

ACT-8 Flexible Temperature Sensor

Technical and Operation Instructions

1. Introduction

ACT-8 flexible temperature sensor is made of high precision platinum RTD wire and organic film. It features simple structure, quick response, stable output and easy installation and operation.

ACT-8 flexible temperature sensor is applicable to a wide range of the surface temperature measurement of solid planes and curved surfaces (except the curved surfaces with an arch radius $R \leq 10\text{mm}$). It is particularly usable for some special cases, such as the surface temperature measurement of objects located in a high-speed gas flow or a confined space and the surface temperature measurement of a narrow gap (such as the temperature of the coil of a motor stator and the confined spaces and surfaces inside instruments and equipment). After modification, it can also be used as a temperature control element for normal vessels and special media. It is the first choice for temperature measurement in production, scientific research and automation.

ACT-8 flexible temperature sensor can be installed in different modes. It can be bound to the point to be measured with adhesives or clipped, clamped or tightened mechanically to the point to be measured.

2. Operation Principle and Wiring Diagram

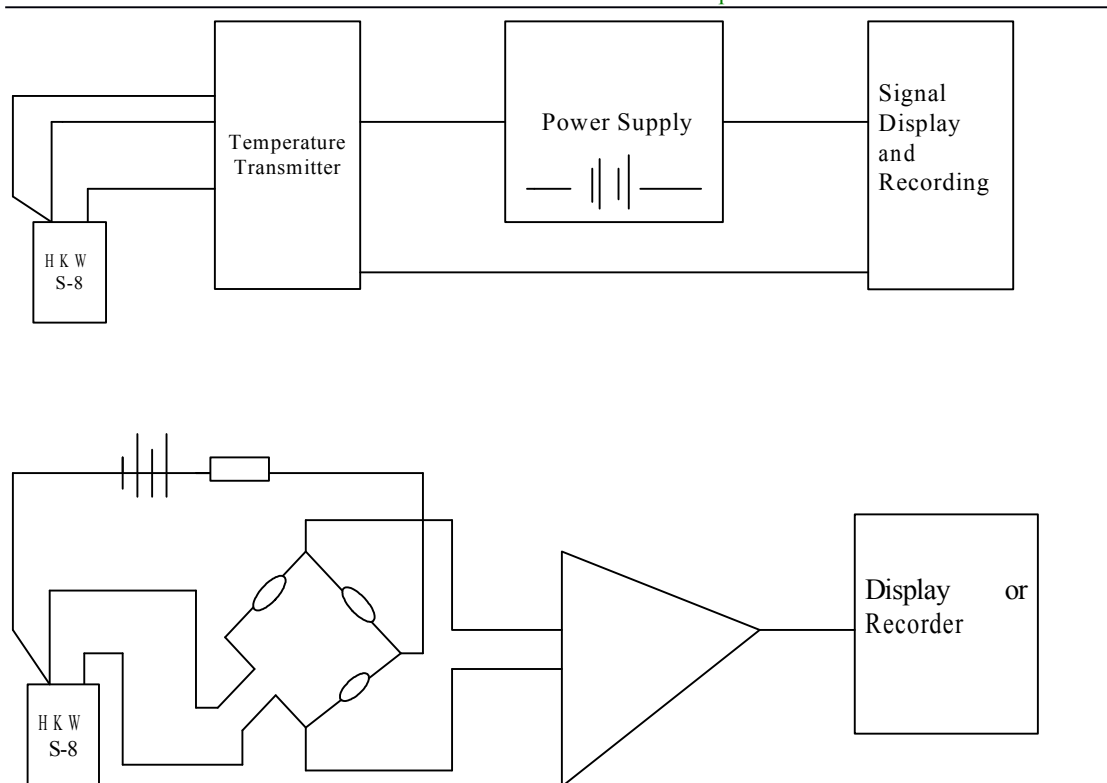
Operation Principle: When the temperature of the measured point changes, the resistance of the platinum RTD wire will change accordingly. This signal is sent to a temperature transmitter or converted through a bridge and processed by a signal conditioner to output a 4 to 20mA or 1 to 5V DC or other form of electrical signal consistent with the industrial standard. The output value is linear with the temperature measured.

Wiring Diagram

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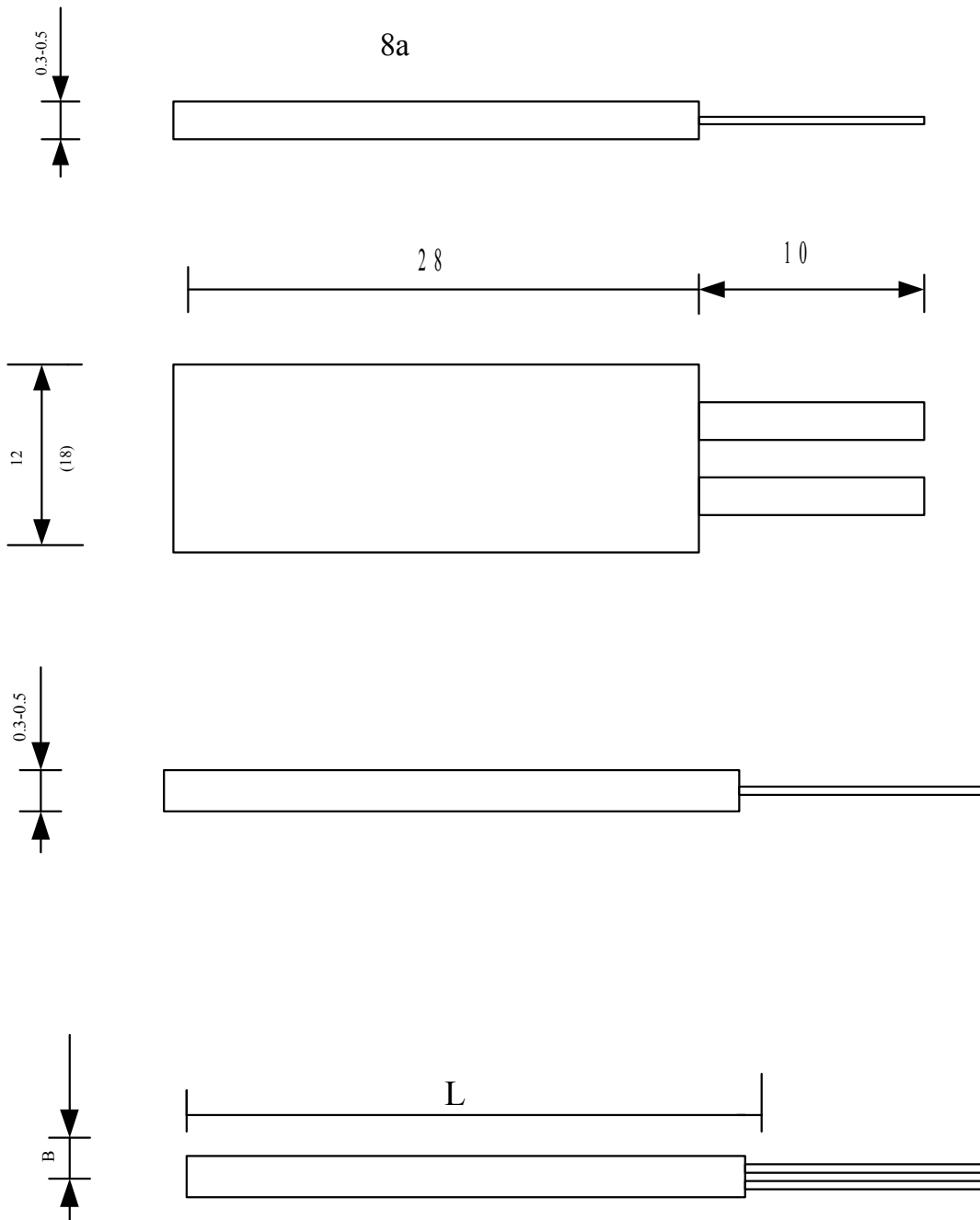
3. Technical Specifications

- Temperature Measurement Range: $T = -60$ to 100°C ; 200°C ; 250°C
- Resistance at Freezing Point: $R_0 = 100 \pm 0.3\Omega$; $100 \pm 0.5\Omega$
- Accuracy: $\Delta t = \pm (1.3 + 0.005 | t |)^{\circ}\text{C}$
- Scaling Characteristics: Provide non-standard special characteristic curves
- Allowable Operating Current: $I \leq 5\text{mA}$
- Outline Dimensions: a. $28\text{mm} \times 18\text{mm} \times 0.25\text{mm}$; b. Customized

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4. Note: Our company is able to design and manufacture non-standard products with different dimensions, structures and performances as required by users.

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