

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



C

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

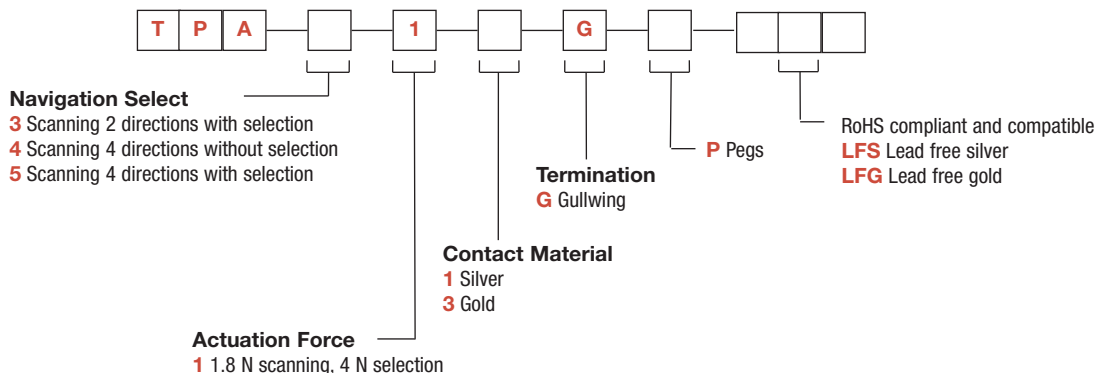
Infared reflow soldering in accordance with IEC 61760-1

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



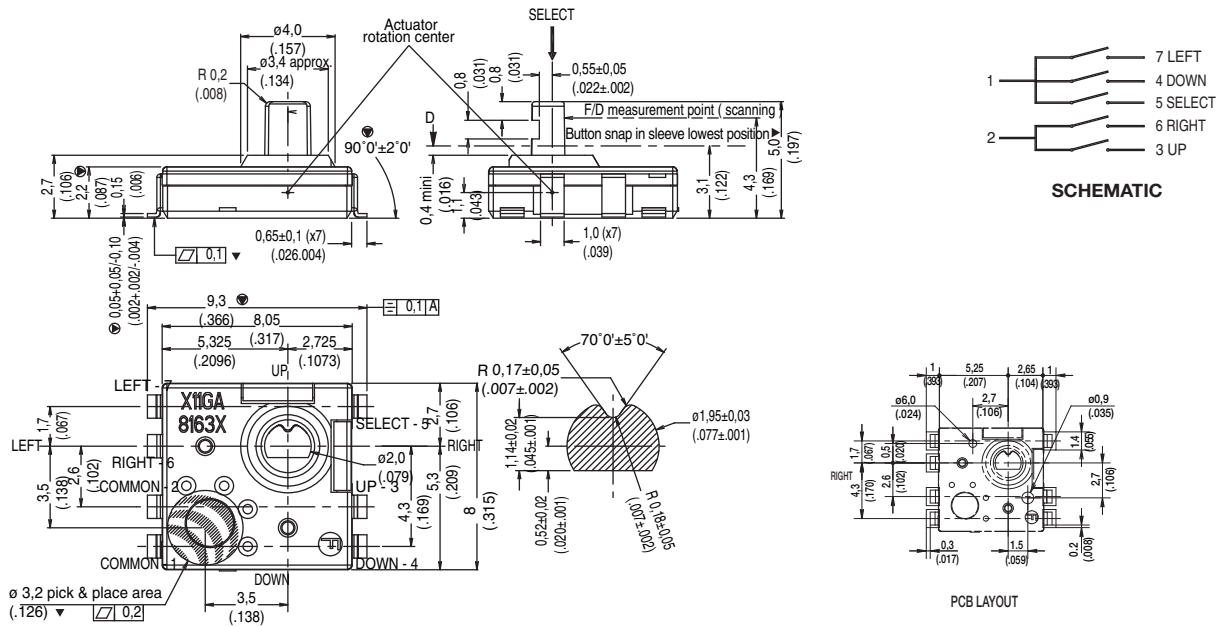
First Angle
Projection

Dimensions are shown: mm
Specifications and dimensions subject to change

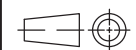
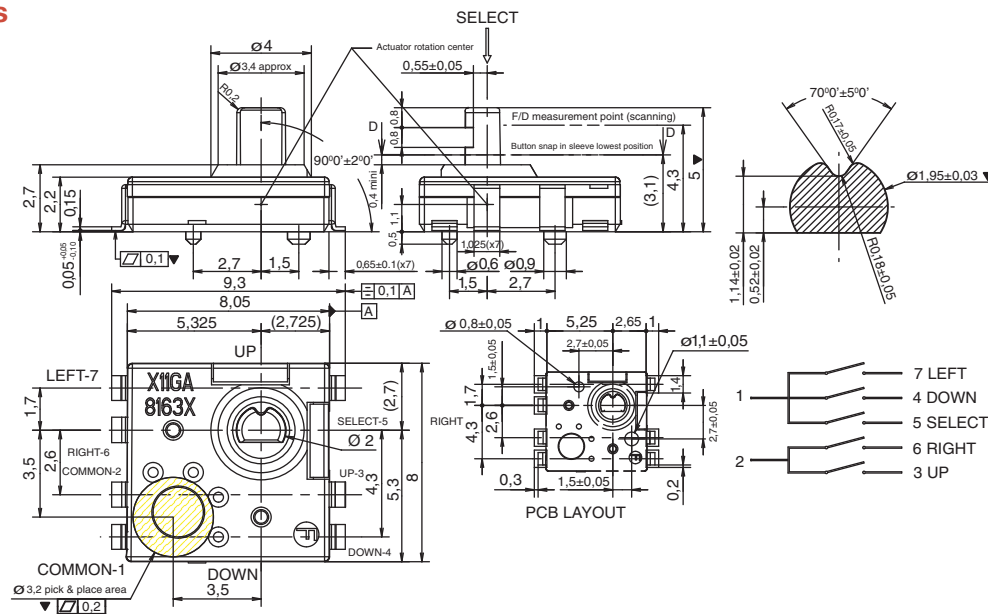


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TPA



TPA with Pegs

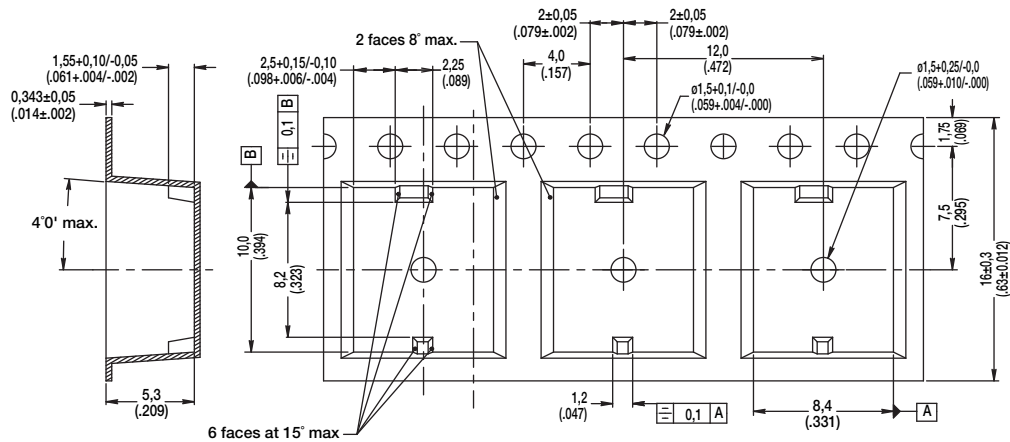


First Angle
Projection

Dimensions are shown: mm
Specifications and dimensions subject to change

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TAPE & REEL



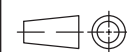
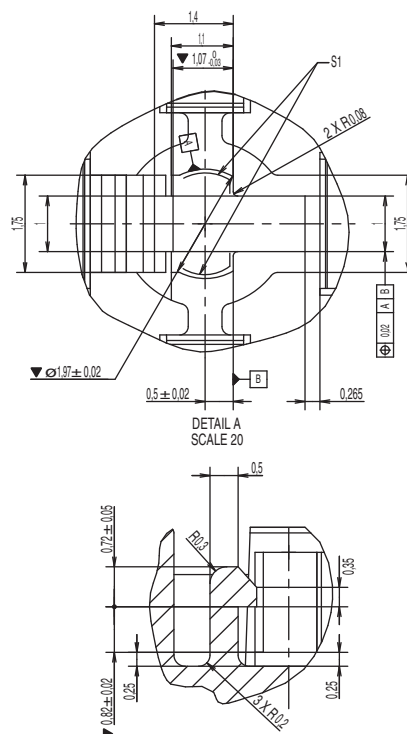
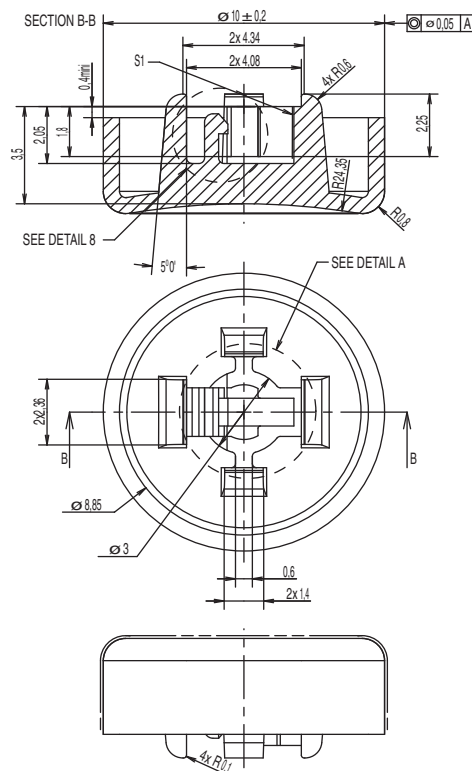
STANDARD BUTTON

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 - Y43109100OP
- Color: Black only
- Bags of 1,000 pieces



First Angle
Projection

Dimensions are shown: mm

Specifications and dimensions subject to change

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

C&K Components:

[TPA311GFLOTTANT](#) [TPA511G](#) [TPA413G](#) [TPA411G](#) [TPA311GLFS](#) [TPA413GLFG](#) [TPA511GLFS](#) [TPA513GLFG](#)
[TPA313GLFG](#) [TPA411GPLFS](#) [Y43109100OP](#)