

Product introduction

ER-E-04 series of products is the tilt sensor of relative horizontal measurement converted into angle change. Thus the sensor output can be measured relative to the horizontal tilt or tilt angle. 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 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. The product is mainly suitable for dynamic measurement of static and slow changes, but not for dynamic measurement of rapid changes.



Main features

- Single shaft 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
- IP67 protection grade
- High vibration resistance >3500g
- Resolution of 0.1 °
- Small volume 55×37×24mm (Can be customized)

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

Product performance index

| Parameter | Conditions | ER-E-04-30 | ER-E-04-60 | ER-E-04-90 | ER-E-04-360 | Unit |
|--|---|------------|------------|------------|-------------|--------|
| Range of measurement | | ±30 | ±60 | ±90 | 0~360 | ° |
| Measurement axis | | X | X | X | X | |
| 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°C | ±0.02 | ±0.02 | ±0.02 | ±0.02 | °/°C |
| Temperature coefficient of sensitivity | -40~85°C | ≤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 | | | | | |
| MTBF | ≥45000 h/t | | | | | |
| Insulation resistance | ≥100 M | | | | | |
| Impact resistant | 100g@11ms、Three axis and with(A half sine wave) | | | | | |
| Resistance to vibration | 10grms、10~1000Hz | | | | | |
| Waterproof level | IP67 | | | | | |

| | |
|--------|---|
| Cable | Standard 1 m length, wear - resistant, oil - proof, wide temperature, shielded cable 4*0.4mm ² |
| Weight | 9 0g(not include cable) |

Electrical parameters of products

| Parameter | Conditions | Minimum | Typical | Maximum | Unit |
|--------------------------|------------|---------|---------|---------|------|
| The power supply voltage | Standard | 4.5 | 5 | 7 | V |
| | Options | | 9-36v | | V |
| Working current | No load | | 40 | | mA |
| Working temperature | | -40 | | +85 | °C |
| Storage temperature | | -55 | | +100 | °C |

Product mechanical parameters

Connectors: 1m straight leads (customizable)

Protection class: IP67

Shell material: aluminum alloy grinding sand oxidation

Installation: three M4 screws