DATA SHEET: WS-40 Hot-wire Digital Anemometer

Portable Digital Instrument for Precision Air Velocity Measurement

1. PRODUCT OVERVIEW

The **WS-40** is a portable, high-precision digital anemometer designed for measuring low to medium velocity airflows with superior sensitivity. Utilizing advanced 32-bit microprocessor technology and a precision **hot-wire sensor**, it provides stable and accurate readings on a high-resolution color screen. Its compact design and intuitive operation make it an essential tool for HVAC maintenance, cleanroom airflow validation, and specialized laboratory research.

2. KEY FEATURES

- **Precision Hot-wire Sensor:** Features a fine-wire heating element for rapid response and high accuracy in airflow detection.

- **High-Definition Display:** 2.6-inch IPS color screen (320x240 resolution) for clear data visualization.

- **Massive Data Storage:** Internal memory stores up to 16,000 samples, which can be reviewed directly on the device.

- **USB Connectivity:** Supports data download to a PC via USB for comprehensive analysis and reporting.

- **Smart Printing:** Enables selective printing of stored measurement records (compatible with optional printers).

- **Robust Protection:** Integrated safeguards against over-voltage, overcharge, static, and electromagnetic interference.

- **User-Friendly UI:** Intuitive menus in both English and Chinese with a zero-scale calibration function.

3. TECHNICAL SPECIFICATIONS

Feature	Specification
Sensor Type	**Hot-wire (Constant Temperature)**
Measurement Range	**0 ~ 30 m/s** (Customizable up to 40 m/s)
Resolution	0.01 m/s
Detection Precision	**≤ 5% Full Scale**
Response Time	≤ 1 s (Typical)
Operating Environment	Temp: 0–50℃ / Humidity: < 85% RH
Power Supply	3.7V / 2400mA Li-ion Battery

Feature	Specification
Dimensions (LWH)	85 × 55 × 180 mm
Weight	0.36 kg

4. APPLICATIONS

- **HVAC Systems:** Precision testing and balancing of ventilation and air conditioning units.
- **Cleanrooms:** Validating laminar flow and unidirectional air velocity in sterile workshops.
- **Laboratory Research:** Precision air velocity measurements for aerodynamic studies.
- **Environmental Monitoring:** Assessing airflow in industrial hoods and sensitive environments.

5. STANDARD ACCESSORIES

- WS-40 Main Unit & **Hot-wire Sensor Probe**
- USB Charging Cable & Data Line
- **Factory Calibration Report**
- User Manual

Manufactured by:
Honri Airclean Technology (Suzhou) Co., Ltd.