T700-C: DIGITAL OUTPUT TRI-AXIS INCLINATION SENSOR SINGLE BOARD
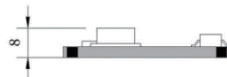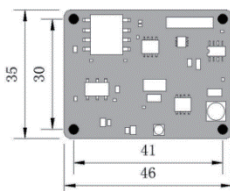

■ PRODUCT DESCRIPTION

The T700-C is a digital output (X, Y, Z) three-axis inclination sensor with a built-in high-precision 16bit A/D converter, and through an n-order filtering algorithm, the final output X, Y, Z inclination values. Output interface has RS232, RS485, RS422, TTL, Modbus, and Canopen optional. The product can correct the sensor temperature drift based on the temperature changes monitored by the built-in temperature sensor to ensure the repeatability of the product in low and high temperature environments. Output corresponding frequency 100HZ.

■ PRODUCT MAIN SPECIFICATION

Parameter	Conditions	T700-C-10	T700-C-30	T700-C-60	T700-C-90	Unit
Measuring range		±10	±30	±60	±90	°
Measuring axis		X, Y, Z	X, Y, Z	X, Y, Z	X, Y, Z	
Zero temperature drift	-40 ~ 85°	±0.005	±0.005	±0.005	±0.005	°/℃
Sensitivity temperature coefficient	-40 ~ 85°	≤100	≤100	≤100	≤100	ppm/℃
Frequency response	DC response	100	100	100	100	Hz
Resolution		0.005	0.005	0.005	0.005	°
Accuracy		0.02	0.03	0.04	0.05	°
Long term stability		<0.023	<0.035	<0.045	<0.054	°
Power-on start time		0.2				s
Response time		0.01				s
Output rate		5Hz, (15Hz, 35Hz, 50Hz, 100HZ can be set) (RS485 does not have this function)				
Output signal		RS232/RS485/RS422/TTL/PWM/ 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				
Cable		Standard 10cm length, wear-resistant, oil-proof, wide temperature, shielded cable 4*0.3mm2				
Weight		10g (excluding packaging box)				

■ PRODUCT DIMENSION

SIZE: L46*W35*H8MM

■ PRODUCT APPLICATION

- Railway gauge ruler and gauge leveling
- Wind turbine shimmy attitude
- Bridge, dam monitoring
- Robot tilt monitoring
- Signal towers, high-voltage power poles
- Satellite solar antenna positioning
- Medical equipment
- Angle control of various construction machinery
- Precision machine tool horizontal control