

- SNAP ACTION
- CUSTOM ASSEMBLIES
- **PUSH BUTTON**
- SEALED
- ROCKER
- INDICATOR
- SLIDE
- VANDAL RESISTANT
- ILLUMINATED
- ACTIVE TOUCH



## Miniature Hall-Effect Sealed Pushbutton Switches

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, and offers a wide choice of mounting style, colours, terminations, lighting and momentary or maintained switching.



### Key Features

- 1,000,000 cycles momentary
- Momentary and maintained action
- Hall-Effect technology
- Panel sealed to IP67
- Square and round bezel versions available
- Large choice of button colours
- Solder or PC terminals
- Choice of LED colours or non-illuminated versions

### Typical Applications

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

**TW Switches**

Standards / Agency / Ratings



Patent # 6,965,085



# Series 48 ss Miniature Hall-Effect Sealed Pushbutton

## Mechanical/Electrical Characteristics:

■ **Circuit**  
SPST-NO

■ **Button travel (nominal)**  
2.3mm

■ **Life (mechanical):**  
1,000,000 cycles a max (momentary)  
100,000 cycles max (maintained)

■ **Operating force (nominal)**  
3N/306g

■ **Contact bounce (nominal)**  
1 ms

■ **Panel thickness**  
0.5-3mm

■ **Temperature (operating)**  
-40°C to + 85°C

■ **Supply voltage**  
4.2V to 24V, 26.5V Max.

■ **Supply current**  
B<Brp, Vcc=12V:  
3mA Typ. To 8mA Max.  
B>Bop, Vcc=12V:  
4mA Typ. To 8mA Max

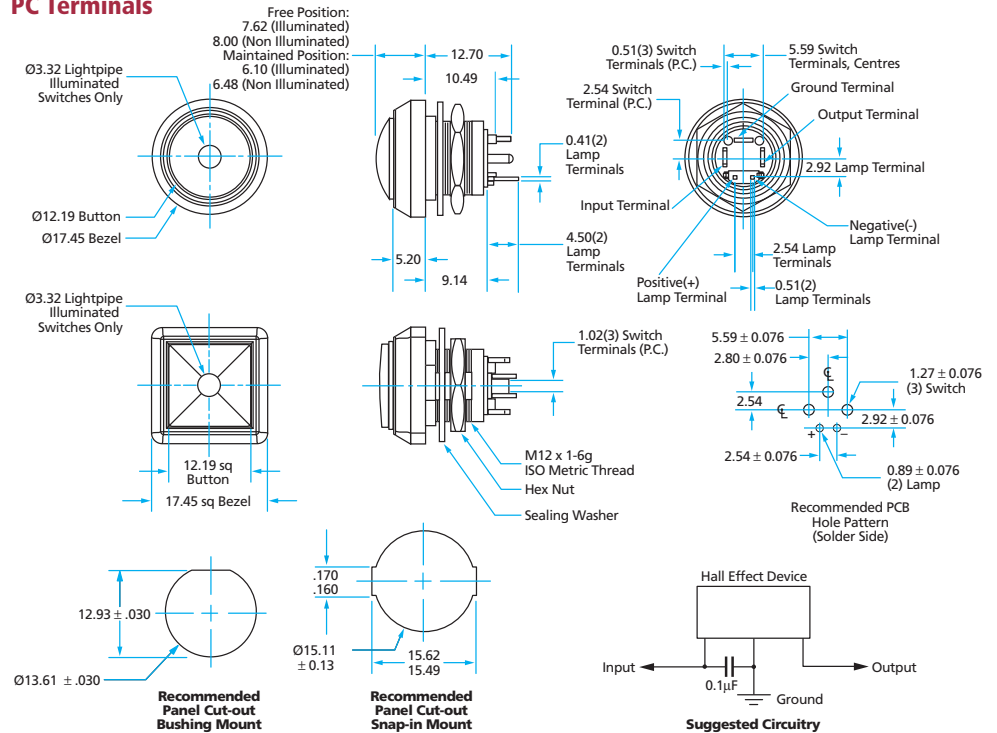
■ **Output current**  
30 to 50 mA

■ **Reverse battery voltage**  
-30V Max.

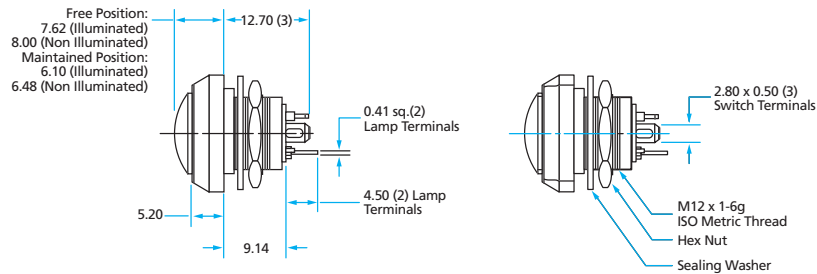
■ **Reverse battery current**  
-50mA

■ **Torque (max) (Fixing Nut)**  
1-2 Newton Metre

## PC Terminals



## Solder Tab Terminals



## Ordering Information

Switch Function	Switch Termination	Module Type	Bezel Type	LED Colour	Button Colour	Mounting Type
Momentary	Solder Tabs	48-3	RB - Round, Black	N - None	RD - Red	B - Bushing
Maintained	Solder Tabs	48-4	SB - Square, Black	R - Red	GR - Green	S - Snap Fit
Momentary	PC	48-7	RC, Round Chrome	G - Green	BK - Black	
Maintained	PC	48-8	SC, Square Chrome	Y - Yellow A - Amber B - Blue W - White	BL - Blue Y - Yellow OR - Orange CR - Chrome WH - White	

48-X   -XX   -X   -XX   -X

## ITW Switches

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