

# TP SERIES - WASHABLE SUBMINIATURE MOMENTARY PUSHBUTTON SWITCHES



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## FEATURES

- Wave solderable.
- Fully sealed for process compatibility.
- Ultra-compact case size.
- Case color options - blue or black (with black actuator).
- SPST, SPDT, DPST & DPDT p.c. mounting models.

## SPECIFICATIONS

<b>Contact ratings (resistive loads):</b>	Gold plated brass: 0.4 Volt-Amps max. at 20 V max. Silver plated brass: 0.5 Amps at 48 V max.
<b>Minimum load:</b>	10 mA at 50 mV - 10µA at 5 VDC
<b>Initial contact resistance:</b>	50 milliohms maximum
<b>Insulation resistance:</b>	1000 megohms minimum at 500 VDC
<b>Dielectric strength:</b>	1000 V rms min. between terminals and frame. 500 V rms between terminals.
<b>Electrical life:</b>	60,000 cycles minimum at full load.
<b>Operating temperature range:</b>	-30°C to +85°C
<b>Plunger travel:</b>	'ON MOM' - .039" (1mm)      'OFF MOM' - .031" (0.8mm)
<b>Washing:</b>	Permissible with water, detergents and solvents.

## MATERIALS

<b>Contacts &amp; Terminals:</b>	Gold or silver plated brass
<b>Actuator:</b>	Polyamide (UL94V-O), glass filled
<b>Bracket:</b>	Tin plated steel
<b>Case:</b>	PBT (UL94V-O)
<b>Terminal seal:</b>	Epoxy


## AGENCY LISTINGS

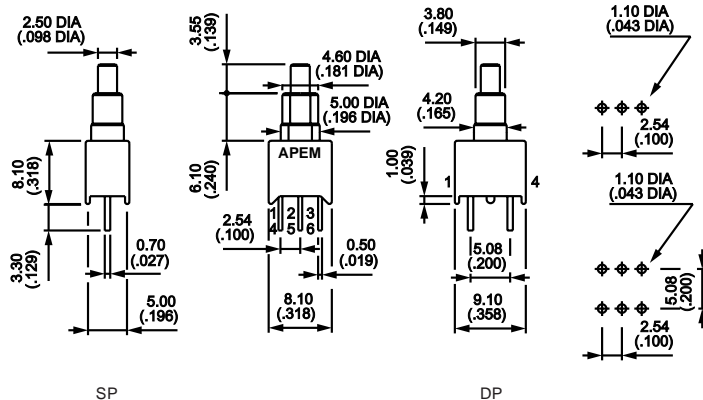
GAM T1 (military). Availability: consult factory for details of listed models.

Note: drawings show switches with 3 terminals (function 2). Function 3 switches have only 2 terminals. See switch cross-sections at end of section.

## Straight p.c. terminals - gold plated brass contacts



SINGLE POLE MODEL NO.	CIRCUIT
TP32P003000	ON MOM
TP33P003000	OFF MOM
DOUBLE POLE MODEL NO.	CIRCUIT
TP42P003000	ON MOM
TP43P003000	OFF MOM
Handle position:	



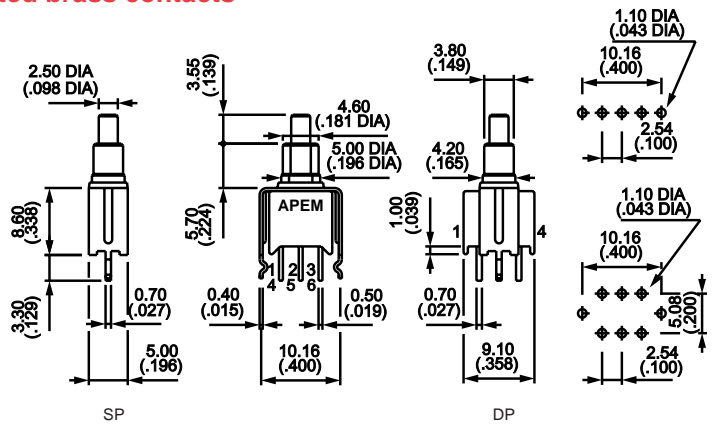
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## Straight p.c. terminals - bracket mounting - gold plated brass contacts



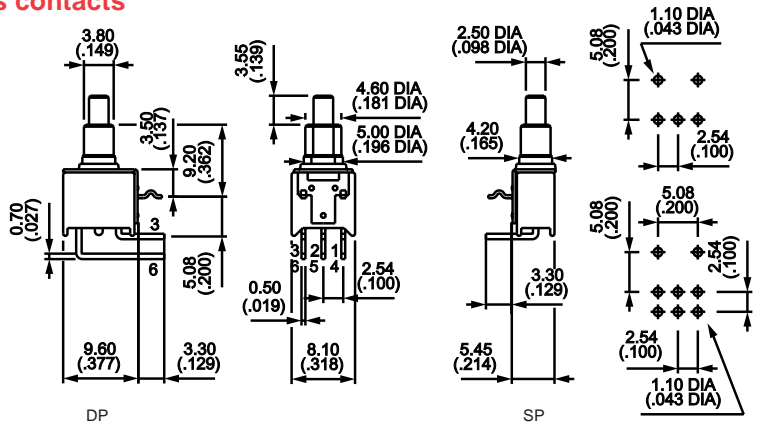
SINGLE POLE		CIRCUIT	
MODEL NO.		ON	MOM
TP32Y003050		OFF	MOM
DOUBLE POLE		CIRCUIT	
MODEL NO.		ON	MOM
TP42Y003050		OFF	MOM
TP43Y003050			
Handle position:			



## Horizontal right angle terminals - gold plated brass contacts



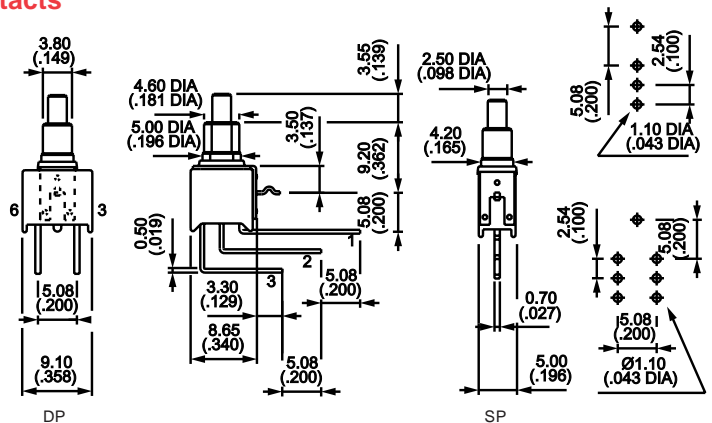
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MODEL NO.		ON	MOM
TP32W003050		OFF	MOM
DOUBLE POLE		CIRCUIT	
MODEL NO.		ON	MOM
TP42W003050		OFF	MOM
TP43W003050			
Handle position:			



## Vertical right angle terminals - gold plated brass contacts



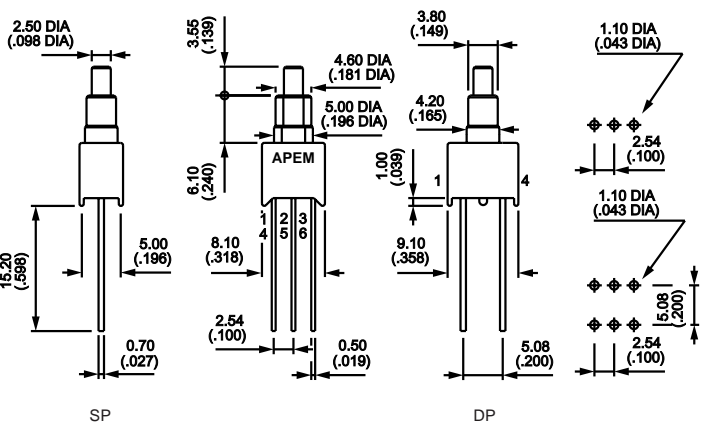
SINGLE POLE		CIRCUIT	
MODEL NO.		ON	MOM
TP32WW03050		OFF	MOM
DOUBLE POLE		CIRCUIT	
MODEL NO.		ON	MOM
TP42WW03050		OFF	MOM
TP43WW03050			
Handle position:			



## Wire-wrap terminals - gold plated brass contacts



SINGLE POLE		CIRCUIT	
MODEL NO.		ON	MOM
TP32MW03000		OFF	MOM
DOUBLE POLE		CIRCUIT	
MODEL NO.		ON	MOM
TP42MW03000		OFF	MOM
TP43MW03000			
Handle position:			



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**Additional ordering information:** Commonly ordered models are shown above with complete model numbers and specifications. Below is an order format that enables you to 'build your own switch' and specify the correct switch model number by simply selecting from all available options shown and filling in the boxes.

## 'BUILD YOUR OWN SWITCH' ORDER FORMAT

Fill in boxes with selections shown for **Model Structure**, then add **Options** selections for complete model number. ( Allowable options are shown under each respective box).

### Model Structure:

Series	Number of poles	Electrical functions	Terminals
T P	<input type="text"/>	<input type="text"/>	<input type="text"/>
	3 Single pole	2 ON MOM	P 0 Straight p.c.
	4 Double pole	3 OFF MOM	Y 0 Straight p.c.with bracket
			W 0 Horizontal right angle
			W W Vertical right angle
			M W Wire-wrap

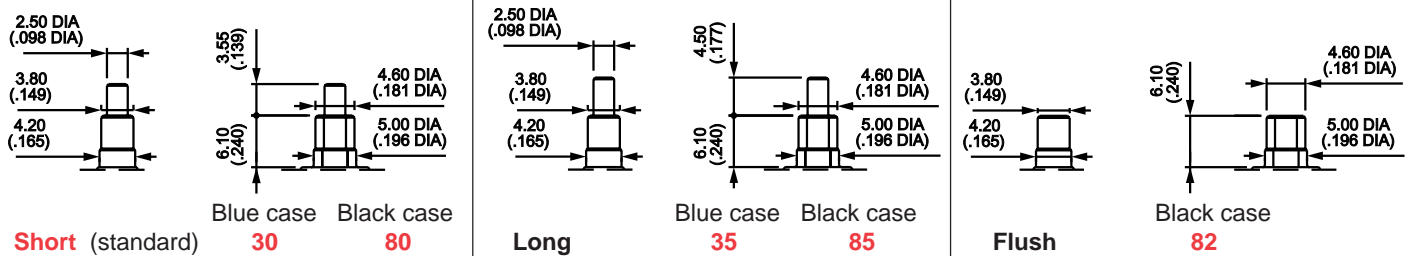
### Options:

Contact & terminal mat'ls.	Actuators & case colors	Miscellaneous	Caps
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
0 Brass, gold plated	Specify 30, 35, 80, 82, or 85	0 0 No special requirement	1 0*
1 Brass, silver plated	See drawings with specifications and dimensions.	5 0 Crimped bracket terminals - specify for models with brackets. See additional listings on following page.	2 0*
3 Brass, gold plated - (1.27 microns gold)			3 0*
8 Brass, gold plated contacts with tin plated terminals			4 0*
9 Contacts brass, gold plated (1.27 microns gold) and tin plated terminals			* - Specify color - see caps below.

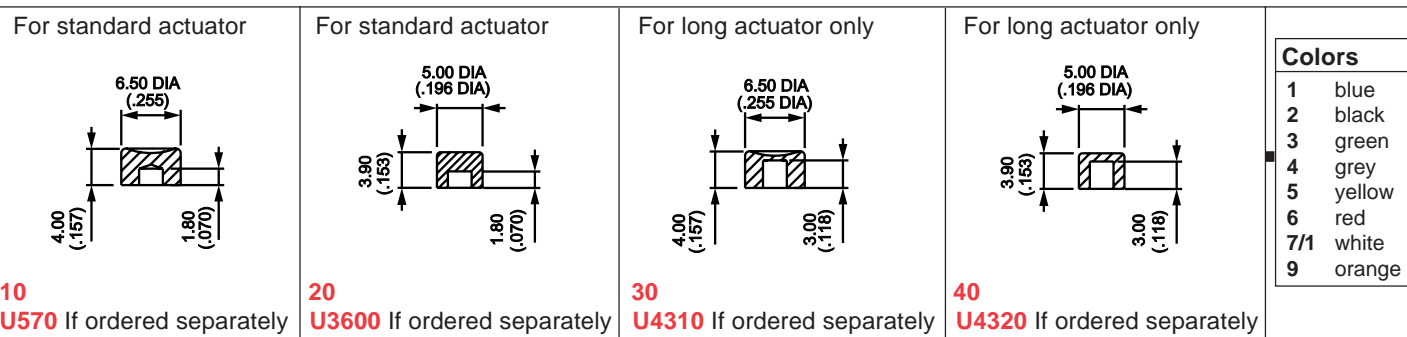
Example of completely specified model number: **TP32Y00305025**

## OPTION DRAWINGS

### Actuators & case colors



### CAPS Note: replace last '0' in part numbers with color code.



Colors	
1	blue
2	black
3	green
4	grey
5	yellow
6	red
7/1	white
9	orange

Note: Caps U4310 and U4320 (for long actuators) offer better resistance to vibration.

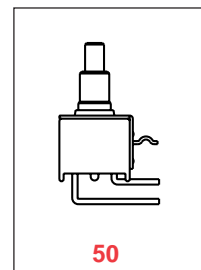
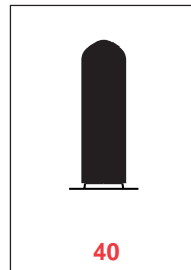
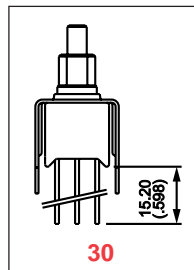
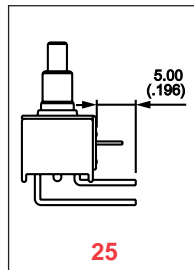
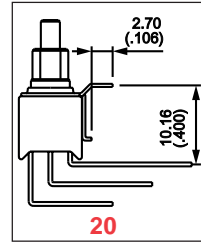
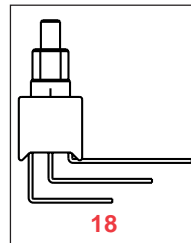
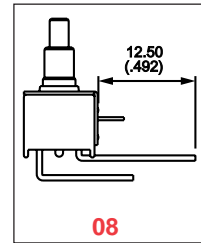
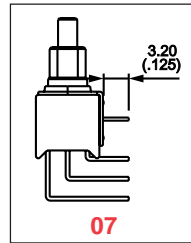
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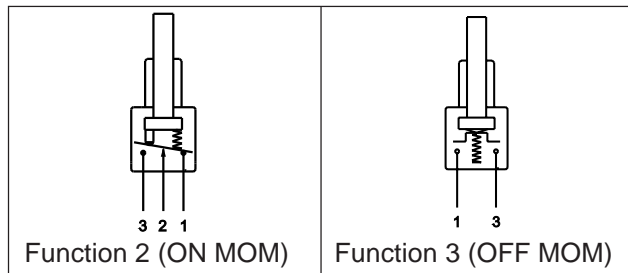
## SPECIAL OPTIONS & MISCELLANEOUS

### SPECIAL OPTIONS

- 00** No special requirement.
- 07** Trimmed terminals for **WW** models only - .125" (3.2mm).
- 08** Extended terminals for **W0** models only.
- 18** **WW** models without mounting bracket.
- 20** **WW** models with mounting bracket and p.c. board spacer tab.
- 25** Trimmed terminals for all models except **WW** - .196" (5mm).
- 30** Wire-wrap terminals on models with **Y** bracket.
- 40** With cap **U3500** mounted over plunger and bushing.  
Provides additional protection during soldering & cleaning.
- 50** Crimped bracket terminals (retains switch on p.c. board during assembly and soldering). For models with **W0**, **WW** & **Y0** terminals.



### Switch cross-sections



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