

## Series 48-SS

### 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.



ACTUAL SIZE

### APPLICATIONS:

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

### 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:

Module Type:	Switch Function:	Switch Termination:	Bezel Type:	Led* Color:	Button® Color:	Mounting Type:	Voltage Resistor:
48-3	Momentary	Solder Tabs	<b>RB</b> Round, Black	<b>N</b> None	<b>(H)RD</b> Red (for High Button)	<b>B</b> Bushing	If Blank*
48-4	Maintained	Solder Tabs	<b>SB</b> Square, Black	<b>R</b> Red	<b>(H)GR</b> Green (for High Button)	<b>S</b> Snap-fit	<b>05</b> 5V Forward
48-7	Momentary	PC		<b>G</b> Green	<b>(H)BK</b> Black (for High Button)		
48-8	Maintained	PC		<b>Y</b> Yellow	<b>(H)BL</b> Blue (for High Button)		
48-C	Momentary	Wire Leads		<b>A</b> Amber	<b>(H)YL</b> Yellow (for High Button)		
48-D	Maintained	Wire Leads		<b>B</b> Blue	<b>(H)OR</b> Orange (for High Button)		
				<b>W</b> White	<b>(H)WH</b> White (for High Button)		
				<b>RB</b> Red / Blue	<b>PK</b> Black with Standby Symbol		
				<b>RG</b> Red / Green			

# Lighted switches come with wires on LEDs to protect from solder heat.

\* Current limiting resistor is required to limit LED forward current to 20 mA (not included).

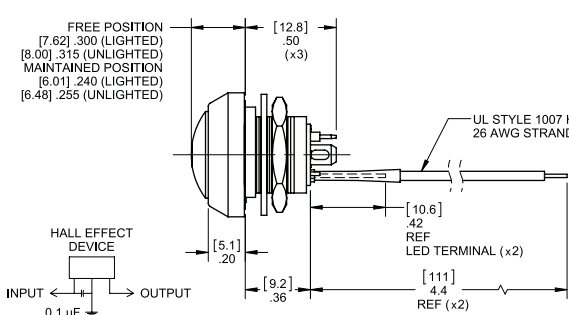
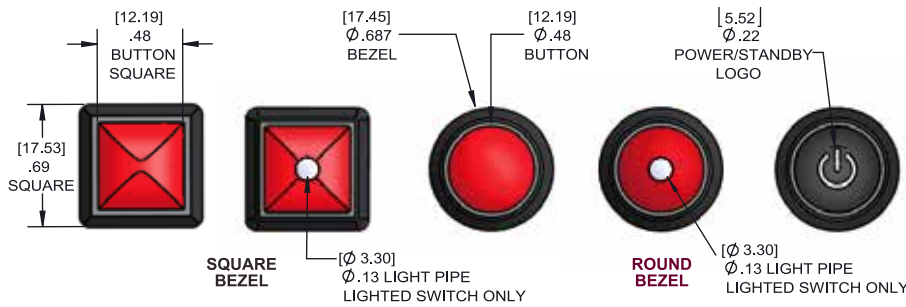
@ H\_\_ only for High Button type.

### STANDARDS / AGENCY / RATINGS:

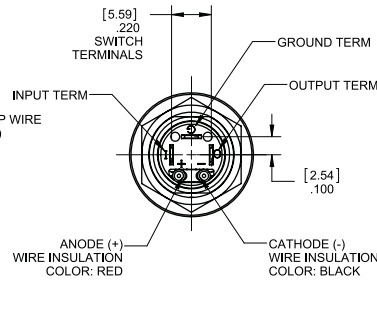
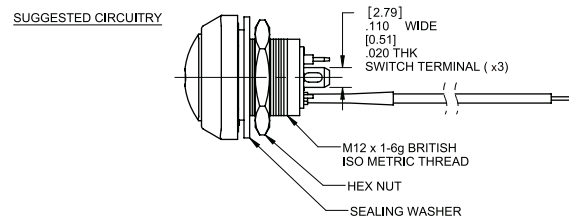


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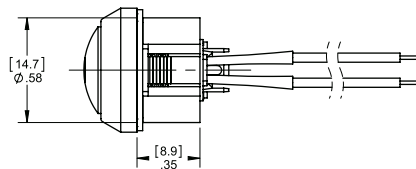
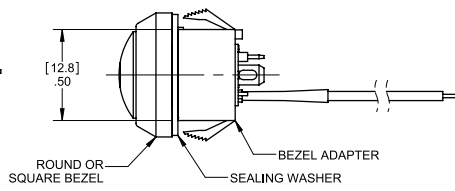
### PRODUCT DRAWINGS



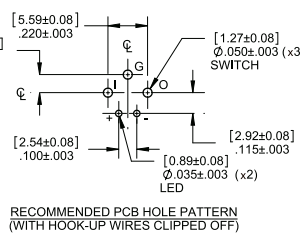
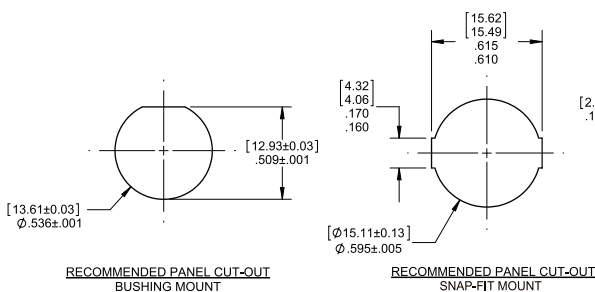
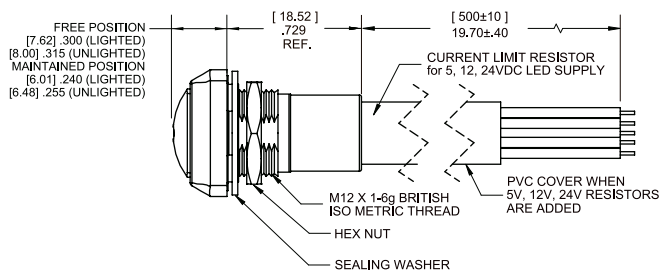
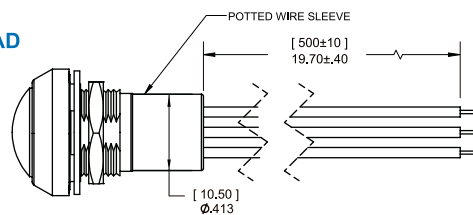
SUGGESTED CIRCUITRY



SANP-FIT



### WIRELEAD



### 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



Designs and specifications are subject to change without notice due to product improvement.