TPA Series
Multidirection SMT Navigation Switch

Features/Benefits
- One touch, 5 way switching
- Distinctive tactile feel for scanning and select functions
- Normally open momentary contacts
- Push down to select possible in any position
- Optional pegs for improved mechanical strength and easier PCB positioning
- RoHS compliant and compatible

Typical Applications
- Electronic devices requiring direct control on LCD display
- MP3 player
- Bluetooth Headset
- 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:
Scanning 20N
Select 40N
Button design may prevent overload (see next page)
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
STORAGE TEMPERATURE: –40°C to +85°C

Packaging
Tape and reels in reels of 1,000 pieces.
External diameter 330mm ± 2mm.

Process
Infrared reflow soldering in accordance with IEC 61760-1

Note: Specifications listed above are for switches with standard options.

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

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

P Pegs
RoHS compliant and compatible
LFS Lead free silver
LFG Lead free gold

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

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TPA

TPA with Pegs
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STANDARD BUTTON

This drawing shows our standard available product but also provides the dimensional guidelines for a specific button integration, the main points being:
- shaft clip
- 4 travel stop to avoid overload

To be ordered separately
- TPA Button - Y43109100OP
- Color: Black only
- Bags of 1,000 pieces

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