

MINIATURE SEALED ESD RESISTANT

This switch series is rugged, panel sealed, available with round or square bezels and LED lighted or non-lighted. Bushing mount or snap-in mounting available. Series 49 switches are ideal for demanding applications in harsh environments where water, moisture or dust are problematic.

APPLICATIONS

- Industrial equipment control handles
- Dog training control modules
- Outdoor controls
- Medical equipment
- Beverage dispensing

KEY FEATURES:

- Normally open or closed circuitry
- Momentary action
- LED lighted or non-lighted
- .110 Quick Connect or Solder terminals available
- Gold contacts
- ESD 15KV minimum
- Panel sealed to IP67
- Long life – up to 1 million cycles
- Threaded or snap-in mounting

ORDERING INFORMATION:

Part Number	Body Style	Button Color	LED Color	Contacts	Terminals
49-111	Round bezel	Black	—	Normally Open	Solder
49-112	Round bezel	Red	—	Normally Open	Solder
49-113	Round bezel	Green	—	Normally Open	Solder
49-411G	Illuminated round	Black	Green	Normally Open	Solder
49-411R	Illuminated round	Black	Red	Normally Open	Solder
49-412G	Illuminated round	Red	Green	Normally Open	Solder
49-412R	Illuminated round	Red	Red	Normally Open	Solder
49-413G	Illuminated round	Green	Green	Normally Open	Solder
49-413R	Illuminated round	Green	Red	Normally Open	Solder
49-9111	Snap-in round	Black	—	Normally Open	Solder
49-9113	Snap-in round	Green	—	Normally Open	Solder
49-611	Round bezel	Black	—	Normally Closed	Solder
49-612	Round bezel	Red	—	Normally Closed	Solder
49-613	Round bezel	Green	—	Normally Closed	Solder
49-131	Round bezel	Black	—	Normally Open	.110 QC
49-132	Round bezel	Red	—	Normally Open	.110 QC
49-133	Round bezel	Green	—	Normally Open	.110 QC

Series 49

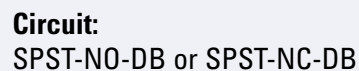


ACTUAL SIZE

STANDARDS / AGENCY / RATINGS:



MECHANICAL / ELECTRICAL CHARACTERISTICS:



Travel (nominal):
0.09 inches / 2.3 mm

Life (nominal):
1,000,000 cycles
(mechanical)
500,000 cycles (electrical)

Operating temperature:
-20°C to +85°C
(-4°F to +185°F)

Operating force (nominal):
3N / 306 grams

Contact bounce (nominal):
1 millisecond

LED:
T-1

Dielectric strength:
1,000 VAC

Insulation resistance:
 $1\text{ G}\Omega$

Contact resistance:
50 mΩ max (initial)

Switching power (max):
16 VA AC

Mounting Torque (max):
15 inch pounds

Electrical Ratings:

Circuitry	Current	Voltage
SPST-DB-NO	400 mA	32 VAC Res
SPST-DB-NC	100 mA	50 VDC Res
	125 mA	125 VAC Res

Technical drawings of the PBT button assembly showing front, side, and top views with dimensions in inches and millimeters.

Front View (Top Left):

- Overall diameter: .69 DIA [17.5]
- Inner diameter: .13 DIA [3.4]
- Outer diameter: .48 DIA [12.2]

Side View (Middle Left):

- Top diameter: .535/.537 DIA [13.6/13.65]
- Bottom diameter: .508/.510 [12.9/12.95]

Top View (Top Right):

- Feature: POSITIVE L.E.D. TERMINAL

Recommended Panel Cut-Out (Middle):

Front View (Bottom Left):

- Overall diameter: 5.3 DIA [13.5]
- Top diameter: .19 [4.8]
- Bottom diameter: .27 [6.9]
- Height: .87 [22.2]
- Base diameter: .107 [2.72]
- Base height: .100 [2.54]

Side View (Bottom Right):

- Angle: 22.5°
- Top diameter: .05 [1.3]
- Height: .79 [19.9]
- Base diameter: .107 [2.72]
- Base height: .100 [2.54]

Labels:

- PBT BUTTON
- BLACK PBT BEZEL
- "O" RING
- HEX NUT

Technical drawings of the PBT button assembly showing top, side, and cross-sectional views with dimensions.

Top View Dimensions:

- Outer Diameter: .478 DIA [12.15]
- Inner Diameter: .596-.602 DIA [15.15-15.30]
- Mounting Hole Diameter: .687 DIA [17.45]

Side View Dimensions:

- Overall Height: .28 [7.0]
- Base Thickness: .19 [4.8]

Cross-sectional View Dimensions:

- Base Thickness: .049 [1.25]
- Mounting Hole Diameter: .107 [2.72]
- Internal Feature: .026 [0.65] R (2)

Labels:

- PBT BUTTON
- BLACK PBT BODY
- "O" RING (OPTIONAL)

RECOMMENDED PANEL CUT-OUT

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ITW Switches:

[49-9111](#) [49112](#) [49113](#) [49114](#) [49411G](#) [49411R](#) [49-111](#) [49-611](#) [49-5911530004](#)