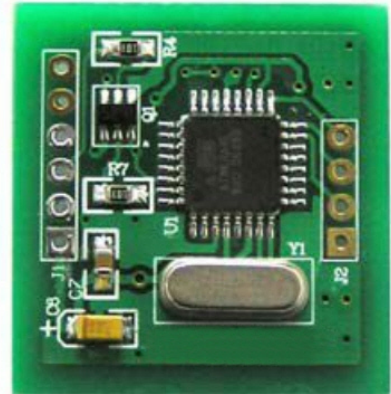




## Description

This is a low cost dual axis inclinometer sensor with a  $\pm 45^\circ$  measuring range, a resolution of  $0.1^\circ$  and an accuracy of  $\pm 0.5^\circ$ . It uses a full duplex RS232 interface for bidirectional communication. It can be programmed (via RS232) to give ASCII or Hex output and different filter frequencies. It can also select absolute or relative measurement mode, and re-calibrate the absolute zero point which is stored even after power down. It can be easily modified for RS485 output if required. Wired connections can be made directly to the board, or it can be mounted to another PCB via two headers.



## Features

- Measuring range :  $\pm 45^\circ$
- Solid state MEMS sensor
- RS232 full duplex communication
- Low cost (<\$20 for 1kpcs)
- Zero offset position can be easily programmed and stored (even after power off)
- RS485 output on request
- Small size, 29x27.5x7.4mm

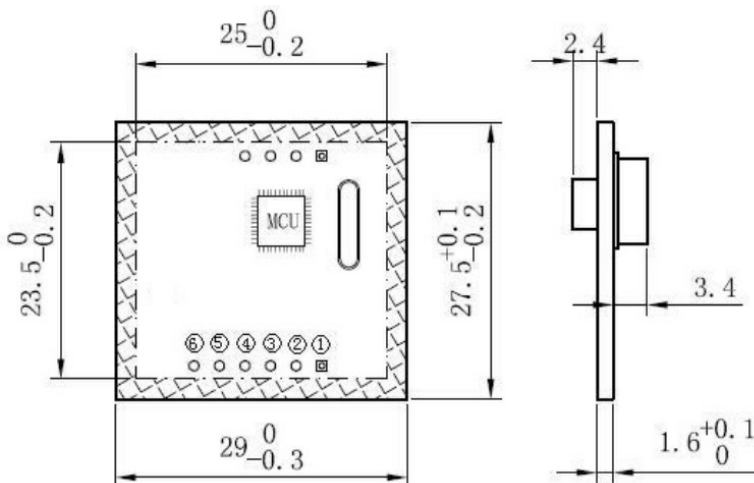
## Applications

- Security systems
- Platform leveling and monitoring
- GPS compensation
- Agricultural and industrial vehicle tilt monitoring
- Telescopic and scissor lift platform monitoring
- Can be readily customised to suit most applications

## Specifications

Parameter	Value	Unit
Supply Voltage	5 $\pm$ 0.2	V
Operating Current	<30	mA
Operating Temperature	-40 to 85	$^\circ$ C
Size: Width Length Height	29 27.5 7.4	mm
Measuring range	$\pm 45$	$^\circ$
Resolution	0.1	$^\circ$
Accuracy	$\pm 0.5$	$^\circ$
Zero temperature drift	0.03	$^\circ / ^\circ$ C
Frequency Response	1-14 (set via RS232, 14Hz default)	Hz
RS232 bit rate	4800, 9600 or 19200 (set via RS232, 9600 default)	bps
RS232 data format	1 start bit, 8 data bits, 1 stop bit, no parity	

## Wiring Information



Pin Number	Function
1	+5V dc
2	GND
3	Rx (RS232)
4	Tx (RS232)
5	Rx (TTL)
6	Tx (TTL)