

SENSOR SWITCH

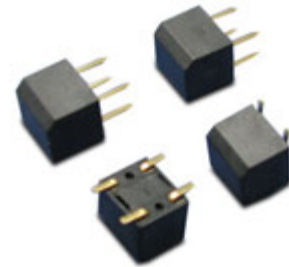
Item #	RBS17 Series	Description	TILT SWITCH	Version	V99.0
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● FUNCTIONS

One Way 15° Tilt Detecting

● APPLICATIONS

1. Automotive devices
2. Visual devices
3. Home electrical appliances
4. Information devices
5. Communication devices



● FEATURES

1. No electricity consumption during detection status.
2. Housing made of high insulation plastic material, free from electric conduction and rust problem.
3. Gold-plated ball and terminals, low possibility of oxidization.
4. All plastic materials subject to industrial purpose, resist high temperature and meet fireproof function.
5. Simple ON and OFF signals, easy for design.
6. RoHS compliance, an ideal substitute for mercury switch.
7. A more economical tilt detection option than IC design solution.
8. All made in Taiwan and examined before shipment.

● PATENTS

1. Taiwan Patent No. I 297159
2. Taiwan Patent No. I 297160
3. U.S.A. Patent No. US 7,319,200 B2
4. U.S.A. Patent No. US 7,323,649 B2

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

RBS 17 01 00	Tilt Angle (For $\theta = 15^{+15}_{-10}$)	P.C.B. Layout (DIP)/ Top View
	<p>Signal On Area (30°-90°) Uncertain Area (5°-30°) Signal Off Area (0°-5°)</p>	

RBS 17 02 00	Tilt Angle (For $\theta = 15^{+15}_{-10}$)	P.C.B. Layout (SMT)/ Top View
	<p>Signal On Area (30°-90°) Uncertain Area (5°-30°) Signal Off Area (0°-5°)</p>	

● ELECTRICAL CHARACTERISTICS

1.	Contact Rating	10mA, 5VDC
2.	Contact Resistance	10Ω max.
3.	Differential Angle	Refer to the drawing
4.	Switching Type	Normal Open (NO)
5.	Insulation Resistance	10MΩ min. at 100VDC
6.	Dielectric Strength	500VDC min. for 1 minute
7.	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.	Humidity	95% RH, 40°C for 96 hrs.
5.	Solder Ability	After flux 260±5°C for 5±0.5 seconds 95% coverage



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● BILL OF MATERIAL

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

● PACKAGE

	Part Number	Package	Quantity	Total	Size
1.	RBS170100	IC tube	84 pcs	84 pcs	52.5 x 0.7 x 1.15 (cm)
		Inner Box	162 tubes	16,632 pcs	54 x 13 x 13 (cm)
		Carton	4 Boxes	66,528 pcs	55 x 29 x 29 (cm)
2.	RBS170200T	Reel	1,000 pcs	1,000 pcs	Diameter=30; Width= 2.1 (cm)
		Inner Box	2 Reels	2,000 pcs	36 x 34 x 7 (cm)
		Carton(1)	4 Boxes	8,000 pcs	37 x 36 x 31 (cm)
		Carton(2)	10 Boxes	20,000 pcs	70 x 36 x 38 (cm)

* Minimum Order Quantity: 1,000 pcs / 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: 5mA
3. 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



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● PRECAUTIONS FOR USE

1. 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 it.