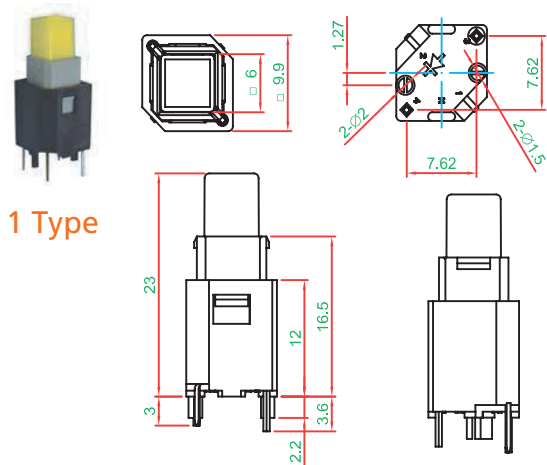


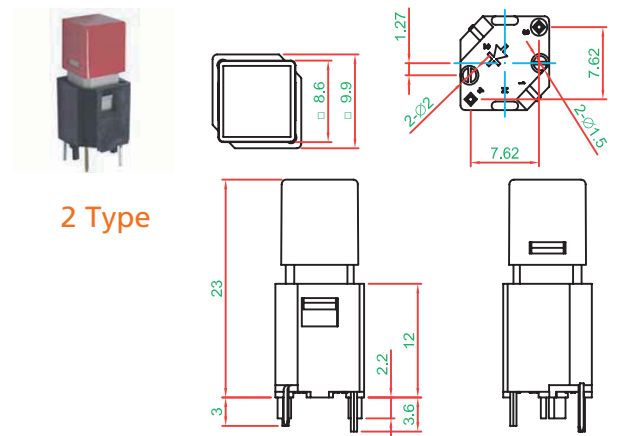
# Tactile Switches

## SPST THT Tactile Switches with LED

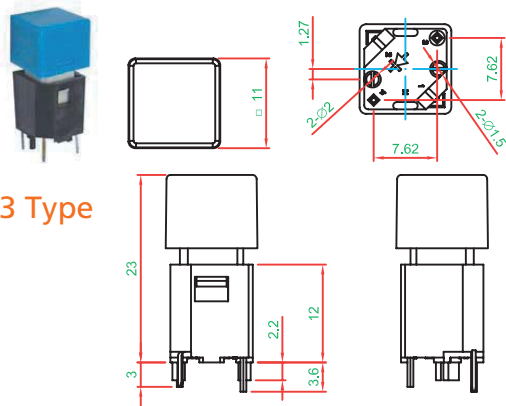
## TPN Series



1 Type

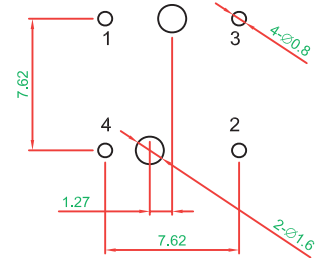


2 Type

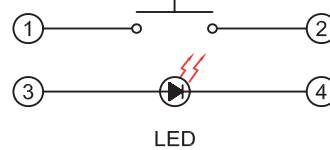


3 Type

### ► P.C.B. LAYOUT



### ► CIRCUIT DIAGRAM



## How to order:


TPN

- 1 CAP:**
  - 1 1 Type (s. drawings)
  - 2 2 Type (s. drawings)
  - 3 3 Type (s. drawings)
- 2 CAP COLOR:**
  - B White
  - C Red
  - G Blue
  - J Transparent
- 3 CAP SURFACE:**
  - B Silver
  - N Without
- 4 CAP SYMBOL:**

N	WITHOUT
01	02 +
03	04 ↑
05	06 ←
07	08 ⏻
09	10 OK
- 5 LEFT LED BRIGHTNESS:**
  - U Ultra Bright
  - R Regular
  - N Without LED
- 6 LEFT LED COLORS:**
  - G Blue
  - E Yellow
  - F Green
  - C Red
  - B White
- 7 RIGHT LED BRIGHTNESS:**
  - U Ultra Bright
  - R Regular
  - N Without LED
- 8 RIGHT LED COLOR:**
  - G Blue
  - E Yellow
  - F Green
  - C Red
  - B White

## General Specifications:

SWITCH SPECIFICATIONS	
POLE - POSITION	Momentary Type , SPST with LED
CONTACT RATING	12 V DC , 50 mA
CONTACT RESISTANCE	500 mΩ max . 1.5 V DC ; 100 mA , by Method of Voltage DROP
INSULATION RESISTANCE	100 MΩ min . 100 V DC for 1 minute
DIELECTRIC STRENGTH	Breakdown is not Allowable ; 250 V AC for 1 Minute
OPERATING FORCE	350 gf +/- 100gf
OPERATING LIFE	30,000 cycles
OPERATING TEMPERATURE RANGE	-20°C ~ 70°C
TOTAL TRAVEL	1.4 + 0.2 / - 0.1 mm

LED SPECIFICATIONS		Unit	Value / LED Color			
			Blue	Green	Red	Yellow
 ATTENTION	(+) O — (LED) — O (-)					
LEDs are Electrostatic Sensitive devices						
FORWARD CURRENT	I <sub>f</sub>	mA	30	30	15	20
REVERSE VOLTAGE	V <sub>r</sub>	V	5.0	5.0	5.0	5.0
REVERSE CURRENT	I <sub>r</sub>	µA	10	10	10	10
FORWARD VOLTAGE@20mA	V <sub>f</sub>	V	3.5-3.8	1.7-2.6	1.7-2.6	1.7-2.6
LUMINOUS INTENSITY@20mA	I <sub>v</sub>	mcd	45	6	4	5