

RK700-01 is a new generation of digital small-volume micro-electro-mechanical tilt sensor. It has a dual-channel gravitational tilt unit, which converts the static gravitational acceleration into the tilt change, so that the tilt and pitch angle of the sensor relative to the horizontal plane can be measured. The product adopts secondary correction technology, which has high measurement accuracy.

This product uses non-contact measurement of the original quantity, can output the current attitude angle in real time, and is simple to use. It is an ideal choice for industrial automation control and platform attitude measurement. It has strong ability to resist external electromagnetic interference and can adapt to long-term work in harsh industrial environment. This product is mainly suitable for dynamic measurement of static and slow changes, but not for dynamic measurement of rapid changes.

## FEATURES

- Dual-Axis Inclinometer
- Long-term stability 0.2°
- Strong corrosion resistant ability
- Highly anti-vibration performance >3500g
- IP67 protection class
- Resolution: 0.1°
- Output RS232/RS485/TTL (optional)



## APPLICATIONS

- Cloud deck operating monitor
- Satellite antenna positioning
- Medical equipment leveling
- Car Chassis Measurement
- Four - wheeled positioning system
- Engineering mechanical measurement of dip angle

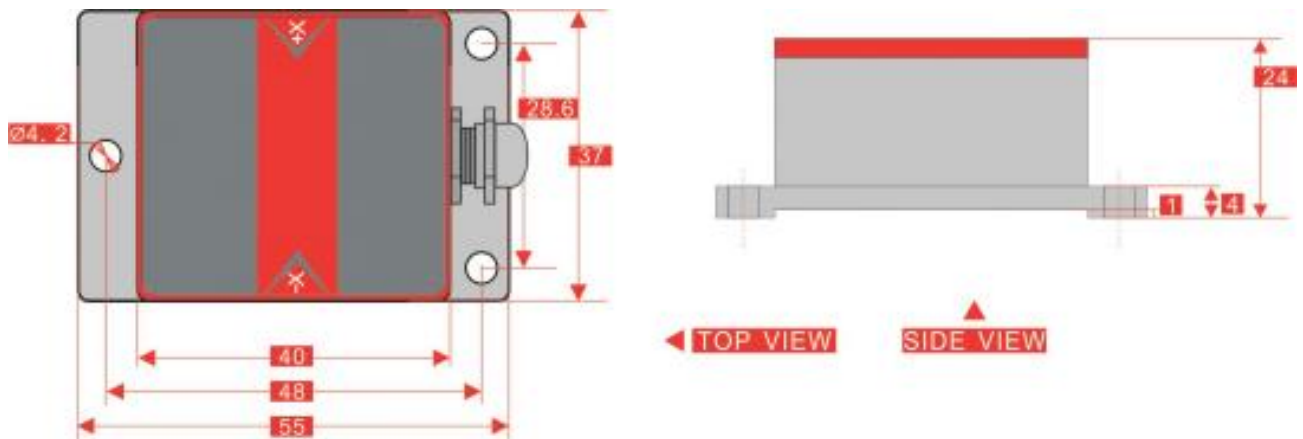
## SPECIFICATIONS

Items	Specification
Power supply	5VDC(4.5-7VDC),9-36VDC is optional
Measuring range	±10°
Measuring axis	X,Y
Resolution	0.1°
Absolute	0.1°
Zero temperature	±0.008°/°C
Sensitivity temperature	≤150ppm/°C
Power on time	500mS
Response time	50mS
Output signal	RS232/RS485/TTL is optional
Working current	40mA typ.
Operating Temperature	-40°C-+85°C
Storage Condition	10°C-60°C@20%-90%RH
EMC	According to EN61000

MTBF	≥45000 hours
Insulation Resistance	≥100MΩ
Shockproof	100g@11ms、3Times/Axis(half sine)
Anti-vibration	10grms、10~1000Hz
Ingress Protection	IP67
Cables	Shielded cables 4*0.4mm <sup>2</sup> , length=1m default
Housing material	Aluminium alloy
Installation	3*M4 screws
Weight	90g(without cable)

## DIMENSION

Unit:mm



- The installation surface of the sensor and the measured surface must be fixed tightly, smoothly and stably. Otherwise, the measurement angle error of the sensor can easily be caused.
- The axis of the sensor should be as parallel as possible to the measured axis, and the angle between the two axes should not be produced as far as possible.



Complies with applicable CE directives.

Specifications subject to change without notice. Version 3.0

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