

Platinum Temperature Transmitter



◆ Product Introduction

The Platinum Temperature Transmitter is a temperature device that converts temperature signals into standardized industrial output signals (e.g., 4–20 mA). It consists primarily of a sensor and a signal converter. The sensor component is a PT100 thermal resistor, which exhibits a resistance effect under temperature influence, generating a differential voltage signal processed by a dedicated unit.

This signal undergoes amplification, isolation, linearity correction, and other treatments to convert the range-corresponding signal into a standardized analog or digital output. The electrical output maintains a linear relationship with the measured temperature value, enabling precise temperature measurement and control.

◆ Features

1. Wide voltage power supply, nonlinearity correction, high accuracy
2. Compact size, lightweight, easy installation Lightning protection and anti-aliasing interference design, strong noise immunity
3. Reverse wiring and overvoltage protection, current limiting protection
4. Supports various standardized output signals (e.g., 4–20 mA, 0–10 V) for seamless system integration
5. Robust stainless steel or specified metal housing material
6. Customizable sensor materials and thread dimensions for enhanced sealing reliability

◆ Applications

1. Data center coolant distribution units, energy storage system liquid cooling modules
2. Liquid-cooled megawatt charging stations and the electric power industry
3. Industrial automation systems, HVAC
4. Temperature measurement in indoor pipelines/chambers and other high-precision or harsh environment scenarios
5. Gas/liquid temperature control systems