

EP Series Sealed Tiny Pushbutton Switches



Features/Benefits

- Sealed against solder & cleaning processes
- Snap-fitting actuator accepts standard caps
- Contact rating 0.4VA max @ 20 V AC or DC max.

Typical Applications

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

Part Number	Function	Terminations	Plunger	Contact Material	Operating Life
EP11SD1ABE	SPST Off-Mom.	Right angle, PC thru-hole	.215" high	Gold	60,000 cycles
EP11SD1AVBE	SPST Off-Mom.	Vertical right angle, PC thru-hole	.215" high	Gold	60,000 cycles
EP11SD1CBE	SPST Off-Mom.	PC thru-hole	.215" high	Gold	60,000 cycles
EP11SD1SAPE	SPST Off-Mom.	Right angle, Surface mount	.215" high	Gold, matte-tin	60,000 cycles
EP12SD1ABE	SPDT On-Mom.	Right angle, PC thru-hole	.215" high	Gold	30,000 cycles

TP Series Sealed Tiny Pushbutton Switches



Features/Benefits

- Subminiature size—capable of switching 1 AMP
- Epoxy terminal seal compatible with bottom wash cleaning
- Contact rating Gold: 0.4 VA max. @ 20 V AC or DC max.
Silver: 1 AMP @ 120 V AC or 28 V DC

Typical Applications

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

Part Number	Function	Actuator or Bushing	Terminations	Contact Material	Operating Life
TP11SH8ABE	SPST Off-Mom.	.155" high plunger, unthreaded; .220" high bushing, round	Right angle, PC thru-hole	Gold	60,000 cycles
TP11SH9ABE	SPST Off-Mom.	.155" high plunger, unthreaded; .220" high bushing, flat	Right angle, PC thru-hole	Gold	60,000 cycles
TP11SH9CBE	SPST Off-Mom.	.155" high plunger, unthreaded; .220" high bushing, flat	PC thru-hole	Gold	60,000 cycles
TP11SHZQE	SPST Off-Mom.	.155" high plunger, threaded; .220" high bushing, flat	Solder lug	Silver	60,000 cycles
TP12SH9ABE	SPDT On-Mom.	.155" high plunger, unthreaded; .220" high bushing, flat	Right angle, PC thru-hole	Gold	30,000 cycles

FP Series Sealed Ultra Miniature Pushbutton Switches



Features/Benefits

- Sealed against soldering and cleaning processes
- Contact rating 0.4 VA (28 V DC or V AC) max.
- Operating life 50,000 cycles

Typical Applications

- Networking equipment
- Modems
- Reset functions
- Instrumentation

Part Number	Function	Actuator Length	Terminal Style	Contact Plating	Cap
FP11SPC1B1TP00	SPST Off-Mom.	3.3 mm	Vertical	Gold over nickel plate	No cap
FP11SPA1B1TP02	SPST Off-Mom.	3.3 mm	Right angle	Gold over nickel plate	Black cap (bulk bagged)
FP11SPC1B1TP02	SPST Off-Mom.	3.3 mm	Vertical	Gold over nickel plate	Black cap (bulk bagged)
FP11SPA1B1TP03	SPST Off-Mom.	3.3 mm	Right angle	Gold over nickel plate	Red cap (bulk bagged)
FP11SPC1B1TP03	SPST Off-Mom.	3.3 mm	Vertical	Gold over nickel plate	Red cap (bulk bagged)

8020 Series Snap-acting Momentary Pushbutton Switches



Features/Benefits

- Positive tactile feel
- Epoxy terminal seal compatible with bottom wash cleaning
- Operating life 60,000 cycles
- Contact rating

Gold: 0.4 VA max. @ 20 V AC or DC max.

Gold over silver: 1AMP @ 120 V AC or 28 V DC

Typical Applications

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

Part Number	Function	Actuator or Bushing	Bushing	Terminations	Contact Material	Cap / Frame Color
8121SHZGE	SPDT On-Mom.	Plunger	.250" high, flat	Solder lug	Gold over silver	None
8125SHZBE	SPDT On-Mom.	Plunger	.250" high, flat	Solder lug	Gold	None
8221SHZGE	DPDT On-Mom.	Plunger	.250" high, flat	Solder lug	Gold over silver	None
8121J81ZGE22	SPDT On-Mom.	Snap-in with frame	None	Solder lug	Gold over silver	Black / Black
8125SHCBE	SPDT On-Mom.	Plunger	.250" high, flat	PC Thru-hole	Gold	None

8060 Series Alternate Action and Momentary Pushbutton Switches



Features/Benefits

- Long travel
- Epoxy terminal seal compatible with bottom wash cleaning
- Operating life 50,000 cycles
- Contact rating

Silver: 6 AMPS @ 120 V AC or 28 V DC; 3 AMPS @ 250 V A C

Gold over silver: 0.4 VA max. @ 20 V AC or DC max. or

6 AMPS @ 120 V AC or 28 V DC; 3 AMPS @ 250 V AC

Typical Applications

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

Part Number	Function	Actuator or Bushing	Bushing	Terminations	Contact Material	Cap
8161SHZQE2	SPDT On-On	.710" high plunger with .375" dia. cap	.300" high, flat, hi torque	Solder lug	Silver	Black
8168LHZQE2	SPDT On-Mom.	.740" high plunger with .395" dia. cap	.300" high, flat, hi torque	Solder lug	Silver	Black
8168SHZGE2	SPDT On-Mom.	.710" high plunger with .375" dia. cap	.300" high, flat, hi torque	Solder lug	Gold over silver	Black
8168SHZQE2	SPDT On-Mom.	.710" high plunger with .375" dia. cap	.300" high, flat, hi torque	Solder lug	Silver	Black

F Series Pushbutton Switches



Features/Benefits

- Various mounting & switch ganging configurations
- Mechanical indicator buttons
- Operating Life (24V/200mA): >100,000 operations
- Total Travel / Latching Travel: 4.7mm/3.3mm

Typical Applications

- Audio selection
- Digital equipment interface
- Medical equipment interface

Part Number	Function	Mechanical Function	Terminal Style	Electrical Function	Operating Force	Contact Material
F2UEE	2PDT	Alternate (push-push)	Solder lugs & PC pins	BBM (break-before-make)	6.5N (650 grams)	Silver
F4UEE	4PDT	Alternate (push-push)	Solder lugs & PC pins	BBM (break-before-make)	6.5N (650 grams)	Silver

AP Series Sealed Industrial Pushbutton Switches



Features/Benefits

- IP67 sealed
- Operating life 1,000,000 cycles
- Illumination / non-illumination
- Multiple colored caps
- SPST, normally open
- Contact Rating 125mA @ 125 V AC resistive

Typical Applications

- Harsh environments
- Off-Road
- Industrial
- Medical
- Transportation
- Joystick control modules
- Gaming
- Military

Part Number	Operating Force	Total Travel	Actuator Style	Actuator Color	Bushing Style	Termination	Contact Material
AP2D200TWBE	2 N	2.1 ± 0.2 mm	Dome / Convex	Black	Threaded plastic	12" wire leads 22 AWG	Gold
AP4D200TWBE	4 N	2.1 ± 0.2 mm	Dome / Convex	Black	Threaded plastic	12" wire leads 22 AWG	Gold
AP4D200TZBE	4 N	2.1 ± 0.2 mm	Dome / Convex	Black	Threaded plastic	Solder lug	Gold
AP2D300SZBE	2 N	2.1 ± 0.2 mm	Dome / Convex	Red	Snap-in plastic	Solder lug	Gold
AP4E300TZBE	4 N	2.1 ± 0.2 mm	Extended Dome	Red	Threaded plastic	Solder lug	Gold

NP Series Sealed Industrial Pushbutton Switches



Features/Benefits

- IP68 sealed
- Multiple housing styles
- Contact Rating
 - 10mA/5 VDC resistive (1,000,000 cycles)
 - 1A/32 VDC resistive (100,000 cycles)
 - 5A/32 VDC resistive (25,000 cycles)
 - 3A/32 VDC inductive (25,000 cycles)

Typical Applications

- Harsh environments
- Off-Road
- Industrial
- Transportation
- Military

Part Number	Operating Force	Total Travel	Actuator Style	Actuator Color	Housing Style	Termination	Contact Material
NP8S2D203QE	8 N	1.6 ± 0.15 mm	Standard	Black	Dome bezel	Solder lug	Silver
NP8S2R203QE	8 N	1.6 ± 0.15 mm	Standard	Black	Rear mount	Solder lug	Silver
NP8S2T203QE	8 N	1.6 ± 0.15 mm	Standard	Black	Std threaded mount	Solder lug	Silver
NP8S3D203QE	8 N	1.6 ± 0.15 mm	Standard	Red	Dome bezel	Solder lug	Silver
NP8S2D2W4QE	8 N	1.6 ± 0.15 mm	Standard	Black	Dome bezel	4 x 12" 22 AWG UL 1569 wire	Silver

PWR Series Power Pushbutton Switches (Patent Pending)



Features/Benefits

- Movable contact with redundant high power contact points to form a momentary, SPST, double break switch
- Rubber actuator provides sealing and tactile feel, IP65
- Small SMT packaging allows applications to integrate power and signal switch on same PCB

Typical Applications

- Computers and peripherals
- Automotive power function
- White goods and appliances
- Industrial power applications

Part Number	Actuation Force	Contact Rating	Max. Travel	Operating life
PWR70Q1SR	7 N	2A @125 VAC/ 1A @ 250VAC	7.1 mm	25,000 cycles
PWR70Q2SR	7 N	5A @12 VDC	7.1 mm	100,000 cycles