

SPECIFICATION	PAGE
TACT SWITCH	1 / 4

#### 1. GENERAL

- 1.1 Application: This specification is applied to low current circuit tactile switch for electronic equipment.
- 1.2 Operating temperature range: -40 ~ 90 °C (Normal humidity and air pressure)
- 1.3 Storage temperature range :  $-40 \sim 90 \,^{\circ}\text{C}$  (Normal humidity and air pressure)
- 1.4 Test conditions: The standard test conditions shall be  $5\sim35\,^\circ$ C in temperature,  $25\sim85\% \text{ RH and }860\sim1060\text{mbar in atmospheric pressure.}$  Should any doubt arise in judgement, tests shall be conducted at  $20\pm2\,^\circ$ C,  $65\pm5\%$  RH and  $860\sim1060\text{mbar.}$
- 2. RATED VOLTAGE AND CURRENT. DC 12V 50m

### 3. ELECTRICAL PERFORMANCE

	PROPERTY	TEST CONDITIONS	PERFORMANCE
3.1	Contact resistance	* less than 100mΩ.	
3.2	Insulation resistance	DC 100V is applied between terminals and between terminals and cover for 1minute ±5seconds.	* greater than 100MΩ.
3.3	Dielectric strength	AC 250V (50 $\sim$ 60Hz)is applied between terminals and between terminals and cover for 1 minute.	* No insulation defect shall be observed.
3.4	Bounce	Measured by lightly striking the center of the stem at a rate of 3 operations/sec	* less than 10 msec.

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									DOCUMENT NO	). WT 0182
ZONE	SYMB	DATE	APPD	CHKD	DSGD					WI 0102

SPECIFICATION	PAGE
TACT SWITCH	2 / 4

# 4. MECHANICAL PERFOMANCE

	PROPERTY	TEST CONDITIONS	PERFORMANCE
4.1	Actuating force	A gradually increasing load is applied to the center of the stem.	* As per individual manufactured drawing.
4.2	Return force	After actuating, the load is gradually decreased until the stem returns to its free position.	* greater than 60gf.
4.3	Travel		* 0.30 <sup>+0.2</sup> mm
4.4	Stop strength	A static force of 5Kgf shall be applied to the direction of operation for 60 seconds.	* Shall be free from mechanical and electrical abnormalities.
4.5	Stem withdrawal force	A static load of 3Kgf is applied to the direction of pulling for 3 seconds.	* Shall be free from mechanical and electrical degradation.

## 5. DURABILITY

	PROPERTY	TEST CONDITIONS	PERFORMANCE
5.1	Operating life	10,000,000cycles operation with a load of 150% of Actuating force a rate of 2 cycles/sec. With a resistive load supplying DC 5V 5mA.	* Contact resistance: 200mΩ max.  * Insulation resistance: 10MΩ min.  * Actuating force: within ±30% of the initial value.

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									31	STETEL SETTLES
									DOCUMENT NO	WT 0182
ZONE	SYMB	DATE	APPD	CHKD	DSGD					VV1 0102

SPECIFICATION	PAGE
TACT SWITCH	3 / 4

# 6. WEATHER PROOF

	PROPERTY	TEST CONDITIONS	PERFORMANCE
6.1	Cold heat proof	After testing at -40±2°C for 96hours, the sample is allowed to stand under normal temperature and humidity conditions for 1hour and measurement is performed within 1hour after that.  Water drops should be wiped off.	* The requirement in item 3 and 4 shall
6.2	Dry heat proof	After testing at 90±2°C for 96hours, the sample is allowed to stand under normal temperature for 1hour and measurement is performed within 1hour after that.	be met.
6.3	Damp heat proof	After test at $60\pm2$ °C and $90\sim95$ % in relative humidity for 96hours, the sample is allowed to stand under normal temperature and humidity conditions for 1hour, and measurement is performed within 1hour after that. Water drops should be wiped off.	* Contact resistance: 200mΩ max. * Insulation resistance: 10MΩ minimum. * The requirement in item 3.3 and 4 shall be met.
6.4	Thermal cycling	-40°C  -40°C  -40°C  2H  1H  2H  1H  2H  1H  1H  2H  1H  1H	* The requirement in item 3 and 4 shall be met.

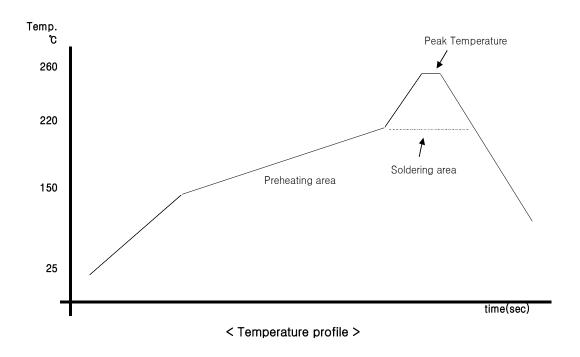
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SPECIFICATION	PAGE
TACT SWITCH	4 / 4

#### 7. SOLDERING CONDITIONS

### 7.1 Reflow soldering conditions

- 1) Preheat ----- 150°C  $\sim$  200°C, 120  $\pm 20$  (sec)
- 2) Peak temperature --- 260°C max. 10 (s
- 3) Soldering area temperature ----  $217^{\circ}$ C,  $90 \sim 120$  (sec)



## 7.2 Manual soldering conditions

- 1) Soldering temperature --- 350°C max.
- 2) Solderng time ---- 3 (sec) max.

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