
* Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

[1] CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.
[2] END CONTACTS: Coin silver, with gold plate over nickel plate.
[3] CENTER CONTACTS & ALL TERMINALS: Coin silver, with gold plate over nickel plate.
[4] END CONTACTS: Coin silver, silver plated.
[5] CENTER CONTACTS & ALL TERMINALS: Copper alloy, silver plated.
[6] TERMINALS: Copper alloy, with matte-tin over nickel plate.

NOTE: Any models supplied with P, Q, B or G contact material are RoHS compliant.
All models cULus with all options when ordered with G or Q contact material.
B contact material standard with all terminations except C, Z.
B contact material must be ordered with R2 terminations.
Q contact material standard with C, Z terminations.
P contact materials not available with Z terminations.

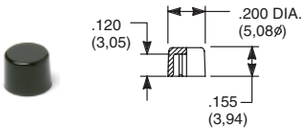
SEAL

E EPOXY SEAL



AVAILABLE HARDWARE

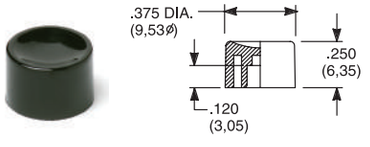
Cap



PART NO.
708901000 WHITE
708902000 BLACK
708903000 RED

Material: Nylon
Finish: Gloss

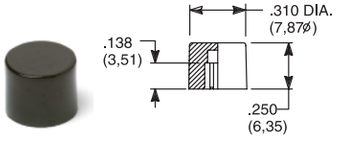
Cap



PART NO.
752701000 WHITE
752702000 BLACK
752703000 RED

Material: Nylon
Finish: Gloss

Cap



PART NO.
801801000 WHITE
801802000 BLACK
801803000 RED

Material: Nylon
Finish: Gloss

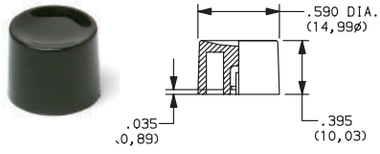
NOTE: Additional nuts, locking rings and lockwashers available separately, see section "Technical Data and Additional Hardware".
Other cap colors available, consult Customer Service Center.

Third Angle Projection

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

AVAILABLE HARDWARE

Cap, Snap-fitting plunger

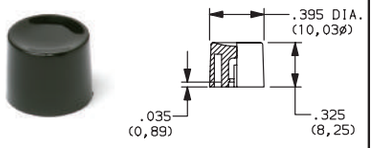


PART NO.

452D01000	WHITE
452D02000	BLACK
452D03000	RED

Material: Nylon
Finish: Gloss

Cap, Snap-fitting plunger

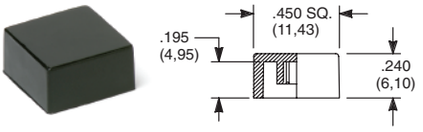


PART NO.

894101000	WHITE
894102000	BLACK
894103000	RED

Material: Nylon
Finish: Gloss

Cap



PART NO.

484601000	WHITE
484602000	BLACK
484603000	RED

Material: Nylon
Finish: Gloss

PART NO.

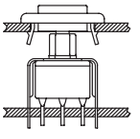
798201000	WHITE
798202263	BLACK
798203000	RED

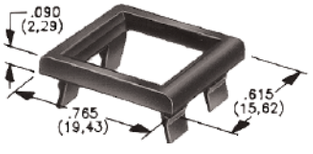
Material: Nylon
Finish: Matte

NOTE: Additional nuts, locking rings and lockwashers available separately, see section "Technical Data and Additional Hardware".
Other cap colors available, consult Customer Service Center.

Frames snap into panel opening and are independent from switch mounting. Accurate positioning of the PC mounted switch relative to the panel opening is necessary to provide proper clearance between actuator and frame. Available in two basic styles and four panel thicknesses .047-.125 in. Material: Nylon. Finish: Matte.

TYPICAL APPLICATION





.090" (2,29) PANEL THK.

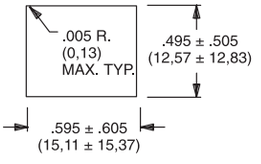
PART NO.
432702263

.125" (3,18) PANEL THK.

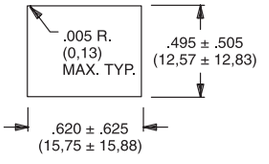
PART NO.
432802263 BLACK

PANEL MOUNTING

For part numbers
4325xxxxx, 4326xxxxx

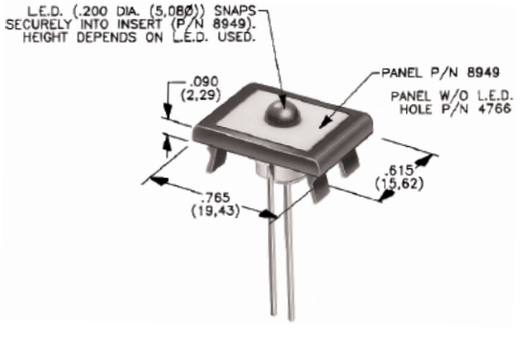


For part numbers
4327xxxxx, 4328xxxxx



Panel Inserts

Above frames (part nos. 432XXXXXX) are also available with insert which accepts LED for indicator light assembly. Order insert separately from frame. Blank insert panel (without hole for LED) also available. **LED not included.**



PANEL INSERT
WITH HOLE FOR LED

PART NO.
894902000

BLANK PANEL INSERT
WITHOUT HOLE FOR LED

PART NO.
476602000 BLACK

Special colors, custom markings available, consult Customer Service Center.

Third Angle
Projection

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