

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 positionning
- 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



Navigation

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 | -40°C to +85°C |
| STORAGE TEMPERATURE: | -40°C to +85°C | -40°C to +85°C |

Packaging

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

Process

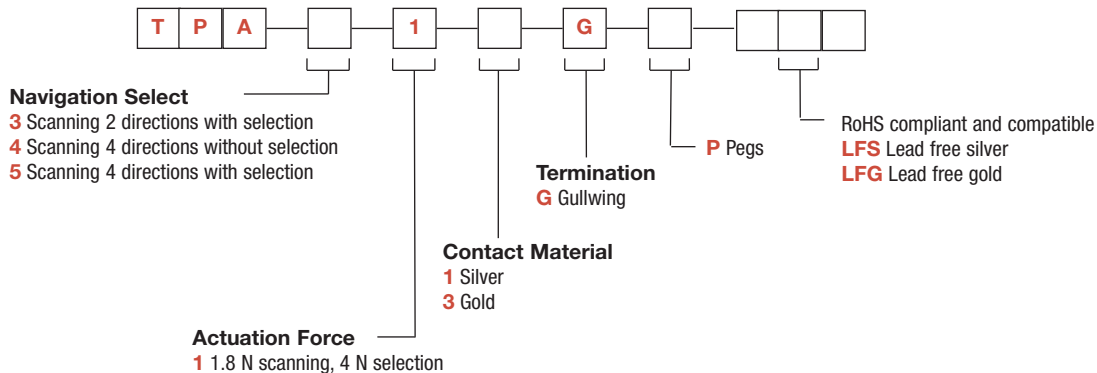
Infared reflow soldering in accordance with IEC 61760-1

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



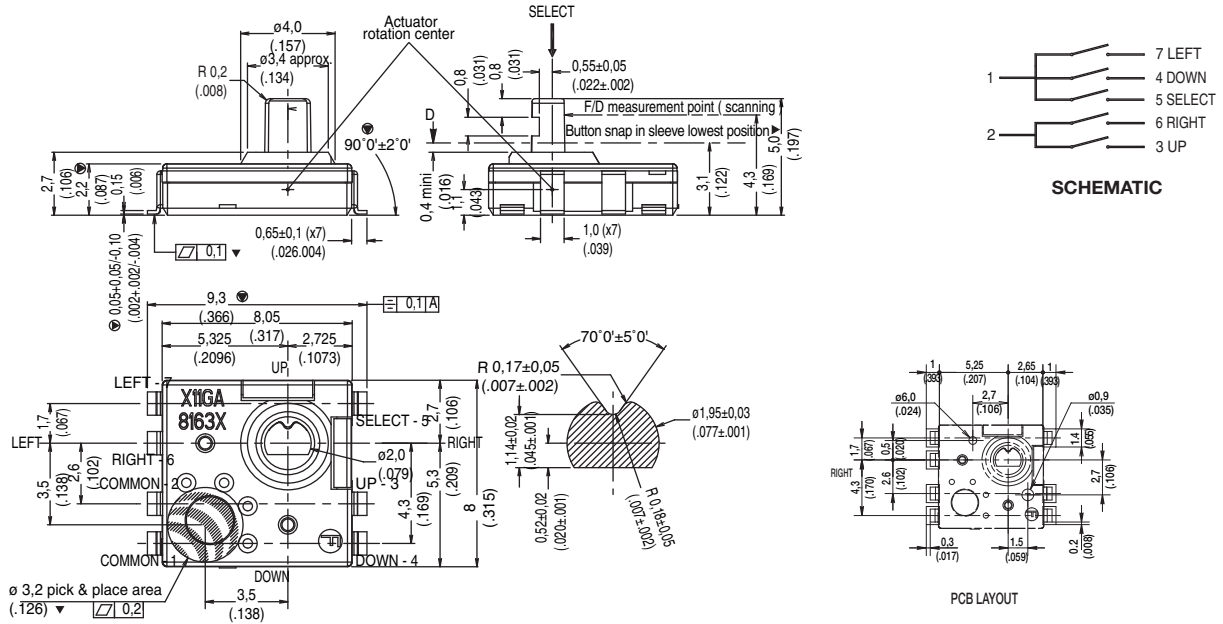
Dimensions are shown: mm

Specifications and dimensions subject to change



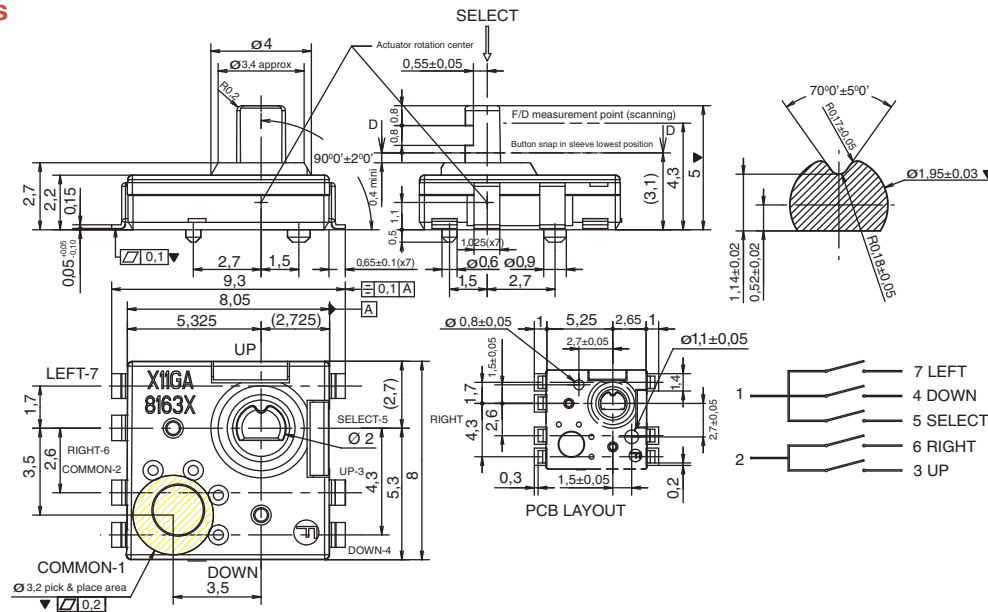
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TPA



Navigation

TPA with Pegs



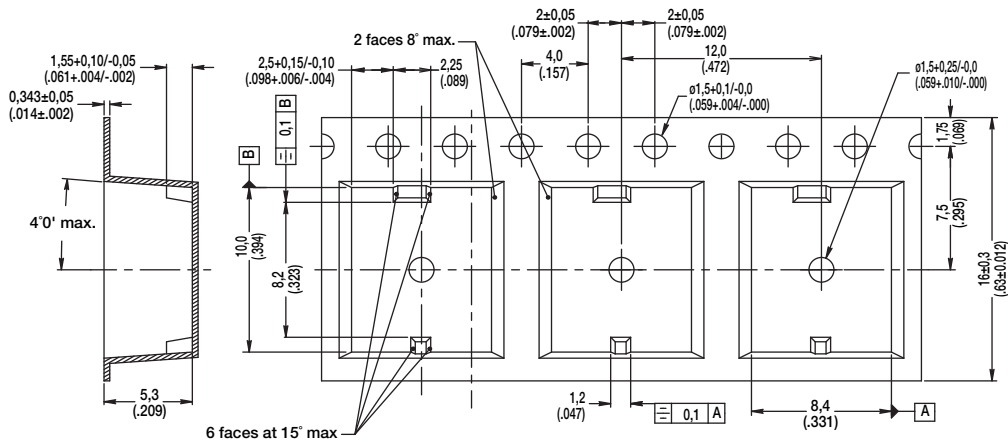
First Angle
Projection

Dimensions are shown: mm
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TAPE & REEL

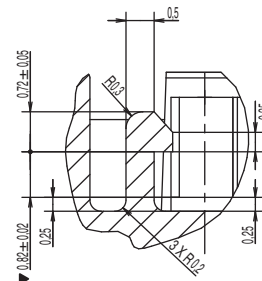
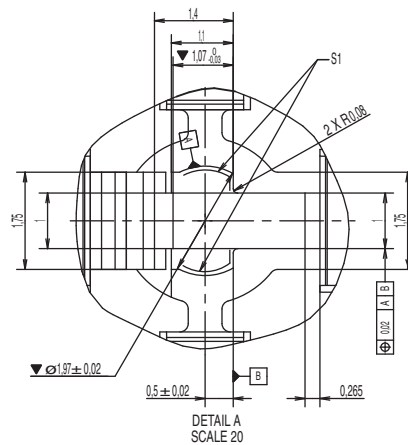
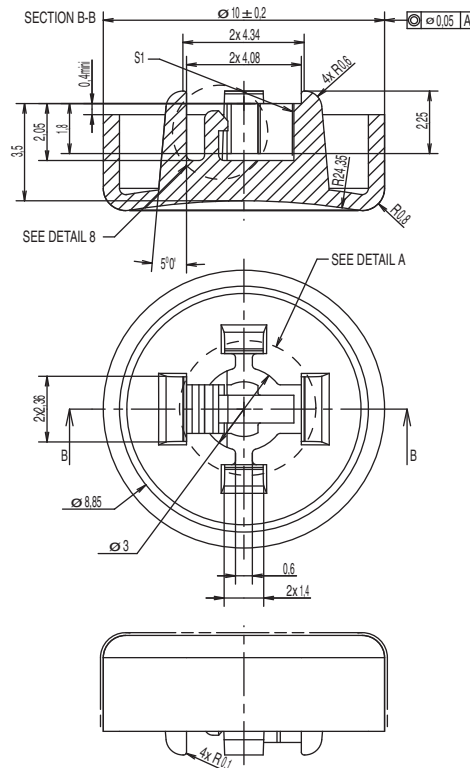


STANDARD BUTTON

This drawings 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 - Y431091000P
- Color: Black only
- Bags of 1,000 pieces



First Angle
Projection

Dimensions are shown: mm
Specifications and dimensions subject to change