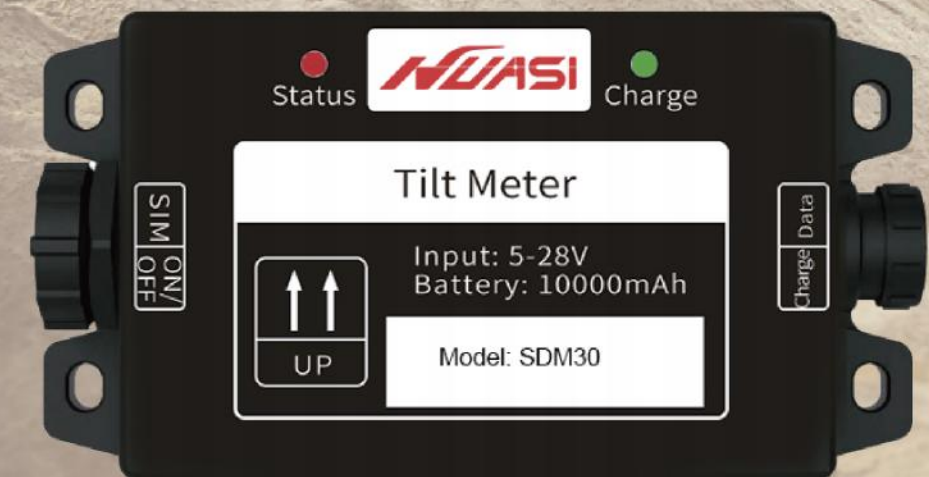


Tilt Meter SDM30



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Product Introduction

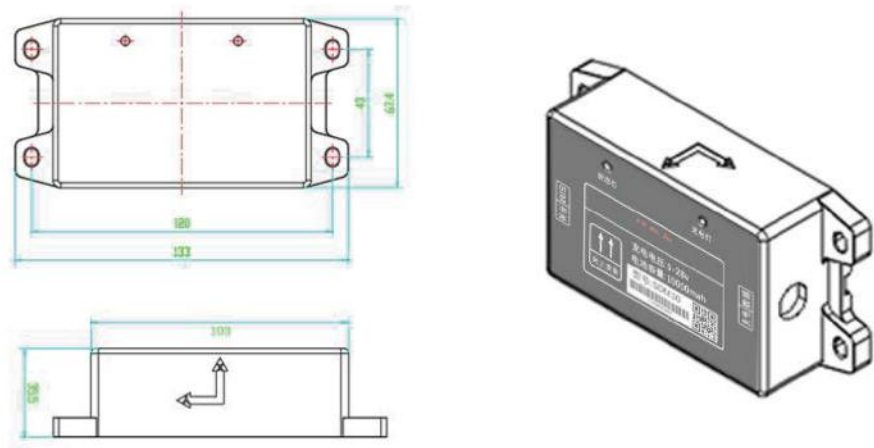
SDM30 Tilt Meter

The SDM30 Tilt Meter is a dual-axis Tilt Meter monitoring device developed by Huasi . It integrates data acquisition, wireless communication, and GPS positioning. Its main function is to monitor the static tilt of an object in real-time.



Working Principle

The SDM30 Tilt Meter is internally integrated with a MEMS sensor, which can monitor changes in the angle in real-time and perceive changes in the overall attitude of the object through angle changes.



Appearance Dimensions

Specifications

Technical Indicators	Specifications
Model	SDM30
Measurement Range	±30°
Measurement Accuracy	0.005°
Resolution	0.001°
Measurement Axis	X、Y
Zero Point Temperature Drift	±0.0004°C
Temperature Compensation Range	-20°C~70°C
Communication Method	Wireless: 4G (Full network), Wired: 485
Charging Voltage	5-28V
Battery Capacity	10000mAh
Anti-shock	5000g
Enclosure Material	Aluminum Alloy
Waterproof	IP67
Operating Temperature	-20°C~70°C
Storage Temperature	-40°C~70°C
GPS Positioning Accuracy	<2.5m
Dimensions	L133*W67.5*H35.5mm
Continuous Working Time	1 hour/data collection: 6 months, 1 day/data collection: 3 years

Product Engineering Applications

- Building Tilt Monitoring
- Structural Tilt Monitoring
- Pile Foundation Tilt Monitoring
- Mechanical Tilt Monitoring
- Bridge Pier Tilt Monitoring
- Excavation Pit Tilt Monitoring

Key Feature

● Integrated Inclinometer Design

The SDM30 Tilt Meter adopts an integrated design, which can monitor the static tilt of objects.



Static Tilt Monitoring

● Dual-Axis Sensor

High-precision sensor, excellent performance, and high-precision assurance.



● Highly Integrated

Integrated 4G high-performance communication antenna, GPS positioning antenna, and Bluetooth antenna, supporting wireless (4G full network) and wired (485) operation modes.



● Outdoor Capability

The enclosure is made of corrosion-resistant and aging-resistant aluminum alloy material, with super-strong protection, rugged and durable, strong outdoor adaptability, meeting IP67 protection standards, and withstanding wind and rain.



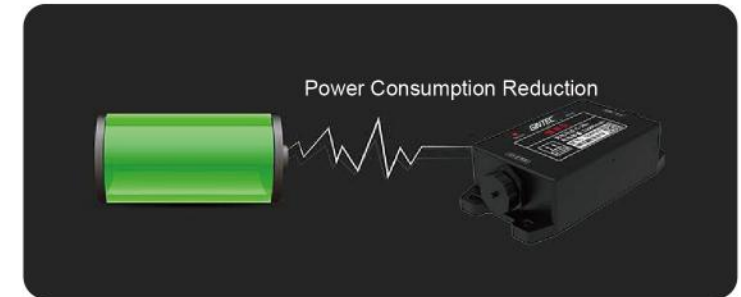
● Built-in High-Capacity Battery

Ensures endurance, convenient and fast. It also supports solar power charging, without the need for an additional solar controller, plug and play, meeting the needs of long-term monitoring.



● Ultra-Low Power Consumption Design

It can enter a deep sleep mode with a super power-saving timed tilt collection strategy, combined with a trigger-based tilt collection, when the sensor is tilted, it can immediately wake up and collect data, and upload it immediately, combining dynamic and static, achieving no over-collection, no missed collection, and the perfect combination of power consumption and efficiency.



● Extremely Simple Remote Debugging

Connect to the Huasi Cloud Platform, with flexible configuration, you can set a high-frequency mode to meet the monitoring needs of key focus periods, or set a long-interval low-frequency monitoring to greatly increase endurance.



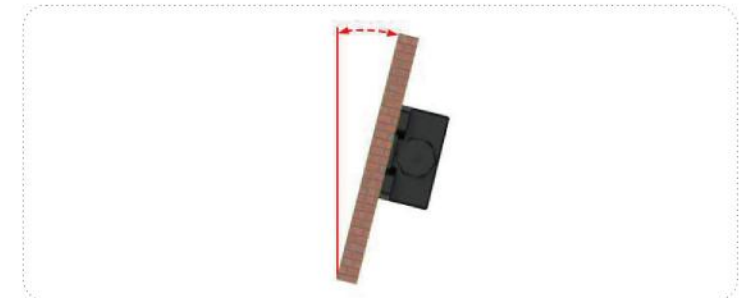
● Data Security

Using a transmission encryption protocol, it always protects the transmission security of the collected data, providing real-time secure encryption protection for the collection and transmission of sensitive information.



● Configurable Alarm Angle Value

After setting the alarm angle threshold, when the object is detected to exceed the safe angle value, the device will actively wake up and immediately upload the alarm information.



● Anti-Theft Tracking

The alarm information uploaded after the alarm angle threshold is triggered includes positioning information, which serves the purpose of anti-theft positioning and tracking.



Application Scenarios



The SDM30 Tilt Meter is widely used in the fields of building tilt monitoring, bridge pier tilt monitoring, tower tilt monitoring, high support form tilt monitoring, and bridge tilt monitoring.



Building Tilt Monitoring



Tower Tilt Monitoring

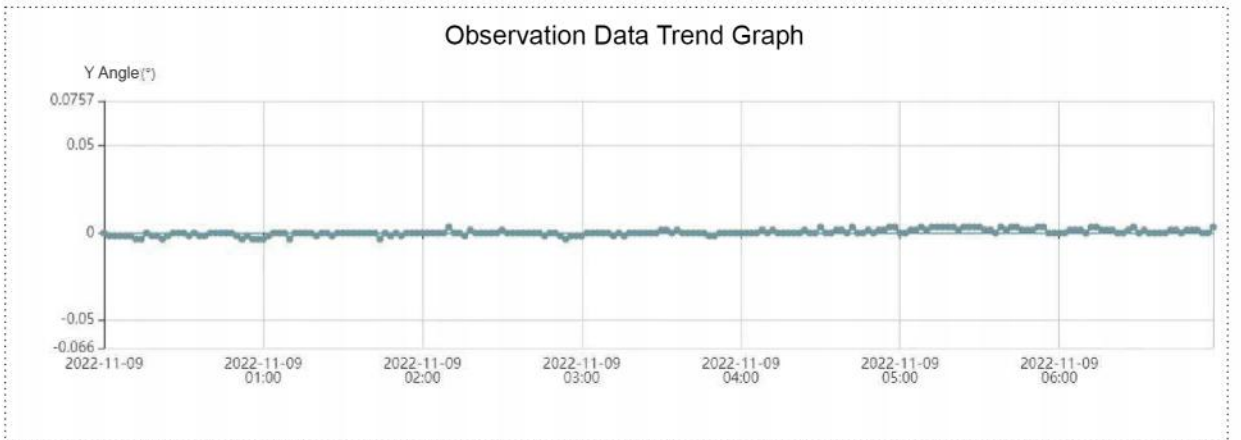
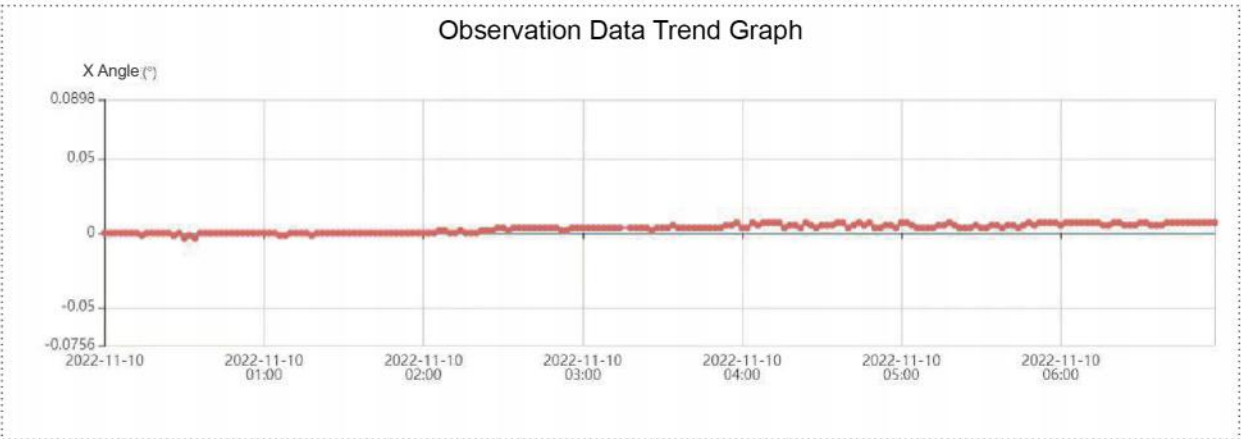


Bridge Tilt Monitoring



High Support Form Tilt Monitoring

Actual Measurement Data



Data Chart