### 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

<table>
<thead>
<tr>
<th>Construction</th>
<th>Electrical</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUNCTION: Multi-directional momentary action</td>
<td>MAXIMUM POWER:</td>
</tr>
<tr>
<td>CONTACT ARRANGEMENT: Make contact = SP, N.O.</td>
<td>MAXIMUM VOLTAGE:</td>
</tr>
<tr>
<td>TERMINALS: Gullwing type for SMT IP50</td>
<td>MAXIMUM CURRENT DC:</td>
</tr>
<tr>
<td>MINIMUM CURRENT DC:</td>
<td>1 mA</td>
</tr>
</tbody>
</table>

**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
  - Vertical: Push to select 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

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

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

**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.

**Features/Benefits**

<table>
<thead>
<tr>
<th>SWITCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
</tr>
</tbody>
</table>

**Navigation Select**
- 3 Scanning 2 directions with selection
- 4 Scanning 4 directions without selection
- 5 Scanning 4 directions with selection

**Termination**
- G Gullwing

**Contact Material**
- 1 Silver
- 3 Gold

**Actuation Force**
- 1 1.8 N scanning, 4 N selection

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

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

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

www.ittcannon.com
TPA Series
Navigation Tact Switch for SMT

**Navigation Select**

<table>
<thead>
<tr>
<th>Option Code</th>
<th>Arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Scanning 2 directions with selection</td>
</tr>
<tr>
<td>4</td>
<td>Scanning 4 directions without selection</td>
</tr>
<tr>
<td>5</td>
<td>Scanning 4 directions with selection</td>
</tr>
</tbody>
</table>

**Actuation Force**

1. 1.8 N SCANNING, 4 N SELECTION

**Contact Material**

<table>
<thead>
<tr>
<th>Option Code</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SILVER</td>
</tr>
<tr>
<td>3</td>
<td>GOLD</td>
</tr>
</tbody>
</table>

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

**Termination**

G GULLWING
TPA Series
Navigation Tact Switch for SMT

TAPE & REEL

4°0' max.
6 faces at 15° max.

Specifications and dimensions subject to change
www.ittcannon.com