IP68 Sub-Miniature Pushbutton Switches

Key Features

- **IP68 Rated (1Meter, 60 Minutes)**
- **Normally Open and Normally Closed Versions**
- **Various Cap Options**
- **LED illuminated flat cap versions**
- **Various cap and color illuminations**
- **Leaded options for ease of installation**
- **LED illumination technology for long-term reliability**

TE Connectivity's Sub-Miniature Pushbutton range is a portfolio of high quality,IP68 rated switches that comprises various cap styles and LED illumination options.

These Pushbutton Switches are offered in High Cap, Round Cap, Flat Cap, and LED Flat Cap actuators. For ease of installation without the need of soldering, they are also available with 500mm leaded options.

As they are available in 5 different cap colors, including black, Red, Yellow, Green, and Blue as well as multi-color LED options for the flat cap, these switches can be used in a wide variety of applications.

Applications

- Industrial Equipment
- Instrumentation
- Communication Equipment
- Control Equipment

Benefits

- Ease of installation with available solderable or 500mm leaded terminations
- Various colored caps for easy visibility

Switch Function / Schematic

NO. POLES	MODEL NO.	SWITCH FUNCTION		SCHEMATIC	
		POS. 1	POS. 2	POS. 1	POS. 2
SP	PB6	OFF	MOM(ON)	OPEN	CLOSE
SP	PB7	ON	MOM(OFF)	CLOSE	OPEN

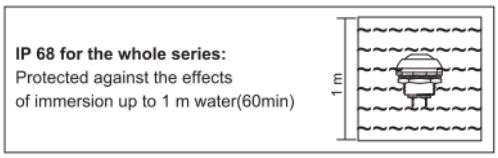
MOM = MOMENTARY

Specifications

MAX. CURRENT/VOLTAGE RATING WITH RESISTIVE LOAD:	400 mA 32 VAC – 200 mA 50 VDC – 125 mA 125 VAC
INITIAL CONTACT RESISTANCE:	Without leads: 50mΩmax. Leaded: 100mΩmax. * Resistance of the wire not included
INSULATION RESISTANCE:	1GΩmin.at 500 VDC
DIELECTRIC STRENGTH:	1,500 VAC RMS
ELECTRICAL LIFE AT FULL LOAD:	500,000 cycles
OPERATING TEMPERATURE:	-30°C to 85°C
PANEL THICKNESS:	1.5 (.059) to 4 (.157)
TOTAL TRAVEL:	1.5 (.059)
OPERATING FORCE:	3 to 6N
CONTACT BOUNCE:	10 ms.
MECHANICAL LIFE:	1,000,000 cycles
TORQUE:	0.5 Nm max. applied to nut
DEGREE OF PROTECTION:	IP68
MANUAL SOLDERING:	Use soldering iron of 30 watts, controlled at 350°C approximately 5 seconds while applying solder
WAVE SOLDERING:	Recommended Soldering Temperature:260 + 5°C *Ambient temperature of the soldered surface of PC board. 110°C Max. Duration of solder Immersion: Max 5 sec (PCB is 1.6mm)

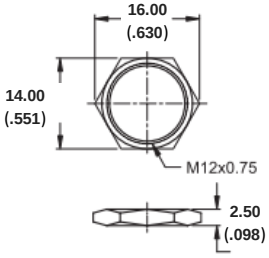
Materials

CAP: Polyamide 6/6
PLUNGER: PB6:PC / PB7: Polyamide 6/6
RUBBER: Silicone
BUSHING: POLYAMIDE 6/6
CASE: Diallyl phthalate (DAP)(UL94V-0)
TERMINAL/CONTACT: Copper Alloy, Gold over Silver plated

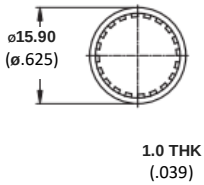


Hardware

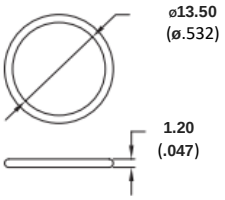
M12 Nut



Lock Washer

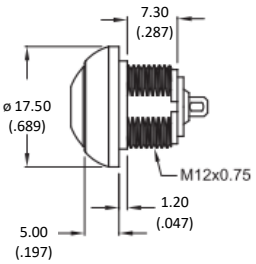


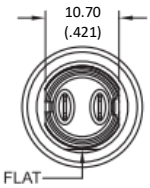
O-Ring



Bushing Type

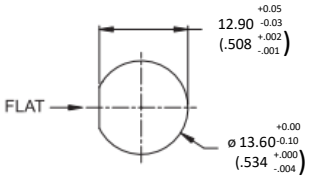
B2





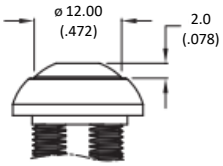
Panel Cut-Out

THICKNESS 1.5 to 4.0mm

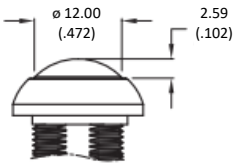


Cap Options

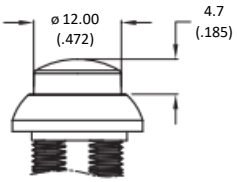
Flat



Round without LED

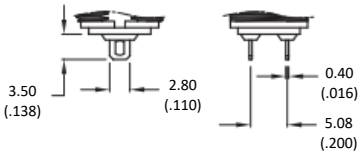


High without LED

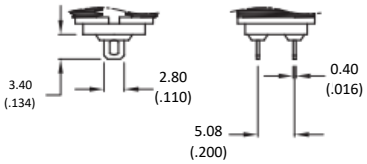


Termination Options

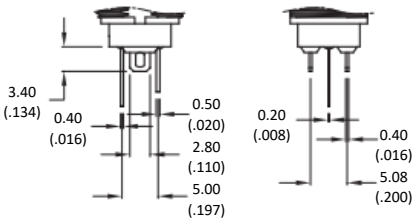
M1 Solder Lug (PB6)



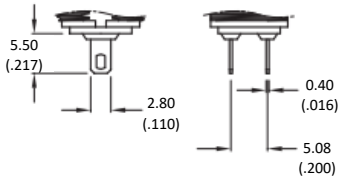
M1 Solder Lug (PB7)



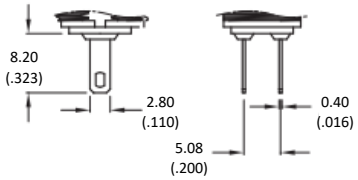
M1 Solder Lug (PB6, with LED)



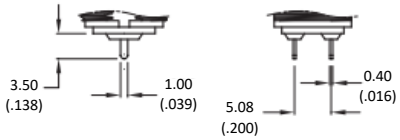
M2 Solder Lug (PB6)



M3 Solder Lug (PB6)

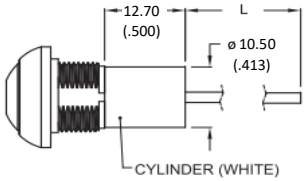


M4 PC Thru-hole (PB6)

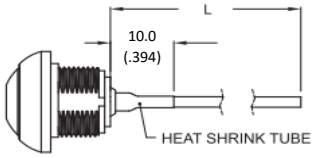


Wire Option

S500 500mm Lead



Y500 500mm Lead with Heat Shrink



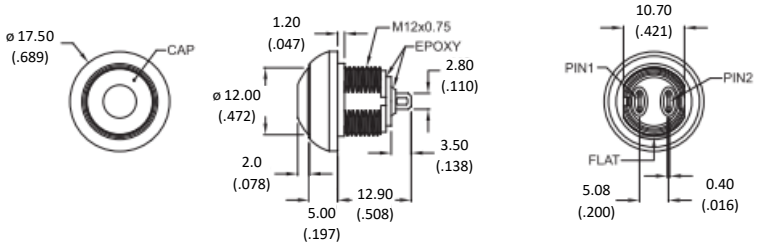
WIRE LENGTH	
Code	DIM "L"
S500	500+10 (19.7± .394)
Y500	500±10 (19.7± .394)

NON - LED	
DESCRIPTION	WIRE COLOR
TERMINAL 1	BLACK
TERMINAL 2	BLACK

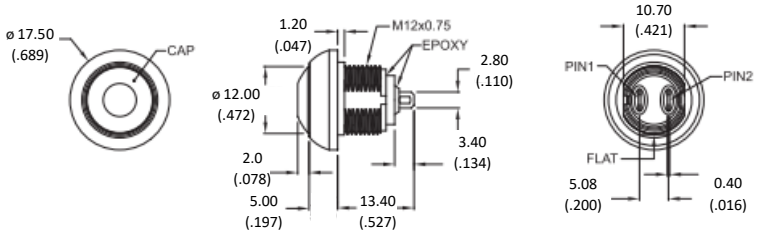
WITH LED	
DESCRIPTION	WIRE COLOR
TERMINAL 1	BLACK
TERMINAL 2	BLACK
LED+	RED
LED-	GREEN

*Multi-wire lead AWG20, section 0.6mm , UL approved

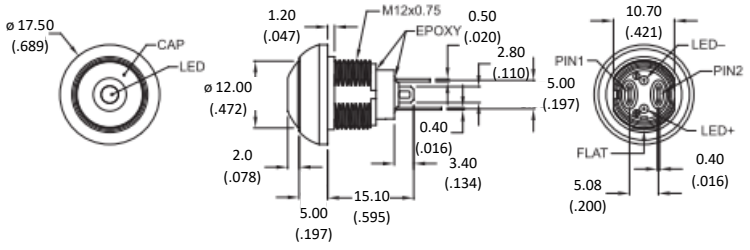
PB6 M1



PB7 M1



PB6 M1 with LED



How To Order

Model NO.
PB6 OFF-MOM (ON)
PB7 ON -MON(OFF)

Bushing
B2 Threaded bushing

Cap Shape & Appearance
FM Flat Cap Matte (with and without LED)
RS Round Cap Shiny (without LED)
HS High Cap Shiny (without LED)
*Only flat cap available with LED

Cap Color
2 Black
3 Red
5 Yellow
6 Green
7 Blue

Termination
M1 3.50 High, Solder Lug (PB6 only, Non-LED)
3.40 High, Solder Lug (with LED and PB7 Non-LED)
M2 5.50 High, Solder Lug, (PB6 only, Non-LED)
M3 8.20 High, Solder Lug, (PB6 only, Non-LED)
M4 3.50 High, PC Thru-Hole, (PB6 only, Non-LED)

Contact Material
& Finish
C Gold Over , Gold over Silver

Seal
A Sealed

LED Color
L00 Without LED
L01 White
L03 Red
L05 Yellow
L06 Green
L07 Blue
*Only flat cap available with LED

Wire
S500 500mm Lead
Y500 500mm Heat Shrink Lead