



Technology Solutions

# TEK-TEMP 2300A

**Explosion Proof Two Wire  
Temperature Transmitter**



TEMPERATURE



## Introduction

The 2300A is a versatile and reliable temperature transmitter designed to meet the diverse needs of industrial applications. Engineered for precision and efficiency, it supports a wide range of sensor inputs, including Pt100...Pt1000, Ni100...Ni1000, and thermocouples (TC), enabling linearized temperature measurement and advanced functions like difference or average temperature calculations. Beyond temperature measurement, it converts linear resistance variations and amplifies bipolar mV signals to standard 4...20 mA current outputs, ensuring seamless integration into process control systems. With compatibility for HART communication and adherence to strict safety standards, including suitability for SIL installations and NAMUR NE 89 compliance, the 2300A is a robust solution for critical and high-safety applications.

## Measuring Principle

**A Hockey Puck Temperature Transmitter** operates based on the principle of converting a temperature reading from a thermocouple or RTD (Resistance Temperature Detector) into a standardized output signal, such as 4–20 mA or digital communication protocols like HART.

## Benefits

### **Fast and Flexible Configuration**

- Ensures quick, adaptable temperature measurement.

### **Accurate and Reliable Measurements**

- Supports linear temperature measurement with multiple sensors.
- Provides precise differential or average temperature monitoring. Superior Process Understanding

### **Enhanced Signal Conversion**

- Converts resistance changes to analog signals for compatibility.
- Amplifies mV signals to 4–20 mA for robust, interference-free output.

### **Superior Accuracy in All Conditions**

- Connects up to 15 transmitters via HART for system integration.

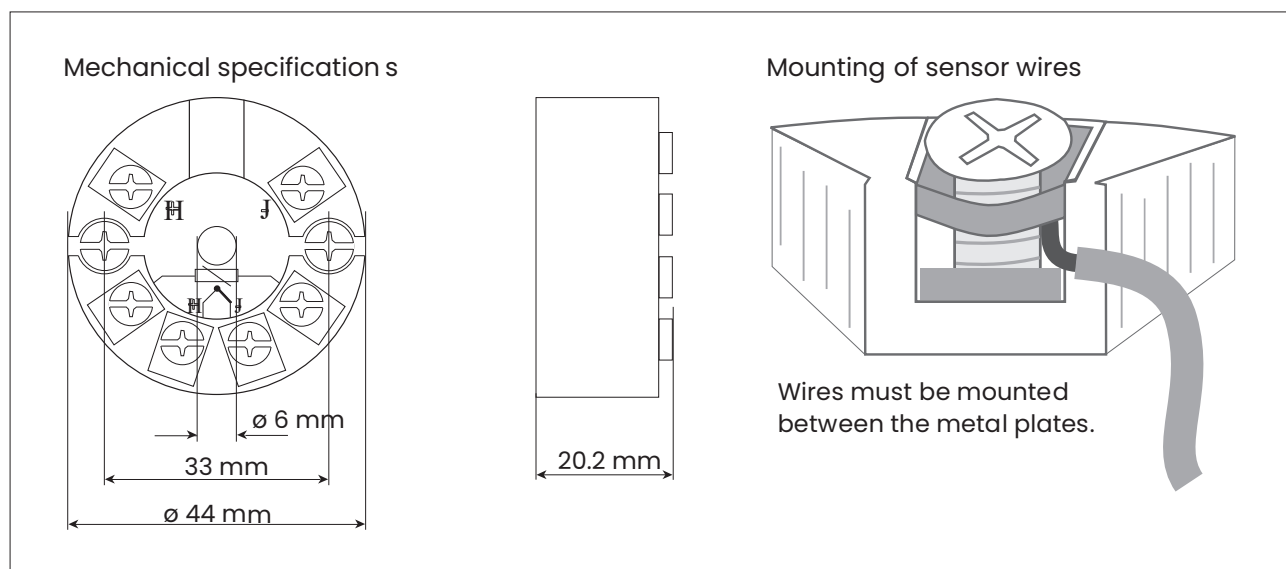
### **Cable Compensation for RTD and Resistance Inputs**

- Supports multi-wire compensation for precise temperature readings.

## Applications

- Oil and Gas
- Chemical
- Power
- Pharmaceutical
- Petrochemical
- Food Processing

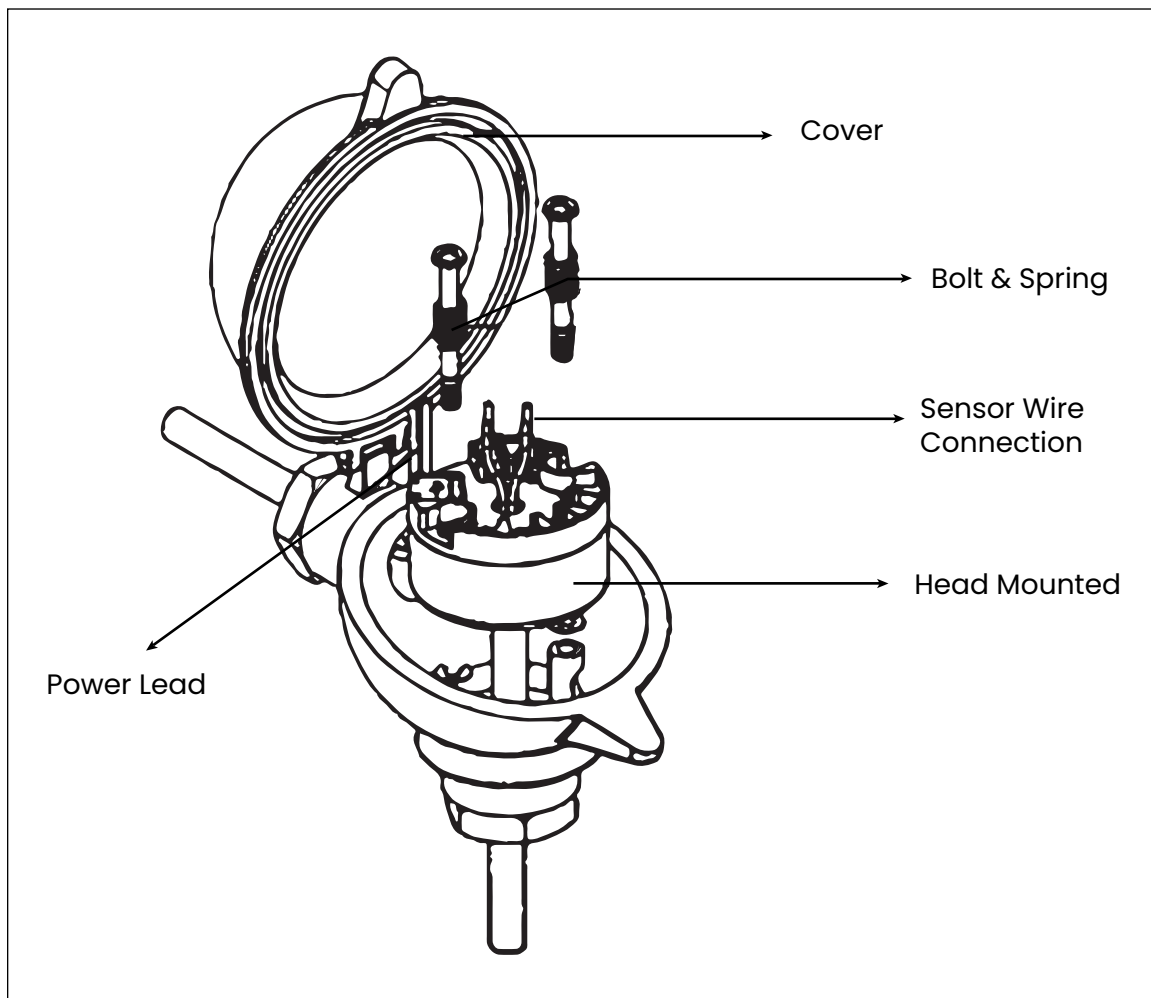
## Dimensional Drawing



## Specification

<b>Accuracy</b>	Better than 0.05% of the selected range
<b>Sensor Type</b>	<b>RTD:</b> Pt 100, Ni100, lin. R <b>TC:</b> B, E, J, K, L, N, R, S, T, U, W3, W5 <b>Voltage:</b> -800... +800 mV
<b>Operating Temperature</b>	-40°F to 185°F (-40°C to +85°C)
<b>Compensated Temperature</b>	68°F to 82°F (20°C to 28°C)
<b>Power Supply</b>	8.0 VDC to 30VDC
<b>Output Signal</b>	4...20 mA
<b>Response Time</b>	01 Sec to 60 Sec
<b>Weight</b>	0.11 lbs (50g)
<b>Enclosure Rating</b>	IP00
<b>Programming</b>	HART
<b>Humidity</b>	<95% RH (non-cond.)
<b>Agency Approval</b>	ATEX, IECEx, FM, CSA, DNV Marine, SIL

## Installation



## Model Chart

Example	Tek-Temp 2300A	D	Tek-Temp 2300A-D
Series	Tek-Temp 2300A		Two Wire Temperature Transmitter
		D	ATEX, IECEx, FM, CSA, DNV Marine, SIL

# Customer Service & Support



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