

# **RHTP Meter and Control for Industrial Automation**

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**Abstract:** *The integration of environmental monitoring with automation plays a crucial role in optimizing industrial operations. This paper presents the RHTP Meter and Control for Industrial Automation, an advanced system designed to measure and analyze key atmospheric parameters, including humidity, temperature, and pressure, in real time. The system leverages Internet of Things (IoT) technology, enabling seamless data acquisition and remote access via a mobile application. This integration enhances user interaction by providing real-time insights and control over environmental conditions, ensuring improved accuracy, reliability, and efficiency. Additionally, the system aids in cost reduction by offering actionable insights that support informed decision-making and rapid responses to environmental fluctuations. The paper discusses the technical architecture, key benefits associated with implementing this system in industrial environments. Furthermore, various industrial applications of this technology are explored, including its role in process optimization, resource management, and sustainable operations. The findings highlight the potential of IoT-driven environmental monitoring systems in transforming industrial automation by improving productivity, ensuring regulatory compliance, and reducing operational costs.*

**Keywords:** RHTP METER, ESP-32, TFT Display, PCB Layout, Calibration, etc

