

Tilt Sensor User Manual

1. Features

Operating voltage	3.0V-5.5V
Output type	TTL level output
Dimensions	21.0mm*13.0mm
Fixing hole size	2.0mm

Operating principle:

This vibrating sensor is essentially an application of mercury switch. In a condition of vibrating or tilting, the sensor may enable the switch to close or loose.

2. Applications

This module can be applied to vibrating detection, anti-theft alarm, smart car, electronic building blocks, etc.

3. Interfaces

Pin No.	Symbol	Descriptions
1	DOUT	Digital output
3	GND	Power ground
4	VCC	Positive power supply (3.0V-5.5V)

4. How to use

We will illustrate the usage of the module with an example of tilt detection by connecting a development board.

- ① Download the relative codes to the development board.
- ② Connect the development board to a PC via a serial wire and the module to the development board. Then, power up the development board and start the serial debugging software. Here is the configuration of the connection between the module and the development board.

Port	STM32 MUC pin
DOUT	GPIOA.4
GND	GND
VCC	3.3V

Port	Arduino pin
DOUT	D2
GND	GND
VCC	5V

Here is the configuration of the serial port

Baud rate	115200
Data bits	8
Stop bit	1
Parity bit	None

- ③ The detected result can be checked by a signal indicator on the module. The signal indicator will turn on, when the sensor is being vibrated or in a tilted state. And it will turn off, when the sensor is laid flat.