

# TPA Series Navigation Tact Switch for SMT



## Features/Benefits

- One touch, 5 way switching
- Distinctive tactile feel for scanning and select functions
- Allows panel sealing
- Normally open momentary contacts
- Subminiature overall dimensions
- Push down to select possible in any position
- Pegs for better true positioning and improved strength relief
- RoHS compliant and compatible

## Typical Applications

- Electronic devices requiring direct control on LCD display
- Cellular phones
- PDA
- Digital cameras
- GPS navigation systems
- Home entertainment systems
- Security

## Construction

FUNCTION: Multi-directional momentary action  
 CONTACT ARRANGEMENT: Make contact = SP, N.O.  
 TERMINALS: Gullwing type for SMT  
 IP50

## Mechanical

SHAFT DISPLACEMENT:  
 Orthogonal 4 horizontal directions  
 Vertical Push down  
 TRAVEL TO MAKE:  
 Orthogonal 0.35 mm±0.15 mm  
 Push to select 0.25 mm±0.15 mm  
 OPERATING FORCE:  
 Scanning Orthogonal 1.8 N ± 0.5 N  
 Push to select Vertical 4.0 N ± 0.8 N  
 MAXIMUM APPLIED FORCE:  
 Horizontal 40 N  
 Vertical 20 N  
 LIFE EXPECTANCY:  
 Scanning 200,000 operations in each direction  
 Push to select 200,000 operations

## Electrical

	Silver	Gold
MAXIMUM POWER:	1 VA	0.2 VA
MAXIMUM VOLTAGE:	24 V	24 V
MAXIMUM CURRENT DC:	50 mA	10 mA
MINIMUM CURRENT DC:	1 mA	1 mA

DIELECTRIC STRENGTH: 250 Vrms  
 CONTACT RESISTANCE, INITIAL: 200 mΩ  
 INSULATION RESISTANCE (100 VDC): 100 mΩ  
 BOUNCE TIME: < 10 ms

## Environmental

	Silver	Gold
OPERATING TEMPERATURE:	-40°C to +85°C	-40°C to +85°C
STORAGE TEMPERATURE:	-40°C to +85°C	-40°C to +85°C

## Process

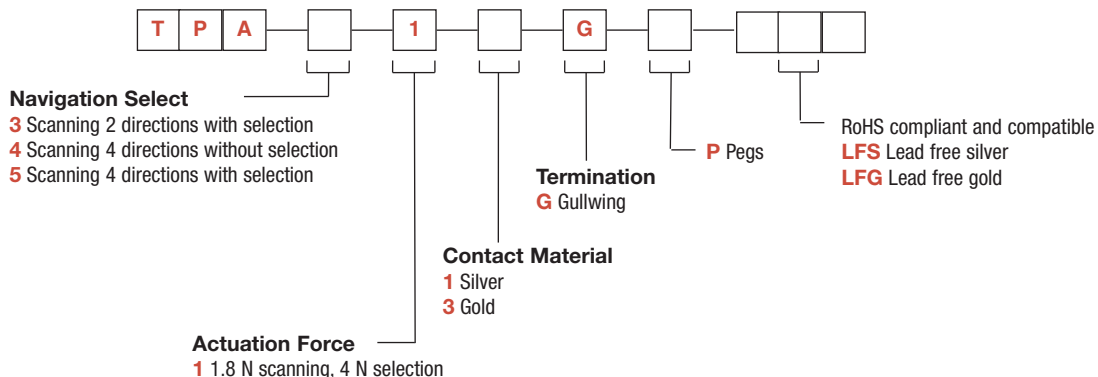
Compatible with infrared reflow, lead free soldering and pick and place SMT machines.

**Note:** Specifications listed above are for switches with standard options.  
 For information concerning design integration, please contact your local ITT representative.

## 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.

### SWITCH

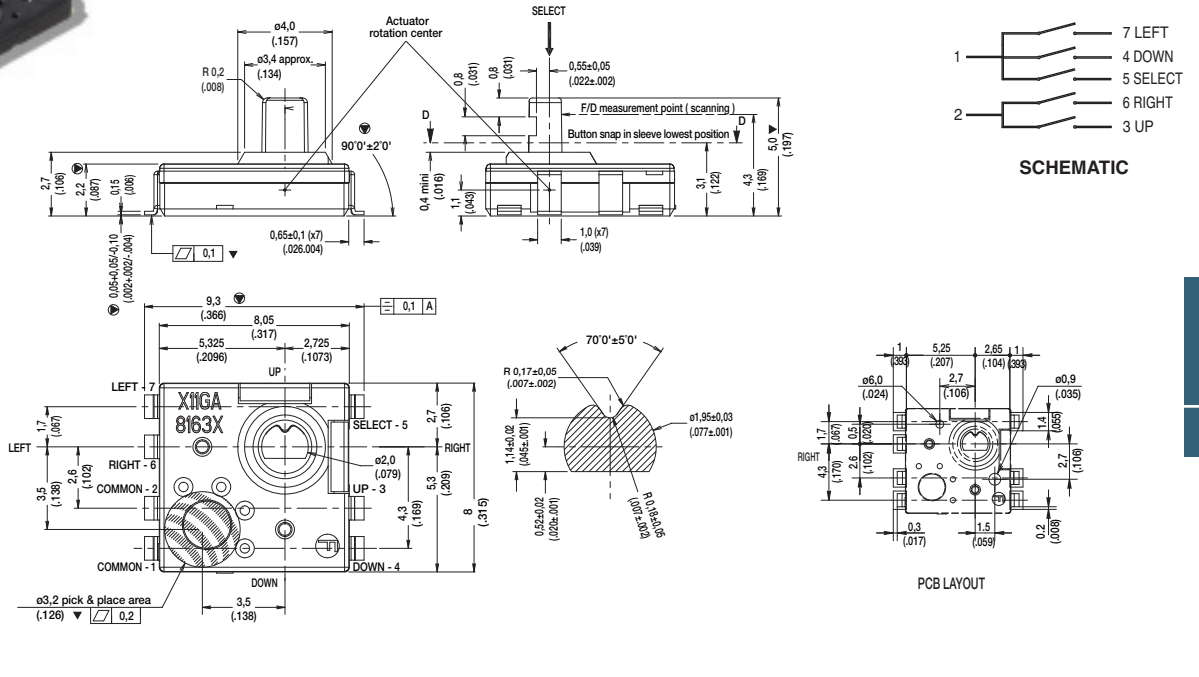


Dimensions are shown: mm (inch)  
 Specifications and dimensions subject to change

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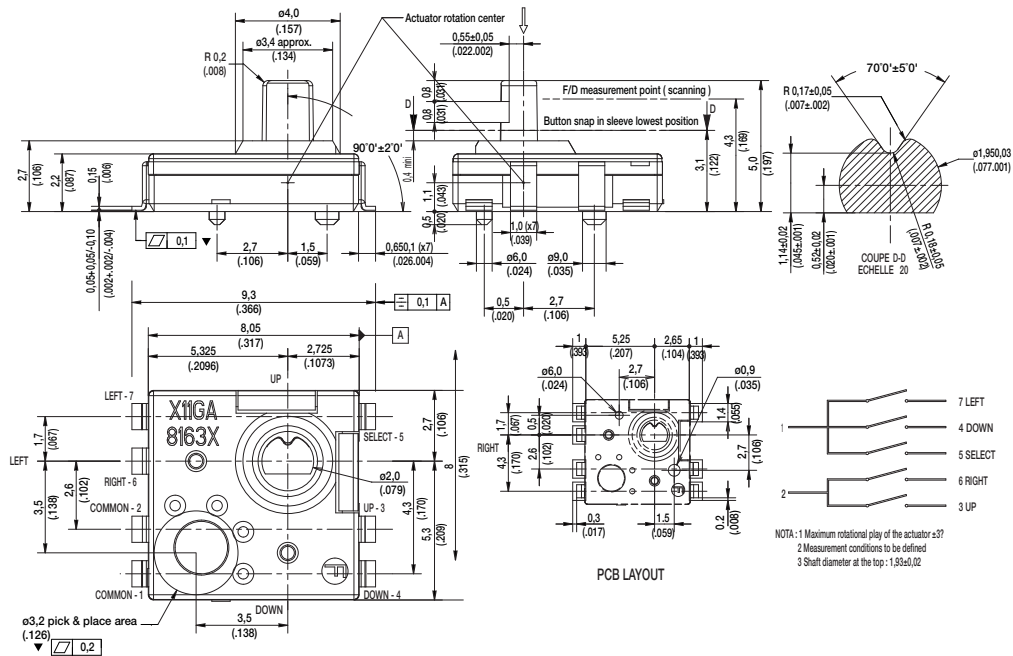
## SERIES

TPA



Navigation

TPA 511GP  
WITH PEGS



Dimensions are shown: mm (inch)  
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www.itm.com



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## NAVIGATION SELECT



OPTION CODE	ARRANGEMENT
3	Scanning 2 directions with selection
4	Scanning 4 directions without selection
5	Scanning 4 directions with selection

## ACTUATION FORCE



1 1.8 N SCANNING, 4 N SELECTION

## CONTACT MATERIAL



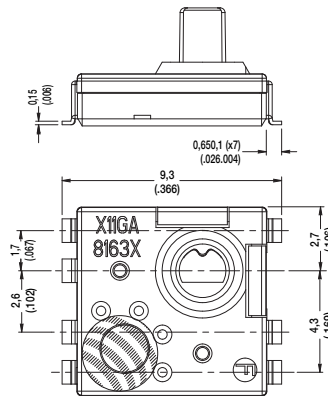
OPTION CODE	MATERIAL
1	SILVER
3	GOLD

\* Note: See Technical Data section of this catalog for RoHS compliant and compatible definition and specifications.

## TERMINATION



G GULLWING

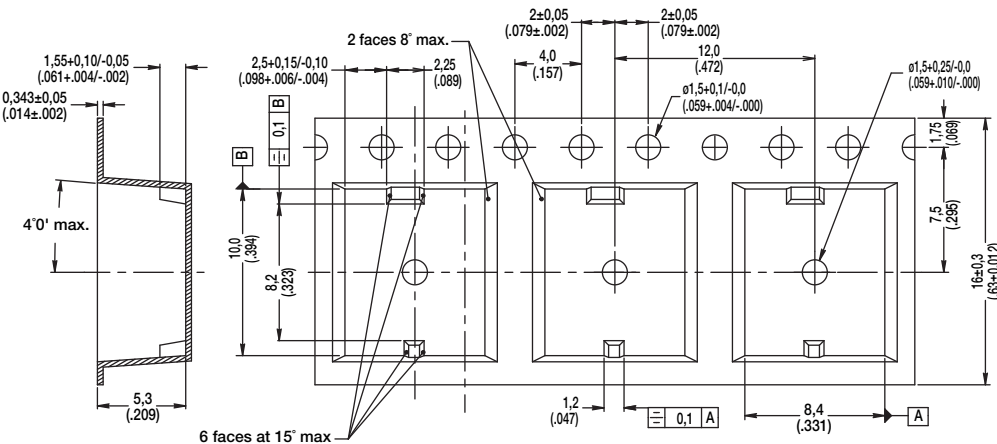


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www.ittcannon.com

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## TAPE & REEL



Navigation



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