

DATA SHEET: DP-30R Differential Pressure Sensor

Precision Industrial Sensor for Air and Non-Corrosive Gas Monitoring

1. PRODUCT OVERVIEW

The **DP-30R** is a high-performance differential pressure sensor designed to rapidly measure and display pressure variances in air or non-corrosive gas environments. Featuring an advanced circuit design and a **4-digit LED LCD digital display**, it offers exceptional precision and stability. This sensor is widely utilized in electronics manufacturing, aerospace, pharmaceutical production, and specialized scientific research departments.

2. KEY FEATURES

- Compact & Durable:** Portable design housed in a solid aluminum alloy shell with an IP65 protection rating.
- Stable Performance:** Engineered for anti-vibration and low-drift operation with complex filtering algorithms for stable readings.
- Precision Display:** Features a high-visibility digital display for intuitive and clear real-time monitoring.
- Smart Calibration:** Includes an on-site zero-calibration function and point-by-point temperature drift correction for enhanced accuracy.
- Standard Communication:** Equipped with Modbus RTU (RS485) output for seamless industrial system integration.
- Regulatory Compliance:** Fully complies with Cleanroom GMP standards and FDA requirements (USA and EU).

3. TECHNICAL SPECIFICATIONS

Feature	Specification
Sampling Rate	0.5 s
Differential Pressure Ranges	-5 to 125 Pa (Standard) / Customizable up to 2500 Pa
Measurement Accuracy	$\leq \pm 0.5\%$ FS (0–250 Pa) / $\leq \pm 0.25\%$ FS (0–2500 Pa)
Maximum Overpressure	100 psi
Operating Environment	Temp: -10 to 50°C / Humidity: $\leq 85\%$ RH
Power Supply	24V DC $\pm 20\%$
Communication Protocol	Modbus RTU (RS485)

Feature	Specification
Ingress Protection	IP65
Housing Material	Aluminum Alloy
Dimensions (LWH)	135 × 91 × 37 mm
Net Weight	0.23 kg

4. APPLICATIONS

- **Cleanroom Management:** Monitoring room-to-room pressure differentials in sterile environments.
- **HVAC Systems:** Real-time monitoring of duct pressure and filter efficiency.
- **Industrial Process Control:** Ensuring precise pressure levels in electronics and aerospace manufacturing.
- **Laboratory Ventilation:** Maintaining safety standards in pressurized research facilities.

5. STANDARD ACCESSORIES

- DP-30R Sensor Unit
- **1-meter Flexible Tubing**
- **Factory Calibration Report**
- User Manual

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