

# SMT TP series

## Surface mount tiny washable pushbutton switches

*Distinctive features and specifications*



- ❑ Entirely designed for surface mount
- ❑ Tape and reel packaging
- ❑ Reflow solderable
  - High temperature plastic materials
  - Tin plated ground plate
  - Terminal coating : tin alloy over nickel plating
  - Terminals turned to the outside, preventing the shadow effect in infrared soldering and permitting visual inspection of solder joints
  - Distance between case and circuit : 0,55 mm (.021)
  - End stackable with 10,16 mm (.40) pitch
  - Available with positioning pins to ensure switch orientation during the reflow process and increasing switch mechanical resistance
- ❑ Protected against electrostatic discharges (ESD) up to 10 KV
- ❑ Washable
  - Construction withstands cleaning processes, including hot water under pressure

### ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load : 0,4VA 20V max. AC or DC
- Minimum load : 10mA 50mV or 10µA 5VDC
- Initial contact resistance : 50 mΩ max
- Insulation resistance : 1.000 MΩ 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 : 60.000 cycles
  - Static resistance : 10 KV (Schaffner equipment)

### GENERAL SPECIFICATIONS

- Actuator travel : function 2 : 1 mm (.039) - function 3 : 0,8 mm (.031)
- Operating temperature : -40°C to +85°C
- Moisture resistance : 21 days per IEC 512-6 test 11c
- Vibration resistance : 10-500 Hz / 10 g per IEC 512-4 test 6d
- Shock resistance : 50 g per IEC 512-4 test 6c

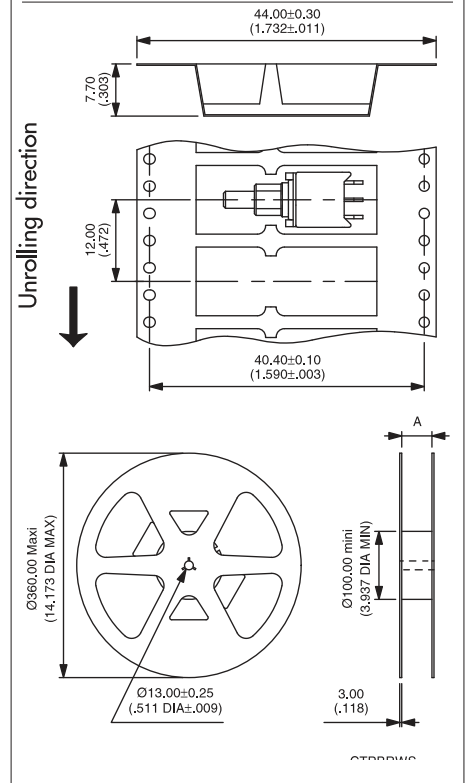
### MATERIALS

- Case : high temperature plastic material UL94-V0
- Actuator : high temperature plastic material UL94-V0
- Ground plate and positioning pins : steel, tin plated
- Contacts : brass, gold plated
  - Terminals : brass, with pure tin plating over nickel barrier

### SOLDERING AND CLEANING

- Reflow soldering : infrared, vapor phase or infrared convection
- Washable per IEA-RS448-2 :
  - water + detergent - preferred
  - solvents
- Further information on reflow soldering : see end of catalogue.

### PACKAGING



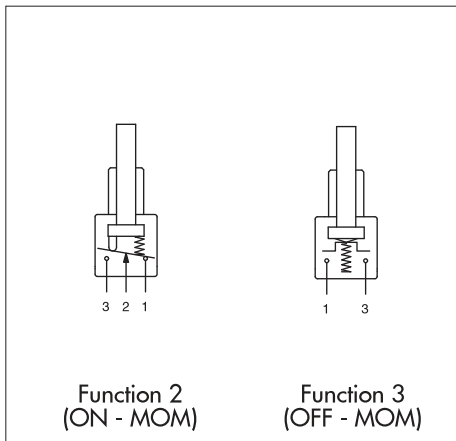
Tape width	24.00 (.944)	44.00 (1.732)
Reel (dimension A)	24.40+2.00/0.00 (.960+.078/.000)	44.40+2.00/0.00 (1.748+.078/.000)

**Standard packaging unit** : 700 pieces  
Tape meeting international standard IEC - Publication 286-3 (EIA481A)  
Start leader : 400 mm min.

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

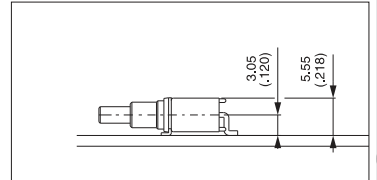
# SMT TP series

Surface mount tiny washable pushbutton switches



- With or without positioning pins
- Single pole

Also available for vertical mounting. On request.

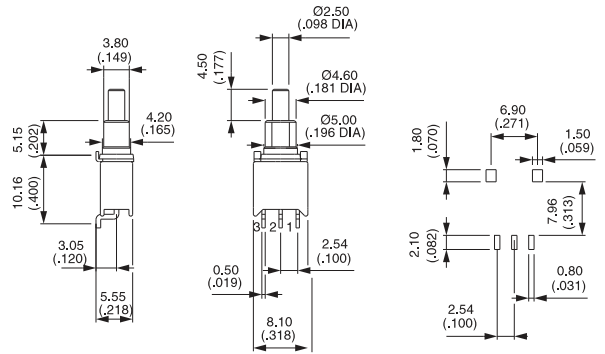
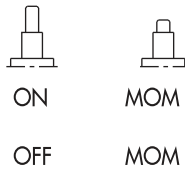


## Pushbutton switches



TP32WS83500

TP33WS83500



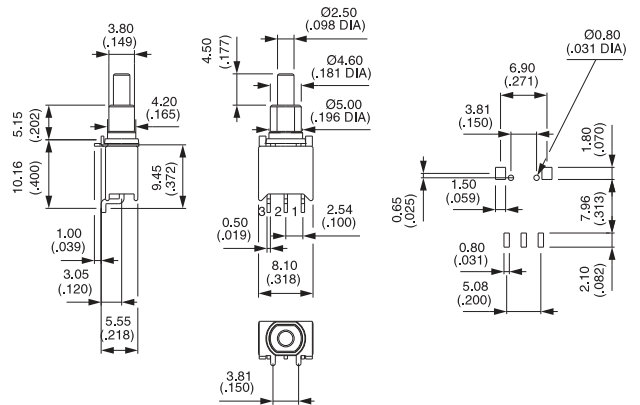
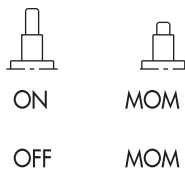
Shown in function 2

## Pushbutton switches - with positioning pins



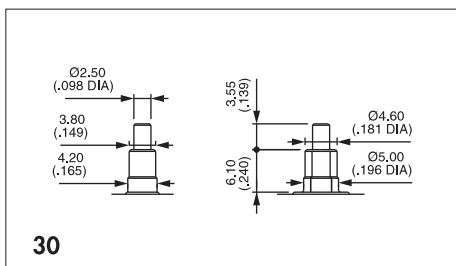
TP32WS83565

TP33WS83565

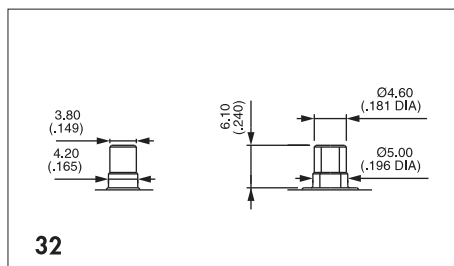


Shown in function 2

## PLUNGER OPTIONS



Short  
Replace 35 with 30 in the above P/N's



Flush  
Replace 35 with 32 in the above P/N's.