

## Pristine Nano Inclinometer

### DESCRIPTION

The Pristine Nano is a high-precision dual-axis digital inclinometer based on MEMS sensor technology. It measures inclination with an accuracy of  $0.03^\circ$  over  $\pm 90^\circ$  range. By utilizing advanced 3D acceleration processing, it maintains consistent accuracy throughout the entire measurement range.

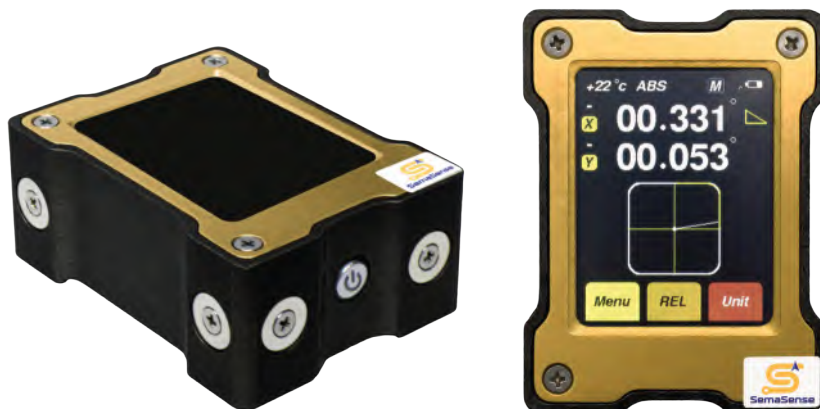
Integrated temperature compensation reduces temperature-induced error to less than  $0.030^\circ$  within the  $0^\circ\text{C}$  to  $+40^\circ\text{C}$  operating range.

User calibration functionality further enhances measurement reliability under varying conditions.

With optimized power consumption, intelligent energy management, and a 2200 mAh lithium battery, the device provides up to 15 hours of continuous operation per charge. A 2.4-inch touchscreen with an intuitive graphical interface supports multiple measurement units and relative measurement modes for simple and efficient operation.

To perform a measurement, place the device on the target surface; the inclination relative to the local horizontal is displayed instantly.

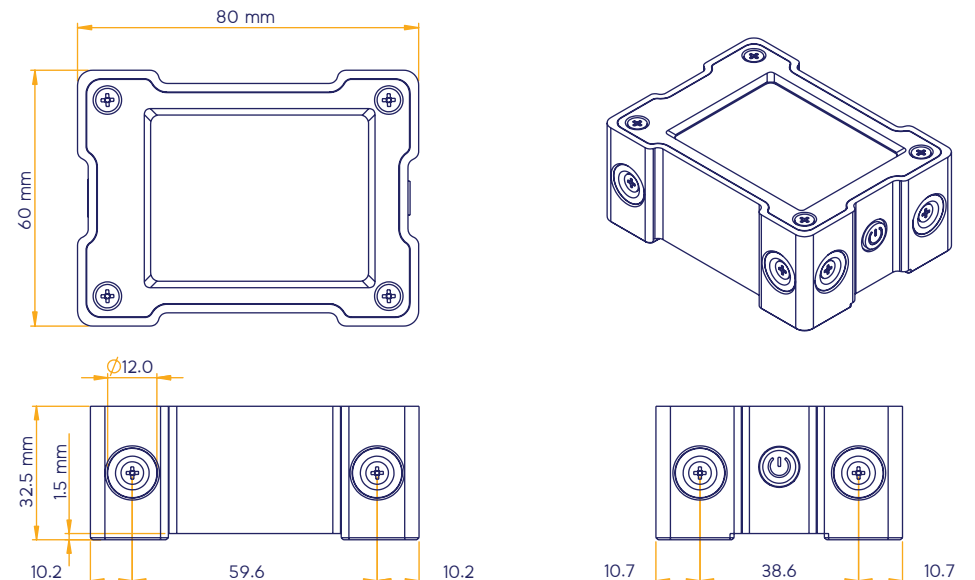
Thanks to its advanced technical features and competitive pricing, the Pristine Nano is widely used in construction for surface slope measurement and in mechanical engineering for machine alignment and angle control.



### FEATURES

- ▶ Dual-axis measurement within the  $\pm 90^\circ$  range
- ▶ Measurement accuracy:  $0.03^\circ$
- ▶ Output resolution:  $0.001^\circ$
- ▶ Maintaining accuracy across the entire range using with 3D acceleration processing.
- ▶ Temperature compensation from  $0^\circ\text{C}$  to  $+40^\circ\text{C}$
- ▶ Maximum temperature-induced error:  $0.030^\circ$  (within compensated range)
- ▶ User calibration capability
- ▶ Battery life: up to 15 hours
- ▶ 2.4-inch touchscreen display
- ▶ MEMS sensor technology

### Dimension Specifications:



Technical SPEC

Parameter	Value (FS)
Axis	Dual-Axis (X,Y)
Range	±90°
Planar Mode (2D)	3plane (XY, XZ, YZ)
Planar Range (2D)	±180°
Resolution	0.001°
Repeatability	0.002°
Absolute Accuracy @ 20° c	0.03°
Temperature Drift (Delta From 20°c)	±0.0015 °/°c
Compensated Temperature	0°c ~ +40°c
Response Time	0.4 s
Units	deg - deg arcmin arcsec
Long Term Stability (After 6 Months) *Mv:Measured Value	± (0.025°- 0.03%   Mv -45°   )

Electronic SPEC

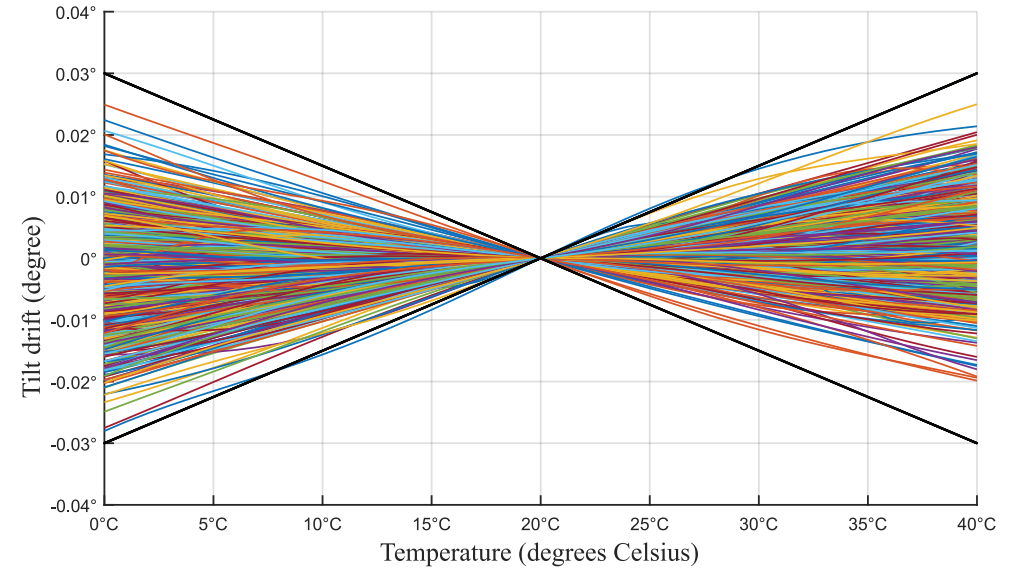
Parameter	Value	Unit
Battery Run Time	15	h
Battery Charging Time	2.5	h
Charger Adapter	Output voltage: 5	V
	Output current: 1	A
Startup Time	3	s
Output Data Rate	4 Hz (Default)	
Display	2.4" Touch & Resistive TFT LCD 320*240 Pixels   Full - color	

Mechanical & Environmental SPEC

Parameter	Value	Unit
Dimensions	80x60x32.5	mm
Material	Hard Anodized Aluminum	-
Weight	280	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

Tilt Error Curves Vs. Temperature in PRESTINE-Nano Inclinometer



APPLICATIONS

- ▶ Surface inclination measurement relative to horizontal
- ▶ Alignment of CNC machines and industrial robots
- ▶ Installation angle adjustment of antennas and transmitters
- ▶ Calibration of multi-axis motion tables
- ▶ Calibration of sensitive medical equipment
- ▶ Large pipeline alignment
- ▶ Rail structure installation
- ▶ Steel industry precision quality control