

SENSOR SWITCH

Item.#	VBS03 Series	Description	VIBRATION SWITCH	Version	V99.0
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● FUNCTIONS

Omni-directional Vibration Detecting

● APPLICATIONS

1. Remote controllers
2. Earthquake detecting systems
3. Alarm systems
4. Sporting equipment
5. Automotive devices
6. Visual devices
7. Home electrical appliances
8. Information devices
9. Communication devices



● FEATURES

1. Tiny size, suitable for small space.
2. Wing-shaped terminals (VBS030600), a feature enables half body of the sensor switch to be buried into PCB.
3. No electricity consumption during detection status.
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 vibration detection option than IC design solution.
9. All made in Taiwan and examined before shipment.

● PATENTS

1. TAIWAN Patent NO. 204790
2. U.S.A. Patent NO. US 6,706,979 B1
3. China Patent NO. ZL 03 2 44812.0

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

VBS 03 01 00	Fleetingly Open When Being Vibrated From Any Position	P.C.B. Layout (DIP) / Top View

VBS 03 02 00	Fleetingly Open When Being Vibrated From Any Position	P.C.B. Layout (DIP) / Top View

VBS 03 06 00	Fleetingly Open When Being Vibrated From Any Position	P.C.B. Layout (SMT) / Installation

● ELECTRICAL CHARACTERISTICS

1.	Contact Rating	10mA, 5VDC
2.	Switching Type	Normal Close (NC)
3.	Insulation Resistance	1,000MΩ min. at 100VDC
4.	Dielectric Strength	500VDC min. for 1 minute
5.	Capacitance	5pF max.

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● 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 245±5°C for 5±0.5 seconds 95% coverage

● BILL OF MATERIAL

1.	Housing	ZINC Alloy, Tin Plated over Nickel, or PA6T
2.	Base	Polyamide + Glass-Fiber
3.	Terminal	Copper Alloy, Gold Plated over Nickel
4.	Ball	Copper Alloy, Gold Plated over Nickel
5.	Steel Ball	Stainless Steel

● PACKAGE

	Part Number	Package	Quantity	Total	Size
1.	VBS030100	PE Bag	500 pcs	500 pcs	12.7 x 17.8 (cm)
	VBS030200	Inner Box	10 Bags	5,000 pcs	36 x 20 x 9 (cm)
	VBS030600	Carton	3 Boxes	15,000 pcs	36 x 28 x 23 (cm)

* Minimum Order Quantity: One Bag

● NOTE

1. Suggestion Contact Rating: 5mA
2. 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 the rating.

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