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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

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#### **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

## **IP68 Sub-Miniature Pushbutton Switches**



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**

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

MOM = MOMENTARY



## **Specifications**













MAX. CURRENT/VOLTAGE RATING WITH RESISTIVE	400 mA 32 VAC – 200 mA 50 VDC – 125 mA 125 VAC	
LOAD:	400 IIIA 32 VAC 200 IIIA 30 VDC 123 IIIA 123 VAC	
INITIAL CONTACT	Without leads: 50mΩmax.	
RESISTANCE:	Leaded: $100m\Omega max.$ * 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)

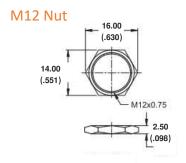
TERMINAL/CONTACT: Copper Alloy, Gold over

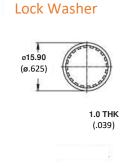
Silver plated

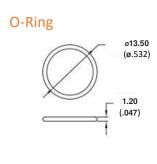
#### IP 68 for the whole series: Protected against the effects of immersion up to 1 m water(60min)



# Hardware





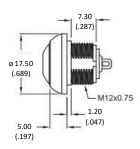


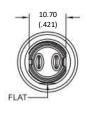
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## **Bushing Type**

**B2** 





Panel Cut-Out
THICKNESS 1.5 to 4.0mm

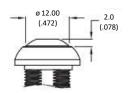
12.90 -0.03
(.508 -.002)

FLAT

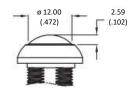
\*0.00
(.534 -.004)

## **Cap Options**

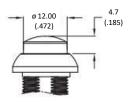
Flat



**Round** without LED

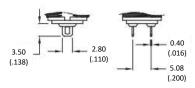


**High** without LED

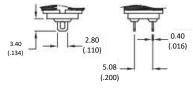


## **Termination Options**

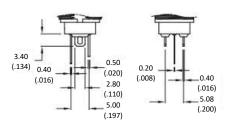
M1 Solder Lug (PB6)



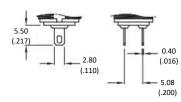
M1 Solder Lug (PB7)



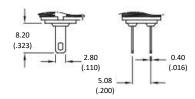
M1 Solder Lug (PB6, with LED)



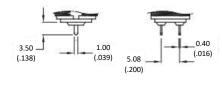
M2 Solder Lug (PB6)



M3 Solder Lug (PB6)



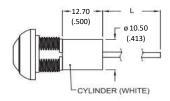
M4 PC Thru-hole (PB6)



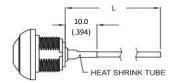


## **Wire Option**

## \$500 500mm Lead



Y500 500mm Lead with Heat Shrink



WIRE LENGTH				
Code	DIM "L"			
S500	500+10 (19.7 <u>+</u> .394)			
Y500	500 <u>+</u> 10 (19.7 <u>+</u> .394)			

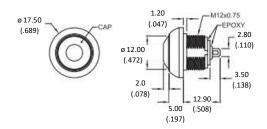
	NON - LED		
DESCRIPTION	WIRE COLOR		
TERMINAL 1	BLACK		
TERMINAL 2	BLACK		

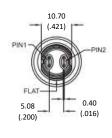
WITH LED		
DESCRIPTION	WIRE COLOR	
TERMINAL 1	BLACK	
TERMINAL 2	BLACK	
LED+	RED	
LED-	GREEN	

<sup>\*</sup>Multi-wire lead AWG20, section 0.6mm , UL approved

## PB6 M1

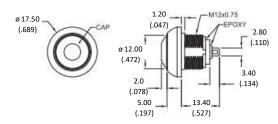


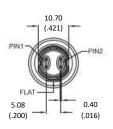




#### **PB7 M1**

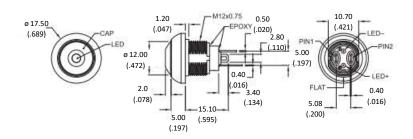






#### PB6 M1 with LED





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Dimensions in millimetres (inches) unless otherwise specified Dimensions Shown for reference purposes only. Specifications subject to change

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## **How To Order**

