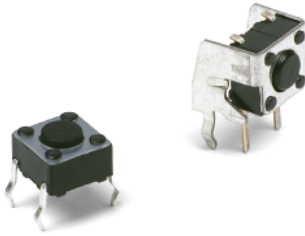


# PTS645 Series 6 mm Tact Switches



## Features/Benefits

- **Compact size 6 x 6 mm**
- **Variety of actuator lengths**
- **Choice of actuation force**
- **RoHS compliant and compatible**

## Typical Applications

- **Consumer products**
- **Instrumentation**
- **Computer products**
- **Industrial**

## Specification

FUNCTION: Momentary action  
CONTACT ARRANGEMENT: SPST, N.O.  
TERMINALS: PC pins

## Mechanical

ACTUATION FORCE: PTS645 models: 130 grams, 160 grams,  
200 grams, 260 grams  
LIFE EXPECTANCY: 100,000 operations.

## Electrical

CONTACT RATING: 50 mA @ 12 V DC.  
DIELECTRIC STRENGTH: 250 V AC min.  
CONTACT RESISTANCE: 100 mΩ max. initial.  
INSULATION RESISTANCE: 10<sup>11</sup> Ω min.

## Environmental

OPERATING TEMPERATURE: -20°C to 60°C

**NOTE:** Specifications listed above are for switches with standard options.  
For information on specific and custom switches, consult Customer Service Center.

## Process

SOLDERING: Preheating to 100°C for 45 sec. max. Keep flux flush with top surface of PCB; do not apply to component side of PCB and area where terminals are located. Soldering to 255°C for 5 sec. max. Clean by brushing on solder surface. Do not clean switch with solvents.

## Materials

BASE: 6/6 nylon or glass filled polyester (PBT).  
ACTUATOR: 6/6 nylon or polyacetal.  
COVER PLATE: PTS645S: Polyester or stainless steel.  
PTS645T and PTS645V: Tin alloy or stainless steel.  
DOME CONTACTS: Phosphor bronze, silver clad.  
STATIONARY CONTACTS: Brass, silver plated.  
TERMINALS: Brass, silver plated. Insert molded.

## Packaging

Bulk packaging.

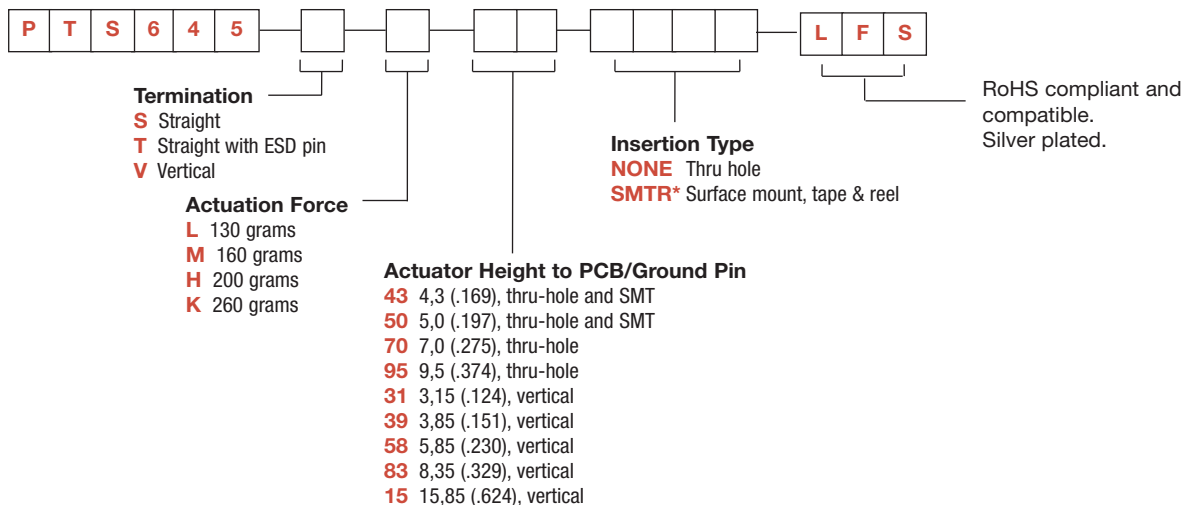
### Tape & reel for the SMT type:

Reel of 1,000 pieces

Tactile Switches

## How To Order

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.



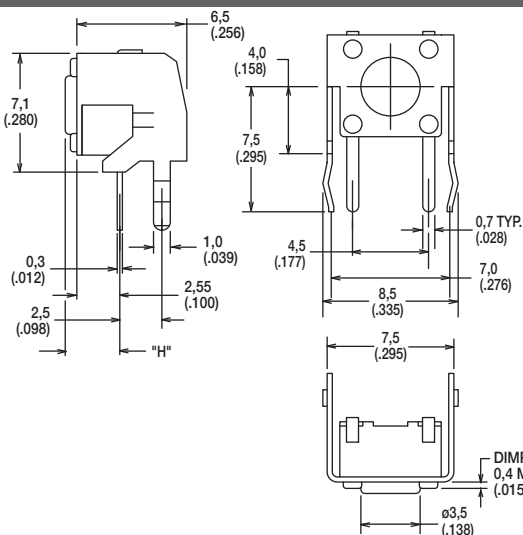
\*Only the PTS645 in horizontal type without ESD pin is available in SMT type.

## Tactile Switches

## B

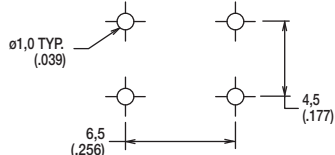


### PTS645S Model

**PTS645V Model**

Technical drawings of the 1000 Series 1/2" tool bit. The top view shows a square tool bit with a central circular hole and four corner holes. Dimensions include a central hole diameter of 0.7 TYP. (.028), a distance of 6.5 (.256) from the center to the corner holes, and a distance of 7.9 (.311) between the corner holes. The side view shows the tool bit's profile with a height of 1.8 (.071) and a distance of 3.5 (.138) from the base to the top of the tool bit. The bottom view shows the tool bit's base with a width of 4.5 (.177).

## PCB LAYOUT



Technical drawing of the 1000 Series 1/2" valve, showing three views: front, side, and top. Dimensions are provided in inches and millimeters.

**Front View Dimensions:**

- Overall width: 7.9 (311)
- Distance from centerline to side port center: 4.1 (161)
- Distance from centerline to top port center: 0.7 TYP. (028)
- Distance from centerline to bottom port center: 0.7 (028)
- Distance from centerline to side port edge: 0.3 (.012)
- Distance from centerline to top port edge: 1.8 (.071)
- Distance from centerline to bottom port edge: 3.5 (.138)
- Distance from centerline to side port edge (bottom): 6.5 (.256)

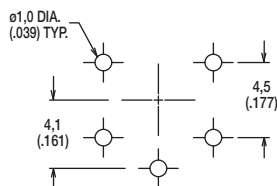
**Side View Dimensions:**

- Overall height: 4.5 (177)

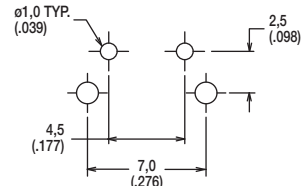
**Top View Dimensions:**

- Distance from centerline to side port center: 4.5 (177)

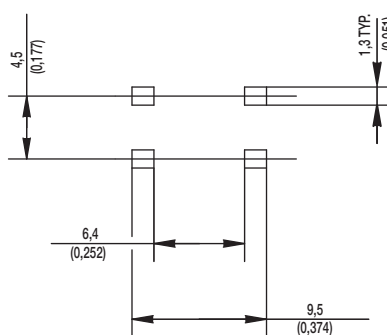
## PCB LAYOUT



## PCB LAYOUT



Technical drawing of the 1000 Series 1/2" (Figure 1000 Series 1/2"). The drawing shows a side view and a top view of the component. The side view dimensions are: overall height 3.6 (0.142), top flange diameter  $\varnothing 3.5$  (0.138), and base width 9.0 (0.354). The top view dimensions are: overall width 6.0 S.Q. (0.236) and mounting hole spacing 4.5 (0.177).



Dimensions are shown: mm (inches)  
Specifications and dimensions subject to change

# PTS645 Series 6 mm Tact Switches

## ACTUATION FORCE



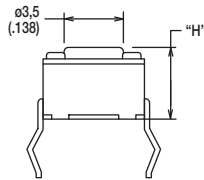
| OPTION CODE | FORCE     |
|-------------|-----------|
| <b>L</b>    | 130 grams |
| <b>M</b>    | 160 grams |
| <b>H</b>    | 200 grams |
| <b>K</b>    | 260 grams |

## ACTUATOR HEIGHT

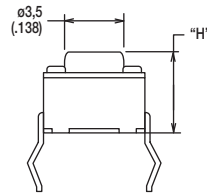


| OPTION CODE | HEIGHT "H" or LENGTH "L" | TERMINATION       | SCHEMATIC       |              |
|-------------|--------------------------|-------------------|-----------------|--------------|
|             |                          |                   | Without EMC pin | With EMC pin |
| <b>43</b>   | 4,3 (.169)               | Thru-hole and SMT |                 |              |
| <b>50</b>   | 5,0 (.197)               | Thru-hole and SMT |                 |              |
| <b>70</b>   | 7,0 (.275)               | Thru-hole         |                 |              |
| <b>95</b>   | 9,5 (.374)               | Thru-hole         |                 |              |
| <b>31</b>   | 3,15 (.124)              | Vertical          |                 |              |
| <b>39</b>   | 3,85 (.151)              | Vertical          |                 |              |
| <b>58</b>   | 5,85 (.230)              | Vertical          |                 |              |
| <b>83</b>   | 8,35 (.329)              | Vertical          |                 |              |
| <b>15</b>   | 15,85 (.624)             | Vertical          |                 |              |

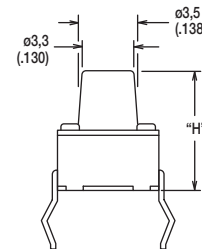
**43**



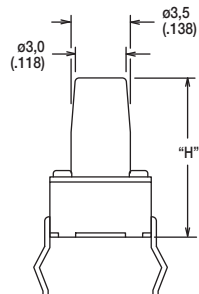
**50**



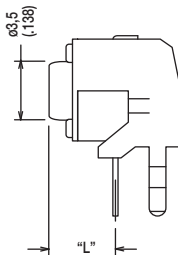
**70**



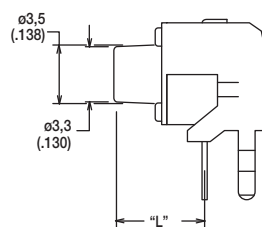
**95**



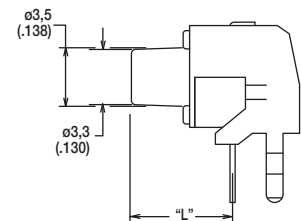
**31**



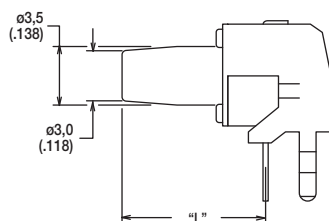
**39**



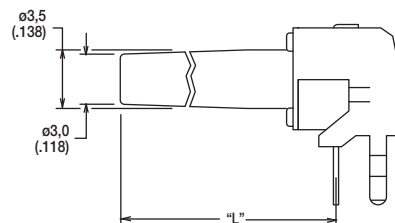
**58**



**83**



**15**



First Angle  
Projection

