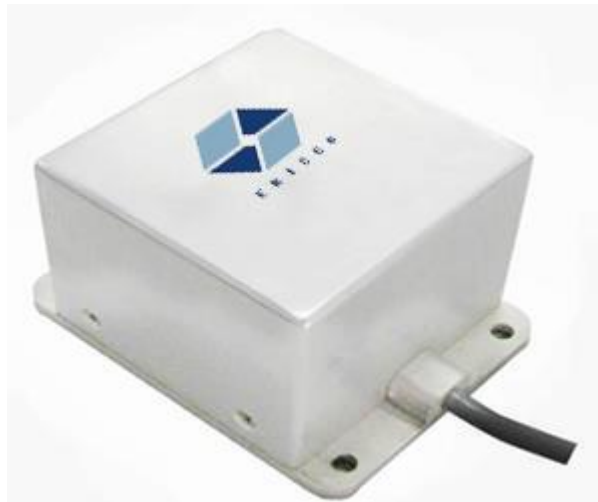


Product introduction

The ER-E-02 series is a new generation of small digital MEMS tilting veneer. With the built-in accelerometer, it can be converted into the change of dip Angle by measuring the static gravity acceleration. The tilt and pitch Angle of the sensor output relative to the horizontal plane can be measured. Output mode RS232, RS485 or TTL level interface standard is optional. Due to the built-in MCU control system, the linearity of the sensor output is corrected twice, which makes up for the loss of accuracy caused by insufficient correction of the analog type.

This product adopts the non-contact method to measure the original quantity, which can output the current attitude inclination Angle in real time. It is an ideal choice for industrial automation control and platform measurement. It has strong ability to resist external electromagnetic interference and can adapt to long-term work in harsh industrial environment.



Main features

- Single/dual-axis dip measurement
- Range plus or minus 10 ~ + 90 ° is optional
- Long term stability of 0.2°
- DC + 5 v input
- Output mode RS232, RS485, TTL
- Wide working temperature - 40 ~ + 85 °C
- High vibration resistance >3500g
- Resolution of 0.1
- Small size 33 * 27 * 6 mm

Product application

- Electric blind chair leveling
- Yuntai operation monitoring
- Satellite positioning
- Leveling of medical equipment
- Chassis measurement

- Four-wheel positioning system
- Various engineering machinery Angle control

Electrical parameters of products

Parameter	Conditions	Minimum	Typical	Maximum	Unit
The power supply voltage	standard	4.5	5	7	V
Working current	There is no load		40		mA
Working temperature		-40		+85	°C
Storage temperature		-55		+100	°C

Product performance index

Parameter	Conditions	ER-E-02-10	ER-E-02-30	ER-E-02-60	ER-E-02-90	Unit
Measuring range		±10	±30	±60	±90	°
Measurement of shaft		X Y	X Y	X Y	X Y	
Resolution ratio		0.1	0.1	0.1	0.1	°
Absolute precision		0.1	0.2	0.3	0.4	°
Long-time stability		<0.5	<0.5	<0.5	<0.5	

Zero temperature coefficient	-40~85°	±0.02	±0.02	±0.02	±0.02	°/°C
Temperature coefficient of sensitivity	-40~85°	≤150	≤150	≤150	≤150	ppm/°C
Power on start time		0.5	0.5	0.5	0.5	S
The response time		0.02	0.02	0.02	0.02	s
The output rate	5Hz、15Hz、35Hz、50Hz、100HZ Can be set up					
The output signal	RS232/RS485/RS422/TTL/PWM/CAN/MODBUS Can order					
Electromagnetic compatibility	According to EN61000 and GBT17626					
Mean time to work without failure MTBF	≥45000 h/t					
Insulation resistance	≥100 M					
Impact resistant	100g@11ms、Three axis and with(A half sine wave)					

Anti-Vibration	10grms、10~1000Hz
Waterproof level	
Cable	The standard 30CM line 4*0.2 mm2
Weight	10g(not include cable)

Product mechanical parameters

Connection: 25cm connector (with terminal)

Installation: four M2 screws

Copper column: optional