

### **Product presentation**

ER-A-09 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 a wide temperature environment of -40 -85 degrees and is more suitable for long-term monitoring and leveling of field equipment. In addition, a high-precision 24bit 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 interface CAN OPEN. ER-A-09 has excellent system integration due to its features of non-contact mounting. It can automatically calculate the attitude angle of the object by fixing the sensor on the surface of the object under test with screws. It is easy to use, and there is no need to recover the two faces of the phase pairs. 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  $\pm 1 \sim \pm 90^\circ$  for optional
- Output mode CAN2.0A
- DC 9~36V Wide Input Range
- Wide range of temperature -40~+85°C
- Resolution ratio 0.0001°
- IP67 level of protection
- High vibration resistance >2000g
- Waterproof air plug
- Size: L110×W65×H32mm

### **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

- Horizontal control of precision machine tool
- Slope monitoring of geological equipment
- Measurement of pitch Angle of directional satellite communication antenna

### Performance

Parameter	Condition	ER-A-09-10	ER-A-09-30	ER-A-09-60	ER-A-09-90	Unit
Range		±10	±30	±60	±90	°
Measurement axis		X Y	X Y	X Y	X Y	
Resolution ratio		0.0001	0.0001	0.0001	0.0001	°
Absolute precision	@25°C	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°	±0.0008	±0.0008	±0.0008	±0.0008	°/°C
Temperature coefficient of sensitivity	-40~85°	≤50	≤50	≤50	≤100	ppm/°C
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 signal	CAN2.0A					
Electromagnetic capacity	According to EN61000 and GBT17626					
MTBF	≥50000 Hours/time					
Insulation resistance	≥100 M					
Shock resistance	100g@11ms、Sum of three axes (half sine 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)

**Electrical parameters of products**

Parameter	Condition	Min	Typical value	Max	Unit
Supply voltage	Standard	9	12、24	36	V
	Customizable		Other voltage		V
Working current	Non-loaded		50		mA
Operating temperature		-40		+85	°C
Storage temperature		-55		+100	°C