

T7-B: PHOTOVOLTAIC DIGITAL OUTPUT SINGLE-AXIS INCLINATION SENSOR

■ PRODUCT DESCRIPTION

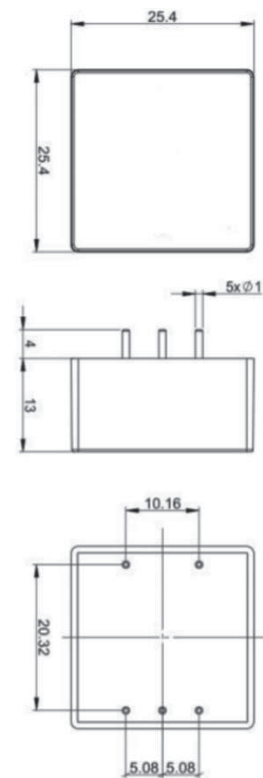


The T7-B series is a digital small volume MEMS photovoltaic tracking inclinometer with a maximum measurement angle range of single axis 360 °, accuracy of 0.3 °, and 3.3V TTL output. Due to the built-in MCU control system, the sensor output linearity is corrected twice, compensating for the accuracy decrease caused by insufficient correction in analog models. Adopting non-contact measurement of the original quantity, it can output the current attitude inclination in real time, and is simple to use without the need to retrieve the relative changes of the two surfaces for installation. It is industrial automation control, wind deviation monitoring, inclination measurement, horizontal adjustment, vertical monitoring, and attitude recording; Engineering machinery, surveying and mapping instruments, etc.

■ PRODUCT MAIN SPECIFICATION

Parameter	Conditions	T7-B-90	T7-B-180	T7-B-270	T7-B-360	Unit
Measuring range		90	180	270	360	°
Measuring axis		Y				
Zero temperature drift	-40 ~ 85°	±0.01	±0.01	±0.01	±0.01	°/°C
Sensitivity temperature coefficient	-40 ~ 85°	≤200	≤200	≤200	≤200	ppm/°C
Frequency response	DC response	100	100	100	100	Hz
Resolution	Bandwidth 5Hz	0.1	0.1	0.1	0.1	°
Accuracy	-40 ~ 85°C	0.1				°
Long term stability	-40 ~ 85°C	<0.3				°
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/TTL				
Average working hours		≥55000 hours/time				
Impact resistance		2500g, 0.5ms, 3 times/axis				
Anti-vibration		10grms、10 ~ 1000Hz				
Insulation resistance		≥100MΩ				
Waterproof level		IP68				
Cable		Standard 15 cm-length, wear-resistant, oil-proof, wide temperature, shielded cable 4*0.2				
Weight		35g (excluding packaging box)				

■ PRODUCT DIMENSION



SIZE: L51.3*W36*H20MM

■ PRODUCT APPLICATION

- Signal tower, high-voltage power line tower monitoring
- Railway gauge
- Bridge and dam monitoring
- Horizontal control of precision machine tools
- Fan-machine oscillation attitude
- Measurement of ship navigation attitude
- Robot tilt monitoring
- Solar photovoltaic tracking antenna positioning
- Medical equipment
- Angle control of various construction machinery