APPLICATION

RoHS

DSN	CHK	APP
M.K.R	M.K.J	K.Y.I

CUSTOMER :

REF.NO :

DATE : 200 . .

MODEL : TACT SWITCH MODEL No. : DJT 1103A

Approved by	Remark

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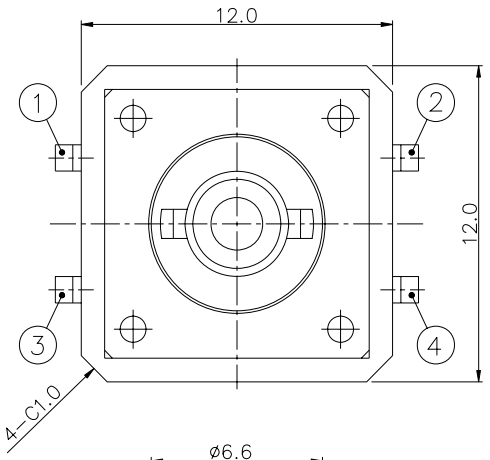
DRAWING 2

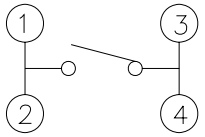
SPECIFICATION 3 ~6

주식회사 대진산업

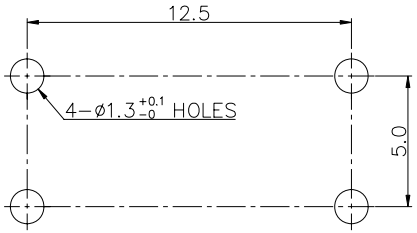
DAEJIN INDUSTRY CO.,LTD

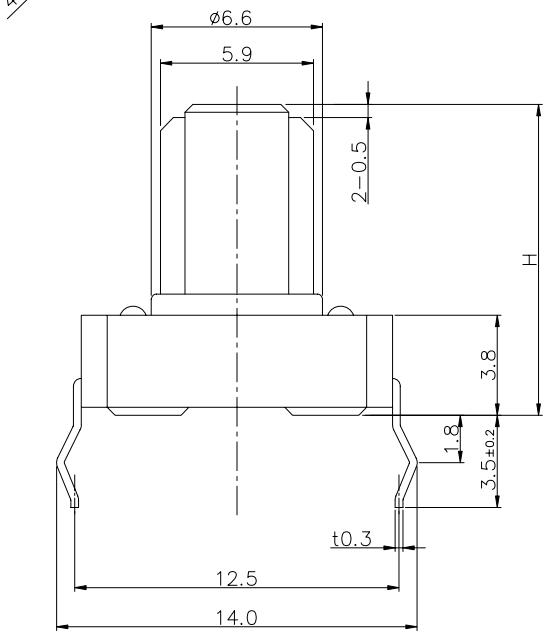


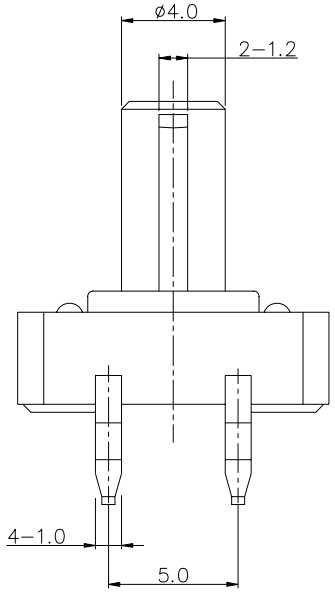
CIRCUIT DIAGRAM



P.C.B MOUNTING HOLES







STEM HEIGHT

MODEL	H(mm)
1103A	11.8
1103G	12.0

SPECIFICATION

1. RATING : DC 12V 50mA
2. TRAVEL : 0.3±0.1mm
3. CONTACT RESISTANCE : 100mΩ MAX.
4. BOUNCE : 10m SEC MAX.
5.

MODEL	OPERATING FORCE	LIFE CYCLES
DJT1103A-1	130±30gf	300,000 CYCLE
DJT1103A-2	160±50gf	300,000 CYCLE
DJT1103A-3	250±50gf	100,000 CYCLE

NO.	PART NAME	Q'TY	MATERIAL	SPEC	TREATMENT	REMARK

DESIGN	CHECK	APPROVE	TRACE	SCALE	TITLE	DJT1103A SERIES TACT SWITCH
K.M.S	M.K.J	K.Y.I		1/1	DRAWING NO.	
					DATE	2007. 01. 03

DAEJIN INDUSTRY CO.,LTD.

REV No.	DATE	DESCRIPTION OF REVISION	SIGN	APP.
4				
3				
2				
1				

TOLERANCE UNLESS OTHERWISE STATED(mm)

less than 10	±0.1
10~30	±0.2
30~100	±0.3
ANGLE	±2°

(POS-0701-03)

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1. General

1.1 Switch rating : DC 12V, 50mA

1.2 Operation temperature range : -20℃ ~ 70℃

1.3 Preservative temperature range : -30℃ ~ 80℃

1.4 Appearance and dimensions : See outside drawing page

1.5 Standard conditions : Unless otherwise specified, the test and measurements shall be carried out as follows :

Ambient temperature : 5 ~ 35℃

Relative humidity : 45 ~ 85%RH

Air pressure : 86 ~ 106kpa (860 ~ 1060mbar)

However, if doubt arises on the decision based on the measured values under the above-mentioned conditions, the following conditions shall be employed.

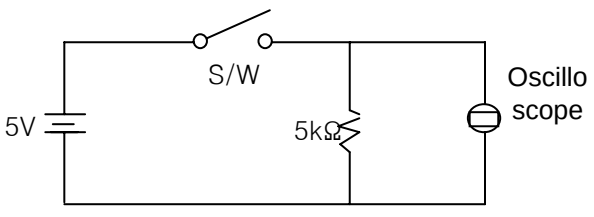
Ambient temperature : 20±2℃

Relative humidity : 65±5%RH

Air pressure : 86 ~ 106kpa (860 ~ 1060mbar)

2. Performance

2.1 Electrical characteristics

NO.	ITEMS	TEST CONDITIONS	PERFORMANCE
2.1.1	Contact Resistance	Applying a static load twice the actuating force to the center of the stem, measurements shall be made with a 1kHz small-current contact resistance meter.	100mΩ Max.
2.1.2	Insulation Resistance	Measurements shall be made following application of DC 100V potential across terminals and across terminals and frame for one minute.	100MΩ Min.
2.1.3	Dielectric Withstanding Voltage	AC 250V (50Hz or 60Hz) shall be applied across terminals and across terminals and frame for one minute.	There shall be no breakdown
2.1.4	Bounce	Lightly striking the center of the stem at a rate encountered in normal use (3 to 4 operation per sec.) bounce shall be tested at 'ON' and 'OFF' 	10msec Max.

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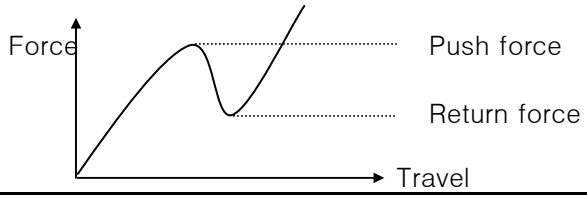
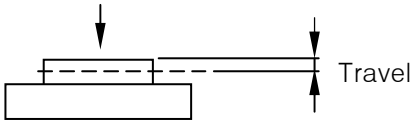
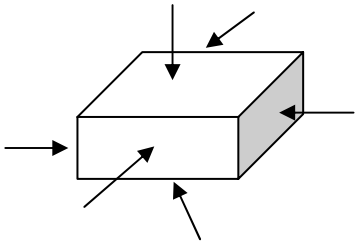
2.2 Mechanical characteristics

NO.	ITEMS	TEST CONDITIONS	PERFORMANCE
2.2.1	Operation Force	Push by recommended operating condition 	See outside drawing page
2.2.2.	Travel	Push by recommended operating condition F = (Operation force) × 2 	0.3 ±0.1 mm
2.2.3	Stop Strength	A static load of 3kgf shall be applied in the direction of stem operation for a period of 60 seconds.	No damage (Electrical and Mechanical)
2.2.4	Vibration Test	(1) Amplitude : 1.5mm (2) Sweep rate : 10-55-10Hz for 1 minute. (3) Sweep method : Logarithmic frequency sweep rate. (4) Vibration direction : X.Y.Z (3 directions). (5) Time : Each direction 2 hours (Total 6 hours).	No. 2.1 and 2.2.1 to 2.2.2 shall be satisfied.
2.2.5	Impact Shock Test	(1) Acceleration : 80G (2) Cycles of test : 3 cycles each in 6 directions for a total 18 cycles. 	No. 2.1 and 2.2.1 to 2.2.2 shall be satisfied.
2.2.6	Soldering heat test	Soldering area : t/2 of P.W.B thickness (P.W.B : t = 1.6) Soldering temperature : 260±5℃ Soldering time : 5±1 sec	No damage (Electrical and Mechanical)

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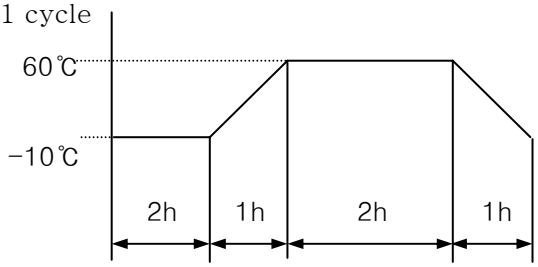
2.3 Climatic characteristics

NO.	ITEMS	TEST CONDITIONS	PERFORMANCE
2.3.1	Cold test	(1) Temperature : -30±2℃ (2) Duration of test : 96 hours (3) Take off a drop water (4) Standard conditions after test : 1 hour	Contact Resistance : 200mΩ max. No. 2.1.2 to 2.1.4 & 2.2.1 to 2.2.2 shall be satisfied.
2.3.2	Heat test	(1) Temperature : 80±2℃ (2) Duration of test : 96 hours (3) Standard conditions after test : 1 hour	Contact Resistance : 200mΩ max. No. 2.1.2 to 2.1.4 & 2.2.1 to 2.2.2 shall be satisfied.
2.3.3	Temperature Cycle	(1) Test cycles : 5 cycles (2) Standard conditions after test : 1 hour (3) 1 cycle 	Contact Resistance : 200mΩ max. No. 2.1.2 to 2.1.4 & 2.2.1 to 2.2.2 shall be satisfied.
2.3.4	Humidity Test	(1) Temperature : 60±2℃ (2) Relative humidity : 90 ~ 95% (3) Duration of test : 96 hours (4) Take off a drop water (5) Standard conditions after test : 1 hour	Contact Resistance : 200mΩ max. No. 2.1.2 to 2.1.4 & 2.2.1 to 2.2.2 shall be satisfied.
2.3.5	Operating Life Test	(1) DC 5V, 5mA Resistance load (2) Operation speed : 2 ~ 3 cycles/sec (3) Push force : Maximum value of operation force (4) Cycles of operation : See outside drawing page	Contact Resistance : 200mΩ max. Bounce : 20m sec max. Operating force : initial value ±30% No. 2.1.2 to 2.1.3 & 2.2.2 shall be satisfied.
2.3.6	Salt mist test	Switch shall be checked after following test. (1) Temperature : 35±2℃ (2) Salt solution : 5 ± 1% (3) Duration of test : 48 hours	Without excessive rust or discoloration

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3. Soldering

3.1 Auto soldering conditions

ITEM	CONDITION
Preheat temperature	110℃ max. (Environmental temperature of soldering surface of P.W.B)
Preheat time	60 sec max.
Area of flux	1/2 max. of P.W.B thickness
Temperature of solder	255℃ max.
Time of immersion	Within 5 sec
Soldering number	Within 2 time (But should bring down heat of the first soldering)
Printed wiring board	Single sided copper-clad laminates.

1) After switches were soldered, please be careful not to clean switches with solvent.

2) In the case of using soldering iron, soldering conditions shall be 280℃ max. and 3 sec max.

3) After switches were soldered, please be careful not to load the knobs of switchs.

3.2 Manual soldering conditions

Temperature : 350 ± 5℃

Time : 3 sec max.

4. Safety Keeping Condition

1) Please keep the received products under conditions of not high temperature, no high humidity and no direct-rays of the and no corrosive gases.

2) Our products are strongly recommended to use off within 3 months and are guaranteed the quality for 6 months of maximum period after receiving the products.

3) Please put some desiccants after opening off a vinyl pack in order not to enter the damp air and keep the products at the same place of the above-mentioned

4) Please be cautious not to give excessive load on the products.

5) Please be cautious not to keep the products with high pressure on the push buttons.