

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

- * 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



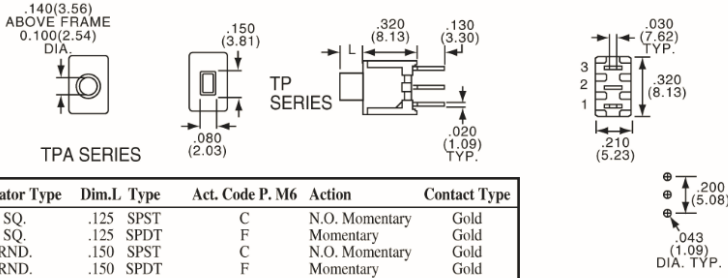
TPD



TPF

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

See Page 1 for Product Specifications

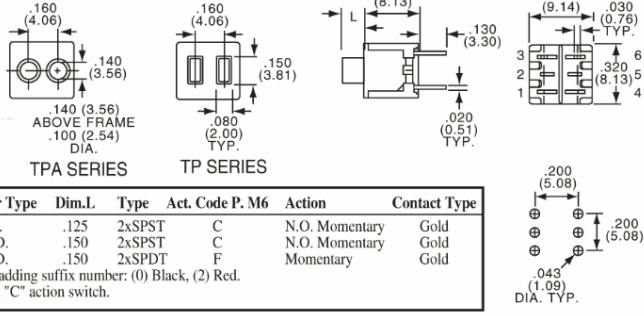


SPST/SPDT



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.

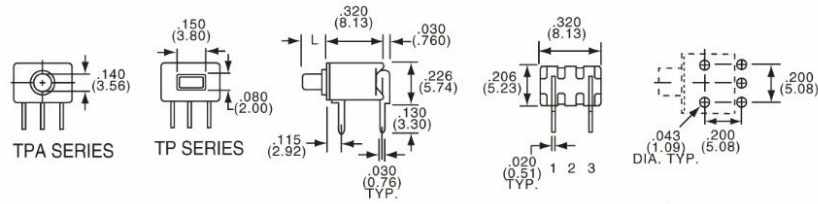


SPST/SPDT (DUAL)



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
TPA21FFGPC(*)	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.



SPST/SPDT

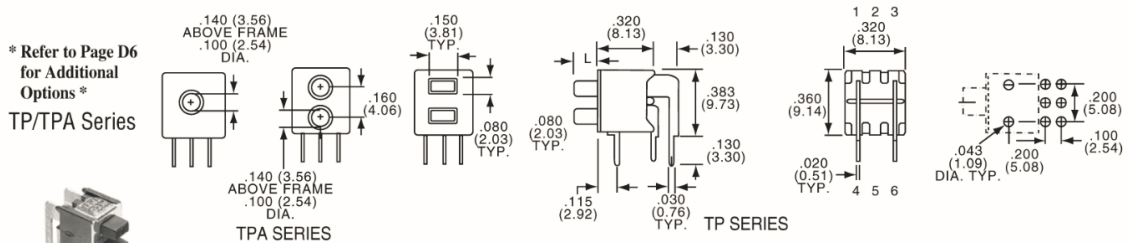


Model	Actuator Type	Dim.L	Type	Act. Code	P. M6	Action	Contact Type
TP11CGRA(*)	SQ.	.125	SPST	C		N.O. Momentary	Gold
TP11FGRA(*)	SQ.	.125	SPDT	F		Momentary	Gold
TPA11CGRA(*)	RND.	.150	SPST	C		N.O. Momentary	Gold
TPA11FGRA(*)	RND.	.150	SPDT	F		Momentary	Gold

(*) 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



* Refer to Page D6 for Additional Options *
TP/TPA Series



TP21CCGRA0

SPST/SPDT (DUAL)
DPST

Model	Actuator Type	Dim.L	Type	Act. Code P. M6	Action	Contact Type
TP21CCGRA(*)	SQ.	.125	2xSPST	C	N.O. Momentary	Gold
TP21FFGRA(*)	SQ.	.125	2xSPDT	F	Momentary	Gold
TPA21MGRA(*)	RND.	.150	DPST	M	N.O. Momentary	Gold
TPA21CCGRA(*)	RND.	.150	2xSPST	C	N.O. Momentary	Gold
TPA21FFGRA(*)	RND.	.150	2xSPDT	F	Momentary	Gold

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

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

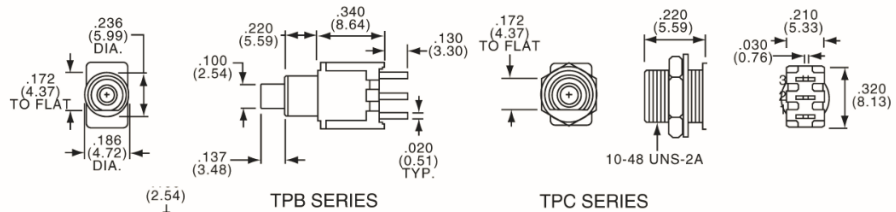
SPST/SPDT



TPB11CGPC



TPC11FGPC



Model	Type	Act. Code P. M6	Action	Bushing Dia.	Contact Type
TPB11CGPC(*)	SPST	C	N.O. Momentary	.188	Gold
TPB11FGPC(*)	SPDT	F	Momentary	.188	Gold
TPC11CGPC(*)	SPST	C	N.O. Momentary	10-48	Gold
TPC11FGPC(*)	SPDT	F	Momentary	10-48	Gold

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

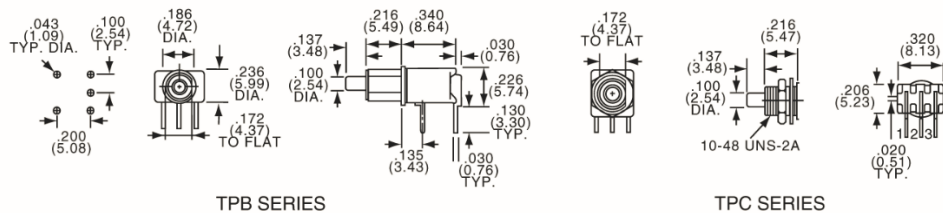
DPST/DPDT



TPB11CGRA



TPC11CGRA



Model	Type	Act. Code P. M6	Action	Bushing Dia.	Contact Type
TPB11CGRA(*)	SPST	C	N.O. Momentary	.188	Gold
TPB11FGRA(*)	SPDT	F	Momentary	.188	Gold
TPC11CGRA(*)	SPST	C	N.O. Momentary	10-48	Gold
TPC11FGRA(*)	SPDT	F	Momentary	10-48	Gold

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

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

See Page 1 for Product Specifications

TPB SERIES

TPC SERIES

DPST/DPDT

TPB21MGPC

TPC21RGPC

Model	Type	Act. Code	P. M6	Action	Bushing Dia.	Contact Type
TPB21MGPC(*)	DPST	M		N.O. Momentary	.188	Gold
TPB21RGPC(*)	DPDT	R		Momentary	.188	Gold
TPC21MGPC(*)	DPST	M		N.O. Momentary	10-48	Gold
TPC21RGPC(*)	DPDT	R		Momentary	10-48	Gold

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

TPB SERIES

TPC SERIES

DPST/DPDT

TPC21MGRA

Model	Type	Act. Code	P. M6	Action	Bushing Dia.	Contact Type
TPB21MGRA(*)	DPST	M		N.O. Momentary	.188	Gold
TPB21RGRA(*)	DPDT	R		Momentary	.188	Gold
TPC21MGRA(*)	DPST	M		N.O. Momentary	10-48	Gold
TPC21RGRA(*)	DPDT	R		Momentary	10-48	Gold

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

TPC SERIES

1 & 2 POLE

TPC23M

TPC13C

Model	Type	Act. Code	P. M6	Action	Contact Type
TPC13C(*)	SPST	C		N.O. Momentary	Silver
TPC13F(*)	SPDT	F		Momentary	Silver
TPC23M(*)	DPST	M		N.O. Momentary	Silver
TPC23R(*)	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.

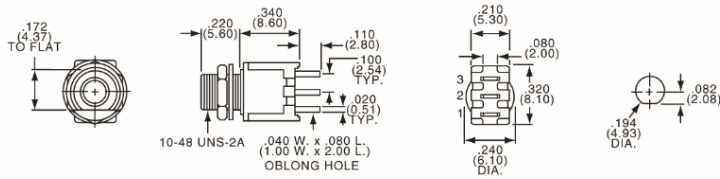
Pushbutton Switches, Tiny, Straight or Right Angle Flush Actuator

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.

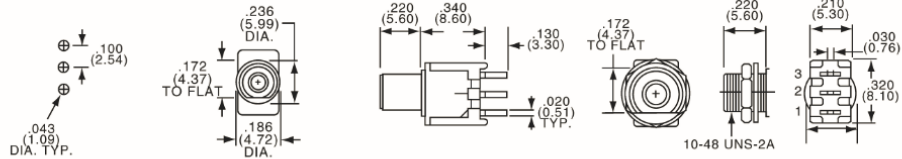
SPST/SPDT
PC 10-48 Bushing



TPBF11FGPC



TPCF11CGPC



TPB SERIES

TPC SERIES

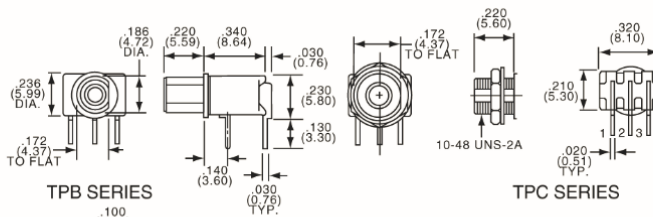
Model	Gold Contacts	Type	Act. Code P. M6	Action	Bushing Type
TPBF11CGPC(*)		SPST	C	N.O. Momentary	Unthreaded
TPBF11FGPC(*)		SPDT	F	Momentary	Unthreaded
TPCF11CGPC(*)		SPST	C	N.O. Momentary	Threaded
TPCF11FGPC(*)		SPDT	F	Momentary	Threaded

(*) 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

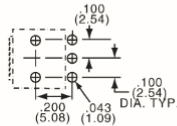


TPBF11CGRA



TPB SERIES

TPC SERIES

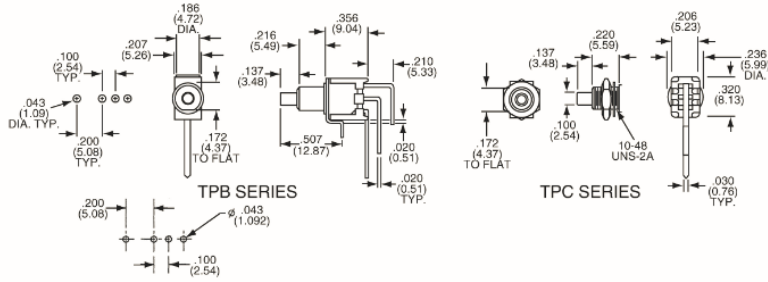


Model	Gold Contacts	Type	Act. Code P. M6	Action	Bushing Type
TPBF11CGRA(*)		SPST	C	N.O. Momentary	Unthreaded
TPBF11FGRA(*)		SPDT	F	Momentary	Unthreaded
TPCF11CGRA(*)		SPST	C	N.O. Momentary	Threaded
TPCF11FGRA(*)		SPDT	F	Momentary	Threaded

(*) 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

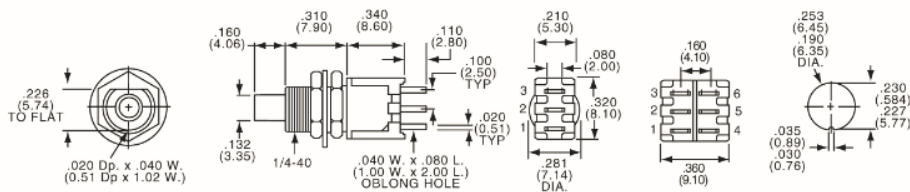


TPB11FGVRA

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

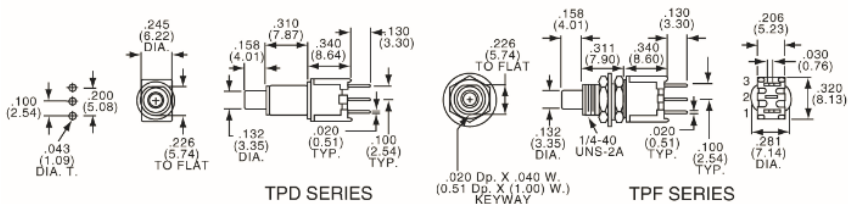


TPF23M

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.

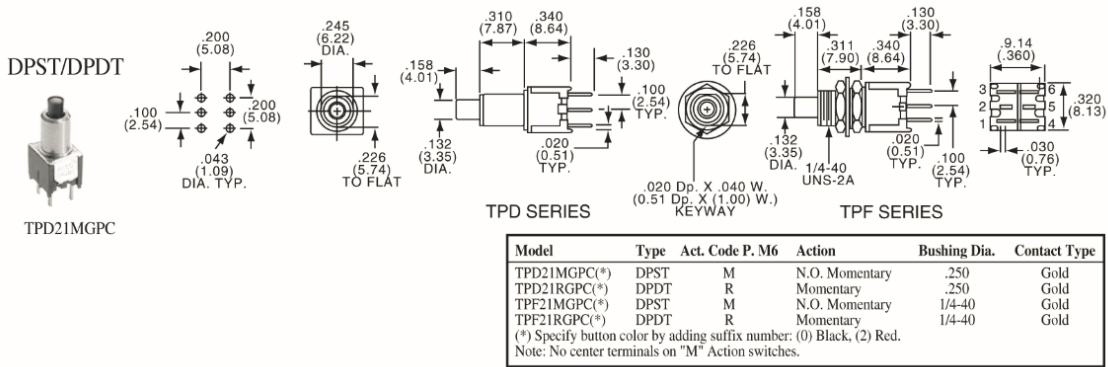


TPD11CGPC

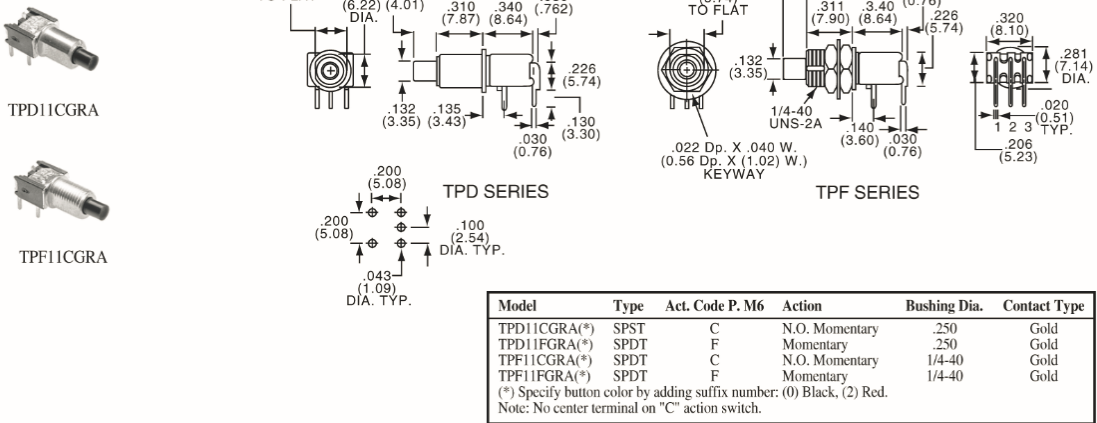
Model	Type	Act. Code P. M6	Action	Bushing Dia.	Contact Type
TPD11CGPC(*)	SPST	C	N.O. Momentary	.250	Gold
TPD11FGPC(*)	SPDT	F	Momentary	.250	Gold
TPF11CGPC(*)	SPST	C	N.O. Momentary	1/4-40	Gold
TPF11FGPC(*)	SPDT	F	Momentary	1/4-40	Gold

(*) 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



DPST/DPDT

