

Pushbutton Switches

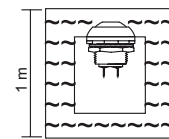
SPDT Sealed Round Pushbutton Switches

PB16 Series

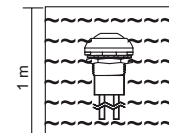


FEATURES :

- > Sealed Protection Degree IP67
- > Snap-in and threaded bushing
- > Compact and light weight
- > Tactile feeling
- > Plating gold over silver
- > Vapor phase solderable



Sealed Type 1:
IP67 for Panel Surface

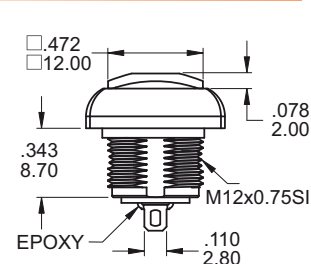
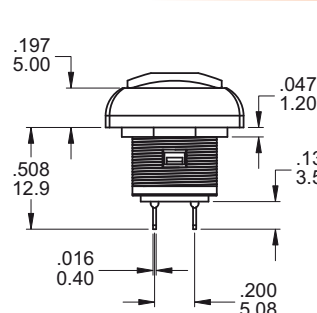
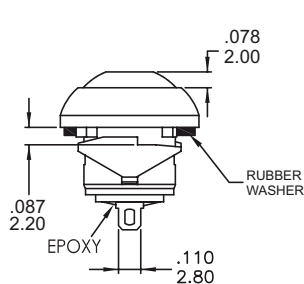
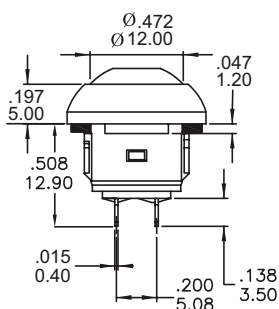


Sealed Type 2:
IP67 for Whole Body

IP67

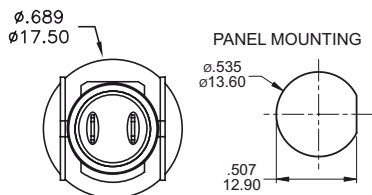
ACCORDING TO
EN 60529:1991+A1:2001
IEC 60529:2001

Protected against the effects of immersion up to 1 m water(30mn)



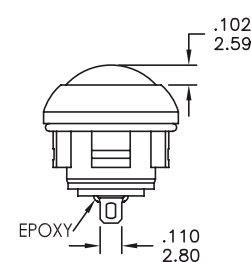
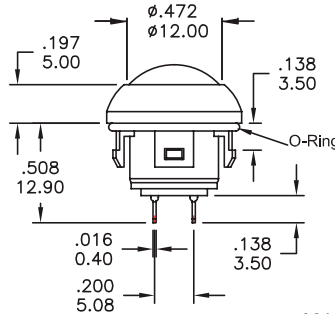
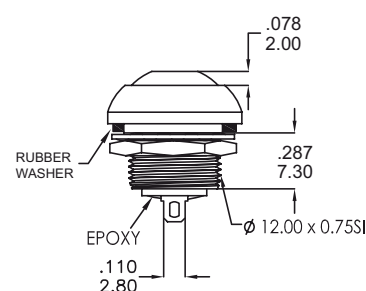
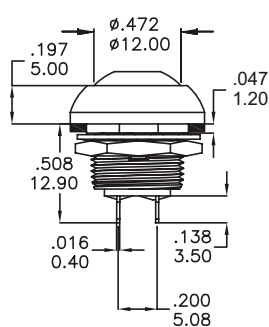
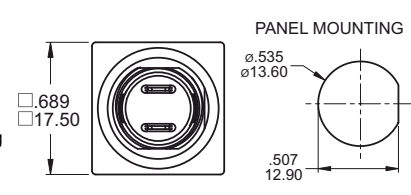
PB16B1TS1...

OFF-MOM
Flat Top Actuator
Snap-in Bushing
Solder Lug Terminals
IP67 for Panel Surface



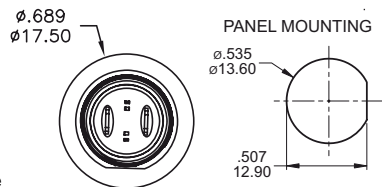
PB16D1TS1...

OFF-MOM
Flat Top Actuator
Square Threaded Bushing
Solder Lug Terminals
IP67 for Panel Surface



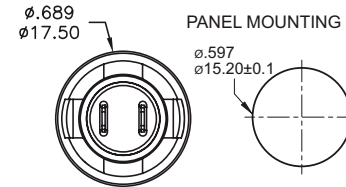
PB16B2TS1...

OFF-MOM
Flat Top Actuator
Threaded Bushing
Solder Lug Terminals
IP67 for Panel Surface



PB161RB3TS1...

OFF-MOM
Spherical Top Actuator
Snap-in Bushing
Solder Lug Terminals
IP67 for Panel Surface



How to order:

PB16

- 1 CIRCUITS:**
1 OFF-MOM
2 ON-MOM (without LED)
3 OFF-ON (only with Bushing B2)
- 2 ACTUATOR:**
blank Flat Top
R Spherical Top (only without LED)

- 3 BUSHING:**
B1 Snap-in
B2 Threaded Bushing
B3 Snap-in
D1... Square Threaded Bushing (die-casting, see page 2)
D2... Threaded Bushing (die-casting, see page 2)
- 4 TERMINALS:**
TS Solder Lug
W1 Wire Type 1 (See Drawing)
W2 Wire Type 2 (See Drawing)

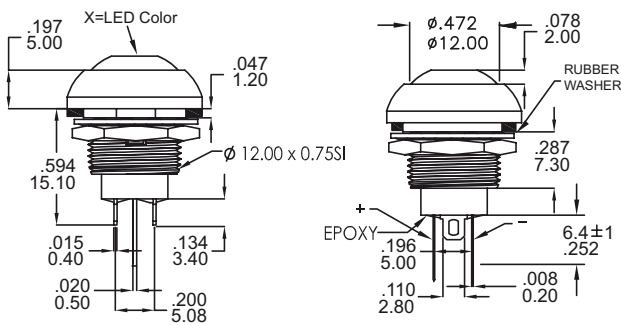
- 5 SEAL:**
1 Terminal EPOXY IP67
2 Terminal and Actuator Sealed IP68
- 6 ACTUATOR COLOR:**
A Black B White
C Red D Orange
E Yellow F Green
G Blue

- 7 LED COLOR:**
N No LED B White
C Red E Yellow
F Green G Blue
- 8 ADDITIONAL CAP:**
blank No Cap
W With Cap

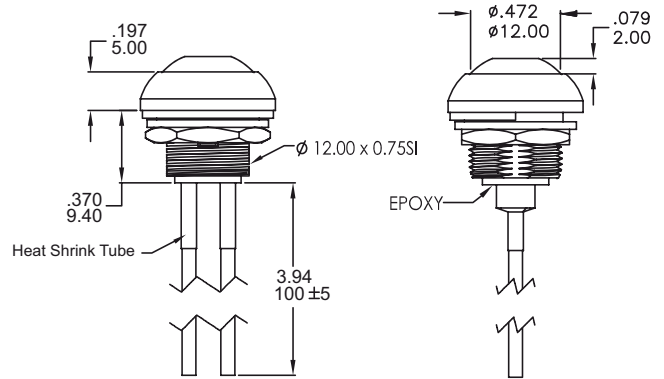
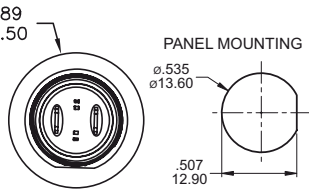
Pushbutton Switches

SPDT Sealed Round Pushbutton Switches

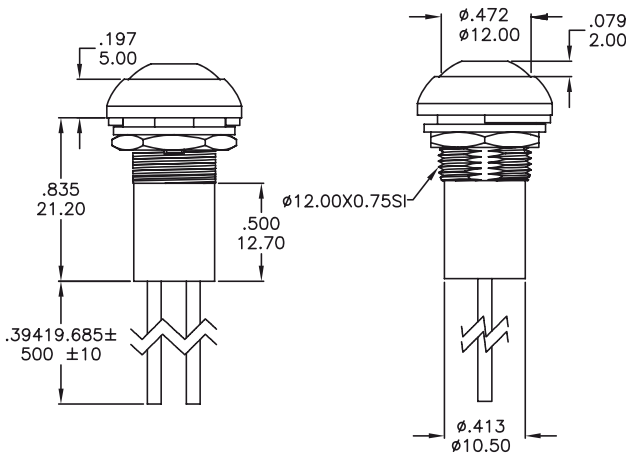
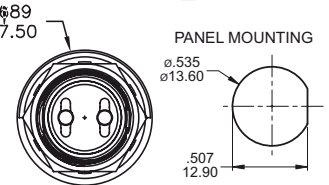
PB16 Series



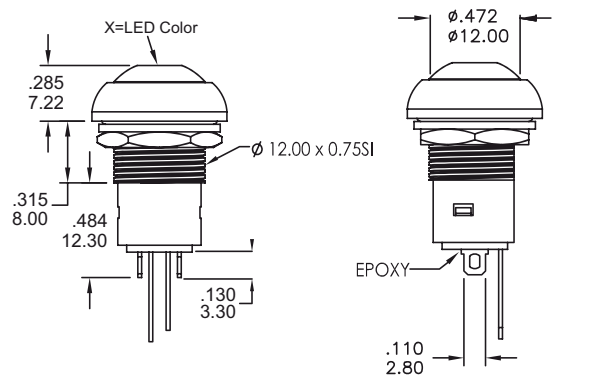
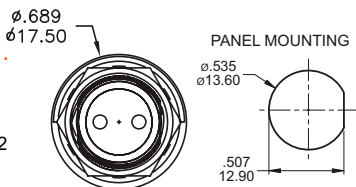
PB161B2TS1...X
OFF-MOM
Flat Top Actuator
Threaded Bushing
Solder Lug Terminals
Illuminated with LED
IP67 for Panel Surface



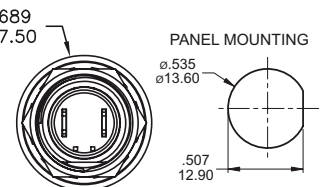
PB161B2W11...
OFF-MOM
Flat Top Actuator
Threaded Bushing
Wire Terminals Type 1
IP67 for Panel Surface



PB161B2W22...
OFF-MOM
Flat Top Actuator
Threaded Bushing
Wire Terminals Type 2
IP67 for Whole Body



PB163B2TS1...X
OFF-ON
Flat Top Actuator
Threaded Bushing
Solder Lug Terminals
Illuminated with LED
IP67 for Panel Surface



BUSHING PLATING

NEW



- PLATING**
- A Chromium
 - B Tin-nickel Alloy
 - C Stain-chromium
 - D Stain-nickel



Chromium



Tin-nickel Alloy



Stain-chromium



Stain-nickel

LED ELECTRO-OPTICAL DATA


	Lens Appearance	Color	Electro-optical Data (AT 20mA)				Viewing Angle 2θ 1/2 (deg)
			Vf(V)		Iv(mcd)		
			Typ.	Max.	Min.	Typ.	
PB161 (OFF-MOM)	Water Clear	Super Red	2.1	2.6	42.0	100.0	35°
		Super Yellow Green	2.0	2.6	42.0	80.0	
		Super Yellow	2.1	2.6	94.0	200.0	
		Super Blue	2.8	3.2	28.0	70.0	
		Super White	3.5	4.0	140.0	300.0	
PB163 (OFF-ON)	Water Clear	Super Red	2.0	2.6		3.5	60°
		Super Green	2.2	2.6		3.5	
		Super Yellow	2.1	2.6		3.5	

Pushbutton Switches

SPDT Sealed Round Pushbutton Switches

PB16 Series

SWITCH FUNCTION

NO. POLES	MODEL NO.	SWITCH FUNCTION		CONNECTED TERMINALS		SCHEMATIC 
		POS.1	POS.2	POS.1	POS.2	
SP	PB161	OFF	MOM	OPEN	1-3	
SP	PB162	ON	OFF(MOM)	1-3	OPEN	
SP	PB163	OFF	ON	OPEN	1-3	

MOM=MOMENTARY

GENERAL SPECIFICATIONS

RATING:

PB16 1 / 2	400mA 32VAC-100mA 50VDC-125mA 125VAC
PB16 3	100mA 24VDC-life expectancy 200,000 cycles 2A 125VAC-life expectancy 10,000 cycles

INITIAL CONTACT RESISTANCE:

PB16 1 / 2	50mΩmax.
PB16 3	100mΩmax.

INSULATION RESISTANCE: 1GΩmin.at 500VDC.

DIELECTRIC STRENGTH: 1,000 VAC rms.

ELECTRICAL LIFE AT FULL LOAD: 500,000 cycles.

OPERATING TEMPERATURE: -30°C to 85°C.

PANEL THICKNESS:

PB16 1 / 2	- B1 bushing : 0.8 mm (.031) min. -1.8 mm (.071) max. - B2 bushing : 1.5 mm (.059) min. -4 mm (.157) max. - B3 bushing : 3.0±0.25 mm (.118)
PB16 3	- B2 bushing : 1.5 mm (.059) min. -5.5 mm (.217) max.

TOTAL TRAVEL:

PB16 1 / 2	1.5 mm(.59)
PB16 3	2.5 mm(.98)

OPERATING FORCE:

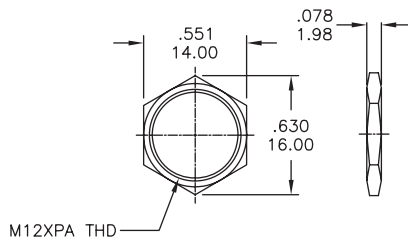
PB16 1 / 2	2N~5N
PB16 3	5.5N+/-1.5N.

CONTACT BOUNCE:10 ms.

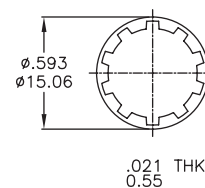
MECHANICAL LIFE:1,000,000 cycles.

TORQUE:1.5 Nm max.applied to nut.

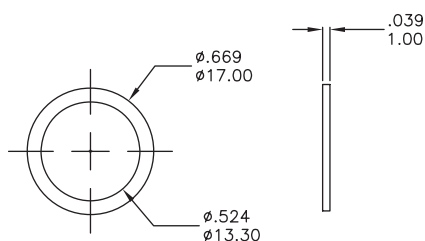
HARDWARE



M12 PA Nuts



Locking Washer



Rubber Washer



Cap