

Features

- Built-in MCU
- Power supply pin has reverse current protection
- Adjustable touch sensitivity
- High brightness
- 1 million life cycles

DC Electrical Characteristics

Parameter	Min.	Typ.	Max.	Units
Operation Voltage ^(Note 1)	5	-	30	V
Operation Power consumption	-	-	25	mA
DC Voltage contact rating of Electronic Switch	5	-	30	V
DC Current contact rating of Electronic Switch	-	-	1.5	A
Contact Resistance of Electronic Switch	-	130	160	mΩ
Operation temperature ^(Note 2)	-20	-	60	°C

Note 1 : Turn off the power before installing the TK switch.

Note 2 : Please consult factory if higher operating temperature is required.

Reliability Performance

Parameter	Specification
DRY COLD TEST	Stored at temperature -20°C for 96 hours, then left at room temperature for 1 hour before electrical performance is measured. Per IEC 68-2-1
DRY HEAT TEST	Stored at temperature +60°C for 96 hours, then left at room temperature for 1 hour before electrical performance is measured. Per IEC 68-2-2
CHANGE OF TEMPERATURE TEST	Stored at temperature -20°C for 3 hours, Change of temperature 1°C/min, Stored at temperature +60°C for 3 hours, total 2 cycles, then left at room temperature for 1 hour before electrical performance is measured. Per IEC 68-2-14
SALT SPRAY RESISTANCE	Stored at temperature 35°C, and salt solution concentration of 5% with full air temperature 47°C and air pressure 1.0 kg for 48 hours. The switch shall result no corrosion as well as no apparent changes to its functional performance. Per ASTM B117.
WATER-PROOF TEST	(Turn power off) Protected against water immersion - Immersion for 24 hours at a depth of 1 meter. Per IEC 60529 IP-68
UV RESISTANCE	Ultraviolet radiated UVA-340 distance of 70mm for 360 hours. Per ASTM G154-06
IMPACT RESISTANCE	Drop of 5Kg object from 40cm height, total 3 cycles.(20 joules) Per IEC 62262:2002 IK10

Material Specification

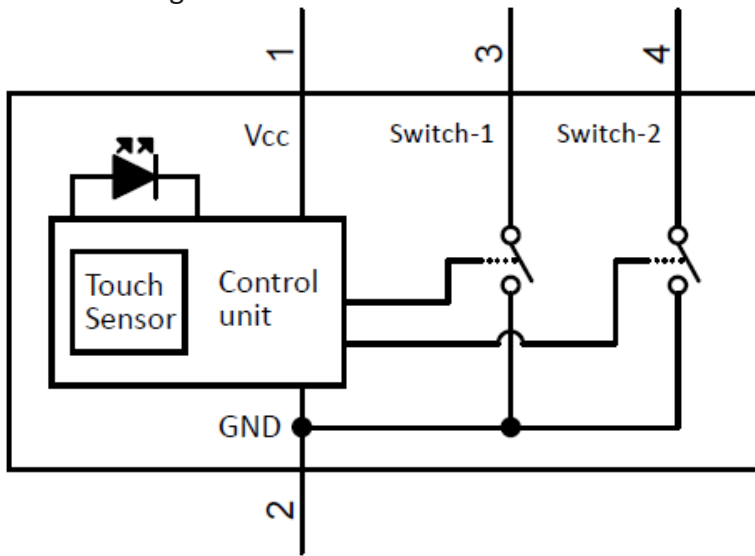
Item	Description
Case	Stainless steel / Aluminum
Touch key	Stainless steel / Aluminum
Lens	Polycarbonate (UL94-V0)
Wire	UL1007, 22/28 AWG

Warning

1. Do not use this device for personnel protection
2. Using this device for personnel protection could result in serious injury or death.
3. This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A device failure or malfunction can cause either an energized (on) or de-energized (off) output condition.
4. Turn off the power before installing the Touch Key switch.
5. Please add an external fuse for overload protection. The Touch Key switch does not include a fuse.

LED is Controlled by Internal Circuit

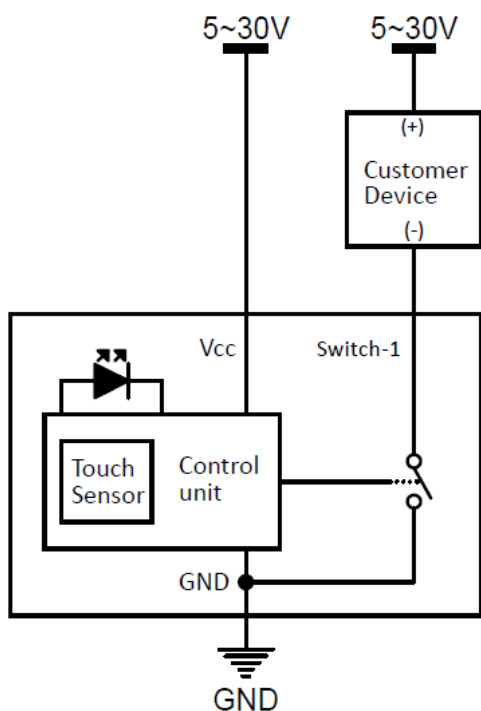
1. Block diagram



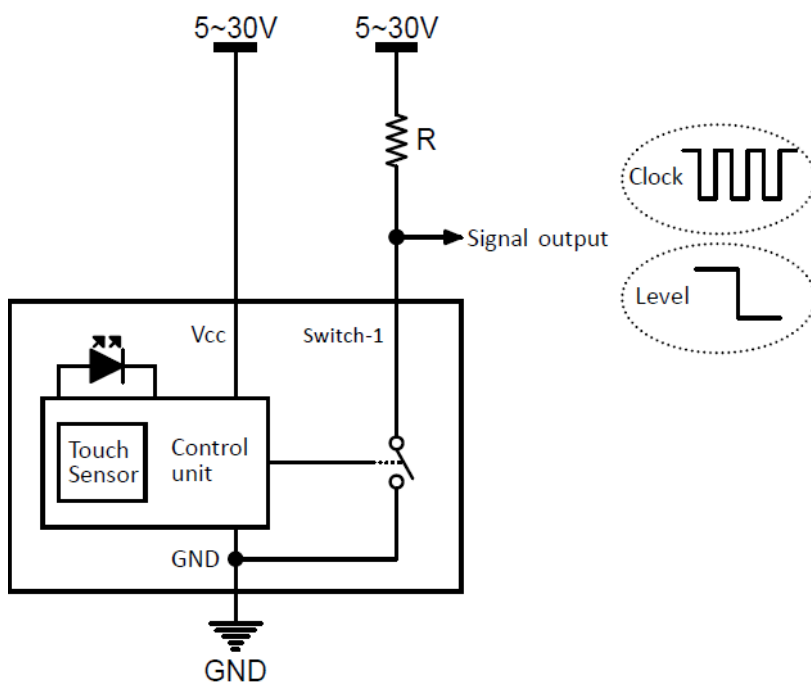
2. Wires define

Wire			Description
No.	Name	Specification	
1	Vcc	22 AWG, Red	Supply voltage for TK operation, The voltage Range is DC 5 ~ 30V
2	GND	22 AWG, Black	Ground potential
3	Switch-1	22 AWG, White	Electronic switch, Connect to the negative pole (GND) of customer device
4	Switch-2	22 AWG, Blue	Electronic switch, Connect to the negative pole (GND) of customer device

3. Example 1, use Electronic Switch-1 only





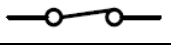
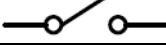
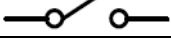
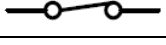
4. Example 2, use Electronic Switch-1 only





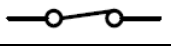
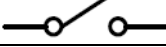
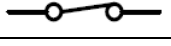
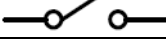
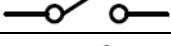

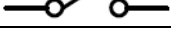

Capacitive Touch Switch

Electronic Switch Function

SPDT Momentary

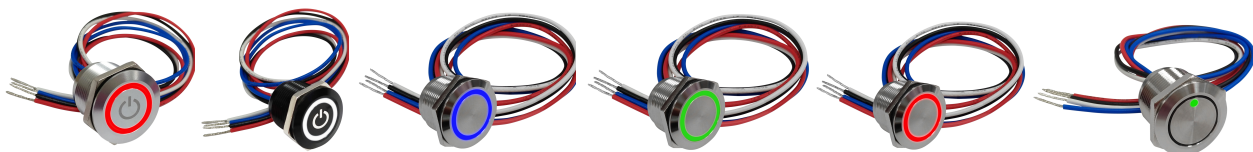
Step	Behavior	Electronic Switch	
		Switch-1	Switch-2
0	Power On		
1	Finger presses the touch key		
2	Finger did not press the touch key		
loop form step 1 to step 2			

SPDT Latching

Step	Behavior	Electronic Switch	
		Switch-1	Switch-2
0	Power On		
1	Finger presses the touch key		
2	Finger did not press the touch key		
3	Finger presses the touch key		
4	Finger did not press the touch key		
loop form step 1 to step 4			

Product Range - SPDT Momentary

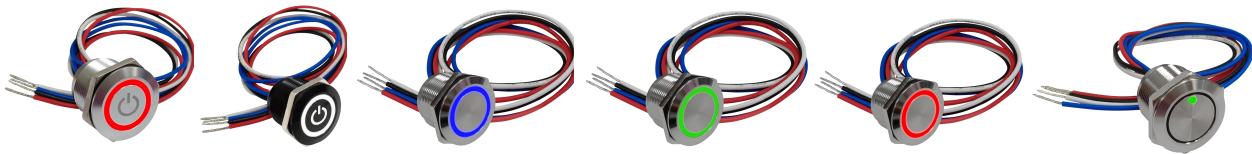
Item	Bushing	Contact	Body Material	Illumination	LED Colour
RND 210-00759	19 mm	4 Wires	Aluminium	Ring with Mark	Red / Green
RND 210-00761	19 mm	4 Wires	Aluminium, Black Anodized	Ring with Mark	White / Blue
RND 210-00763	19 mm	4 Wires	SUS304	Ring	Blue
RND 210-00765	19 mm	4 Wires	SUS304	Ring	Green
RND 210-00767	19 mm	4 Wires	SUS304	Ring	Red
RND 210-00769	19 mm	4 Wires	SUS304	Circle	Green / Red
RND 210-00771	22 mm	4 Wires	Aluminium	Ring with Mark	Red / Green
RND 210-00773	22 mm	4 Wires	Aluminium, Black Anodized	Ring with Mark	White / Blue
RND 210-00775	22 mm	4 Wires	SUS304	Ring	Blue
RND 210-00777	22 mm	4 Wires	SUS304	Ring	Green
RND 210-00779	22 mm	4 Wires	SUS304	Ring	Red
RND 210-00781	22 mm	4 Wires	SUS304	Circle	Green / Red



RND 210-00759 RND 210-00761 RND 210-00763 RND 210-00765 RND 210-00767 RND 210-00769
 RND 210-00771 RND 210-00773 RND 210-00775 RND 210-00777 RND 210-00779 RND 210-00781

Product Range - SPDT Latching

Item	Bushing	Contact	Body Material	Illumination	LED Colour
RND 210-00760	19 mm	4 Wires	Aluminium	Ring with Mark	Red / Green
RND 210-00762	19 mm	4 Wires	Aluminium, Black Anodized	Ring with Mark	White / Blue
RND 210-00764	19 mm	4 Wires	SUS304	Ring	Blue
RND 210-00766	19 mm	4 Wires	SUS304	Ring	Green
RND 210-00768	19 mm	4 Wires	SUS304	Ring	Red
RND 210-00770	19 mm	4 Wires	SUS304	Circle	Green / Red
RND 210-00772	22 mm	4 Wires	Aluminium	Ring with Mark	Red / Green
RND 210-00774	22 mm	4 Wires	Aluminium, Black Anodized	Ring with Mark	White / Blue
RND 210-00776	22 mm	4 Wires	SUS304	Ring	Blue
RND 210-00778	22 mm	4 Wires	SUS304	Ring	Green
RND 210-00780	22 mm	4 Wires	SUS304	Ring	Red
RND 210-00782	22 mm	4 Wires	SUS304	Circle	Green / Red



RND 210-00760
RND 210-00772

RND 210-00762
RND 210-00774

RND 210-00764
RND 210-00776

RND 210-00766
RND 210-00778

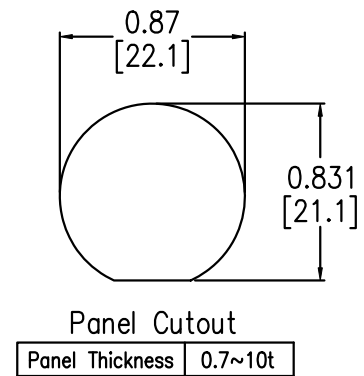
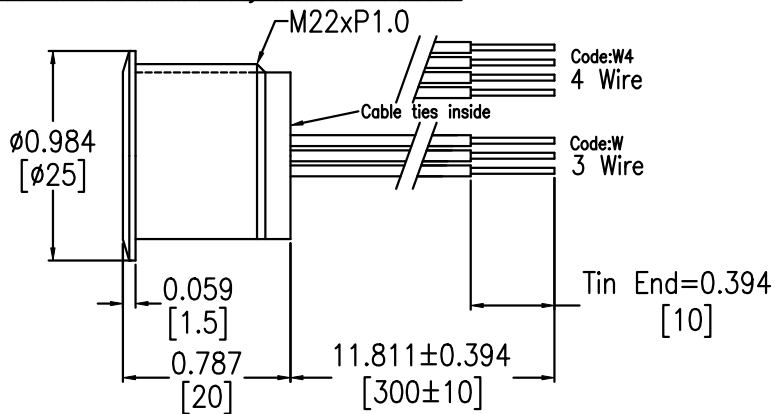
RND 210-00768
RND 210-00780

RND 210-00770
RND 210-00782

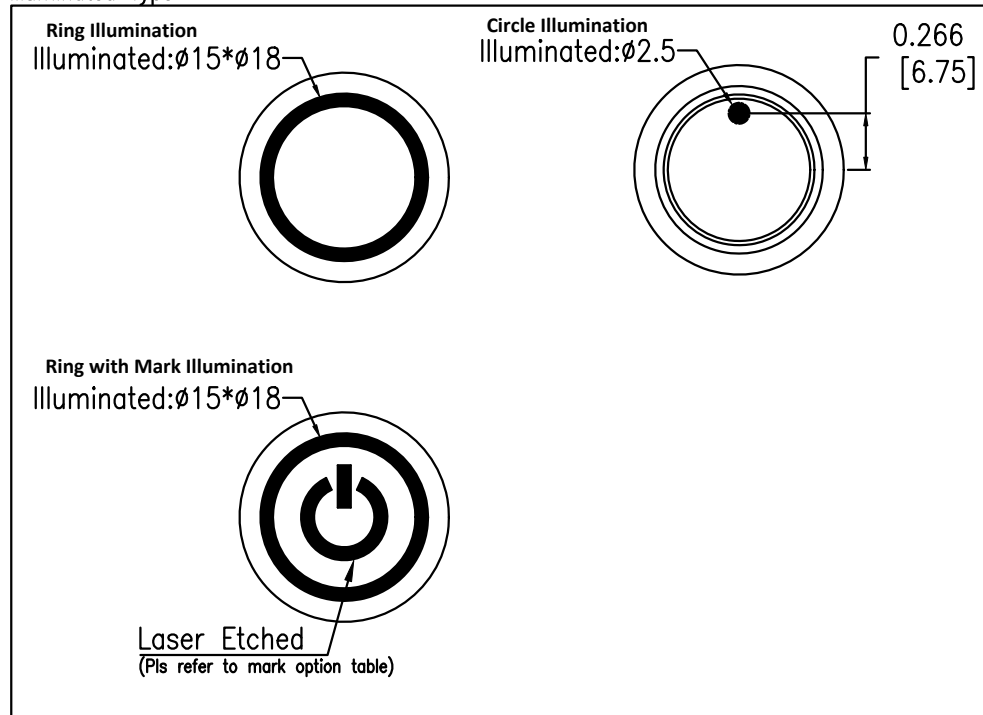
Capacitive Touch Switch

Drawing - 19 mm Bushing

LED is controlled by internal circuit



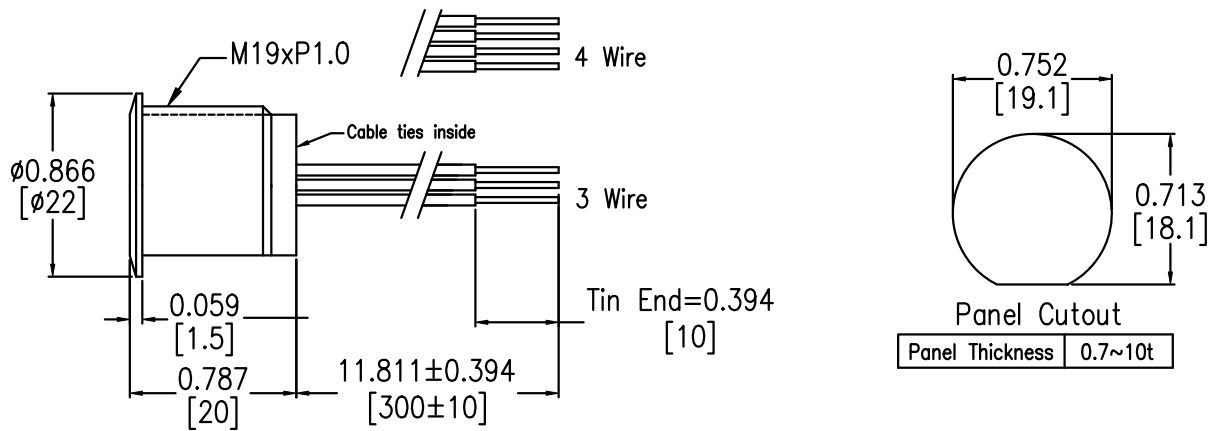
Illuminated Type



Capacitive Touch Switch

Drawing - 22 mm Bushing

LED is controlled by internal circuit



Illuminated Type

