



SENSOR SWITCH

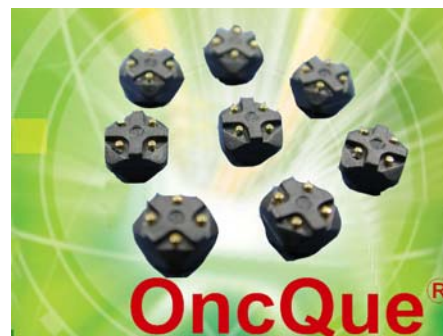
Item.#	RBS10 Series	Description	TILT SWITCH	Version	V97.0
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● APPLICATIONS

1. One Axis 15° Tilt Detecting

● FEATURES

1. Small size & compact space.
2. Housing made of high insulation plastic material, free from electric conduction and rust problem.
3. Terminals and balls are gold plated to enhance the life.
4. All plastic material subject to industrial purpose meets high temperature and fireproof function.
5. Hidden surface mounting terminals (SMT); smaller and more convenient when solder on the PCB.
6. Suitable to IC trigger signal.



● PATENTS

1. Taiwan Patent No. I239025
2. Taiwan Patent No. I261280
3. U.S.A. Patent No. US 7,045,724 B1
4. China Patent No. ZL 200410091589.7

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

RBS 10 03 00	Tilt angle $\theta = 20^\circ (+20^\circ / -10^\circ)$	P.C.B. Layout (DIP) / Top View

* The mark points the operation direction and it must face the ground when operating.

● ELECTRICAL CHARACTERISTICS

1.	Contact Rating	25mA · 24VDC
2.	Contact Resistance	10 Ω max.
3.	Differential Angle	Refer to the drawing
4.	Insulation Resistance	10M Ω min. At 100 VDC
5.	Dielectric Strength	100 VDC min. for 1 minute
6.	Capacitance	5pF max

● MECHANICAL CHARACTERISTICS

1.	Temperature Range	Operating: -25°C to +85°C Storage: -40°C to +85°C
2.	Pull Force of Terminal	500 gf for 1 minute
3.	Operation Life	100,000 Cycles
4.	Conductive Rate (Switch-on Rate)	min. over 90%
5.	Humidity	95% RH, 40° C for 96 hrs.
6.	Solder ability	After flux 260 \pm 5°C for 5 \pm 0.5 seconds 95% coverage

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● **BILL OF MATERIAL**

1.	Housing	Glass-Fiber Liquid Crystal Polymer
2.	Cu-Ball	Copper Alloy, Gold Plated over Nickel
3.	Terminal	Copper Alloy, Gold Plated over Nickel

● **PACKAGE**

	Part Number	Package	Quantity	Total	Size
1.	RBS100300T	Reel	2,000 pcs	2,000 pcs	Diameter=30 ; Width= 1.7 (cm)
		Inner Box	3 Reels	6,000 pcs	36 x 34 x 7 (cm)
		Carton(1)	4 Boxes	8,000 pcs	37 x 36 x 31 (cm)
		Carton(2)	10 Boxes	60,000 pcs	70 x 36 x 38 (cm)

* Minimum Order Quantity: One Reel

● **NOTE**

1. Suggestion for Application : Application in occasions that require vibration functions, adding design of "ON DELAY" is recommended. For great vibration, Optical type products are recommended.
2. Suggestion Contact Rating: 5 mA.
3. Conductive Rate: To test the conductivity (Switch-on Rate) of one switch individually for 100 times, if the switch conductive 95 times, we call the "conductive rate" is 95%.
4. For the continued product improvement as one of the company policy, specifications may change or update without notice. The latest information can be obtained through our sales offices. Normally, all products are supplied under our standard conditions.

● **PRECAUTIONS FOR USE**

1. The product is used mainly in electronic devices such as automotive devices, visual devices, home electrical appliances, information devices and communication

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settings. If the products is intended to be used for other endurance equipments requiring higher safety and reliability such as life support system, space and aviations devices, disaster and safety system, it's necessary to make verification of conformity or contact us for the details before using.

2. Don't try to clean the switch with a solvent or similar substance after the soldering process.
3. The switch might be damaged if using the water-soluble flux.
4. Don't use the switch in the environment with high humidity or other bedewing possibility, as it may cause leaking among the terminals.
5. It might catch fire if the rating exceeds the specifications. Never use the switch beyond the rating.

Mouser Electronics

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