

## T7000-G: FULLY TEMP COMPENSATED ULTRA-HIGH PRECISION DIGITAL OUTPUT DUAL-AXIS TILT SENSOR SINGLE BOARD



### ■ PRODUCT DESCRIPTION

The T7000-G is a fully temperature compensated ultra-high precision dual axis tilt sensor with a resolution of 0.0005°, an accuracy of 0.001°, and a temperature drift of 0.0005°/°C. The output interfaces RS232, RS485, RS422, Modbus, and TTL are optional. The product is a customized inclinometer for measuring the inclination angle of geotechnical and foundation pits. It integrates a 24-bit ARM high-end system internally, with a resolution of 4 seconds and a response frequency of up to 100Hz. Users only need to connect the T7000-G to the data transmission circuit to form a high-precision inclinometer.

### ■ PRODUCT MAIN SPECIFICATION

Parameter	Conditions	T7000-G-5	T7000-G-10	T7000-G-15	T7000-G-30	Unit
Measuring range		±5	±10	±15	±30	°
Measuring axis	axis	X, Y	X, Y	X, Y	X, Y	
Zero temperature drift	-40 ~ 85°	±0.0005	±0.0005	±0.0005	±0.0005	°/°C
Sensitivity temperature coefficient	-40 ~ 85°	≤50	≤50	≤50	≤50	ppm/°C
Frequency response	DC response	100	100	100	100	Hz
Resolution		0.0005	0.0005	0.0005	0.0005	°
Accuracy	-40 ~ 85°C	0.001	0.002	0.003	0.005	°
Long term stability	-40 ~ 85°C	<0.002	<0.003	<0.004	<0.006	°
Power-on start time		0.2				s
Response time		0.01				s
Output rate		5Hz, 15Hz, 35Hz, 50Hz can be set (RS485 does not have this function)				
Output signal		RS232/RS485/RS422/TTL/ CAN/(MODBUS Optional)				
Average working hours		≥45000 hours/time				
Impact resistance		20000g, 0.5ms, 3 times/axis				
Anti-vibration		10grms、 10 ~ 1000Hz				
Insulation resistance		≥100MΩ				
Waterproof level		IP66 (IP67 can be customized)				
Cable		Standard 10 cm-length, wear-resistant, oil-proof, wide temperature, shielded cable 4*0.2mm <sup>2</sup>				
Weight		20g (excluding packaging box)				

### ■ PRODUCT DIMENSION



SIZE: L160\*W20\*H20MM

### ■ PRODUCT APPLICATION

- Railway locomotive monitoring
- Precision laser platform equipment
- Vehicle chassis monitoring
- Based on tilt angle monitoring
- Pan tilt leveling
- Satellite solar antenna positioning
- Ship navigation attitude measurement
- Medical equipment
- Angle control of various construction machinery
- Precision machine tool horizontal control