# **PUSHBUTTON SWITCHES**

## 12MM MINIATURE HALL-EFFECT SEALED

This rugged sealed pushbutton switch uses a Hall-Effect sensor to achieve extremely long life, up to 1,000,000 cycles momentary. This switch is suited for harsh environments where long life and reliability are needed.

## **APPLICATIONS**

- Communications
- Data entry
- · Hand-held control modules
- Outdoor controls
- Mass transport controls
- Instrumentation



#### ACTUAL SIZE

## **KEY FEATURES:**

- 1,000,000 cycles momentary
- · Momentary and maintained action
- Hall-Effect technology
- Choice of LED colors (or non-lighted versions)
- · Panel sealed to IP67
- Variety of Button colors
- Square and round versions available
- Solder, PC terminals or Wireleads

## ORDERING INFORMATION:

Switch Function	Switch Termination	Module Type	Bezel Type	LED Color †	Button Color	Mounting Type	Voltage Resistor
Momentary	Solder Tabs	48-3	RB - Round, Black	N - None	RD - Red	B - Bushing	If Blank*
Maintained	Solder Tabs	48-4	SB - Square, Black	R - Red	GR - Green	S - Snap-fit	<b>05</b> - 5V forward
Momentary	PC	48-7	RC - Round, Chrome	G - Green	BK - Black	T	T
Maintained	PC	48-6	SC - Square, Chrome	Y - Yellow	BL - Blue		
Momentary	Wire Leads	48-C	T	A - Amber	YL - Yellow		
Maintained	Wire Leads	48-D		B - Blue	OR - Orange		
		T		W - White	CR - Chrome		
				RB - Red / Blue	PK - Black with		
				RG - Red / Green	Standby Symbo	ı	
				Т	WH - White		
					Т		
			48-				
						† Lighted sv	vitches come with wire

## STANDARDS / AGENCY / RATINGS:







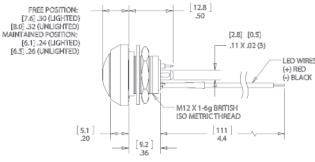


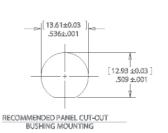


(not included).

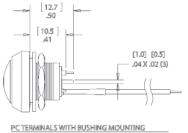
LEDs to protect from solder heat.

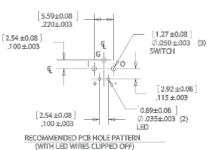
\* Current limiting resistor is required to limit LED forward current to 20 mA

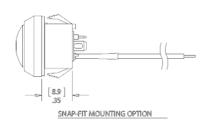


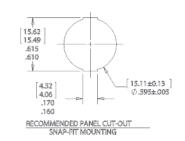


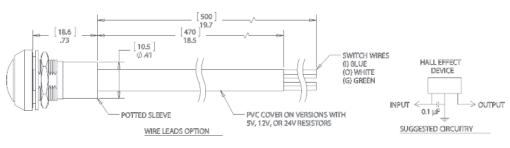
SOLDER TERMINALS WITH BUSHING MOUNTING

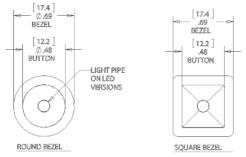














[MILLIMETERS]

## **MECHANICAL CHARACTERISTICS**

#### CIRCUIT:

SPST-NO-DB (FORM X)

#### **BUTTON TRAVEL (NOM):**

[2.3] .09

## **OPERATING FORCE (NOM):**

[3N] 306g

## **PANEL THICKNESS:**

BUSHING MOUNTING: [0.5-3.0]

.02-.12

SNAP-FIT MOUNTING: [1.3-3.0]

.05-.12

## **NUT TORQUE (MAX):**

[11.5 kgf/cm] 10 lb/in

#### **HARDWARE**

**BUSHING MOUNTING BULK** PACKAGED SEALING WASHER AND HEX NUT ARE INCLUDED.

## **ENVIRONMENTAL SPECIFICATIONS**

## **ACTUATOR INGRESS PROTECTION:**

**IP67** 

### **OPERATING TEMPERATURE:**

[-40 C to +85 C] -40 F to +185 F

## **ELECTRICAL SPECIFICATIONS**

### **SUPPLY VOLTAGE:**

4.2V TO 24V, 26.5 MAX

#### **SUPPLY CURRENT:**

B<Brp, Vcc=12V:

3mA TYP to 8mA MAX

B>Bop, Vcc=12V:

4mA TYP to 8mA MAX

### **OUTPUT LOAD:**

SINKING (I out MAX = 25mA)

#### **REVERSE BATTERY VOLTAGE:**

-30V MAX

## **REVERSE OUTPUT CURRENT:**

-50mA MAX

## **SWITCH LIFE:**

MOMENTARY: 1,000,000 CYCLES MAINTAINED: 50,000 CYCLES

### **WIRE LEADS:**

UL STYLE 1007

26 AWG, STRANDED



# **Mouser Electronics**

**Authorized Distributor** 

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# ITW Switches:

48-7-RB-N-RD-B 48-7-RB-N-BK-B 48-7-RC-N-CR-B 48-7-RB-R-BK-B