



Distributor of C&K Components: Excellent Integrated System Limited

Datasheet of TPA413GLFG - SWITCH TACT NAV 4DIR WO/SELECT

Contact us: [sales@integrated-circuit.com](mailto:sales@integrated-circuit.com) Website: [www.integrated-circuit.com](http://www.integrated-circuit.com)

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## Excellent Integrated System Limited

Stocking Distributor

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For any questions, you can email us directly:

[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

## 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

### 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

### Mechanical

SHAFT DISPLACEMENT:  
 Orthogonal 4 horizontal directions  
 Vertical Push down  
 TRAVEL TO MAKE:  
 Scanning  
 Orthogonal 0.35 mm±0.15 mm  
 Push to select 0.25 mm±0.15 mm  
 OPERATING FORCE:  
 Scanning Orthogonal 1.85 N ± 0.5 N  
 Push to select Vertical 4.0 N ± 0.8 N  
 MAXIMUM APPLIED FORCE:  
 Horizontal 10 N  
 Vertical 40 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 VDC  
 CONTACT RESISTANCE, INITIAL: ≤ 200 mΩ  
 INSULATION RESISTANCE (100 VDC): 10<sup>9</sup> Ω  
 BOUNCE TIME: < 10 ms

### Environmental

	Silver	Gold
OPERATING TEMPERATURE:	-40°C to 85°C	-40°C to 110°C
STORAGE TEMPERATURE:	-55°C to 85°C	-55°C to 125°C

### Process

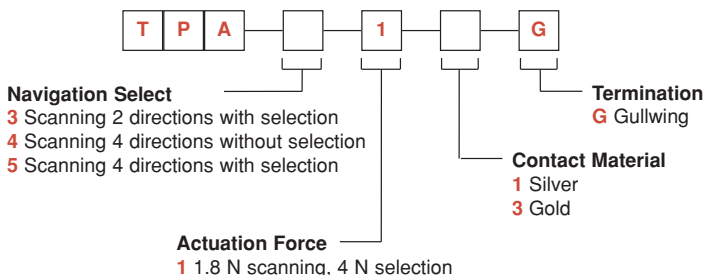
Soldering process: Infrared reflow according to CECC 0802  
 No washing  
 Hand soldering max. 350° 3S (CEI 68-2-20)

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

### How To Order

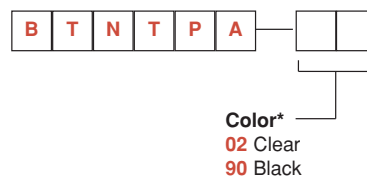
Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.

#### Switch



#### Button

Buttons ordered separately in bulk, 500 pieces.



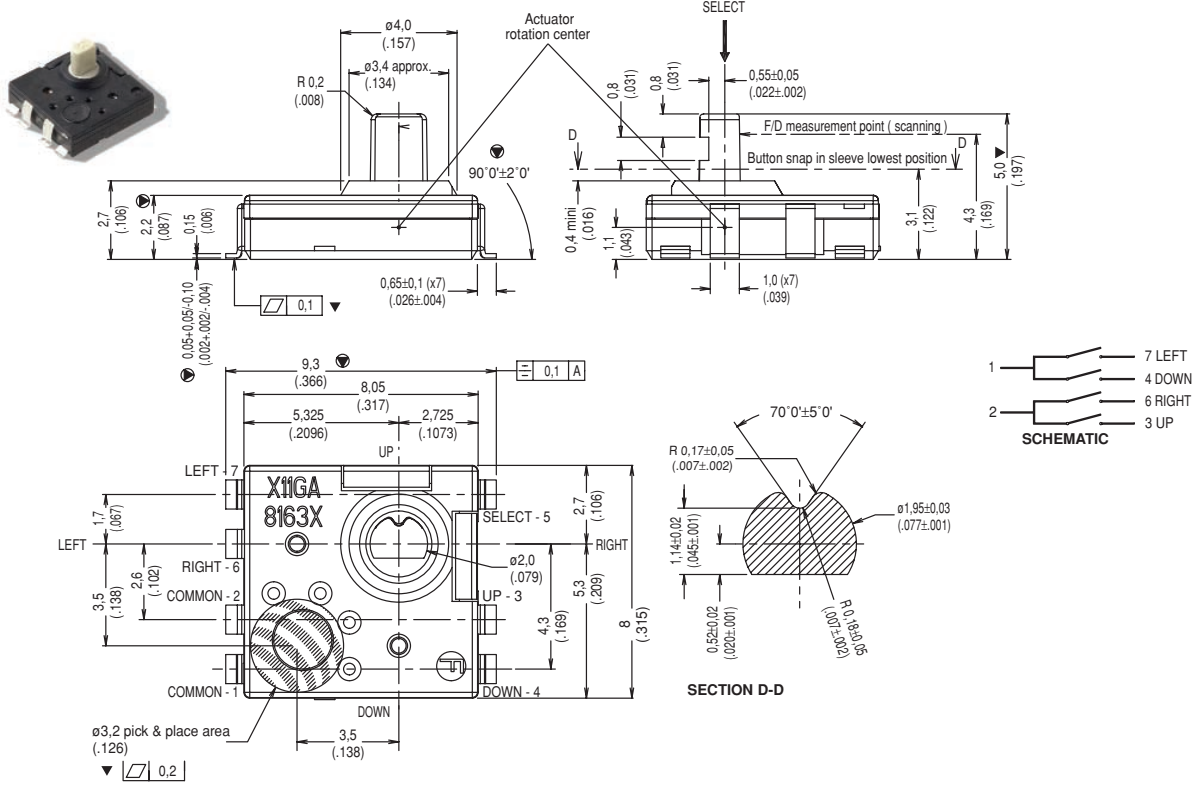
\* Other colors by request



## TPA Series Navigation Tact Switch for SMT



### TPA



**Navigation**



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



**1** 1.8 N SCANNING, 4 N SELECTION

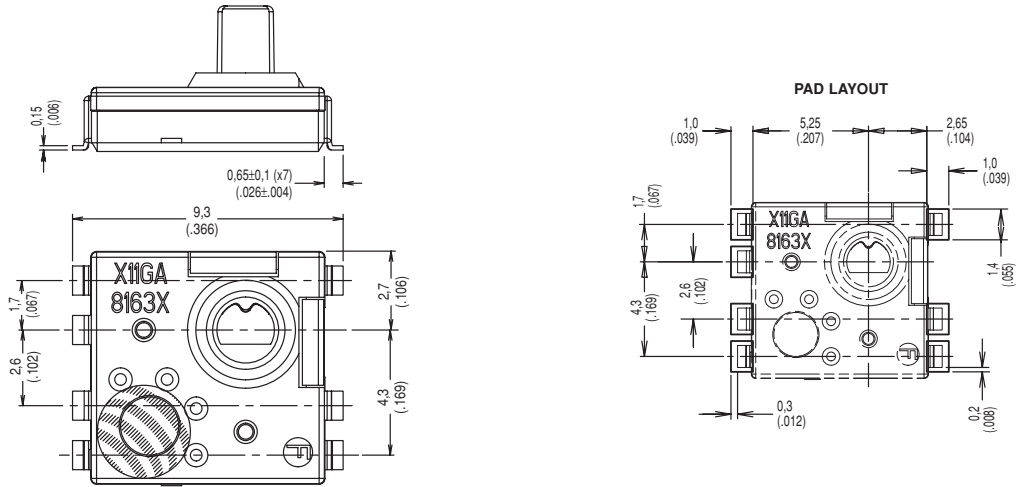


OPTION CODE	MATERIAL
1	SILVER
3	GOLD

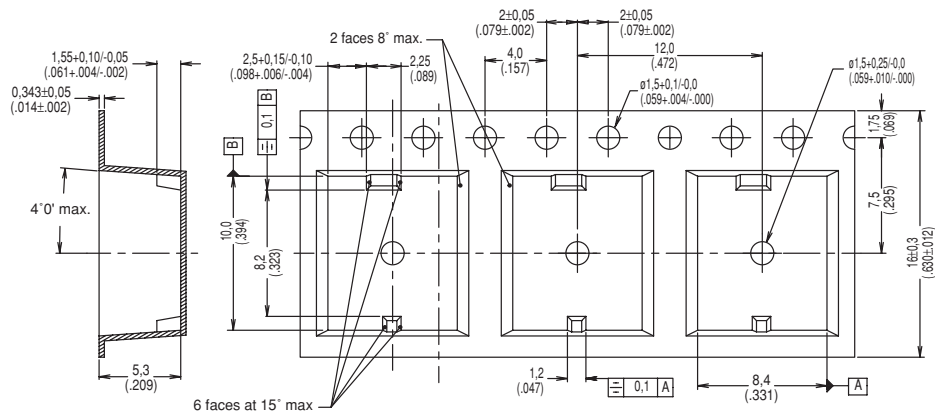
# TPA Series Navigation Tact Switch for SMT

## TERMINATION

**G** GULLWING

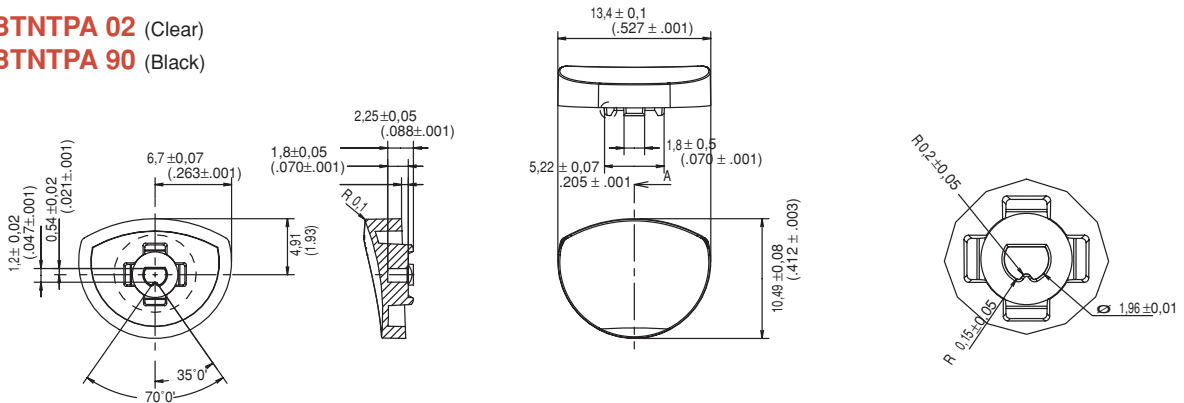


## TAPE & REEL



## BUTTON AVAILABLE

**BTNTPA 02** (Clear)  
**BTNTPA 90** (Black)



Navigation