

TP series

Tiny washable momentary pushbutton switches

Distinctive features and specifications

UG1006-A



- Process sealed**
 - Single piece case
 - O-ring seal between actuator and bushing
 - Epoxy sealed terminals
- Wide variety of contact materials**
- Same PCB layout as TL, TR and TG tiny switches**

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 μ A 5VDC
- Contact resistance : 50 m Ω max.
- Insulation resistance : 1.000 M Ω 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

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.

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

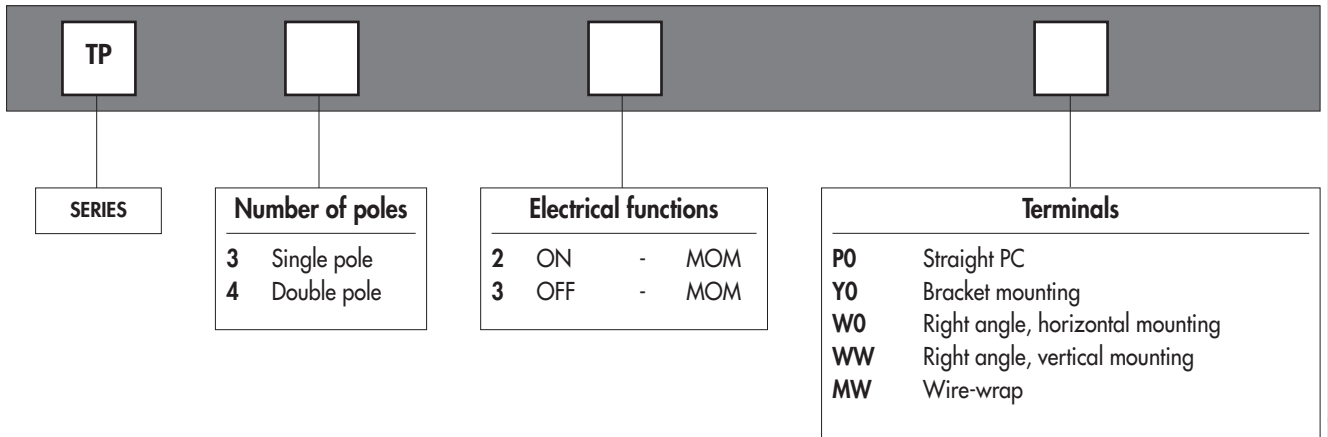
B

TP series

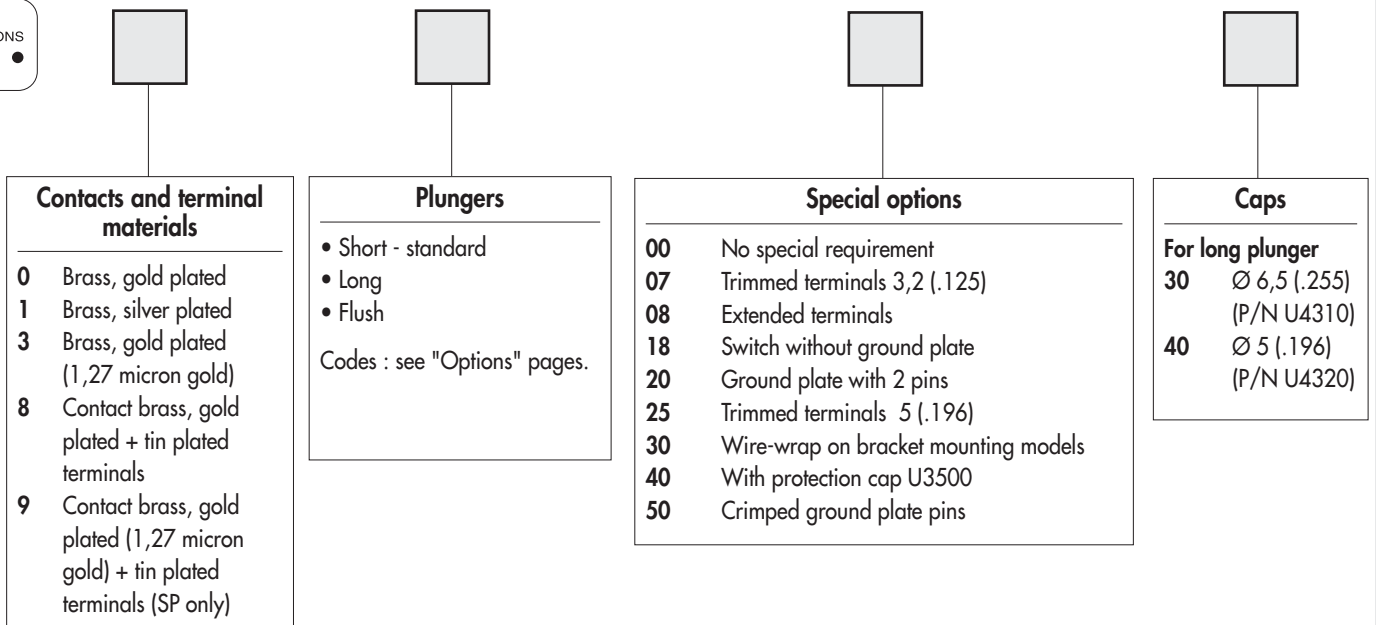
Tiny washable momentary pushbutton switches

Overview

MODEL
STRUCTURE



OPTIONS



ABOUT THIS SERIES

On the following pages, you will find successively :

- 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.

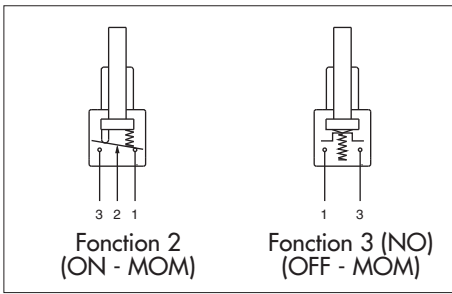


Packaging unit : 100 pieces, except for models with WW terminals (50 pieces).

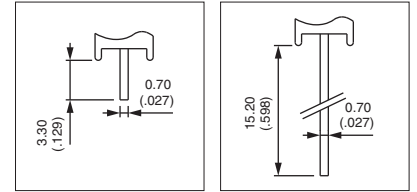
TP series

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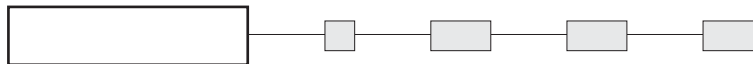
MODEL STRUCTURE



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



MODEL STRUCTURE



Shown in function 2, with standard plunger

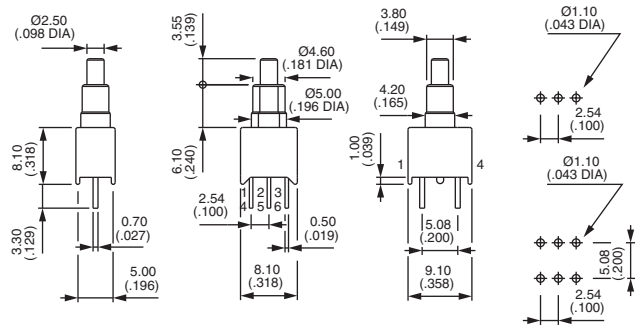
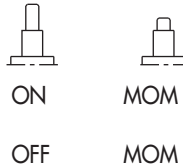
Straight PC terminals : TP..P0



Single pole Double pole

TP32P0 TP42P0

TP33P0 TP43P0



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

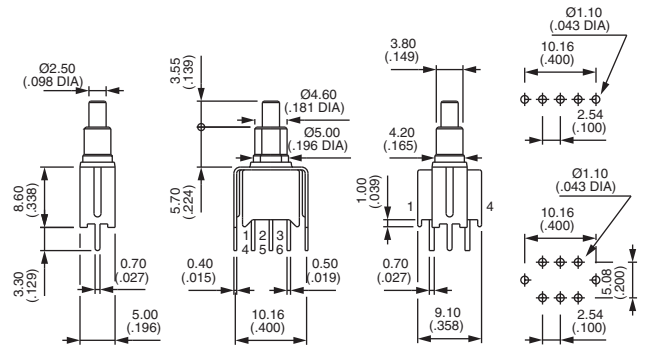
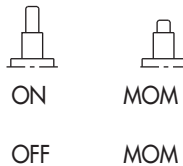
Straight terminals - bracket mounting : TP..Y0



Single pole Double pole

TP32Y0 TP42Y0

TP33Y0 TP43Y0



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

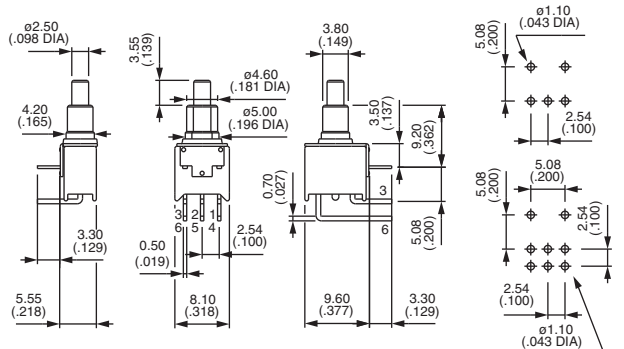
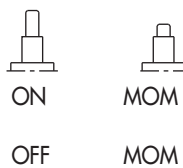
Right angle terminals - horizontal mounting : TP..W0



Single pole Double pole

TP32W0 TP42W0

TP33W0 TP43W0



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



TP series

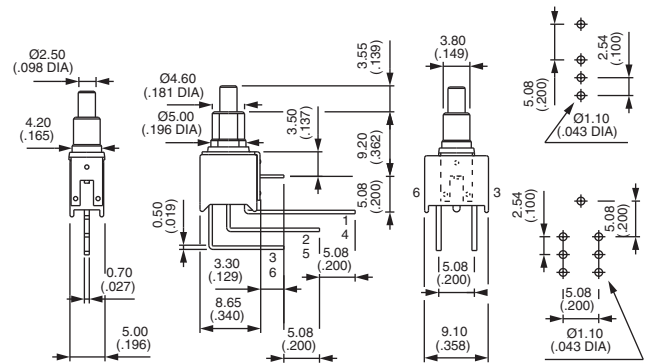
Tiny washable momentary pushbutton switches

Shown in function 2, with standard plunger

Right angle terminals - vertical mounting : TP..WW



| Single pole | Double pole | ON | MOM |
|-------------|-------------|-----|-----|
| TP32WW | TP42WW | ON | MOM |
| TP33WW | TP43WW | OFF | MOM |

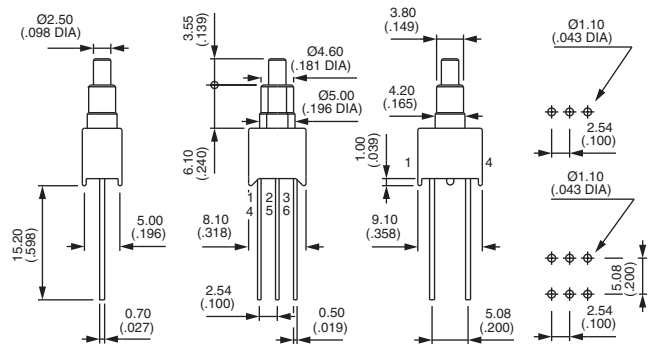


Function 3 has two terminals only (3 and 1) per pole

Wire-wrap terminals : TP..MW

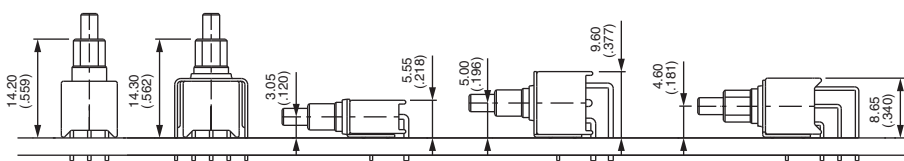


| Single pole | Double pole | ON | MOM |
|-------------|-------------|-----|-----|
| TP32MW | TP42MW | ON | MOM |
| TP33MW | TP43MW | OFF | MOM |



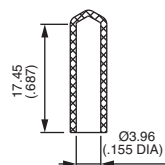
Function 3 has two terminals only (3 and 1) per pole

PCB MOUNTING



CAP FOR PCB PROCESSING

Provide additional protection during PCB processing. Supplied separately. For cap mounted on the switch, see special option 40. Material : vinyl



U3502

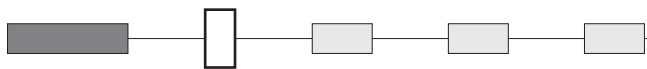
TP series

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OPTIONS



CONTACT AND TERMINAL MATERIALS



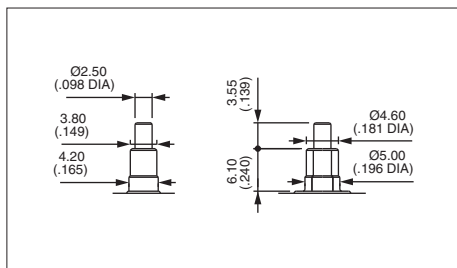
- 0 Brass, gold plated
- 1 Brass, silver plated
- 3 Brass, gold plated (1,27 micron gold)
- 8 Contact brass, gold plated + tin plated terminals
- 9 Contact brass, gold plated (1,27 micron gold) + tin plated terminals (single pole only)

B

PLUNGERS



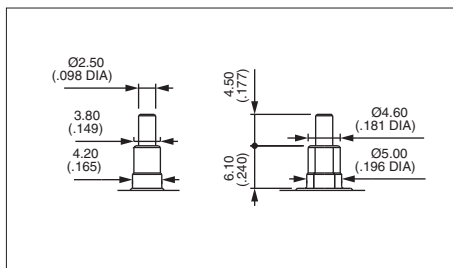
Standard plunger colour is black.



Short - standard

With blue
case
30

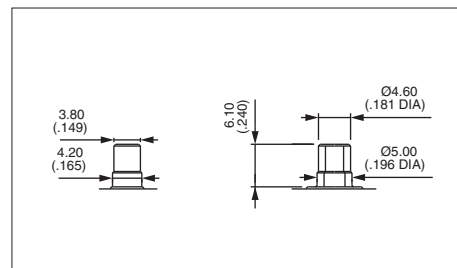
With black
case
80



Long

With blue
case
35

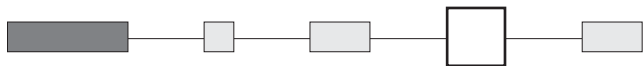
With black
case
85



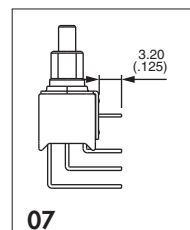
Flush

With black
case
82

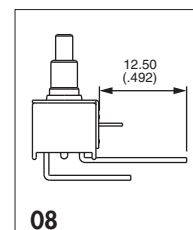
SPECIAL OPTIONS



- 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



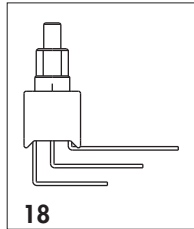
07



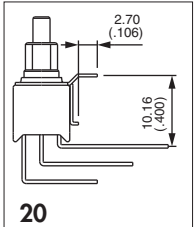
08

SPECIAL OPTIONS (continued)

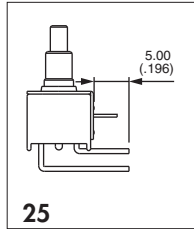
- 18** Switch **without ground plate** for TP..WW models only
- 20** **Ground plate with 2 pins** for TP..WW models only
- 25** **Trimmed terminals** - length 5 mm (.196) for all models, except TP..WW
- 30** **Wire-wrap terminals** on models with mounting **bracket**
- 40** With cap U3500 mounted over 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.



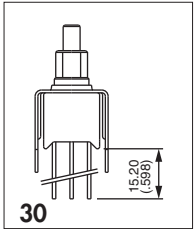
18



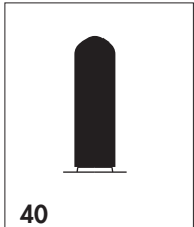
20



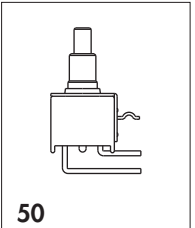
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30

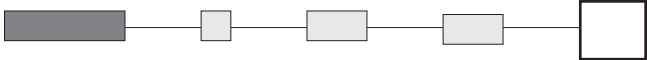


40

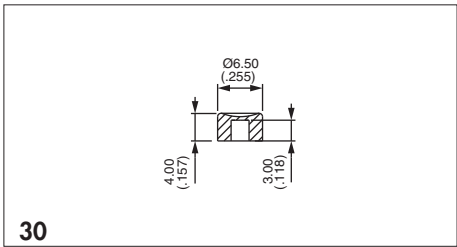


50

CAPS

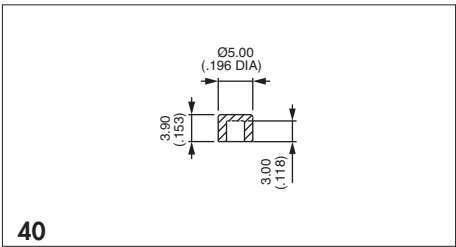


Blank Without cap



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