

Tilt Sensor Switch

Item No.	RBS070310	Description	Ball-Contact	Version	14
Page	1 of 7		Publish Date	May.15, 2018	

● FUNCTIONS

1. 45° Tilt Detecting within a 360° radius
2. Up-Side Down Detecting



● APPLICATIONS

1. Automatically shut off for home appliances
2. Wake up systems for power saving, such like remote controllers
3. Anti-theft / Anti-tamper devices
4. Rotation Detection for monitor
5. Alarm system
6. Earthquake detecting
7. Automatically shut off for Sporting equipment
8. Entertainment device: video game consoles, toys



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Item No.	RBS070310	Description	Ball-Contact	Version	14
Page	2 of 7		Publish Date	May.15, 2018	

● **FEATURES**

1. Suitable for horizontal PCB.
2. Switch state: DIP Normal close.
3. Housing made of high insulation plastic material, free from electric conduction and rust problem.
4. Gold-plated ball and terminals, low possibility of oxidization.
5. All plastic materials subject to industrial purpose, resist high temperature and meet fireproof function.
6. Simple ON and OFF signals, easy for design.
7. RoHS compliance, an ideal substitute for mercury switch.
8. A more economical tilt and rotation detection option than IC design solution.
9. All made in Taiwan and examined before shipment.

● **PATENTS**

1. Taiwan Patent No. M 437246
2. Taiwan No. I 476797
3. Taiwan No. I 510356
4. Japan Patent No. 3148127(RBS070311)
5. U.S.A. Patent No. US 6,518,523 B1
6. U.S.A. Patent No. US 7,256,360 B1
7. U.S.A. Patent No. US 9,058,945 B2
8. China Patent No. 201220308500.8
9. China Patent No. 201220079187.5
10. China Patent No. 201210218323.9

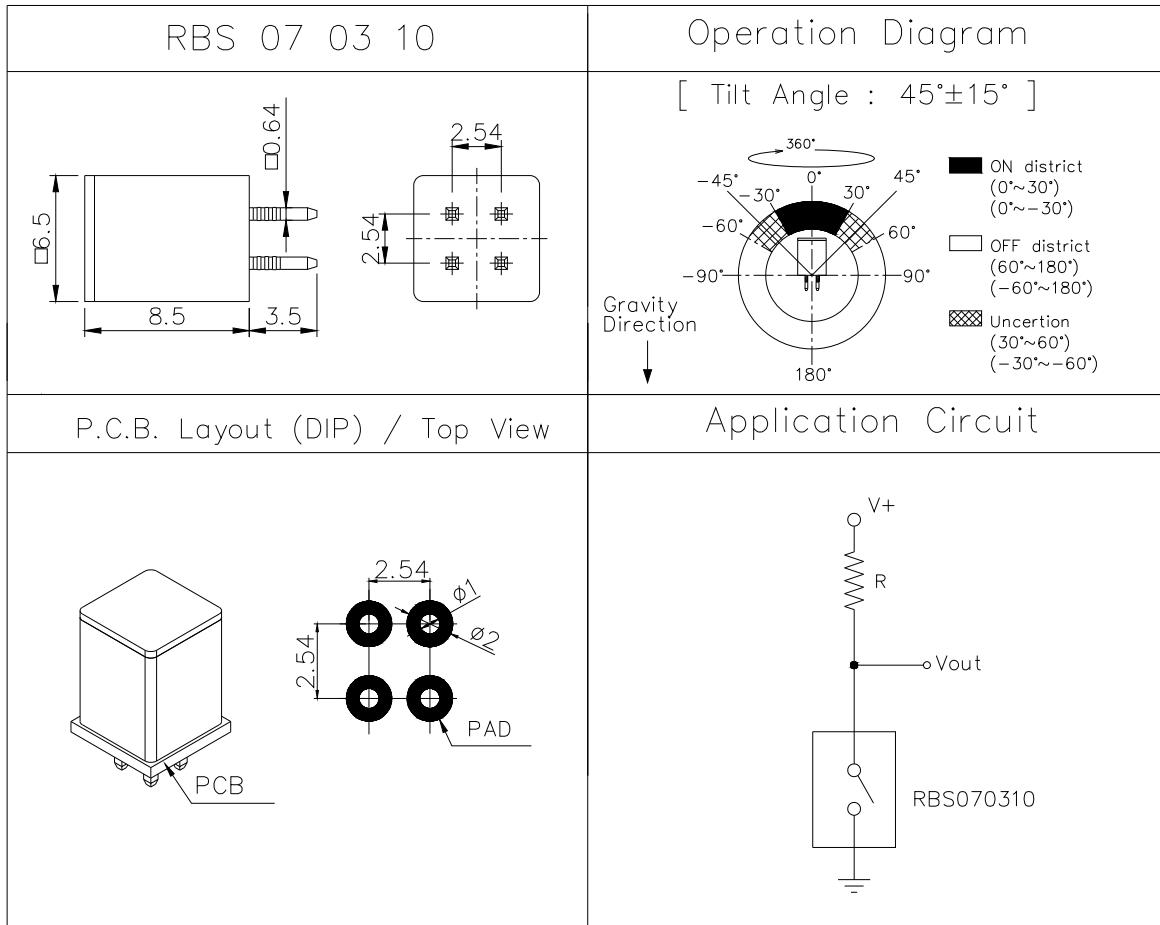


Tilt Sensor Switch

Item No.	RBS070310	Description	Ball-Contact	Version	14
Page	3 of 7		Publish Date	May.15, 2018	

● DIMENSIONS / OPERATION / P.C.B. LAYOUT (Unit: mm, Tolerance: ±0.25mm)

Fig. 1



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Item No.	RBS070310	Description	Ball-Contact	Version	14
Page	4 of 7		Publish Date	May.15, 2018	

● Current/Voltage Suggested

Input Current (mA)	Operating Voltage (V)	Condition
1.0	5	--

● ELECTRICAL CHARACTERISTICS

1.	Contact Rating	10 mA, 5VDC
2.	Contact Resistance	10Ω max.
3.	Operation Diagram	Refer to Fig .1
4.	Insulation Resistance	1000 MΩ min., 100 VDC
5.	Dielectric Strength	500 VDC min., 1 minute
6.	Capacitance	5 pF max.
7.	Conductive Rate	90% min.



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Item No.	RBS070310	Description	Ball-Contact	Version	14
Page	5 of 7		Publish Date	May.15, 2018	

● RELIABLE TEST ITEMS

Reliable Test for RBS070310

	Test Item	Contents
1	Operating Temperature	-25°C ~ 85°C
2	Storage Temperature	-40°C ~ 85°C
3	Humidity	40 °C / 95 %RH
4	Mechanical Life	2 Hz, horizontal 1,000,000 times
5	Electrical Life	100,000 times

● SOLDERING CONDITION

Following soldering conditions are for reference only, please use soldering information that solder paste manufacturer recommends.

Condition	Soldering Temperature	Soldering Time	Wattage of Manual Soldering	Type
Suitable Production Process				
Wave Soldering	260±5°C	< 5 seconds max.	-	DIP
Manual Soldering	300±5°C	< 3 seconds max.	30W or Temperature-controlled manual soldering	DIP



Tilt Sensor Switch

Item No.	RBS070310	Description	Ball-Contact	Version	14
Page	6 of 7		Publish Date	May.15, 2018	

● PACKAGE

	Part Number	Package	Quantity	Total	Dimension(mm)
1.	RBS070310	PE Bag	500 pcs	500 pcs	205L*145W
		Inner Box	10 PE Bags	5,000 pcs	348L*191W*85H
		Carton	3 Boxes	15,000 pcs	364L*278W*213H

※ Package shown as below for reference.

