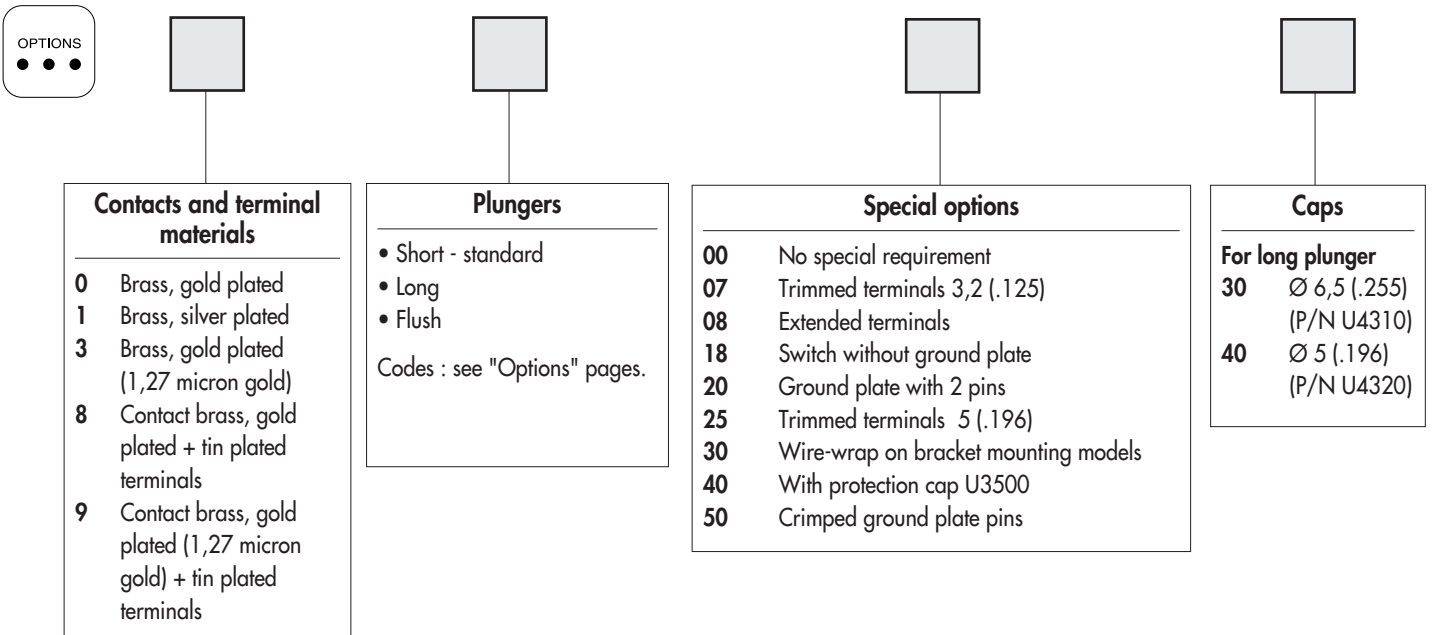
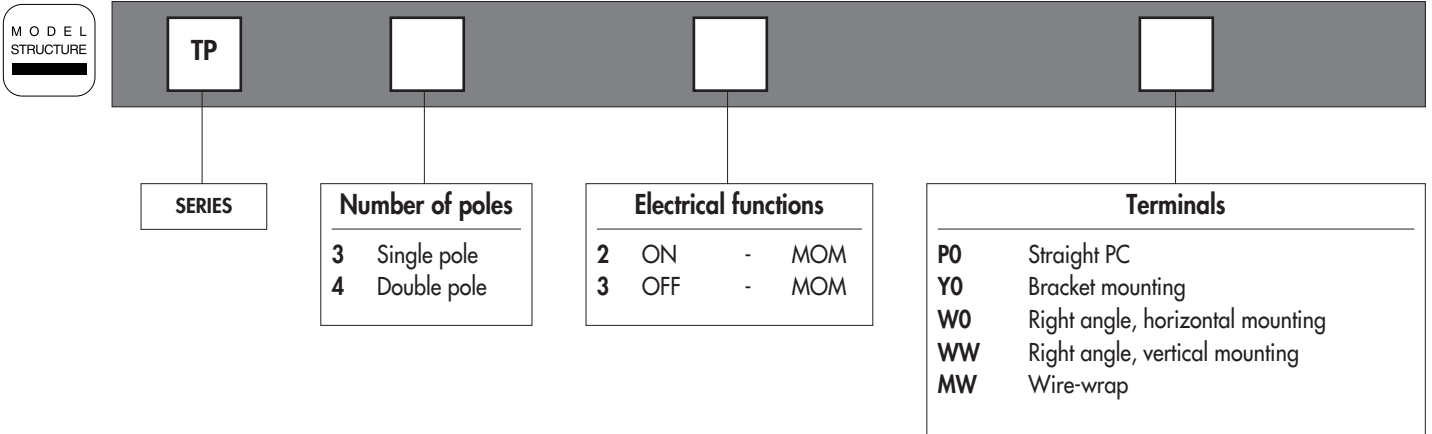


# TP SERIES

## SUBMINIATURE WASHABLE MOMENTARY PUSHBUTTON SWITCHES

### Overview



**ABOUT THIS SERIES**

On the following pages, you will find successively :

- specifications
- model structure of switches
- options in the same order as in above chart

**Dimensions** : first dimensions are in mm while inches are shown as bracketted numbers.

**NOTICE** : please note that not all combinations of above numbers are available. Refer to the following pages for further information.

**Packaging unit** : 100 pieces, except for models with WW terminals (50 pieces).

# TP SERIES

## SUBMINIATURE WASHABLE MOMENTARY PUSHBUTTON SWITCHES

### Specifications

#### ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - gold plated contacts : 0,4VA 20V max. AC or DC
  - silver plated contacts : 0,5A 48V max. AC or DC
- Minimum load : 10mA 50mV - 10 $\mu$ A 5VDC
- Contact resistance : 50 m $\Omega$  max.
- Insulation resistance : 1.000 M $\Omega$  min. at 500VDC
- Dielectric strength :
  - 1.000 Vrms 50 Hz min. between terminals and frame
  - 500 Vrms 50 Hz min. between terminals
- Electrical life at full load :
  - gold plated contacts : 60.000 cycles
  - silver plated contacts : 20.000 cycles

#### MATERIALS

- Case : PBT
- Actuator : polyamide, glass filled
- Contacts and terminals :
  - 0** : brass, gold plated
  - 1** : brass, silver plated
  - 3** : brass, gold plated (1,27 micron gold)
  - 8** : contact brass, gold plated + tin plated terminals
  - 9** : contact brass, gold plated (1,27 micron gold) + tin plated terminals
- Terminal seal : epoxy

#### GENERAL SPECIFICATIONS

- Total travel :
  - function 2 : 1 mm (.039)
  - function 3 : 0,8 mm (.031)
- Strength of terminals : pull-out force - 10N max.
- Operating temperature : -30°C to +85°C
- Moisture : 21 days 95 % (NFC 20-603 - IEC 68-2-3)
- Cleaning : solvents or water + detergent
- Wave soldering : 260°C - 5 sec.

#### SOLDERING

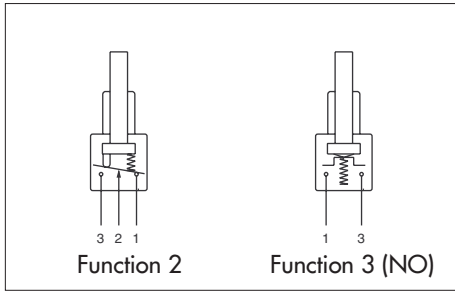
Compatible wave soldering processes : see specifications S and SF, section B.

# TP SERIES

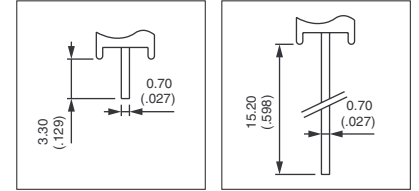
## SUBMINIATURE WASHABLE MOMENTARY PUSHBUTTON SWITCHES

MODEL  
STRUCTURE

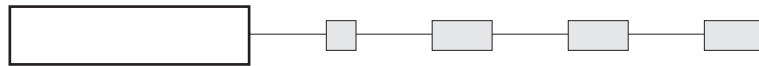
A



- Straight PC, right angle or wire-wrap terminals
- 1 and 2 pole configurations



MODEL  
STRUCTURE



Shown in function 2, with standard plunger

### Straight PC terminals : TP..P0



Single pole Double pole

TP32P0 TP42P0

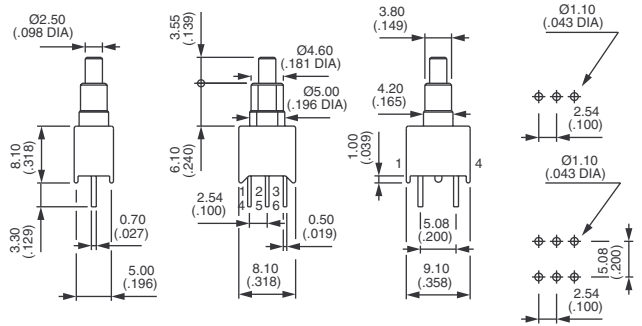
TP33P0 TP43P0



OFF



MOM



Function 3 has two terminals only (3 and 1) per pole

### Straight terminals - bracket mounting : TP..Y0



Single pole Double pole

TP32Y0 TP42Y0

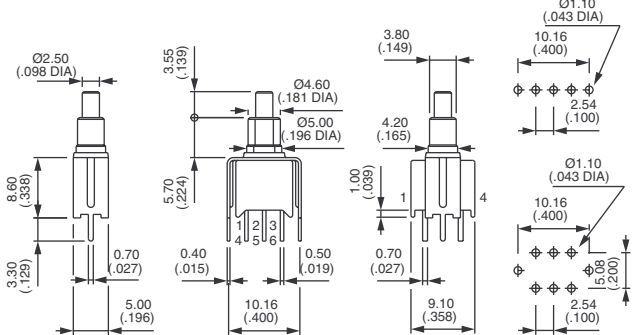
TP33Y0 TP43Y0



OFF



MOM



Function 3 has two terminals only (3 and 1) per pole

### Right angle terminals - horizontal mounting : TP..W0



Single pole Double pole

TP32W0 TP42W0

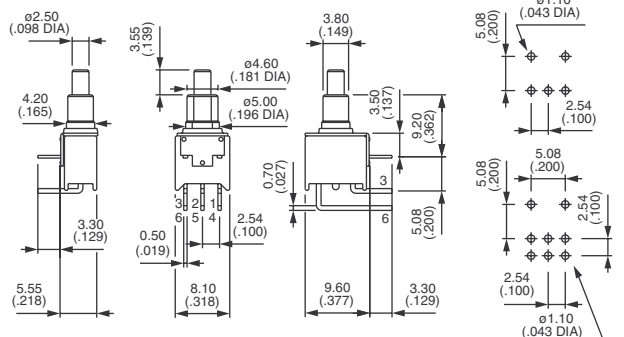
TP33W0 TP 43W0



OFF



MOM



Function 3 has two terminals only (3 and 1) per pole

# TP SERIES

## SUBMINIATURE WASHABLE MOMENTARY PUSHBUTTON SWITCHES

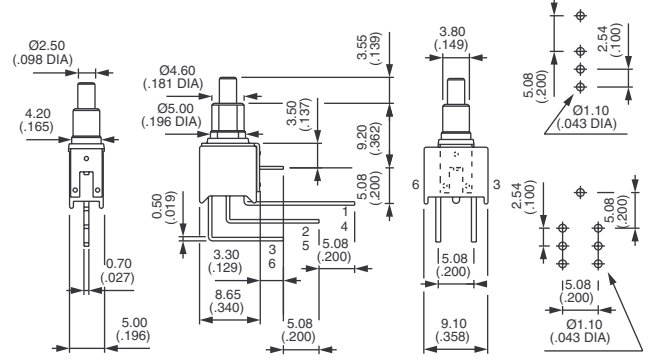
M O D E L  
S T R U C T U R E

Shown in function 2, with standard plunger

### Right angle terminals - vertical mounting : TP..WW



Single pole	Double pole		
<b>TP32WW</b>	<b>TP42WW</b>	ON	MOM
<b>TP33WW</b>	<b>TP43WW</b>	OFF	MOM

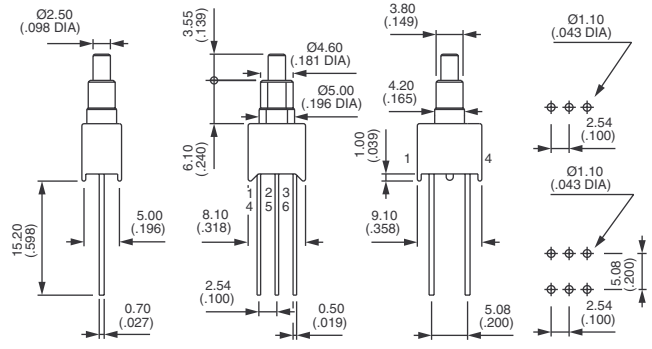


Function 3 has two terminals only (3 and 1) per pole

### Wire-wrap terminals : TP..MW

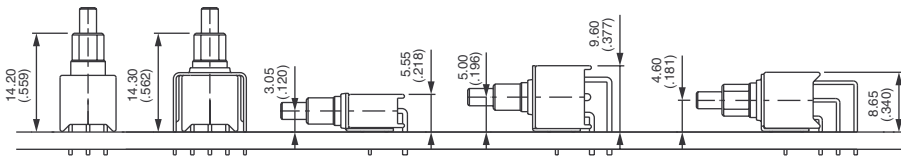


Single pole	Double pole		
<b>TP32MW</b>	<b>TP42MW</b>	ON	MOM
<b>TP33MW</b>	<b>TP43MW</b>	OFF	MOM



Function 3 has two terminals only (3 and 1) per pole

### PCB MOUNTING



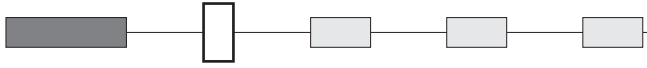
# TP SERIES

## SUBMINIATURE WASHABLE MOMENTARY PUSHBUTTON SWITCHES

OPTIONS

A

### CONTACT AND TERMINAL MATERIALS

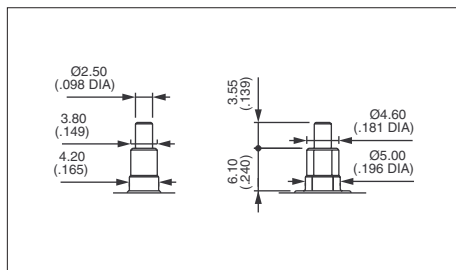


- 0 Brass, gold plated
- 1 Brass, silver plated
- 3 Brass, gold plated (1,27 micron gold)
- 8 Contact brass, gold plated + tin plated terminals
- 9 Contact brass, gold plated (1,27 micron gold) + tin plated terminals

### PLUNGERS



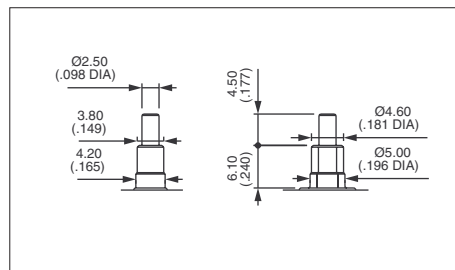
Standard plunger colour is black.



Short - standard

With blue  
case  
**30**

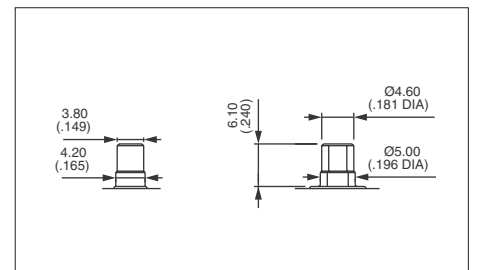
With black  
case  
**80**



Long

With blue  
case  
**35**

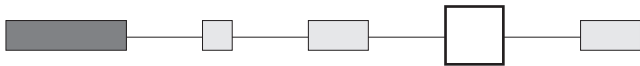
With black  
case  
**85**



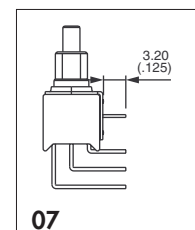
Flush

With black  
case  
**82**

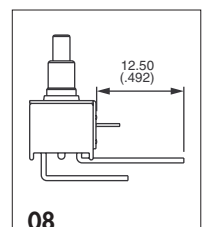
### SPECIAL OPTIONS



- 00 No special requirement
- 07 **Trimmed terminals** - length 3,2 mm (.125) for TP..WW models only
- 08 **Extended terminals** for TP..WO models only



07



08

# TP SERIES

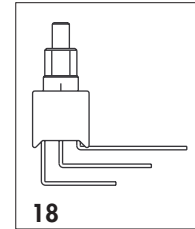
## SUBMINIATURE WASHABLE MOMENTARY PUSHBUTTON SWITCHES

OPTIONS

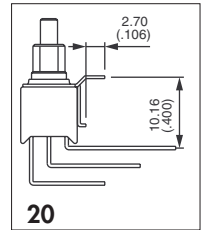


### SPECIAL OPTIONS (continued)

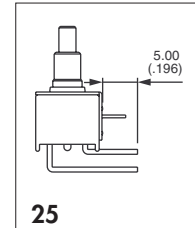
- 18** Switch **without ground plate** for TP..WW models only
- 20** **Ground plate with 2 pins** for TP..WW models only
- 25** **Trimmed terminals** - length 5 mm (.196) for all models, except TP..WW
- 30** **Wire-wrap terminals** on models with mounting **bracket**
- 40** With cap U3500 mounted over plunger and bushing  
Further protects the switch during PCB processing
- 50** **Crimping of ground plate pins.**  
Retains switch on PC during handling and wave soldering.  
For models TP..WO, TP..WW and TP..YO single and double pole.



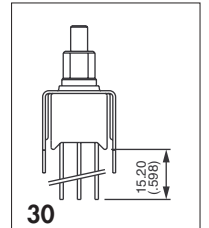
**18**



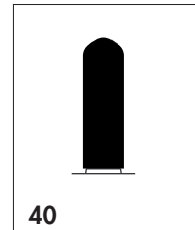
**20**



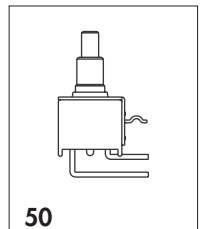
**25**



**30**

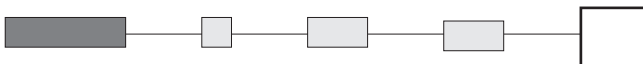


**40**

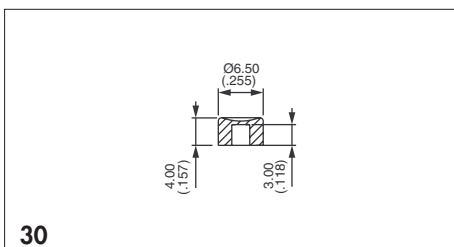


**50**

### CAPS

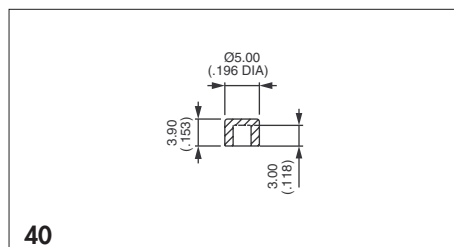


**Blank** Without cap



**30**

P/N U4310 - for long plunger only



**40**

P/N U4320 - for long plunger only

To order caps separately, use their part number (U...).

#### Cap colours

Replace "0" by number

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

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