WEATHER STATION / DATA SHEET

SS1000-01

Handheld Weather Station

Portable cup-type handheld weather station with real-time wind speed, wind direction, temperature, humidity and barometric pressure display, USB data export and compact field-ready operation.

Overview

SS1000-01 is a portable three-cup handheld weather station designed for field measurement, compact carrying and intuitive on-site observation.

The device outputs real-time wind speed, wind direction, temperature, humidity and barometric pressure data. Wind direction is measured through a magnetoelectric structure and displayed on the device screen.

The built-in 128 x 64 dot-matrix display provides real-time monitoring data. The instrument also supports data storage and USB export to a computer, making it suitable for agriculture, forestry, scientific surveys and meteorological observation.

Wind Speed	Wind Direction	Display	Data Export
0-30 m/s	0-359°	128 x 64 LCD	USB

Key Advantages

- Integrated 128 x 64 dot-matrix screen displays temperature, humidity, wind speed, wind direction and pressure.
- Built-in electronic compass supports real-time wind direction measurement.
- Powered by three AA dry batteries with low-power standby design.
- Large-capacity data storage with configurable interval and USB export.
- Compact structure for convenient handheld use and field carrying.

Application Scenarios

- Agriculture and forestry field monitoring
- Scientific expeditions and outdoor surveys
- Meteorological observation and field inspection
- Temporary on-site environmental measurement
- Portable wind and pressure data collection

MEASUREMENT PRINCIPLE

Technical Principle

The handheld station uses a three-cup wind-speed sensing structure and a wind-direction assembly to collect wind parameters. A magnetoelectric structure measures real-time wind direction and displays the measured direction on the screen. Temperature, humidity and barometric pressure are collected by internal sensing elements and shown together with wind data.

SYSTEM DATA

General Specifications

Item	Specification
Export method	USB cable connection to a computer for data export
Power supply	Three AA batteries
Display	128 x 64 dot-matrix LCD display
Data storage	130,000 records stated in the technical-parameter table; configurable storage interval
Standby time	Approximately 5 years
Temperature unit	Supports temperature unit switching
Altitude display	Supported

PERFORMANCE

Measurement Specifications

Parameter	Accuracy	Range	Response / Stability
Wind speed	±(0.3 m/s ± 0.03*v), where v is the true wind speed	0-30 m/s	Response: 1 s
Wind direction	≤ ±1/2 direction sector	0-359°	Response: 0.5 s
Humidity	±3%RH at 60%RH, 25°C	0%RH-99%RH	Long-term stability: ≤1%/y; response: ≤8 s at 1 m/s wind speed
Temperature	±0.5°C at 25°C	-40°C to +80°C	Long-term stability: ≤0.1°C/y; response: ≤25 s at 1 m/s wind speed
Barometric pressure	±0.15 kPa at 25°C, 101 kPa	0-120 kPa	Long-term stability: -0.1 kPa/y; response: ≤2 s

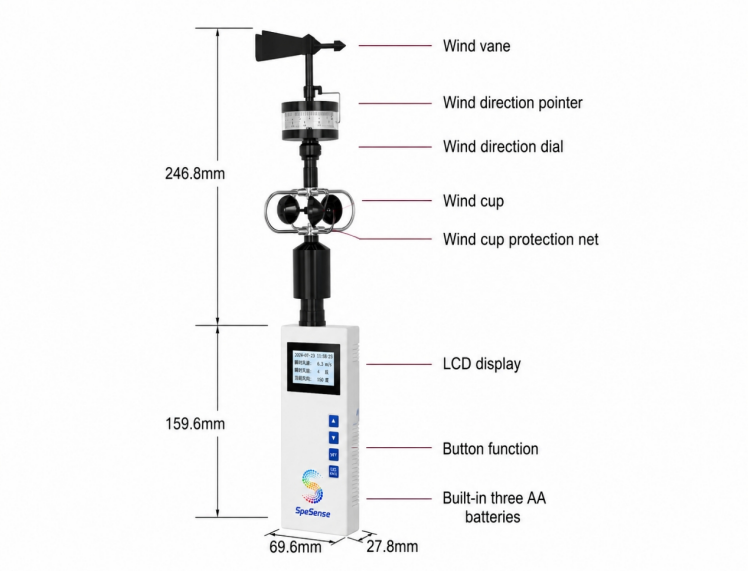
ORDERING INFORMATION

Product Selection

Code	Description
SS	SpeSense company code
1000-01	Handheld weather station
USB	USB data export
2	Mechanical handheld weather station with wind direction shown on the dial
2A	Mechanical handheld weather station with wind direction shown on the screen and wind direction data storage
2S	Wind speed + wind direction
3S	Wind speed + wind direction + barometric pressure
4S	Wind speed + wind direction + temperature + humidity
5S	Wind speed + wind direction + temperature + humidity + barometric pressure

MECHANICAL DATA

Dimensions & Component Layout



The dimension diagram identifies the wind vane, wind direction pointer, wind direction dial, wind cup, wind cup protection net, LCD display, buttons and the built-in three AA battery compartment.

NOTES

Source Data Notes

All specifications are based on the supplied source file. The source includes both a feature-level storage statement and a technical-parameter storage statement; this datasheet keeps the technical-parameter value in the General Specifications table and avoids adding unsupported parameters.

CONTACT / SUPPORT

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