

# SWITCHES MINIATURE TOGGLE, PC mount

## Printed Circuit Miniature Toggle Switches

Philmore PC mounting miniature switches are available in two bushing styles. When offered with a threaded bushing, hardware (nut and washers) are included and assembled. Smooth, non-threaded bushings are also offered and the buyer needs to watch for this distinction to be sure to get the correct style.

Philmore Printed Circuit board layout patterns include both conductor mounting holes and the mounting holes for mechanical supports which are an integral part of toggles and some of the other styles, where they are needed.

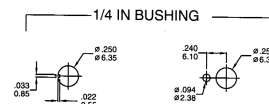
### Printed Circuit-horizontal mounting

#### Miniature TOGGLE SWITCHES

Right angle and horizontal mounting PC board switches with either a plain (smooth) bushing or with a threaded bushing and assembled hardware.

Coin silver contacts for current capacity; gold plated terminals.

Part No.	Circuit	Bushing
30-20004	SPDT ON-ON	1/4"-20 threaded
30-20003	SPDT ON-ON	Smooth
30-20006	SPDT ON-NONE (ON)	1/4"-20 threaded
30-20005	SPDT ON-(ON)*	Smooth
30-20010	DPDT ON-ON	1/4"-20 Threaded
30-20009	DPDT ON-NONE (ON)	Smooth



Panel mounting dimensions for PC board miniature switches



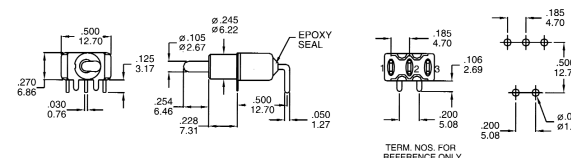
### Electrical Rating:

Contact rating: 5 amps @ 120 VAC or 28 VDC  
 2 amps @ 250 VAC resistive load  
 Life expectancy: 40,000 make-break cycles @ full load.  
 Contact Resist: 10 m ohms Max, initial @ 2-4 volts @100 mA  
 Insulation resistance: 1,000 Megohms minimum  
 Dielectric Strength: 1,000 V RMS @ sea level.  
 Operating temperature range: -30 to +85 degrees Celsius

NOTE: ( ) = Momentary



SPDT



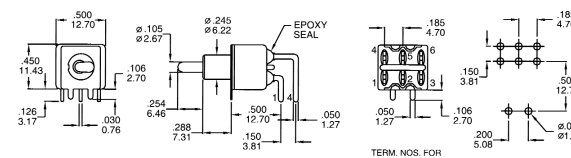
TERM. NOS. FOR REFERENCE ONLY

### Mechanical:

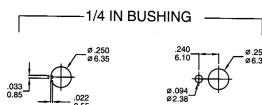
Case: Dially phthalate (DAP) (UL94V-0), epoxy sealed terms.  
 Actuator: Brass, Chrome plated.  
 Bushing: Brass, nickel plated  
 Housing: Stainless steel.  
 Switch support: Brass, tin plated  
 Terminals: Gold plated  
 Contact materials: coin silver.



DPDT



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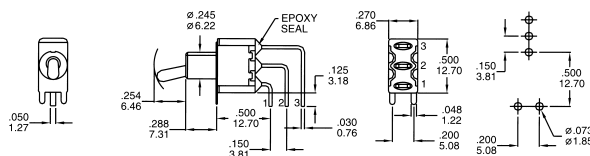


Panel mounting dimensions for PC board miniature switches

Part No.	Circuit	Bushing
30-20018	SPDT ON-ON	1/4"-20 threaded
30-20017	SPDT ON-ON	Smooth
30-20026	DPDT ON-ON	1/4"-20 Threaded
30-20025	DPDT ON-ON	Smooth

### Printed Circuit-vertical mounting Miniature TOGGLE SWITCHES

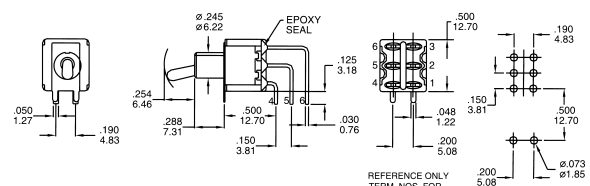
Right angle and vertical mounting PC board switches with either a plain (smooth) bushing or with a threaded bushing and assembled hardware. Gold plated terminals, contacts are coin silver. UL Listed E187490



SPDT

### Electrical Rating:

Contact rating: 5 amps @ 125 VAC  
 2 amps @ 250 VAC  
 Life expectancy: 40,000 make-break cycles @ full load.  
 Contact Resistance: 10 milliohms Max, initial @ 2-4 volts.  
 @100 mA for both silver and gold plated contacts.  
 Insulation resistance: 1,000 Megohms minimum  
 Dielectric Strength: 1,000 V RMS @ sea level.  
 Operating temperature range: -30 to +85 degrees Celsius



DPDT

### Mechanical:

Case: Dially phthalate (DAP) (UL94V-0)  
 Actuator: Brass, Chrome plated.  
 Bushing: Brass, nickel plated  
 Housing: Stainless steel.  
 Switch support: Brass, tin plated  
 Terminals: Gold plated  
 Contact materials: Coin Silver.