APB Series
Backlit Pushbutton Switch

Features/Benefits

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

Typical Applications

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



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

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

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: 1000 V AC min.
INSULATION RESISTANCE: 1 G Ω @ 500 VDC
INITIAL CONTACT RESISTANCE 50 mΩ max (without wire leads)
BOUNCE TIME: <5 ms

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

Operating Environment

OPERATING TEMPERATURE: -40˚C to 85˚C
ESD PROTECTION: 20 KV min.

Process Environment

SEALING: IP67 for threaded body
IP65 for snap-in version (no panel seal)

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

Build-A-Switch

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

A	P	B		E					B	E			

Designation
APB APB Series

Operating Force
2 2 Newtons
4 4 Newtons

Cap
E Extended Dome (600E)

Illumination
01 Super White
07 Super Blue

Bushing Style
S **Snap-in plastic**
T Threaded plastic

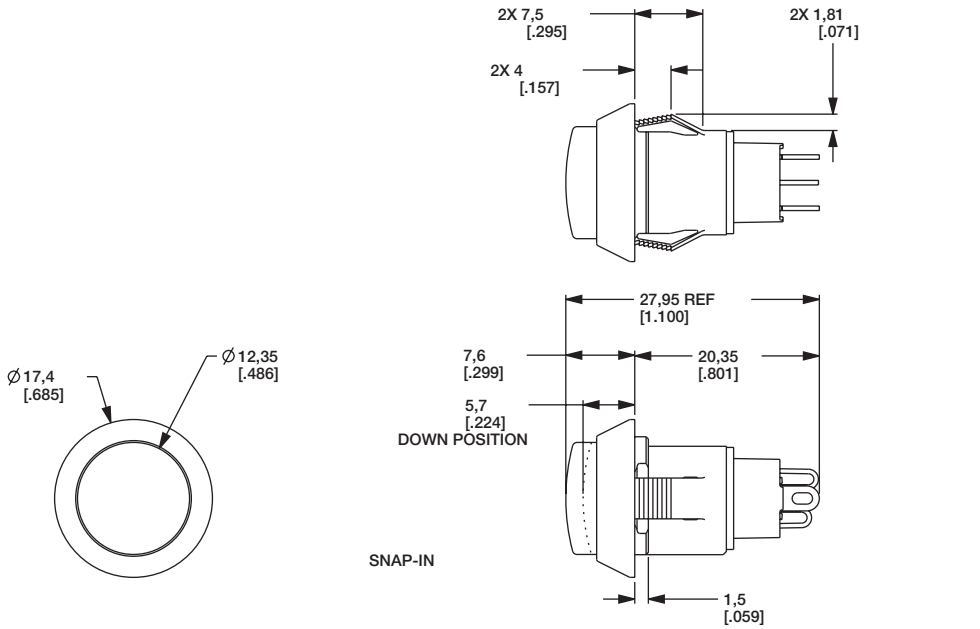
Termination
Z Solder Lug
W 12” Wire Leads 22 AWG

Contact Material
B Gold

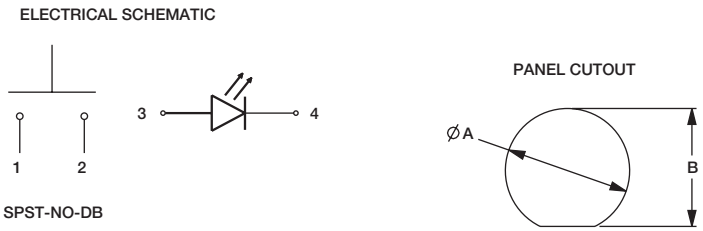
Terminal Seal
E Epoxy

Cap Symbol
000 Painted black over white without 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

* cap painted black over white to allow customer laser etching







PANEL THICKNESS	DIM A (±0.05 MM)	DIM B (±0.05 MM)
1 MM [0.039 IN]	13.70 MM [0.539 IN]	13.00 MM [0.512 IN]
2 MM [0.079 IN]	13.80 MM [0.539 IN]	13.00 MM [0.512 IN]
3 MM [0.118 IN]	13.90 MM [0.547 IN]	13.10 MM [0.516 IN]
THREADED BODY MIN PANEL THICKNESS 1 MM	13.70 MM [0.539 IN]	13.00 MM [0.512 IN]

A 0.1 MM MIN CHAMFER ON THE LEADING EDGE OF MOUNTING HOLE IS RECOMMENDED FOR SNAP-IN VERSION.

Third Angle Projection

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

APB Series
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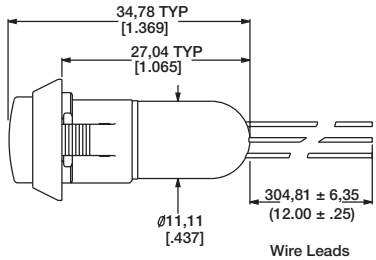
TERMINATION

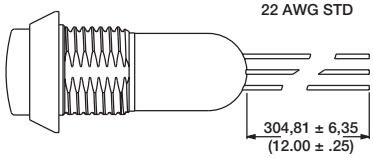
W 12" WIRE LEADS

Z SOLDER LUG

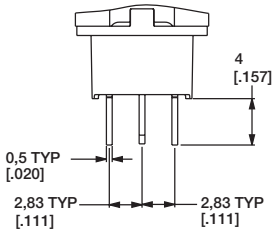
WIRE LEADS WITH POTTED BASE, SNAP-IN ILLUMINATION

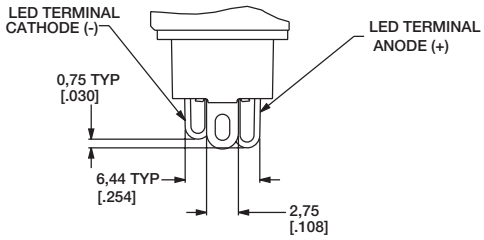


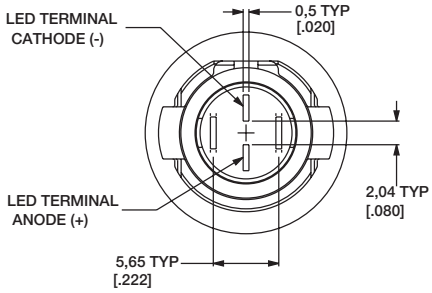
WIRE LEADS WITH POTTED BASE, THREADED ILLUMINATION



WIRES:
BLACK - TERMINALS
RED - LED (+) POSITIVE
WHITE - LED (-) NEGATIVE







CONTACT MATERIAL

B GOLD

OPTION CODE	CONTACT MATERIAL
B	Gold

TERMINAL SEAL

E EPOXY

All models are epoxy sealed

Third Angle Projection

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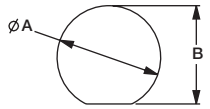
CAP SYMBOLS

-000		NO SYMBOL
-001		PLUS
-002		LOCKED
-003	STOP	ENGINE STOP
-004		PARK BRAKE RELEASE
-005		ENGINE START
-006		FAST
-007		SLOW
-008		UNLOCKED
-009		ROCK SHAFT LOWER
-010		MINUS

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 ±3°

PANEL CUTOUT

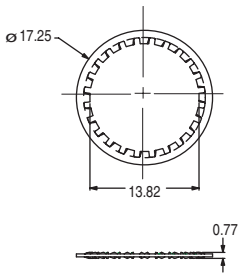


Panel Orientation
Flat indicates bottom

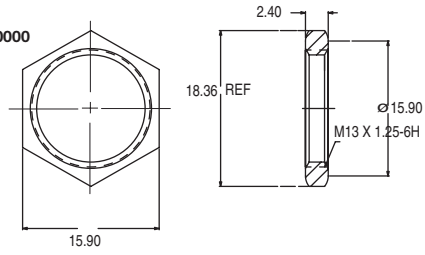
See chart on previous page for dimensions

HARDWARE

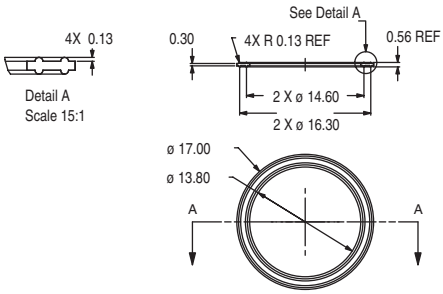
LOCK WASHER
Part Number 647D00000



HEX NUT
Part number 515D00000



PANEL SEAL
Part Number 655D00000



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