



SENSOR SWITCH

Item #	VBS02 Series	Description	VIBRATION SWITCH	Version	V99.0
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● FUNCTIONS

1. Centrifugal Force Detecting
2. Single Axis Vibration Detecting

● APPLICATIONS

1. Step counters
2. Tire Pressure Monitoring System (TPMS)
3. Electric sawing machines
4. Automotive devices
5. Visual devices
6. Home electrical appliances
7. Information devices
8. Communication settings.



● FEATURES

1. Tiny size, suitable for small space.
2. No electricity consumption during detection status.
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 vibration detection option than IC design solution.
8. All made in Taiwan and examined before shipment.

● PATENTS

1. TAIWAN Patent NO. 181432
2. U.S.A. Patent NO. US 6,555,772 B1
3. CHINA Patent NO. ZL 01 2 59628.0



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● DIMENSIONS / OPERATION / P.C.B. LAYOUT (Unit: mm, Tolerance: $\pm 0.25\text{mm}$)

<p>VBS 02 06 01</p>	<p>Trigger Force Between 1.5G to 5G</p>	<p>Installation Position</p>
<p>VBS 02 07 01</p>	<p>Trigger Force Between 1.5G to 5G</p>	<p>Installation Position</p>
<p>VBS 02 08 01</p>	<p>Trigger Force Between 1.5G to 5G</p>	<p>P.C.B. Layout (DIP)/ Installation Position</p>

● ELECTRICAL CHARACTERISTICS

1.	Contact Rating	10mA, 5VDC
2.	Switching Type	Normal Open (NO)
3.	Insulation Resistance	1,000M Ω 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	1,000,000 cycles
4.	Vibration	Per MIL-STD-202F, Method 204D
5.	Humidity	95% RH, 40°C for 96 hrs.
6.	Solder Ability	After flux 260±5°C for 5±0.5 seconds 95% coverage

● BILL OF MATERIAL

1.	Housing	Copper Alloy, Gold Plated over Nickel
2.	Metal Cover	Copper Alloy, Gold Plated over Nickel
3.	Terminal	Copper Alloy, Gold Plated over Nickel
4.	Ball	Copper Alloy, Gold Plated over Nickel
5.	Spring	Stainless Steel, Gold Plated over Nickel
6.	Isolation Base	LCP + Glass-Fiber

● PACKAGE

	Part Number	Package	Quantity	Total	Size
1.	VBS020601	PE Bag	1,000 pcs	1,000 pcs	12.7 x 17.8 (cm)
	VBS020701	Inner Box	10 Bags	10,000 pcs	36 x 20 x 9 (cm)
	VBS020801	Carton	3 Boxes	30,000 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.