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							

Bushing:
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.

Actuator:
F=Flush Actuator*

Poles:
1= Single
2= Double

Rating:
1= Gold 0.4 VA
3= Silver** 1 Amp

Function:

SP	DP	
C	M	S.T. Momentary
F	R	D.T. Momentary

Plating:
G= Gold
None= Silver**

Terminations:
Blank= Wire Lug
PC= Printed Circuit
RA= Right Angle ***
VRA= Vertical Right Angle

Process Seal:
ES= Process Sealed***
Process seal: disposable boot, epoxied double

Button Colors:
0= Black
2= Red

* 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

ES switches provided with disposable boot used only during cleaning operation

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"

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

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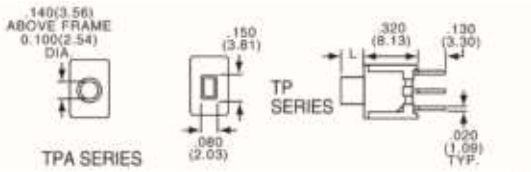
Dimensions in millimetres unless otherwise specified

Dimensions Shown for reference purposes only. Specifications subject to change

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

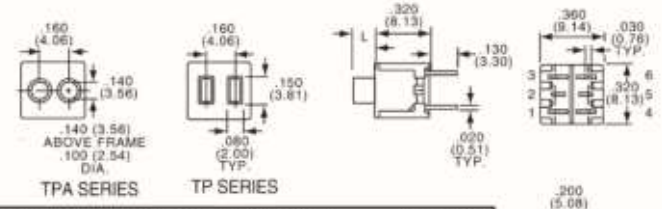
See Page 1 for Product Specifications



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.

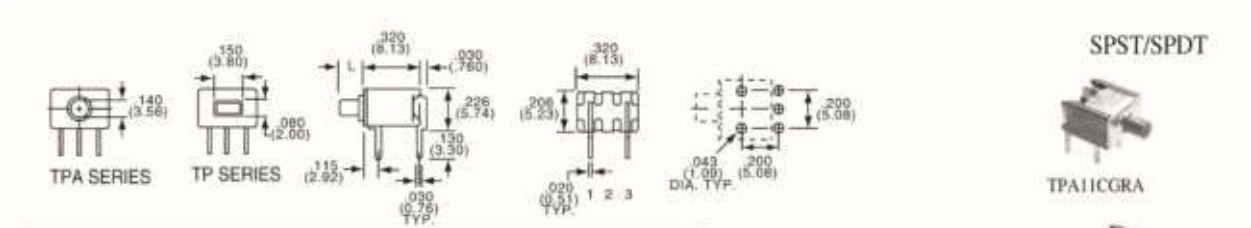




Model	Actuator Type	Dim.L.	Type	Act. Code P. M6	Action	Contact Type
TP21CCGPC(*)	SQ.	.125	2xSPST	C	N.O. Momentary	Gold
TPA21CCGPC(*)	RND.	.150	2xSPST	C	N.O. Momentary	Gold
TPA21FFGPC(*)	RND.	.150	2xSPDT	F	Momentary	Gold

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





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.

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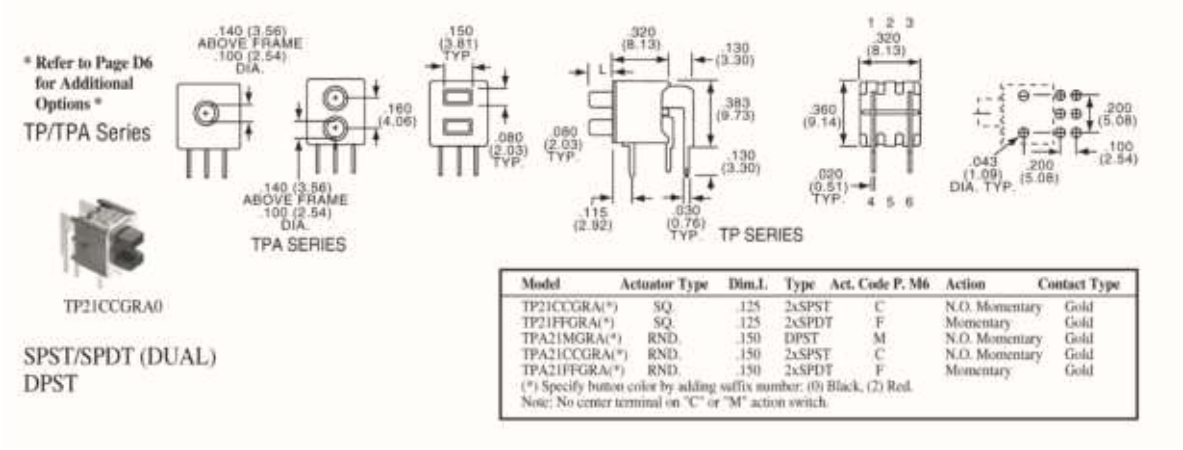
Dimensions in millimetres unless otherwise specified

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

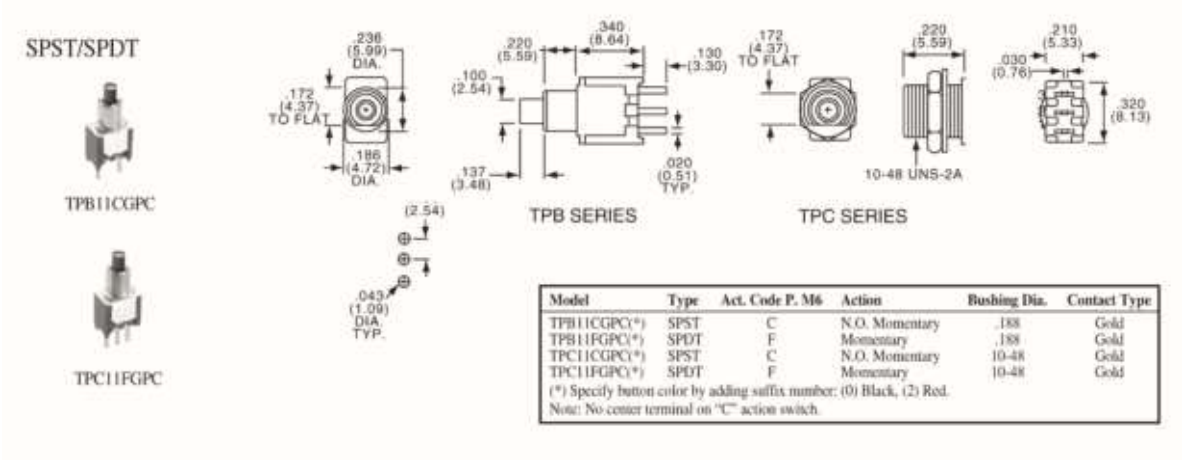
See Page 1 for Product Specifications



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

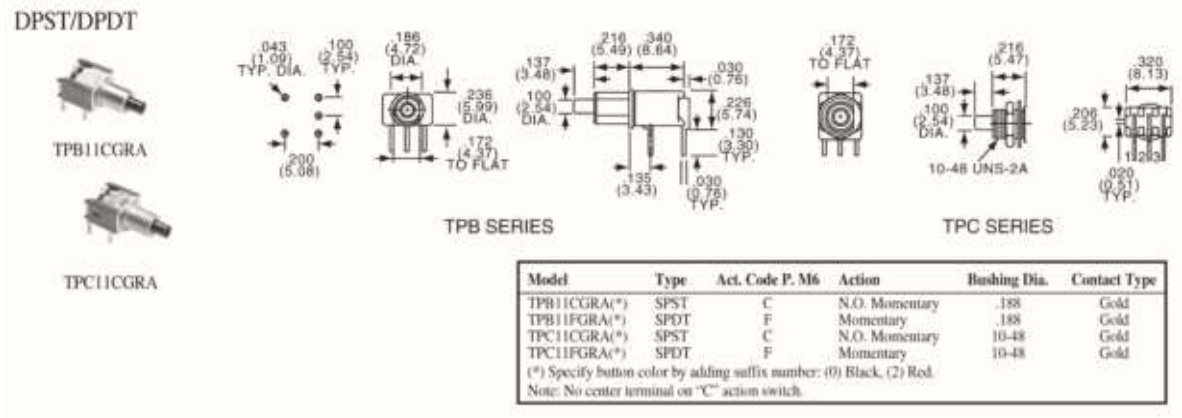
(*) Specify button color by adding suffix number: (0) Black, (2) Red.
Note: No center terminal on "C" or "M" action switch.

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



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.



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.

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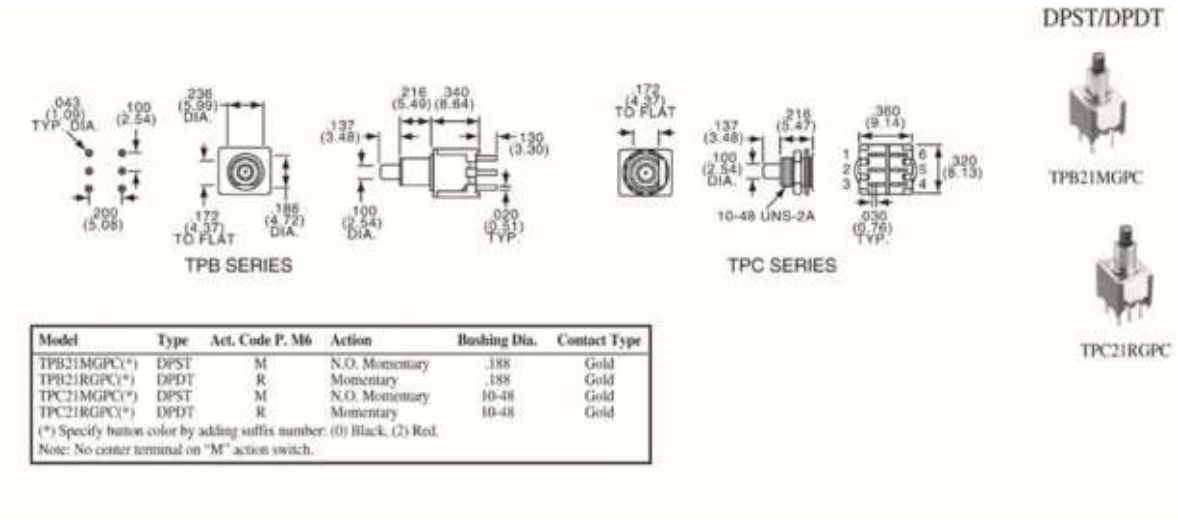
Dimensions in millimetres unless otherwise specified

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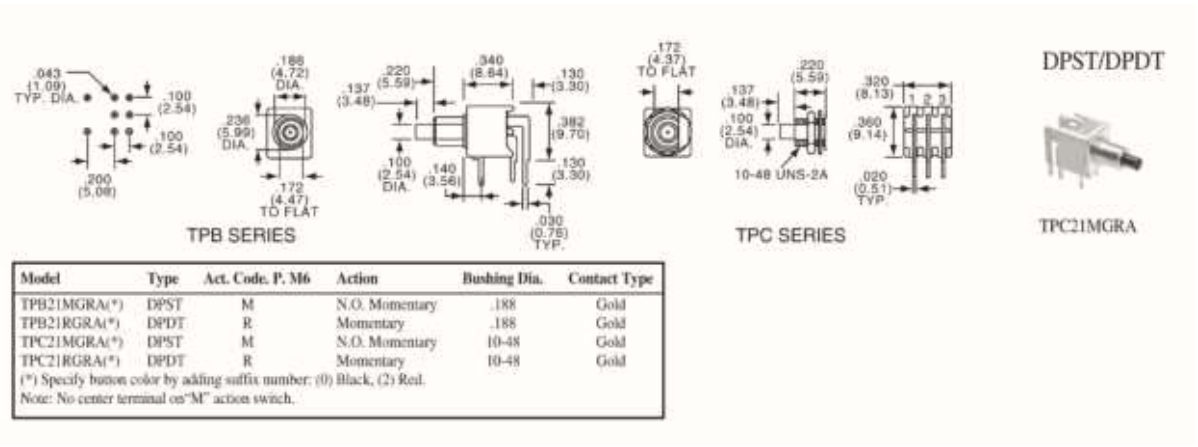
Pushbuttons, Tiny, Straight or Right Angle, Unthreaded or 10-48 Bushings

See Page 1 for Product Specifications



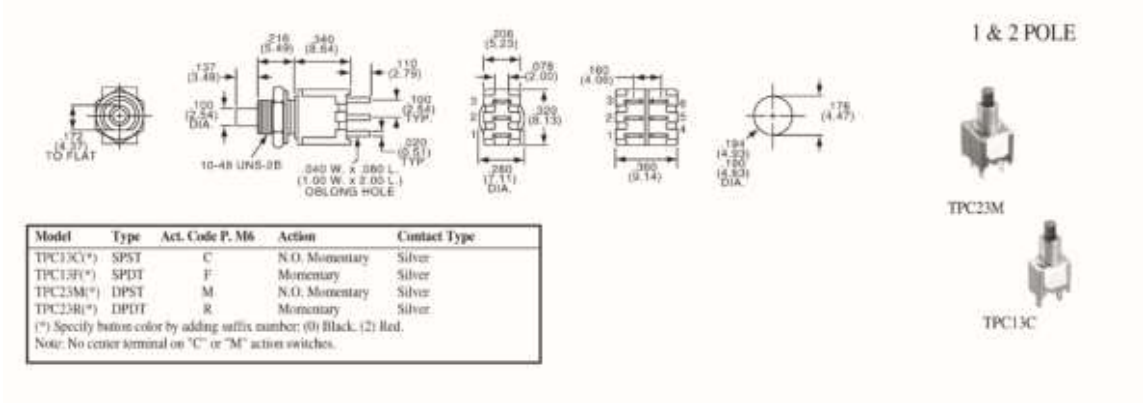
Model	Type	Act. Code P. M6	Action	Bushing Dia.	Contact Type
TPB21MGPC(*)	DPST	M	N.O. Momentary	.188	Gold
TPB21RGPC(*)	DPDT	R	Momentary	.188	Gold
TPC21MGPC(*)	DPST	M	N.O. Momentary	10-48	Gold
TPC21RGPC(*)	DPDT	R	Momentary	10-48	Gold

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



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.



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.

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Pushbutton Switches, Tiny, Straight or Right Angle Flush Actuator

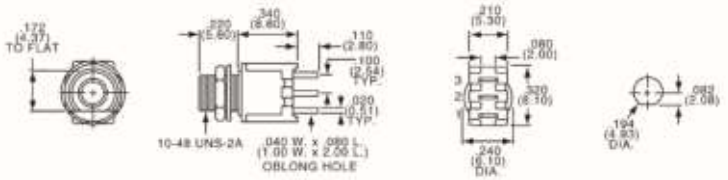
See Page 1 for Product Specifications

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

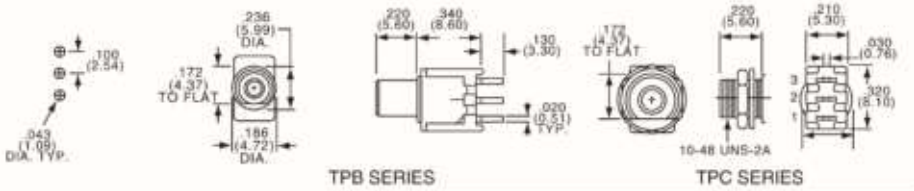
PC 10-48 Bushing



TPBF11FGPC



TPCF11CGPC



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

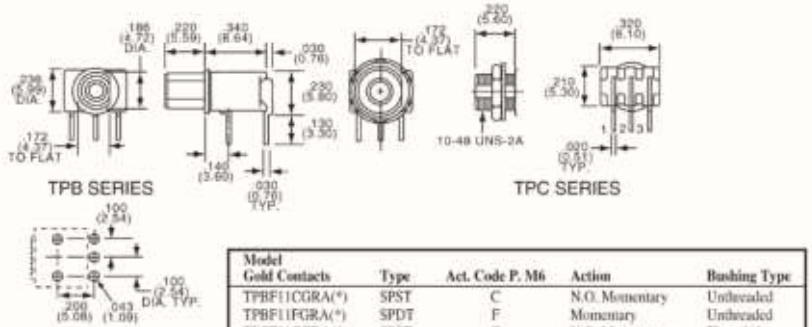
(*) Specify button color by adding suffix numbers: (0) Black, (2) Red.
Note: No center terminal on "C" action switch.

SPST/SPDT

RA 10-48 Bushing



TPBF11CGRA



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.

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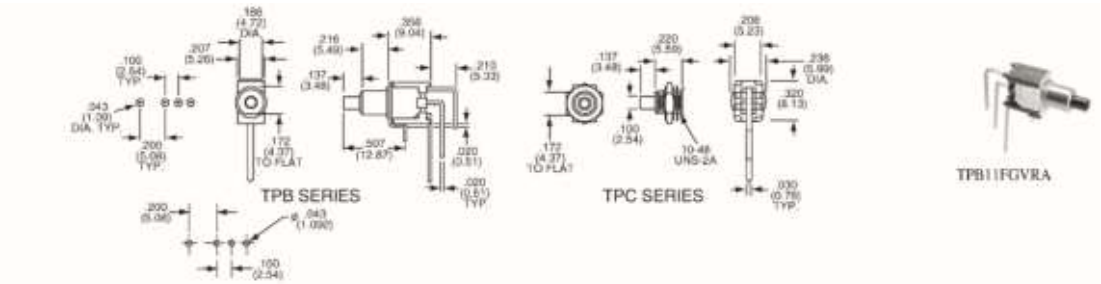
Dimensions in millimetres unless otherwise specified

Dimensions Shown for reference purposes only. Specifications subject to change

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

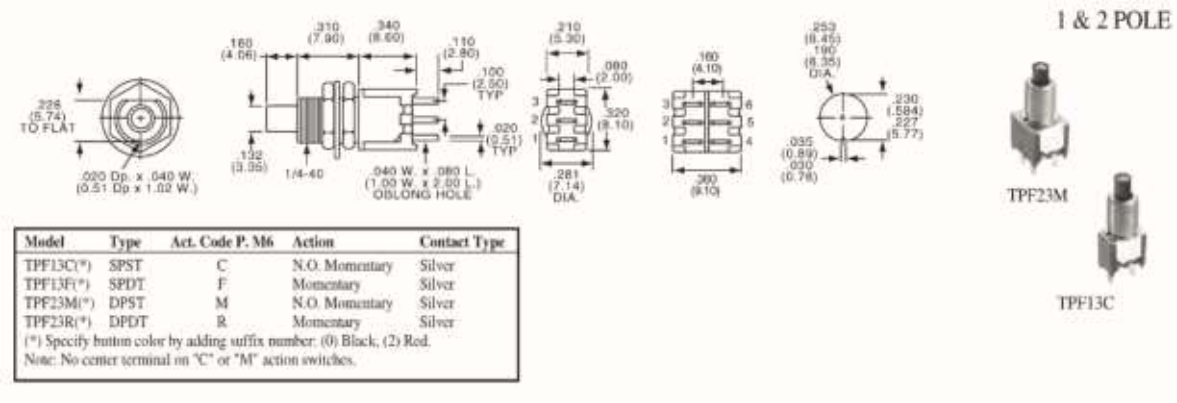
See Page 1 for Product Specifications



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

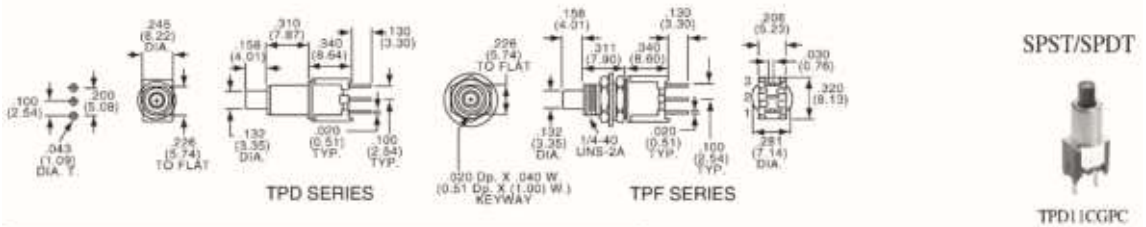
(*) Specify button color by adding suffix number: (0) Black, (2) Red.
Note: No center terminal on "C" action switches.

Pushbuttons, Tiny, Vertical, Unthreaded, or ¼ - 40 Bushings



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.



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.

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Dimensions in millimetres unless otherwise specified

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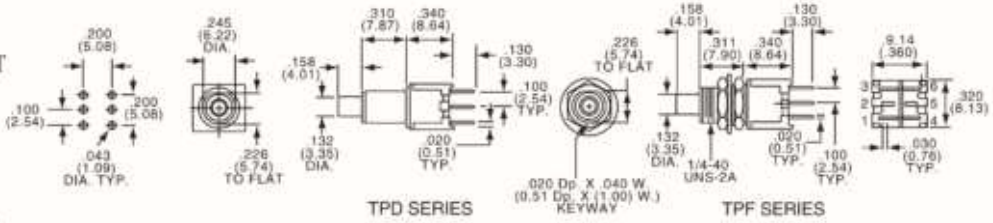
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Pushbutton Switches, Tiny, Vertical or Right Angle, Unthreaded ¼ to 40 Bushing

DPST/DPDT



TPD21MGPC



Model	Type	Act. Code P. M6	Action	Bushing Dia.	Contact Type
TPD21MGPC(*)	DPST	M	N.O. Momentary	.250	Gold
TPD21RGPC(*)	DPDT	R	Momentary	.250	Gold
TPF21MGPC(*)	DPST	M	N.O. Momentary	1/4-40	Gold
TPF21RGPC(*)	DPDT	R	Momentary	1/4-40	Gold

(*) Specify button color by adding suffix number: (0) Black, (2) Red.
Note: No center terminals on "M" Action switches.

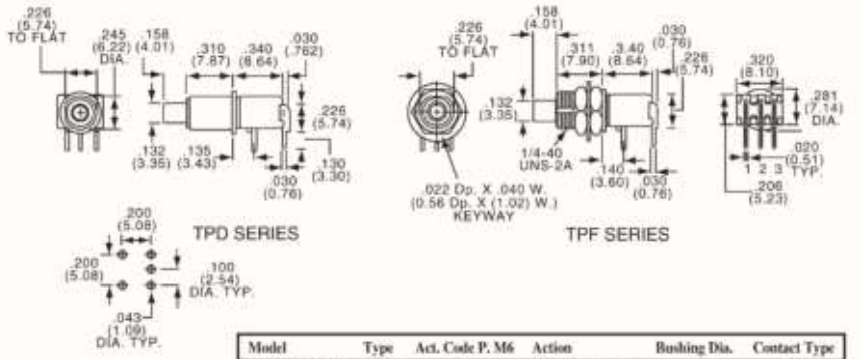
SPST/SPDT



TPD11CGRA



TPF11CGRA



Model	Type	Act. Code P. M6	Action	Bushing Dia.	Contact Type
TPD11CGRA(*)	SPST	C	N.O. Momentary	.250	Gold
TPD11FGRA(*)	SPDT	F	Momentary	.250	Gold
TPF11CGRA(*)	SPDT	C	N.O. Momentary	1/4-40	Gold
TPF11FGRA(*)	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.

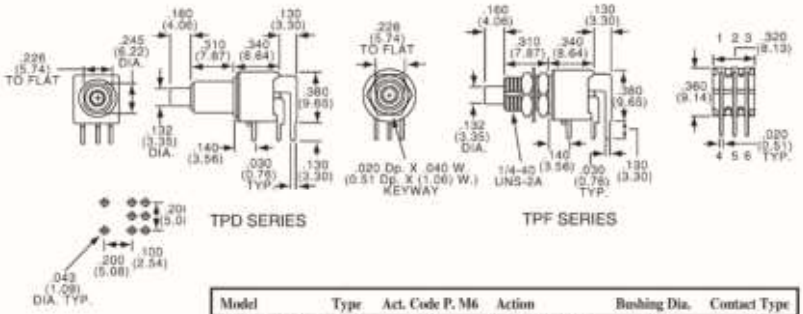
DPST/DPDT



TPF21MGRA



TPD21MGRA



Model	Type	Act. Code P. M6	Action	Bushing Dia.	Contact Type
TPD21MGRA(*)	DPST	M	N.O. Momentary	.250	Gold
TPD21RGRA(*)	DPDT	R	Momentary	.250	Gold
TPF21MGRA(*)	DPST	M	N.O. Momentary	1/4-40	Gold
TPF21RGRA(*)	DPDT	R	Momentary	1/4-40	Gold

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

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