

Pushbutton Switches, Tiny, Part Number Matrix

Material Specifications:

Contacts: Gold – gold plate, silver- silver plate  
Case Material: High temperature polyester  
Actuator Material: Polyamide  
Terminals/Fixed Contacts: Tin lead plate  
Terminal Seal: SP epoxy, DP epoxy optional

Environmental Specifications:

Operating Temperature: -22°F to + 149°F  
(-30°C to + 65°C)  
Storage Temperature: -22°F to + 149°F  
(-30°C to + 65°C)

Typical Performance Characteristics:

Contacts Rating: Gold 0.4 VA Max. @ 20 VDC or peak AC  
Silver: 1A @ 125 VAC or 28 VDC resistive  
Initial Contact Resistance: 20 Milliohms max.  
Contact Timing: Break-before-make  
Insulation Resistance: 1,000 Megohms @ 500 VDC min.  
Dielectric Strength: 1,000 Volts @ sea level  
Actuation Force: 500 to 400 Grams  
Plunger/Actuator Travel: .030" (.762)  
Life Expectancy: See Below  
Note: Hardware included with switches

Part Numbering Matrix:

Model	Bushing	Actuator	Poles	Rating	Function	Plating	Terminations	Process Seal	Button Colors
TP		F							
Blank: Sp. No Bushing A=Rnd. No Bushing B=Rnd., .188" Bushing Dia. Unthreaded C=Rnd., .10/48 Bushing Dia. D=Rnd., .250" Bushing dia. Unthreaded F=Rnd., ¼-40 Bushing Dia.		F=Flush Actuator*	1= Single 2= Double	1= Gold 0.4 VA 3= Silver** 1 Amp		G= Gold None= Silver**	Blank= Wire Lug PC= Printed Circuit RA= Right Angle *** VRA= Vertical Right Angle	ES= Process Sealed*** Process seal: disposable boot, epoxied double	0= Black 2= Red
				SP DP					
				C M	S.T. Momentary				
				F R	D.T. Momentary				

- \* Available with "B" and "C" bushing only
- \*\* Silver - available only in wire lug and PC termination
- \*\*\* Right angle, ES available with "B" and "C" bushing only
- \*\*\*\* Available only in single pole

Application Note:

For 3 pole and 4 pole, refer to pages D22 and D24... "MP Series"  
For surface mount termination, refer to pages D3-D5... "TSP Series"

ES switches provided with disposable boot used only during cleaning operation

TP Series Life Expectancy Chart		
Pushbuttons	1 Pole	2Pole
0.4 (gold Plate)	100,000	80,000
1A (Silver Plate)	60,000	50,000

Process Seal  
Version NOT



TP



TPA

Process Seal  
Version Available



TPB



TPC



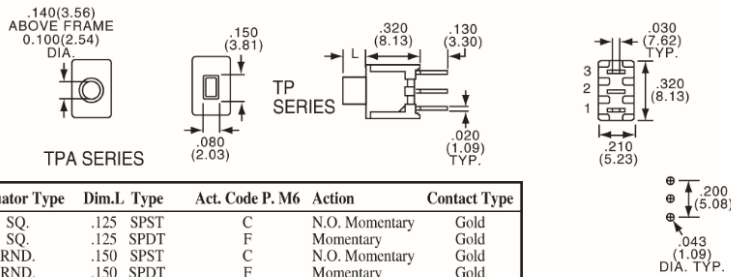
TPD



TPF

## Pushbutton Switches, Tiny, Straight or Right Angle, Single or Dual Actuators

See Page 1 for Product Specifications



TPA SERIES

TP SERIES

SPST/SPDT



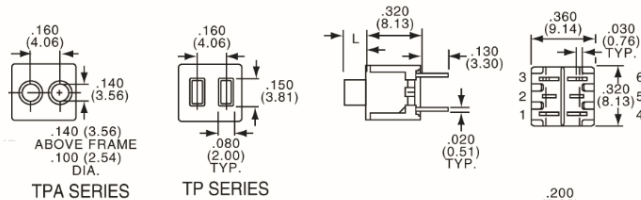
TP11CGPC0



TPA11CGPC0

Model	Actuator Type	Dim.L	Type	Act. Code P. M6	Action	Contact Type
TP11CGPC(*)	SQ.	.125	SPST	C	N.O. Momentary	Gold
TP11FGPC(*)	SQ.	.125	SPDT	F	Momentary	Gold
TPA11CGPC(*)	RND.	.150	SPST	C	N.O. Momentary	Gold
TPA11FGPC(*)	RND.	.150	SPDT	F	Momentary	Gold

(\*) Specify button color by adding suffix number: (0) Black, (2) Red.  
Note: No center terminal on "C" action switch.



TPA SERIES

TP SERIES

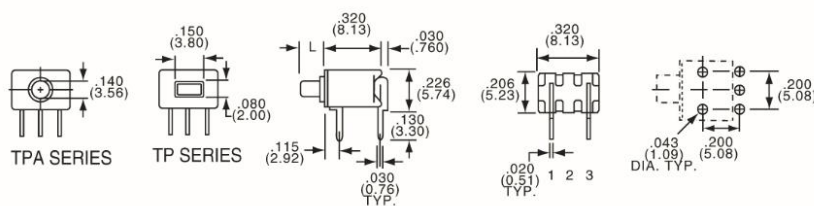
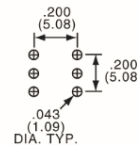
SPST/SPDT (DUAL)



TP21CCGPC0

Model	Actuator Type	Dim.L	Type	Act. Code P. M6	Action	Contact Type
TP21CCGPC(*)	SQ.	.125	2xSPST	C	N.O. Momentary	Gold
TPA21CCGPC(*)	RND.	.150	2xSPST	C	N.O. Momentary	Gold
TPA21FGGPC(*)	RND.	.150	2xSPDT	F	Momentary	Gold

(\*) Specify button color by adding suffix number: (0) Black, (2) Red.  
Note: No center terminal on "C" action switch.



TPA SERIES

TP SERIES

SPST/SPDT



TPA11CGRA



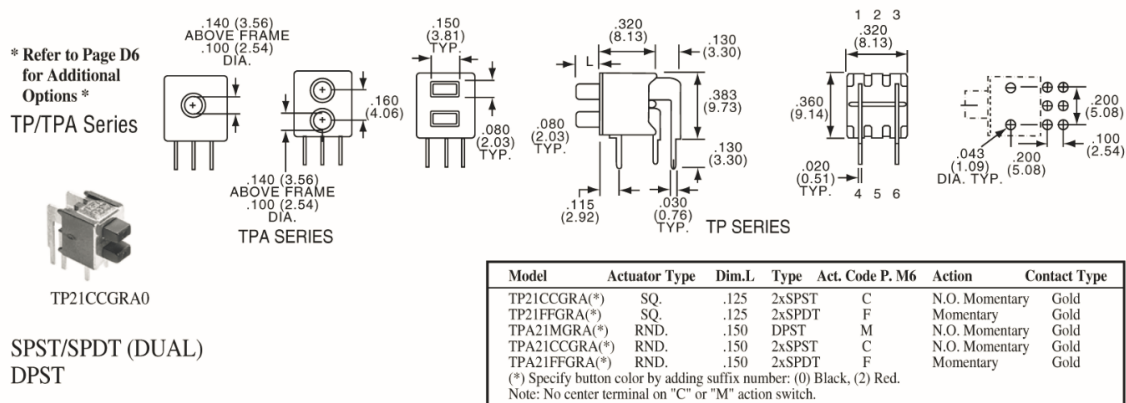
TP11CGRA

Model	Actuator Type	Dim.L	Type	Act. Code P. M6	Action	Contact Type
TP11CGRA(*)	SQ.	.125	SPST	C	N.O. Momentary	Gold
TP11FGRA(*)	SQ.	.125	SPDT	F	Momentary	Gold
TPA11CGRA(*)	RND.	.150	SPST	C	N.O. Momentary	Gold
TPA11FGRA(*)	RND.	.150	SPDT	F	Momentary	Gold

(\*) Specify button color by adding suffix number: (0) Black, (2) Red.  
Note: No center terminal on "C" action switch.

## Pushbutton Switches, Tiny, Straight or Right Angle, Single or Dual Actuators

See Page 1 for Product Specifications



## Pushbuttons, Tiny, Straight or Right Angle, Unthreaded or 10-48 Bushings

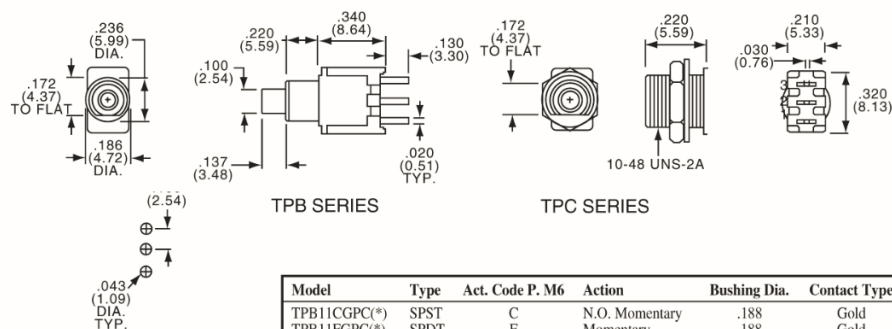
SPST/SPDT



TPB11CGPC



TPC11FGPC



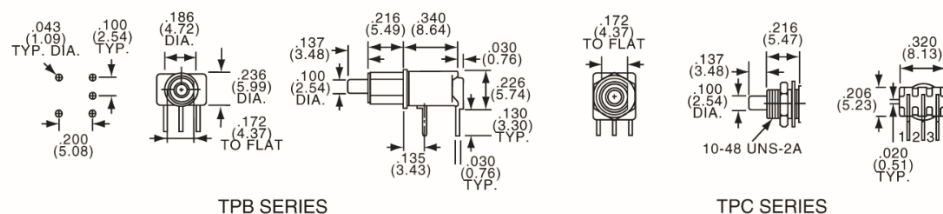
DPST/DPDT



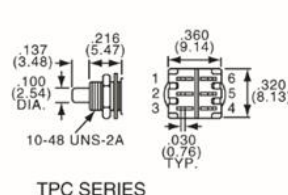
TPB11CGRA



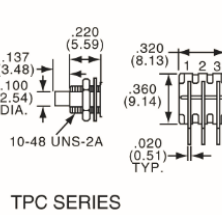
TPC11CGRA



See Page 1 for Product Specifications



(\*) Specify button color by adding suffix number: (0) Black, (2) Red.  
Note: No center terminal on "M" action switch.



(\* ) Specify button color by adding suffix number: (0) Black, (2) Red.  
Note: No center terminal on "M" action switch.



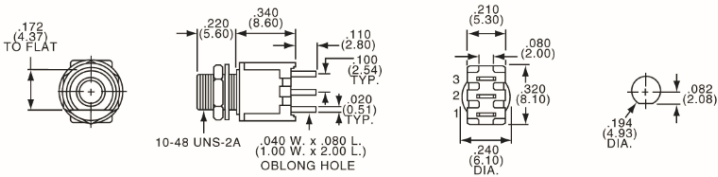
(\* Specify button color by adding suffix number: (0) Black, (2) Red.  
Note: No center terminal on "C" or "M" action switches.

Pushbutton Switches, Tiny, Straight or Right Angle Flush Actuator  
See Page 1 for Product Specifications

SPST/SPDT  
Wire Lugs 10-48 Bushing



TPCF13C



Model	Silver Contacts	Type	Act. Code P. M6	Action	Bushing Type
TPCF13C(*)		SPST	C	N.O. Momentary	Threaded
TPCF13F(*)		SPDT	F	Momentary	Threaded

(\*) Specify button color by adding suffix numbers: (0) Black, (2) Red.  
Note: No center terminal on "C" action switch.

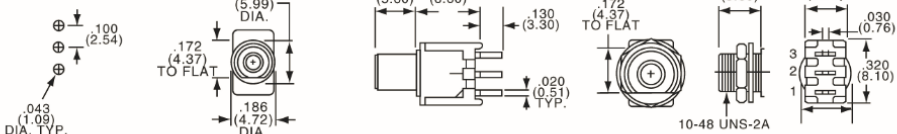
SPST/SPDT  
PC 10-48 Bushing



TPBF11FGPC



TPCF11CGPC



TPB SERIES

TPC SERIES

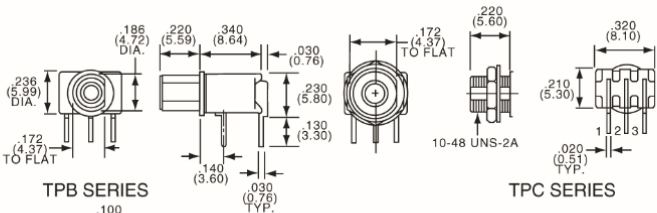
Model	Gold Contacts	Type	Act. Code P. M6	Action	Bushing Type
TPBF11CGPC(*)	SPST	C	N.O. Momentary	Unthreaded	
TPBF11FGPC(*)	SPDT	F	Momentary	Unthreaded	
TPCF11CGPC(*)	SPST	C	N.O. Momentary	Threaded	
TPCF11FGPC(*)	SPDT	F	Momentary	Threaded	

(\*) Specify button color by adding suffix numbers: (0) Black, (2) Red.  
Note: No center terminal on "C" action switch.

SPST/SPDT  
RA 10-48 Bushing

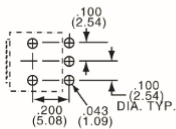


TPBF11CGRA



TPB SERIES

TPC SERIES

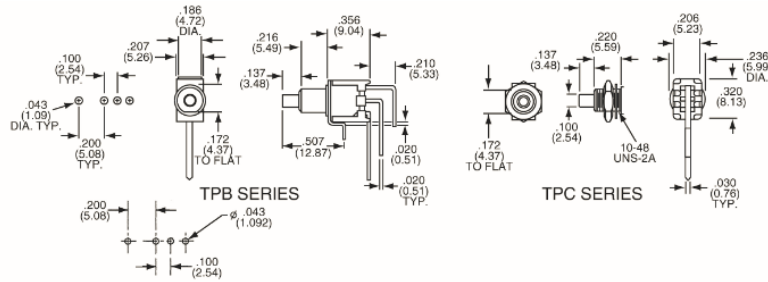


Model	Gold Contacts	Type	Act. Code P. M6	Action	Bushing Type
TPBF11CGRA(*)	SPST	C	N.O. Momentary	Unthreaded	
TPBF11FGRA(*)	SPDT	F	Momentary	Unthreaded	
TPCF11CGRA(*)	SPST	C	N.O. Momentary	Threaded	
TPCF11FGRA(*)	SPDT	F	Momentary	Threaded	

(\*) Specify button color by adding suffix numbers: (0) Black, (2) Red.  
Note: No center terminal on "C" action switch.

## Pushbuttons, Tiny, Vertical Right Angle, Unthreaded or 10-48 Bushings

See Page 1 for Product Specifications

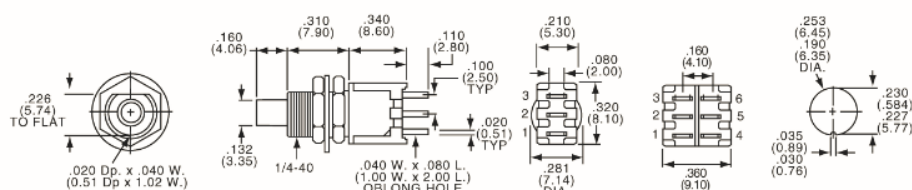


TPB11FGVRA

Model	Type	Act. Code P. M6	Action	Contact Type
TPB11CGVRA(*)	SPST	C	N.O. Momentary	Gold
TPB11FGVRA(*)	SPDT	F	Momentary	Gold
TPC11CGVRA(*)	SPST	C	N.O. Momentary	Gold
TPC11FGVRA(*)	SPDT	F	Momentary	Gold

(\*) Specify button color by adding suffix number: (0) Black, (2) Red.  
Note: No center terminal on "C" action switches.

## Pushbuttons, Tiny, Vertical, Unthreaded, or 1/4 - 40 Bushings



1 & 2 POLE



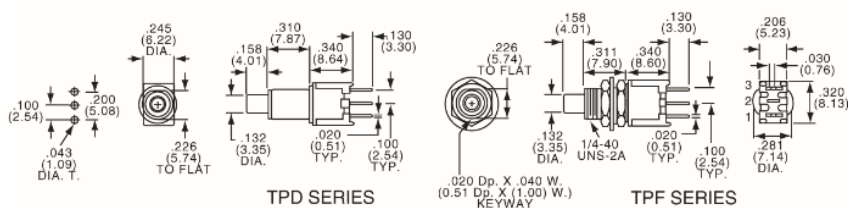
TPF23M



TPF13C

Model	Type	Act. Code P. M6	Action	Contact Type
TPF13C(*)	SPST	C	N.O. Momentary	Silver
TPF13F(*)	SPDT	F	Momentary	Silver
TPF23M(*)	DPST	M	N.O. Momentary	Silver
TPF23R(*)	DPDT	R	Momentary	Silver

(\*) Specify button color by adding suffix number: (0) Black, (2) Red.  
Note: No center terminal on "C" or "M" action switches.



SPST/SPDT



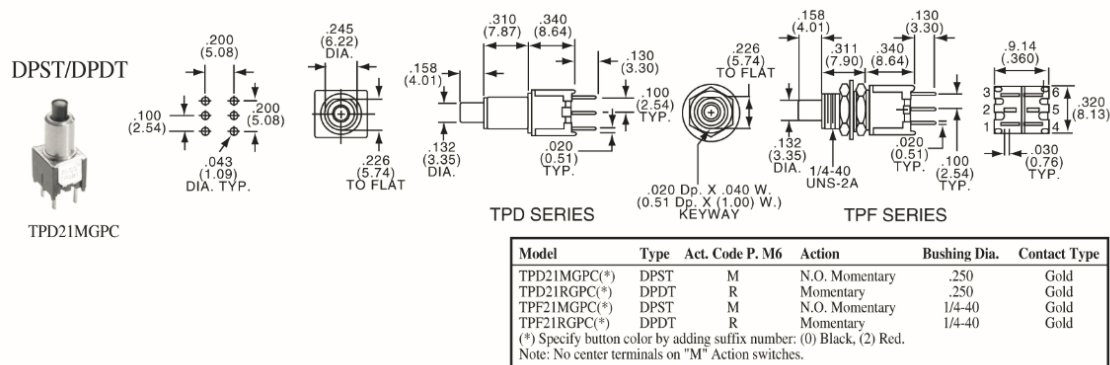
TPD11CGPC

Model	Type	Act. Code P. M6	Action	Bushing Dia.	Contact Type
TPD11CGPC(*)	SPST	C	N.O. Momentary	.250	Gold
TPD11FGPC(*)	SPDT	F	Momentary	.250	Gold
TPF11CGPC(*)	SPST	C	N.O. Momentary	1/4-40	Gold
TPF11FGPC(*)	SPDT	F	Momentary	1/4-40	Gold

(\*) Specify button color by adding suffix number: (0) Black, (2) Red.  
NOTE: No center terminal on "C" action switch.



# Pushbutton Switches, Tiny, Vertical or Right Angle, Unthreaded ¼ to 40 Bushing



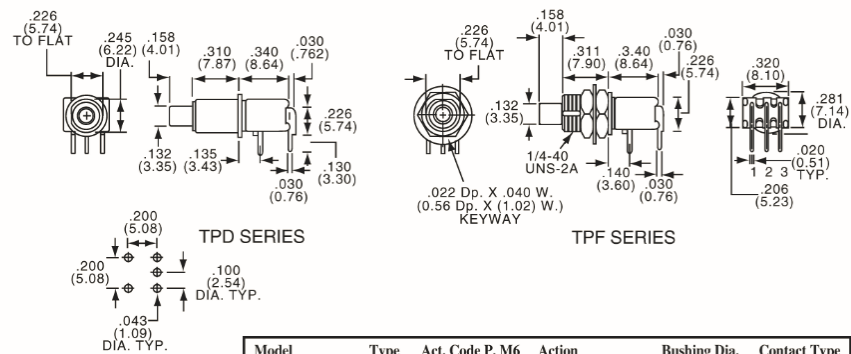
## SPST/SPDT



TPD11CGRA



TPF11CGRA



## DPST/DPDT



TPF21MGRA



TPD21MGRA

