DATA SHEET: TH-25 Temperature and Humidity Sensor

High-Precision Digital Monitoring for HVAC and Cleanroom Applications

1. PRODUCT OVERVIEW

The **TH-25** is a high-precision temperature and humidity sensor utilizing advanced digital sensing elements from TE Connectivity. Engineered with a robust circuit and structural design, it offers a wide measurement range and exceptional accuracy. This sensor is widely deployed in HVAC systems, cleanroom engineering, electronic workshops, and agricultural environments. It is an essential tool for pharmaceutical companies and quality departments to comply with GMP regulations and environmental management standards.

2. KEY FEATURES

- **Premium Sensing Technology:** Employs TE high-precision digital sensors for reliable and stable environmental monitoring.

- **Robust Industrial Design:** Features an anti-vibration and low-drift architecture ensuring long-term operational consistency.

- **On-site Calibration:** Supports convenient field calibration to maintain measurement integrity without the need for dismantling.

- **Regulatory Compliance:** Fully complies with Cleanroom GMP standards and FDA requirements (USA and EU).

- **Versatile Connectivity:** Available with multiple industrial output options including RS485 (Modbus), 4-20mA, and 0-10V.

- **Durable Enclosure:** IP65-rated PVC housing provides excellent protection against dust and moisture in demanding environments.

3. TECHNICAL SPECIFICATIONS

Feature	Specification
Measurement Range	Temperature: -20 to 60°C / Humidity: 0 to 100% RH
Accuracy	Temperature: ±0.3°C / Humidity: ±3% RH
Resolution	Temperature: 0.1°C / Humidity: 1% RH
Output Signals	4-20mA, 0-10V, RS485 (Optional)
Measuring Medium	Air or neutral/non-corrosive gas
Ingress Protection	IP65

Feature	Specification
Casing Material	PVC
Power Supply	DC 12 - 24V
Dimensions (LWH)	90 × 90 × 30 mm

4. APPLICATIONS

- **Cleanroom Engineering:** Maintaining precise climate control in sterile manufacturing zones.
- **HVAC Systems:** Real-time temperature and humidity regulation in ventilation ducts.
- **Industrial Workshops:** Monitoring environmental conditions in electronics and pharmaceutical plants.
- **Specialized Facilities:** Climate oversight in subway tunnels, greenhouses, and meteorological stations.

5. STANDARD ACCESSORIES

- TH-25 Sensor Unit
- **Factory Calibration Report**
- User Manual

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