

DATA SHEET: DP-40 Handheld Digital Differential Pressure Meter

High-Precision Digital Solution for Cleanroom Pressure Monitoring

1. PRODUCT OVERVIEW

The **DP-40** is a professional handheld digital instrument engineered to measure the pressure differential between different cleanliness levels within cleanrooms and their surrounding areas. Featuring a high-resolution digital display, it provides stable and high-precision readings. The DP-40 is an ideal tool for environmental monitoring in electronics, pharmaceuticals, biotechnology, and other critical manufacturing sectors.

2. KEY FEATURES

- Advanced Processing:** Powered by an ultra-low power 32-bit microprocessor utilizing specialized semiconductor nanoproces technology.
- High-Definition Display:** Features a 2.6-inch IPS color screen with 320x240 resolution for superior data clarity.
- Versatile Measurement:** Capable of measuring positive, negative, and differential pressure with selectable units (e.g., Pa, mbar).
- Massive Data Storage:** Internal memory capacity for 16,000 samples with adjustable storage cycles; historical data can be reviewed directly on-screen.
- Seamless Data Export:** Supports data download to a PC via a standard USB interface for further analysis.
- User-Friendly Maintenance:** Includes an on-site zero-calibration function for the differential pressure sensor.
- Power Management:** Adjustable backlight with an automatic power-off timer to extend battery life.
- Robust Protection:** Integrated safeguards against over-voltage, over-charge, static discharge, and electromagnetic interference.

3. TECHNICAL SPECIFICATIONS

Feature	Specification
Model	DP-40
Measurement Range	0-±125, 0-±250, 0-±500, 0-1000, 0-2500, 0-5000 Pa
Accuracy	±2, ±4, ±8 Pa (for ranges ≤ 500 Pa) / ±1.6% FS (for ranges ≥ 1000 Pa)
Resolution	0.1 Pa (for ranges ≤ 500 Pa) / 1 Pa (for ranges ≥ 1000 Pa)

Feature	Specification
Sampling Rate	0.5 s
Operating Environment	Temp: 0 ~ 50°C / Humidity: < 85% RH
Power Supply	Built-in 2400mAh Rechargeable Li-ion Battery
Dimensions (LWH)	180 × 85 × 55 mm
Weight	Approx. 0.4 kg

4. APPLICATIONS

- **Cleanroom Validation:** Monitoring room pressure differentials to ensure compliance with ISO/GMP standards.
- **HVAC Balancing:** Assessing pressure drops across filters and ventilation ducts.
- **Biosafety Cabinets:** Verifying proper airflow and containment through pressure monitoring.
- **Industrial Maintenance:** Periodic auditing of pressurized environments in semiconductor and medical facilities.

5. STANDARD ACCESSORIES

- DP-40 Main Unit
- USB Charging & Data Cable
- **Factory Calibration Report**
- User Manual & Warranty Card

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