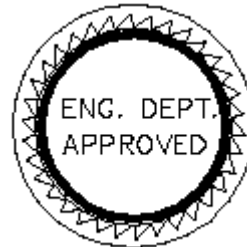


OUTLINE OF CHANGES ON THE DOCUMENT				
Version	Description	Page of modification	Issue by	Issue date
A	First released	1 - 2	Amy	2002.08.29
B	Adding Soldering info	1 - 2	Amy	2005.11.09
C	RoHS Compliant Item	2	Amy	2006.07.01

SPECIFICATION FOR DETECTOR SWITCH

ATTENTION	
<p><i>Customer shall acknowledge the datasheet by returning "this cover page with authorized signature" before placing order. Lack of acknowledgement or additional response constitutes acceptance of the herein contents.</i></p> <p>下單前請將此份"規格書封面簽回",未簽回則視為承認本規格書內容.</p>	
Approved By	Entered Date



CUSTOMER: _____
PART NO.: _____
TAIWAY P/N: TPS-12MTL-T/R
DATE OF ISSUE: 2012 Jun. 27
ISSUE BY: Kyme Chiang
APPROVED BY: Amy Yen

TAIWAY ELECTRONICS COMPONENTS CO., LTD.

TPS-MTx SPECIFICATION

File No.:
TPS-MTx

Rev.: C

Page: 3 pages

ELECTRICAL & MECHANICAL CHARACTERISTICS	CONTACT RATING:	DC3V 50uA, DC5V 10mA
	ELECTRICAL LIFE:	Measurement shall be made under 10mA 5VDC resistive load with at a rate of 15~20 cycle per minute for 100,000 cycles. After test, the contact resistance shall be 10-ohms max.
	CONTACT RESISTANCE:	Applying force on the center of stem. When actuator depressed 2.3mm inside then measure contact resistance with KHz unit micro resistance meter. 1-ohms max.
	INSULATION RESISTANCE:	Measurements shall be made under application of 100VDC potential across terminals and cover for 1 minute±5 seconds. 100M-ohms min.
	DIELECTRICAL STRENGTH:	AC 100V (50~60Hz 2mA current) being applied across terminals and cover for 1 minute. There shall be no flashover
	OPERATING TEMPERATURE:	-20celsius degree to +70celsius degree
	STORAGE TEMPERATURE:	-20celsius degree to +70celsius degree
	OPERATING FORCE:	Less than 0.3N (31gf)
RELIABILITY	SOLDERING TEMPERATURE	Soldering iron: 300 Celsius degree for max. 3 sec. Reflow Soldering: 260 Celsius degree for max. 10 sec. *KEEP SWITCH AT FREE POSITION DURING SOLDERING
	COLD TEST:	Switch for testing being kept in the conditions at -20±2 Celsius degree in temperature for 96 hrs and then shall be left in a normal ambient condition for 1 hr before measurement is made. Drop of water must be taken away. After test, the switch shall remain functional
	HEAT TEST:	Switch for testing being kept in the conditions at 70±2 Celsius degree in temperature for 96 hrs and then shall be left in a normal ambient condition for 1 hr before measurement is made. After test, the switch shall remain functional

TAIWAY ELECTRONICS COMPONENTS CO., LTD.

TPS-MTx SPECIFICATION

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	HUMIDITY TEST:	Switch for testing being kept in the conditions at 40±2 Celsius degree in temperature and 90~95%RH for 96 hrs. Then the switch shall be left in a normal ambient condition for 1 hr before measurement is made. After test, the switch shall remain functional
	VIBRATION TEST:	Method 201A of MIL-STD-202F Frequency: 10~55~10 Hz approx. 1 minute The directions: 3 vertical directions including operating direction Duration: 2 hrs each (total 6 hrs) Swing distance: 1.50mm After test, the switch shall remain functional
	IMPACT SHOCK:	Method 213B condition A of MIL-STD-202F Acceleration: 50G Action time: 11±1m sec Cycle test: 3 cycles each in 6 directions, for a total of 18 cycles. After test, the switch shall remain functional
PACKAGE	RoHS IDENTIFI-CATIONS:	A label marking "RoHS compliant" will be attached to the smallest quantity package or carton box
MATERIALS:	KNOB:	Nylon 66 + 30%gf
	HOUSING:	LCP
	METAL CASE:	Stainless steel
	SPRING:	Phosphor bronze
	TERMINAL:	Phosphor bronze with silver plating

TAIWAY ELECTRONICS COMPONENTS CO., LTD.

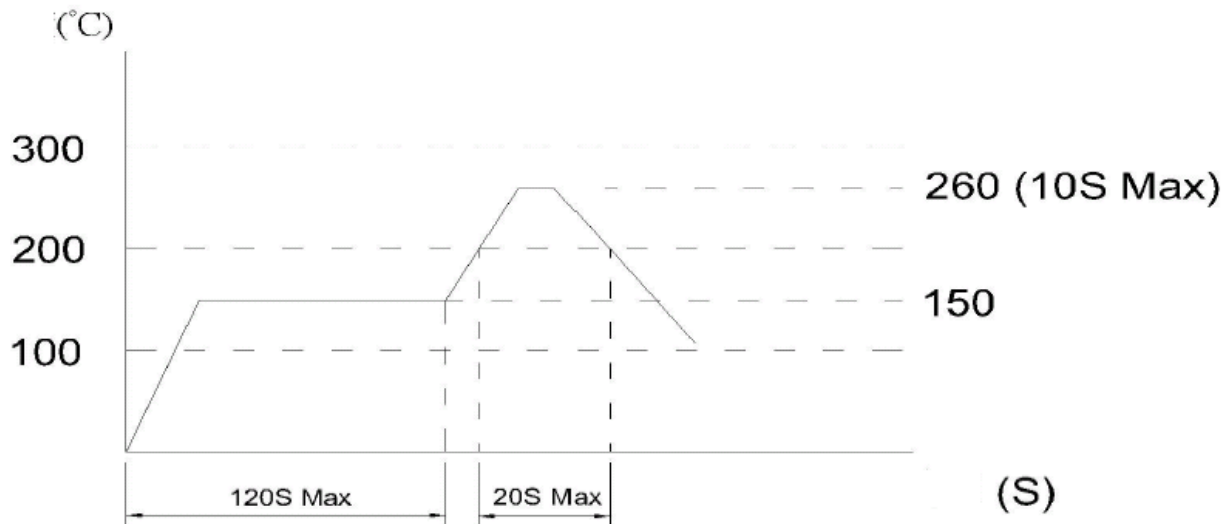
TPS-MTx SPECIFICATION

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TPS-MTx

Rev.: C

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SOLDERING PROFILE:



PRECAUTION IN HANDLING

- Care shall be taken so that flux from the upper part of the PCB does not adhere to the switch
- Do not wash the switch after soldering
- Make sure there is no flux rose over the surface of the PCB
- Keep switch at free position during soldering

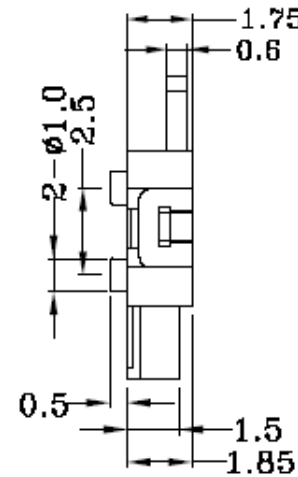
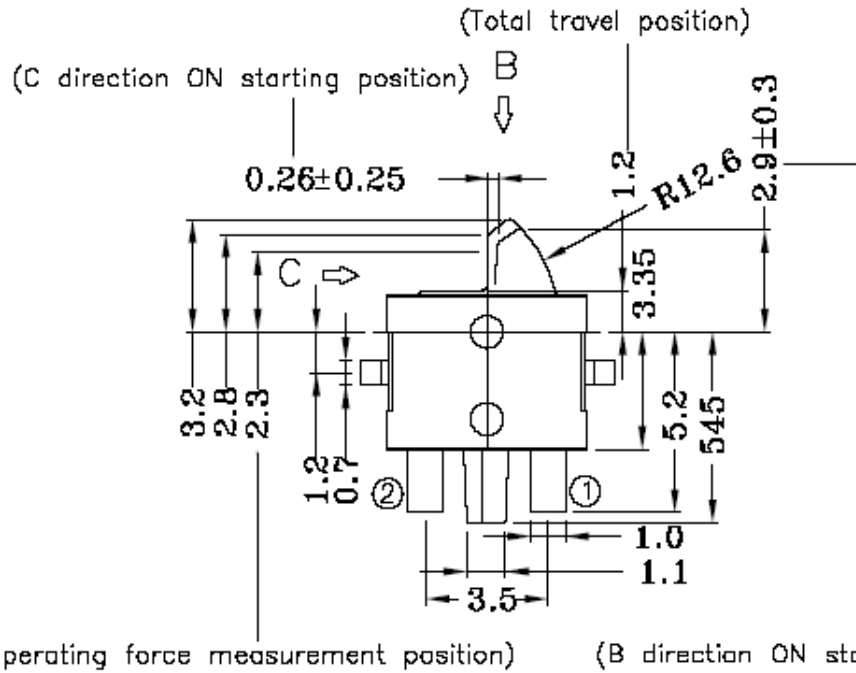
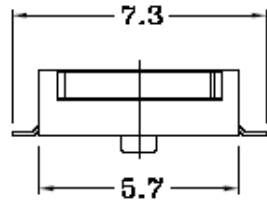
A

B

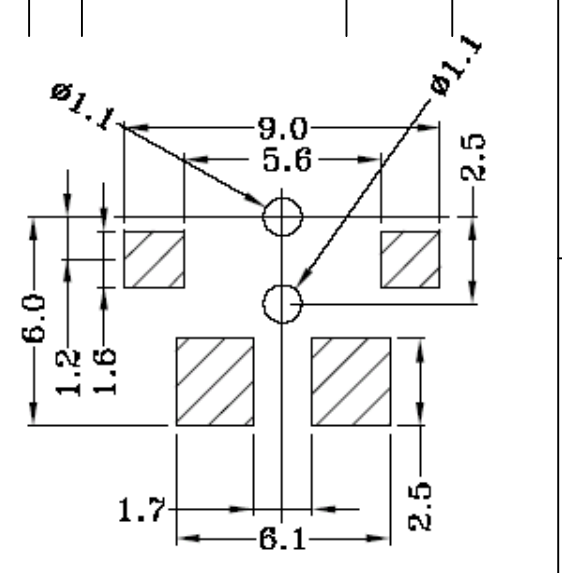
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D

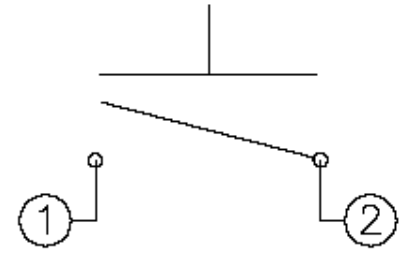
E



REV.	DESCRIPTION	ENG.	APPROVE
更改	說明	修改人	審核



PCB Layout



Circuit Diagram

SPECIFICATIONS:

- 1.Rating: DC3V 50uA—Dc 5V 10mA.
- 2.Operating Temp.: -20°C~70°C.
- 3.Operating Force: 0.3N (31gf)
- 4.Resistance to Soldering Heat: Manual @ 300°C 3sec.
Reflow @ 260°C 10sec max.
- 5.Contact Resistance: 1—ohms max @ initial
- 6.Insulation Resistance: More than 100M—ohms @ 100VDC.
- 7.Withstanding Voltage: 100VAC @ 1minute.
- 8.Operating Life: 100,000 cycles (with load).

ITEM NO.	料號	TPS-12MTL-T/R
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGULAR TOLERANCE: ±1.0°

DIMENSIONS	TOLERANCE
0.00 TO 10.00mm	±0.20mm
10.01 TO 20.00mm	±0.25mm
20.01 TO 30.00mm	±0.30mm
30.01 TO	±0.40mm

泰瑋電子有限公司
TAIWAY ELECTRONICS COMPONENTS CO.,LTD.

USED 用途	TPS	APPD. 審核	Amy 2009/05/19
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FINISH 處理		CHKD. 校對	Amy 2009/05/19
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SCALE 比例	2 / 1	UNIT 單位	mm	DR. 製圖	Amy 2009/05/19
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TITLE 名稱	Detector Switch		
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DWG NO. 圖號	TPS-12MTL-T/R		SIZE 圖紙	A4
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FILE NAME 檔案名稱	12MTL.dwg	SHEET 張	1 / 1	REV. 更改	2
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