

Pristine Pro Inclinometer

DESCRIPTION

The Pristine Pro is a high-precision dual-axis digital inclinometer designed for demanding industrial applications. Within the $\pm 5^\circ$ range, it achieves an accuracy of 0.003° , and 0.017° across the full $\pm 90^\circ$ range. Integrated temperature compensation limits temperature-induced error to below 0.030° within 0°C to $+50^\circ\text{C}$. Advanced signal processing ensures stable and reliable readings.

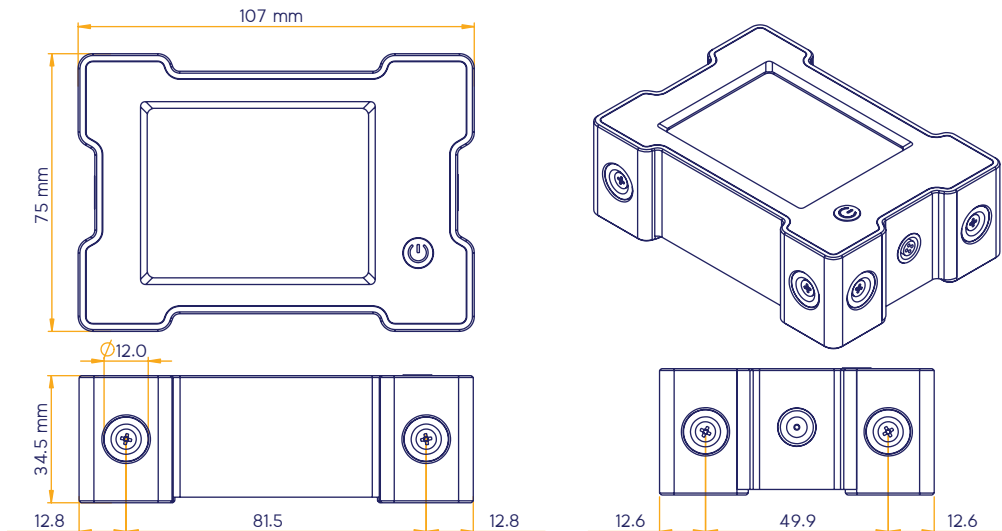
With 3400 mAh lithium battery and intelligent power management, the device operates for more than 24 hours on a single charge. A 2.8-inch touchscreen and user-friendly interface allow easy configuration and unit selection.

FEATURES

- ▶ Dual-axis measurement within the $\pm 90^\circ$ range
- ▶ Accuracy:
 - 0.003° within $\pm 5^\circ$
 - 0.017° outside $\pm 5^\circ$ (up to $\pm 90^\circ$)
- ▶ Resolution: 0.001°
- ▶ Advanced 3D acceleration processing
- ▶ Temperature compensation from 0°C to $+50^\circ\text{C}$
- ▶ Maximum temperature error: 0.030°
- ▶ User calibration capability.
- ▶ Battery life of up to 24 hours.
- ▶ 2.8-inch touchscreen display
- ▶ Connectivity with HORIZON sensors
- ▶ MEMS sensor technology



Dimension Specifications:



Technical SPEC

Parameter	Value				
Axis	Dual-Axis (X,Y)				
Range	±90°				
Planar Mode (2D)	3plane (XY, XZ, YZ)				
Planar Range (2D)	±180°				
Resolution	0.001°				
Repeatability	0.001°				
Absolute Accuracy @ 20°c	<table border="0"> <tr> <td> Measured value ≤ 5°</td> <td>Max: 0.003°</td> </tr> <tr> <td> Measured value > 5°</td> <td>Max: 0.017°</td> </tr> </table>	Measured value ≤ 5°	Max: 0.003°	Measured value > 5°	Max: 0.017°
Measured value ≤ 5°	Max: 0.003°				
Measured value > 5°	Max: 0.017°				
Temperature Drift (Delta From 20°c)	±0.0011 °/°c				
Compensated Temperature	0°c ~ +50°c				
Response Time	0.4 s				
Units	Degree,Arcmin,Arcsec,mm/m,Slope,Artil,Gon,Mrad,Inch/10Inch,Inch/12Inch				
Long Term Stability(After 6 Months)*Mv:Measured Value	± (0.025°- 0.03% Mv -45°)				

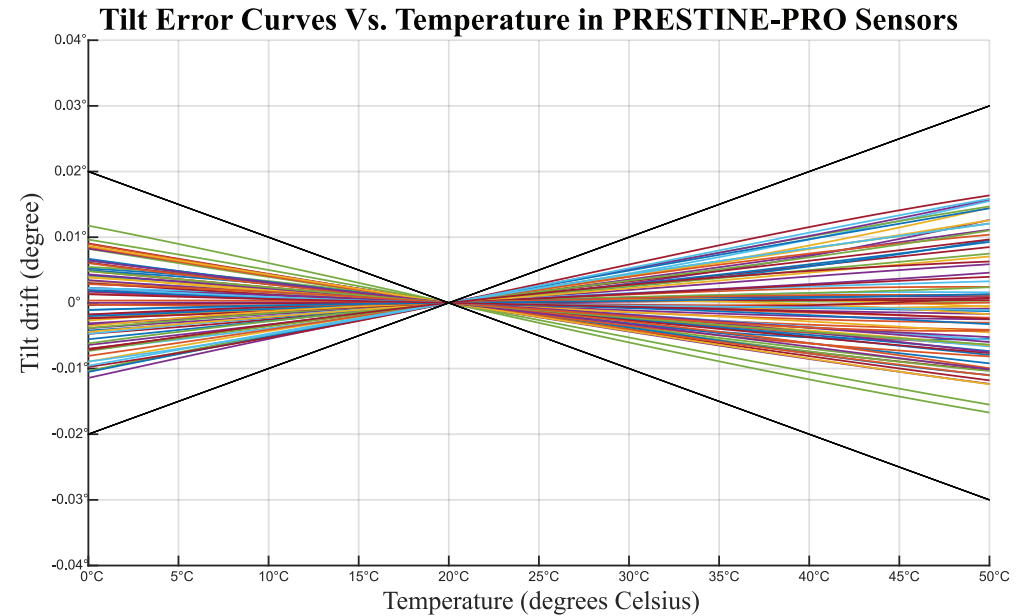
Electronic SPEC

Parameter	Value	Unit
Battery Run Time	24	h
Startup Time	3	s
Battery Charging Time	4.5	h
Charger Adapter	5 V (2A)	
Output Data Rate	4 Hz (Default)	
Frame Data Structure	String	
Connector	LEMO- B 4 Pin	
Cable Specifications	AWG 1x4x24 (23 cm)	
Display	2.8" Touch & Resistive TFT LCD 240*320 Pixels Full - color	

Mechanical & Environmental SPEC

Parameter	Value	Unit
Dimensions	107x75x34.5	mm
Material	Hard Anodized Aluminum	-
Weight	452	gr
Installation Method	magnet	-
Magnet Specification	N35 D12xD3.5/D6.5x4 N35 D12xD3.5/D6.5x3	-
Operating Temperature	0 ~ +40	°c
Storage Temperature	-10 ~ +50	°c

TEMPERATURE SPECIFICATIONS



APPLICATIONS

- ▶ Precision alignment and leveling of CNC machines
- ▶ Alignment and calibration of industrial robots
- ▶ Flatness measurement of precision-machined surfaces (meshing method)
- ▶ Alignment and calibration of multi-axis positioning tables
- ▶ Installation and alignment of antennas, transmitters, and communication equipment
- ▶ Monitoring and alignment of large mechanical structures
- ▶ Pipeline alignment and deformation measurement
- ▶ Rail and track installation alignment
- ▶ Calibration of high-precision medical and laboratory equipment