

APB Series

Backlit Pushbutton Switches



Specifications

Function	SPST Momentary
Contact Arrangement	N.O.
Mounting Type	Snap-in (no panel seal) Threaded body (hex nut, lock washer, and panel seal gasket provided) Torque spec for threaded body: Do not exceed 8-9 in-lbs (0.9-1.0 N.m)

Mechanical Specifications

Operating Life	1,000,000 cycles
Total Travel	2.1 ± 0.2 mm
Operating Point	1.55 ± 0.25 mm
Over Travel	0.6 min.
Operating Force	4N ± 1N standard configuration; other force option 2N ± 0.5N
Vibration	10-500 Hz 10g Max.
Shock	60g 11ms sawtooth wave

Electrical Specifications

Contact Rating	200mA @ 24 V DC resistive (500,000 cycles) 100mA @ 50 V DC resistive (500,000 cycles) 400mA @ 32 V AC resistive (500,000 cycles) 125mA @ 125 V AC resistive (1,000,000 cycles)
Dielectric Strength	1,000 V AC min.
Insulation Resistance	1 G Ω @ 500 V DC
Initial Contact Resistance	50 mΩ max (without wire leads)
Bounce Time	< 5 ms
Operating Temperature	-40°C to 85°C
ESD Protection	20 KV min.
Sealing	IP67 for threaded body IP65 for snap-in version (no panel seal)

Description

APB backlit pushbutton switches can be applied to a variety of different industries, from medical to industrial to transportation. With a long lifecycle and IP67 protection from the toughest environmental conditions, the APB series are available in threaded or snap-in mounting versions.

Features & Benefits

- IP67 sealed
- 1,000,000 life cycle
- Illumination
- Threaded or snap-in mounting
- RoHS compliant

Applications

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

Materials

Housing	PBT
Base	PBT
Cap	Painted polycarbonate
Actuator	Illuminated: Clear polycarbonate
Internal Seal	Silicone rubber
Terminals	Copper alloy, gold over silver plating
Movable Contact	Copper alloy, gold over silver plating
Terminal Seal	Epoxy
Wire Leads	UL1569 Black 22 AWG

Notes:

Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, please contact Customer Service.

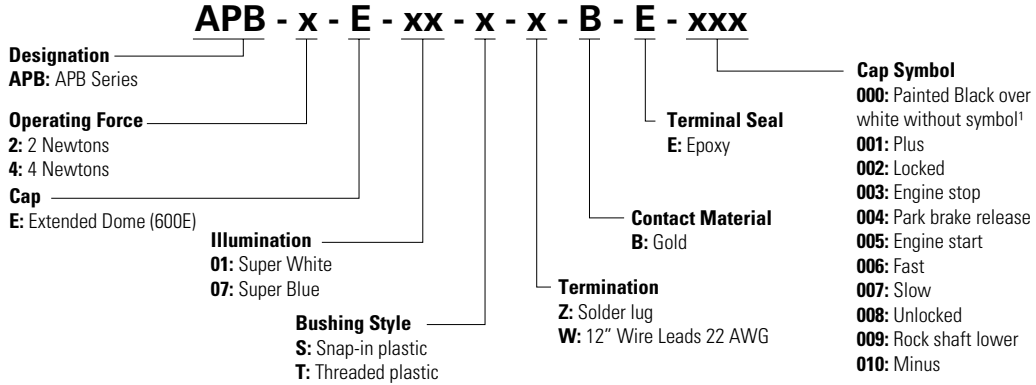
APB Series

Backlit Pushbutton Switches



Ordering Number

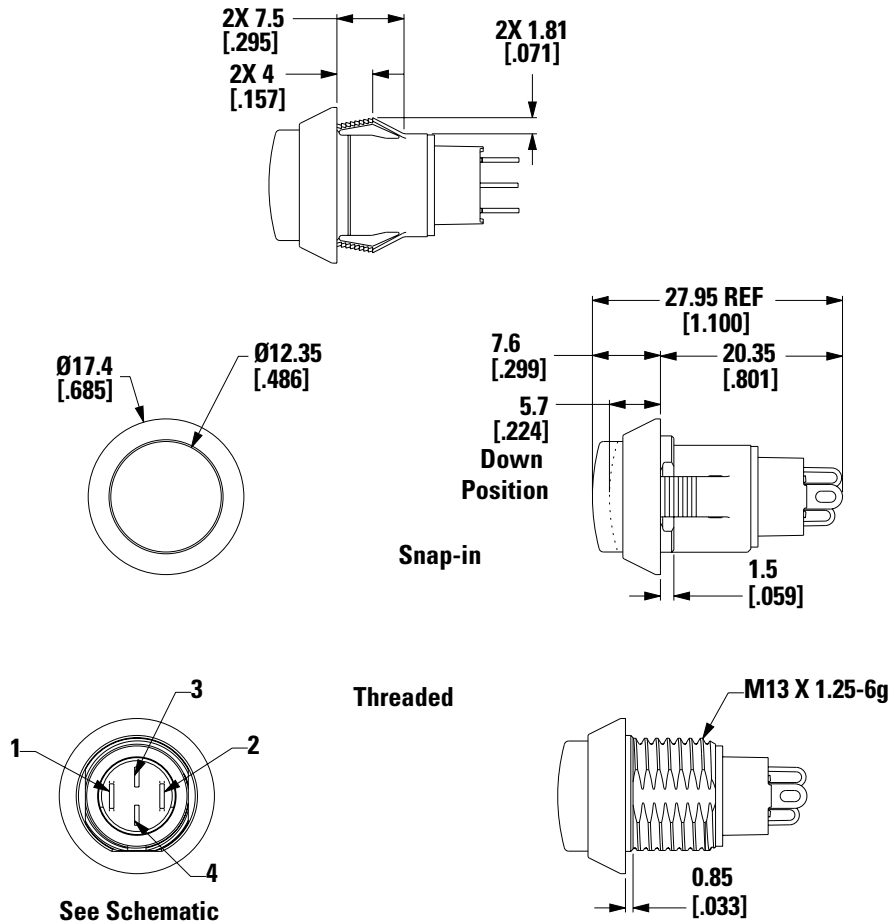
To order, simply select desired option from each category and place in the appropriate box.



Notes:

1. Cap painted black over white to allow customer laser etching

APB Drawings & Dimensions inches (mm)



APB Series

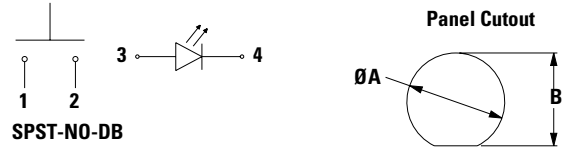
Backlit Pushbutton Switches



Panel Thickness	DIM A (±0.05mm)	DIM B (±0.05mm)
1 mm [0.039]	13.70 mm [0.539]	13.00 mm [0.512]
2 mm [0.079]	13.80 mm [0.539]	
3 mm [0.118]	13.90 mm [0.547]	13.10 [0.516]
Threaded Body Min. Panel Thickness 1 mm	13.70 mm [0.539]	13.00 [0.512]

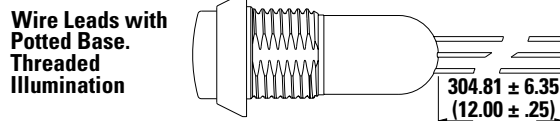
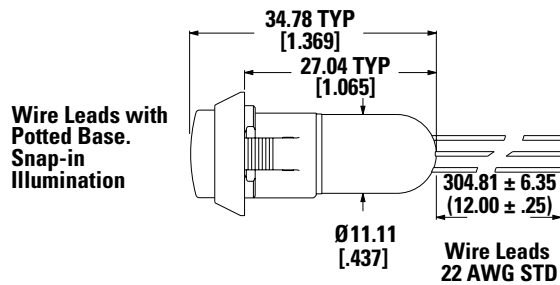
Notes: A 0.1mm min. chamfer on the leading edge of the mounting hole is recommended for snap-in version.

Electrical Schematic



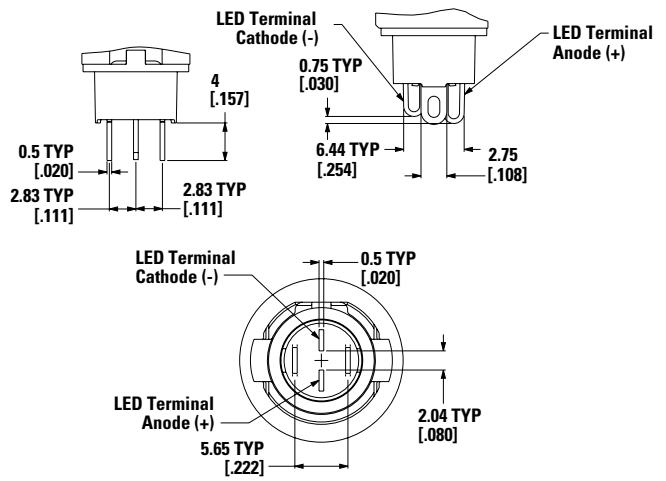
Termination

W 12" Wire Leads



Wires:
 Black - Terminals
 Red - LED (+) Positive
 White - LED (-) Negative

Z Solder Lug



Contact Material

B Gold

Option Code	Contact Material
B	Gold

Terminal Seal

E Epoxy
 All models are epoxy sealed

APB Series

Backlit Pushbutton Switches

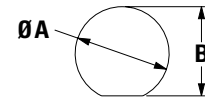


Cap Symbols

	-000		No Symbol
	-001		Plus
	-002		Locked
	-003		Engine Stop
	-004		Park Brake Release
	-005		Engine Start

	-006		Fast
	-007		Slow
	-008		Unlocked
	-009		Rock Shaft Lower
	-010		Minus

Panel Cutout



Panel Orientation
Flat indicates bottom

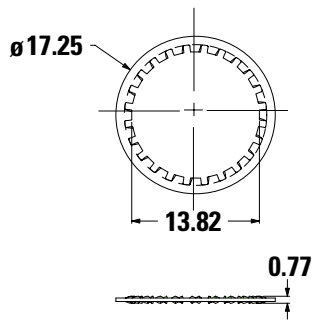
See chart on previous page for dimensions

Notes:

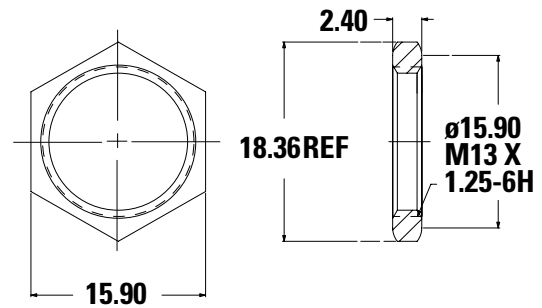
1. All graphics must be positioned as shown, perpendicular to alignment feature on underside of cap.
2. Graphic marking must be aligned with the flat feature on the underside of the cap as shown, tolerance $\pm 3^\circ$

Hardware

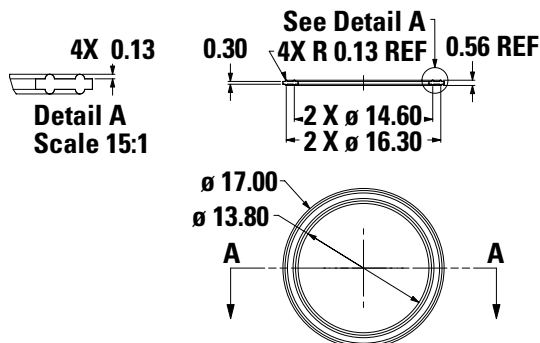
Lock Washer
Part Number 647D00A47



Hex Nut
Part number 515D00000



Panel Seal
Part Number 655D00000



Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <http://www.littelfuse.com/disclaimer-electronics>.