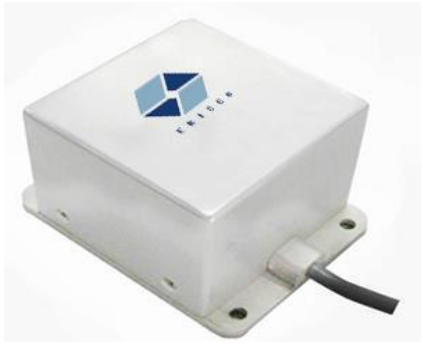
Product Introduction

ER-A-05 is a dual-axis inclinometer developed on the basis of high-precision dip platform. With excellent temperature stability, it can maintain high measurement accuracy in the wide temperature environment of -40 to 85 degrees, and is more suitable for long-term monitoring and leveling of field equipment. In addition, a high-precision 24it A/D differential converter is built into the system, and the 5-order filtering algorithm is adopted to measure the sensor output inclination and pitch angle relative to the horizontal plane. Output interfaces RS485, RS232, TTL, PWM or CAN 2.0B are optional. The features of non-contact installation make ER-A-05 excellent system integration. Just fix the sensor on the surface of the object to be measured with screws, and the attitude Angle of the object can be calculated automatically. It is easy to use, and there is no need to recover the two surfaces with relative changes. Strong ability to resist external electromagnetic interference, strong ability to withstand shock and vibration, in the domestic peer products are absolute competitive advantages, professional application in high-end users of the industrial and military industries.



Main Features

●Dual-axis inclination measurement

●Range±1～±90° for optional

●Size：L92×W48×H36mm

●DC 9～36V Wide Input Range

●Wide range of temperature -40～+85℃

●Resolution ratio 0.001°

●Waterproof air plug

●IP67 level of protection

●High vibration resistance>2000g

●Output mode RS232, RS485, RS422, TTL, CAN 2.0b is optional

Product application

●Leveling of engineering vehicles

●Bridge and dam monitoring

●Laser positioning

●Medical device Angle control

●Attitude navigation of underground drill

●Railway gauge scale and gauge level

●Measurement of pitch Angle of directional satellite communication antenna

●Slope monitoring of geological equipment

●Horizontal control of precision machine tool

Performance

Parameter	Condition	ER-A-05-10	ER-A-05-30	ER-A-05-60	ER-A-05-90	Unit
Range		±5	±30	±60	±90	°
Measurement axis		X Y	X Y	X Y	X Y	
Resolution ratio		0.001	0.001	0.001	0.001	°
Absolute precision	@25℃	0.003	0.01	0.02	0.03	°
Long term stability		0.01	0.02	0.03	0.04	°
Zero point temperature coefficient	-40～85°C	±0.0008	±0.0008	±0.0008	±0.0008	°/℃
Sensitivity temperature coefficient	-40～85°C	≤50	≤50	≤50	≤100	ppm/℃
Power on start time		0.5	0.5	0.5	0.5	S
Response time		0.02	0.02	0.02	0.02	S
Output rate	5Hz、15Hz、35Hz、50Hz can set					
Output signal	RS232/RS485/RS422/TTL/CAN					

Electromagnetism capacity	According to EN61000 and GBT17626
No trouble time at all	≥50000 Hours/time
Insulation resistance	≥100 M
Sock resistance	100g@11ms、Triaxial (half sinusoidal wave)
Anti-Vibration	10grms、10～1000Hz
Waterproofing grade	IP67
Cable	Standard 1 m length, wear-resistant, wide temperature, shielded cable 4*0.4mm2 air connector
Weight	150g(No cable)

This performance parameter only lists ±5°, ±30°, ±60°, ±90°; series for reference. For other measurement ranges, please refer to the nearest neighbor parameter.

Electrical parameters of products

Parameter	Condition	Min	Typical value	Max	Unit
Power Supply	Standard	9	12、24	36	V
	Customizable		Other voltage		V
Operating temperature		-40		+85	℃
Storage temperature		-55		+100	℃