

# APA Series *Momentary Pushbutton Switches* *Vertical .120" Actuator Length*



## MATERIAL SPECIFICATIONS:

Contacts.....Gold plate  
Case Material .....Polyester  
Actuator Material.....Polyester  
Terminal Seal.....Epoxy

## ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature.....-4°F to +176°F (-20°C to +80°C)  
Storage Temperature.....-40°F to +176°F (-40°C to +80°C)

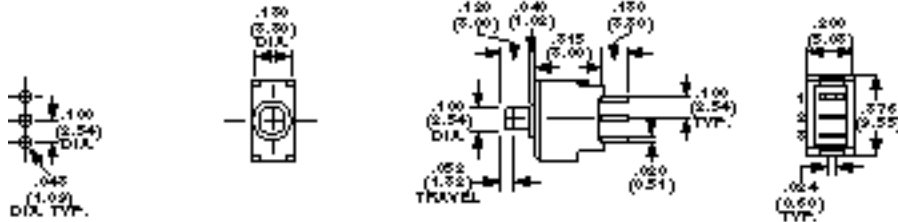
## TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating .....0.4 VA Max. @ 20 VDC or peak AC  
Initial Contact Resistance.....50 Milliohms max.  
Contact Timing .....Break-before-make  
Insulation Resistance .....1,000 Megohms @ 500 VDC min.  
Dielectric Strength .....500 Volts RMS @ sea level  
Actuator Travel ......050" (1.27)  
Life Expectancy .....10,000 Cycles

## SPST/SPDT



APA1BGPC



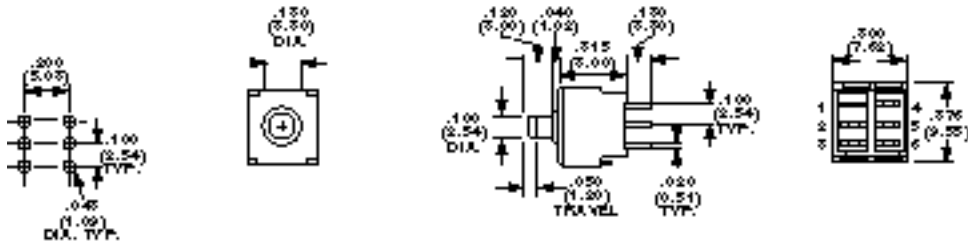
Model	Type	Action	Actuator Color	Contact Type
APA1BGPC	SPST	Normally Closed	Black	Gold
APA1CGPC	SPST	Normally Open	Black	Gold
APA1FGPC	SPDT	Momentary	Black	Gold

## DPST/DPDT

Application Note: For Sealed versions, See page D33



APA2MGPC



Model	Type	Action	Actuator Color	Contact Type
APA2LGPC	DPST	Normally Closed	Black	Gold
APA2MGPC	DPST	Normally Open	Black	Gold
APA2RGPC	DPDT	Momentary	Black	Gold



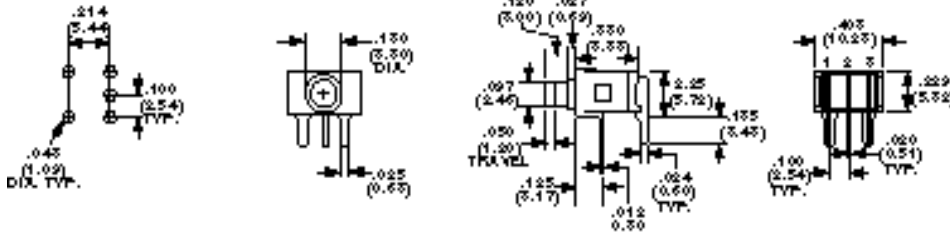
# Momentary Pushbutton Switches **APA Series**

Right Angle .120" Actuator Length

SPST/SPDT



APA1FGRA



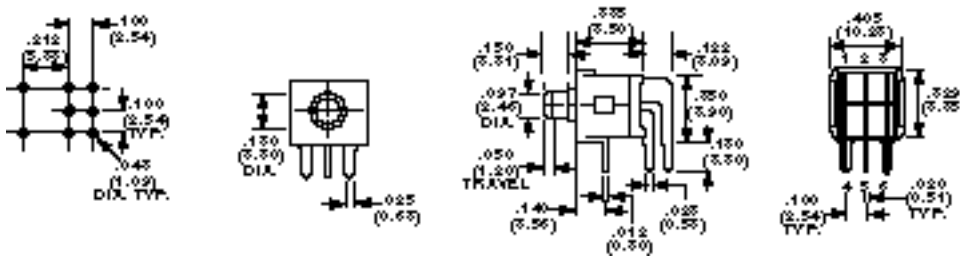
Model	Type	Action	Actuator Color	Contact Type
APA1BGRA	SPST	Normally Closed	Black	Gold
APA1CGRA	SPST	Normally Open	Black	Gold
APA1FGRA	SPDT	Momentary	Black	Gold

Application Note: For Sealed versions, See page D34

DPST/DPDT



APA2RGRA



Model	Type	Action	Actuator Color	Contact Type
APA2MGRA	DPST	Normally Open	Black	Gold
APA2RGRA	DPDT	Momentary	Black	Gold

Need more technical information?

Contact your local ABE office--(800) 453-1692--or [AboveBoardElectronics.com](http://AboveBoardElectronics.com).

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1918 Junction Avenue  
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# APB Series *Momentary Pushbutton Switches* Vertical and Right Angle .157" Actuator Length



## MATERIAL SPECIFICATIONS:

Contacts.....Gold plate  
Case Material .....Polyester  
Actuator Material.....Polyester  
Terminal Seal.....Epoxy

## TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating .....0.4 VA Max. @ 20 VDC or peak AC  
Initial Contact Resistance.....50 Milliohms max.  
Contact Timing .....Break-before-make  
Insulation Resistance .....1,000 Megohms @ 500 VDC min.  
Dielectric Strength .....500 Volts RMS @ sea level  
Actuator Travel ......050" (1.27)  
Life Expectancy .....10,000 Cycles

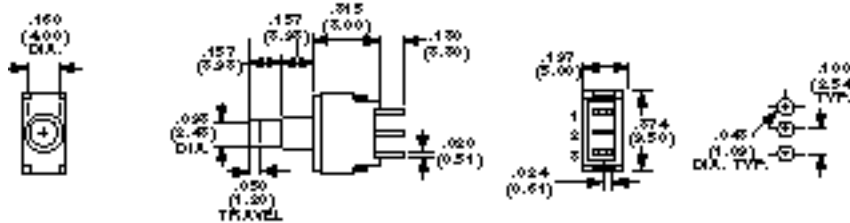
## ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature.....-4°F to +176°F (-20°C to +80°C)  
Storage Temperature.....-40°F to +176°F (-40°C to +80°C)

### SPST/SPDT



APB1BGPC



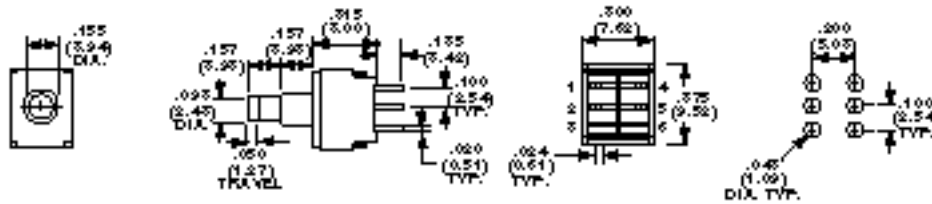
Model	Type	Action	Actuator Color	Contact Type
APB1BGPC	SPST	Normally Closed	Black	Gold
APB1CGPC	SPST	Normally Open	Black	Gold
APB1FGPC	SPDT	Momentary	Black	Gold

Note: No center terminal on "B" and "C" action switches.

### DPST/DPDT



APB2RGPC



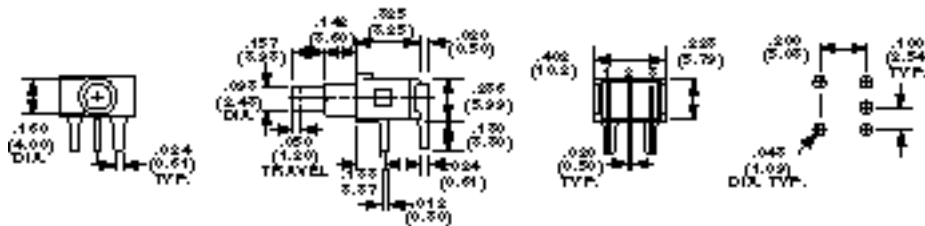
Model	Type	Action	Actuator Color	Contact Type
APB2LGPC	DPST	Normally Closed	Black	Gold
APB2RGPC	DPDT	Momentary	Black	Gold

Note: No center terminal on "L" action switches.

### SPST/SPDT



APB1FGRA



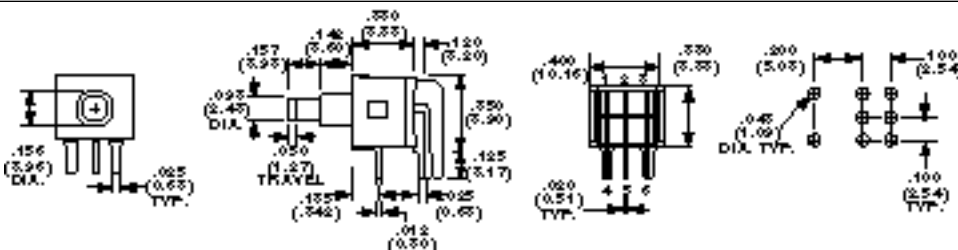
Model	Type	Action	Actuator Color	Contact Type
APB1BGRA	SPST	Normally Closed	Black	Gold
APB1CGRA	SPST	Normally Open	Black	Gold
APB1FGRA	SPDT	Momentary	Black	Gold

Note: No center terminal on "B" and "C" action switches.

### DPST/DPDT



APB2MGRA



Model	Type	Action	Actuator Color	Contact Type
APB2MGRA	DPST	Normally Open	Black	Gold
APB2RGRA	DPDT	Momentary	Black	Gold

Note: No center terminal on "M" action switches.



# Momentary Pushbuttons Process Epoxy "Sealed" for Washing PC Retention Terminals **APBE Series**

## MATERIAL SPECIFICATIONS:

Contacts.....Gold plated  
 Case Material .....Polyester  
 Actuator Material.....Polyester  
 Terminals/Fixed Contacts.....Copper alloy  
 Terminal Seal.....Epoxy

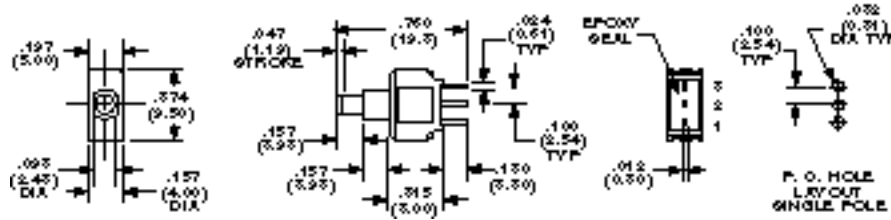
## TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating .....0.4 VA Max. @ 20 VDC or peak AC  
 Initial Contact Resistance.....50 Milliohms max.  
 Insulation Resistance .....500 Megohms @ 250 VDC min.  
 Dielectric Strength .....500 Volts RMS @ sea level  
 Actuator Travel ......047" (1.19)  
 Life Expectancy .....10,000 Cycles

## ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature.....-4°F to +176°F (-20°C to +80°C)  
 Storage Temperature.....-40°F to +176°F (-40°C to +80°C)

### SPDT

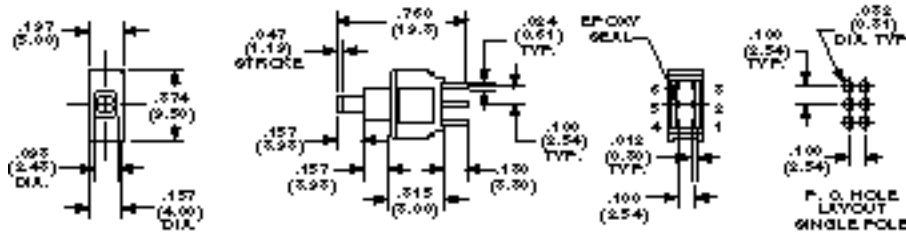


APBE1FGPC

Model	Type			Contact Type
APBE1FGPC	SPDT	On	(On)	Gold
Terminals Connected:		2-3	2-2	
(On) indicates momentary position.				

### DPDT

Extra compact double pole saves PCB real estate.



APBE2RGPC

Model	Type			Contact Type
APBE2RGPC	DPDT	On	(On)	Gold
Terminals Connected:		2-3 & 5-6	2-1 & 5-4	
(On) indicates momentary position.				

### Need more technical information?

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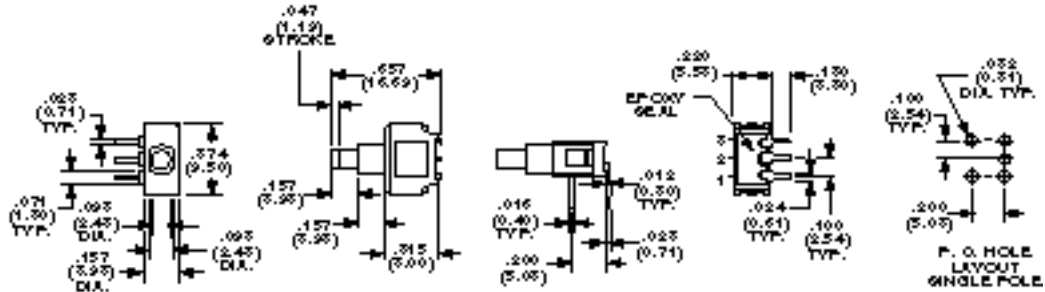
# APBE Series *Pushbuttons Switches Process Epoxy Sealed for Washing PC Retention Terminals*



SEE PAGE D29 FOR PRODUCT SPECIFICATIONS.

## SPDT



APBE1FGR4



Model	Type			Contact Type
APBE1FGR4	SPDT	On	(On)	Gold
Terminals Connected:		2-3	2-1	(On) indicates momentary position.

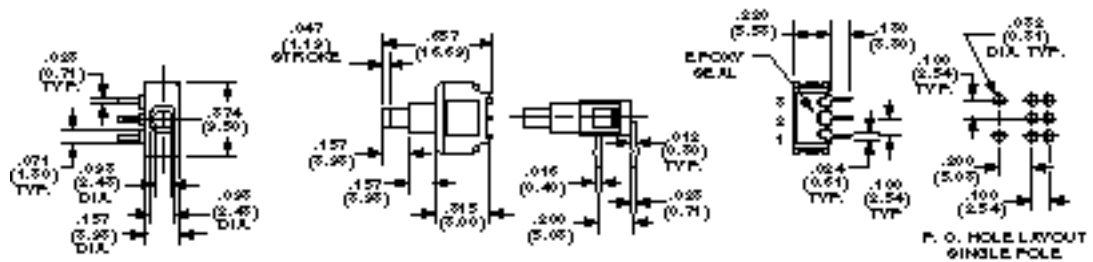
## DPDT



Extra compact double pole saves PCB real estate.

Extra compact double pole saves PCB real estate.



APBE2RGR4



Model	Type			Contact Type
APBE2RGR4	DPDT	On	(On)	Gold
Terminals Connected:		2-3 & 5-6	2-1 & 5-4	(On) indicates momentary position.

See pages M2-M4 for application specific indexing.

# Sub-Miniature **MPA3 Series** "Panel Mount" Pushbutton

### MATERIAL SPECIFICATIONS:

Contacts.....Silver clad  
 Case Material .....Thermost  
 Actuator Material.....Polyamide  
 Terminals .....Silver plate

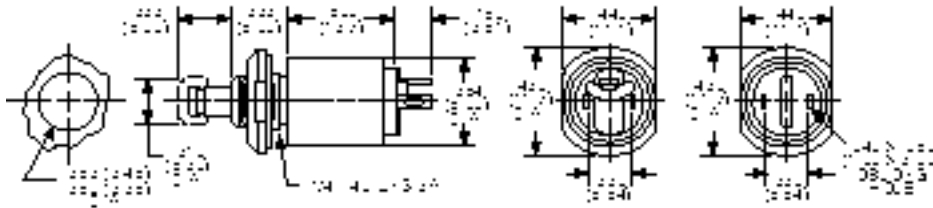
### ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature.....-4°F to +158°F (-20°C to +70°C)  
 Storage Temperature.....-40°F to +176°F (-40°C to +80°C)  
 Solder Heat Resistance.....See page M6-7

### TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating .....500 mA @ 125 VAC Butt contact  
 MPA 103B & C  
 3 A @ 125 VAC Snap action  
 MPA 103D & F  
 Initial Contact Resistance.....20 Milliohms max.  
 Contact Timing .....Break-before-make  
 Insulation Resistance .....1,000 Megohms min.  
 Dielectric Strength .....1,000 Volts RMS @ sea level  
 Actuation Force.....10 oz. SPST, 16 oz. SPDT average  
 Actuator Travel .....100" (2.54)  
 Life Expectancy .....10,000 Cycles

SPST/SPDT



MPA103C

Model	Type	Act. Code P. M9	Action	Contact Rating
MPA103B	SPST	14	Normally closed, momentary	500 mA
MPA103C	SPST	13	Normally open, momentary	500mA
MPA103D	SPDT	16	Push on/push off- (tactile)	3 Amp
MPA103F	SPDT	15	Momentary - (tactile)	3 AMP

**Black Cap supplied. Other colors available, order separately.**  
 (See Cap C5 and C8 on Page D45.)

# Miniature Pushbutton Momentary with Over-Travel **MPB Series**

### MATERIAL SPECIFICATIONS:

Contacts.....Silver plate  
 Case Material .....Thermost  
 Actuator Material.....Polyamide  
 Terminals .....Silver plate

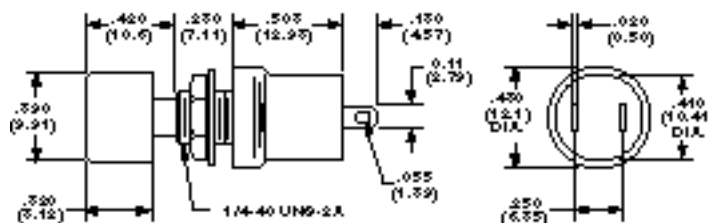
### ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature.....+14°F to +140°F (-10°C to +60°C)  
 Storage Temperature.....+5°F to +158°F (-15°C to +70°C)  
 Solder Heat Resistance .....See page M6-7

### TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating .....3 A @ 125 VAC  
 Initial Contact Resistance.....20 Milliohms max.  
 Insulation Resistance .....1,000 Megohms min.  
 Dielectric Strength .....1,000 Volts RMS @ sea level  
 Actuator Travel .....100" (2.54)  
 Life Expectancy .....20,000 Cycles

SPST



MPB103B

Model	Type	Act. Code P. M9	Action	Actuator Color
MPB103B	SPST	14	Normally Closed	Black
MPB103C	SPST	13	Normally Open	Red

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