

## H4809A Rangeable 1000 Ohm RTD Temperature Transmitters

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Page 1 of 4

## Specification

### Overview

The Honeywell H4809A temperature transmitter utilizes the resistance changes of a 1000 ohm platinum RTD to provide precise temperature measurement and monitoring. Weatherproof packaging makes the transmitter applicable for both indoor and outdoor use. Features such as field rangeability, one-point field calibration, and non-polar connections make installation and maintenance of the H4809A quick and easy.

### Description

- Designed for use with 375 Platinum 1000 ohm RTD input
- Transmitters are shipped from the factory calibrated to specified temperature ranges
- Allows easy re-ranging, using DIP switches and zero and span trim-pots

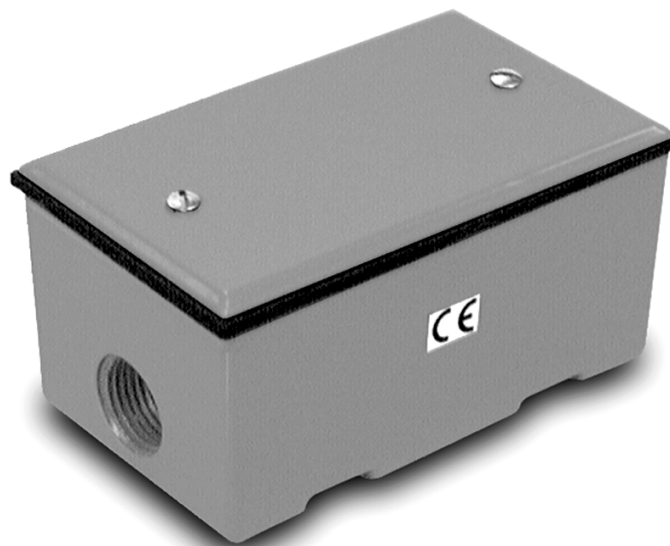


Figure 1—H4809A Temperature Transmitter

### Features

#### Superior Performance

- Linear performance to  $\pm 0.05\%$  over the full 4 mA to 20 mA range
- Wide input voltage variations and long wire runs do not affect performance

#### Easy Set-up

- Zero can be set from  $-45\text{ }^{\circ}\text{C}$  to  $100\text{ }^{\circ}\text{C}$  ( $-50\text{ }^{\circ}\text{F}$  to  $212\text{ }^{\circ}\text{F}$ ); span can be from  $17\text{ }^{\circ}\text{C}$  to  $180\text{ }^{\circ}\text{C}$  ( $30\text{ }^{\circ}\text{F}$  to  $320\text{ }^{\circ}\text{F}$ )
- Easy switch-set re-ranging

### Features, continued

#### Moisture Resistant Housing

The silicone-potted housing provides moisture resistance in an uncontrolled environment.

#### Easy field calibration

- One-point field calibration
- The H411339-40278-0 meter plugs in for easy on-line output indication (optional).

#### Reduced Need for Multiple Spares

Ease of re-ranging reduces the requirement for multiple spares.

## Specifications

<b>Transmitter Description</b>	Switch rangeable with calibration jack
<b>Compatible Sensor*</b>	1000 ohm, 375 Platinum RTD, 2-wire
<b>Transmitter Accuracy</b>	± 0.05 % of span
<b>Zero Range</b>	–28 °C to 5 °C (–20 °F to 40 °F)
<b>Span Range</b>	22 °C to 66 °C (40 °F to 120 °F)
<b>Field Rangeability</b>	<i>Zero:</i> –45 °C to 100 °C (–50 °F to 212 °F) <i>Span:</i> 17 °C to 180 °C (30 °F to 320 °F)
<b>Range Adjustment</b>	Potentiometer for both zero and span Field re-calibratable and re-rangeable.
<b>Output</b>	Linear 4-20 mA, 2-wire
<b>Input Voltage Effect</b>	0.002 % of span/Volt maximum from 9.4 Vdc to 30 Vdc
<b>Temperature Coefficient</b>	0.008 °C/°C (°F/°F) maximum output error
<b>RTD Current</b>	0.5 mA nominal
<b>RFI Immunity</b>	Per SAMA specification PMC 33.1
<b>Housing(s)</b>	Cast alloy, moisture-resistant. Suitable for outdoor use, UL E 30107. See Figure 2 for dimensions.
<b>Operating Environment</b>	–50 °C to 70 °C (–58 °F to 158 °F), non-condensing
<b>Storage Environment</b>	–55 °C to 85 °C (–67 °F to 185 °F), non-condensing
<b>Power Requirements</b>	9.4 Vdc + (Rload x 0.02 A) minimum to 30 Vdc maximum, unregulated. Add 2.7 V for operation with optional H411339-40278-0 meter.
<b>Recommended Rload</b>	100 ohms ± 0.1 % at 11.4 Vdc minimum 250 ohms ± 0.1 % at 14.4 Vdc minimum 500 ohms ± 0.1 % at 19.4 Vdc minimum
<b>Connections</b>	Screw terminals. Non-polar. Calibration jack.
<b>Polarity Protection</b>	Diode protected
<b>Sensor Short Indication</b>	4.0 ± 0.01 mA
<b>Sensor Open Indication</b>	Upscale
<b>Zero and Span Adjustment</b>	Non-interacting zero and span adjust. Resolution is constant. Adjust only the zero pot for in-situ field calibration.
<b>Universal Spares</b>	Re-range via DIP switches, zero and span pots.
<b>Approvals</b>	CE Mark

\*RTDs not included with transmitters.

Dimensions

Dimensions:  $\frac{\text{millimeters}}{\text{inches}}$

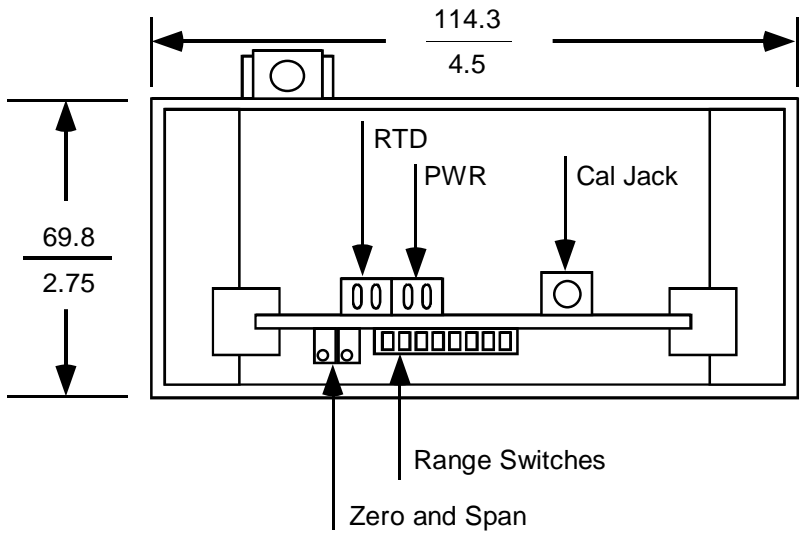


Figure 2—H4859 – High Performance, Rangeable, Space Mount

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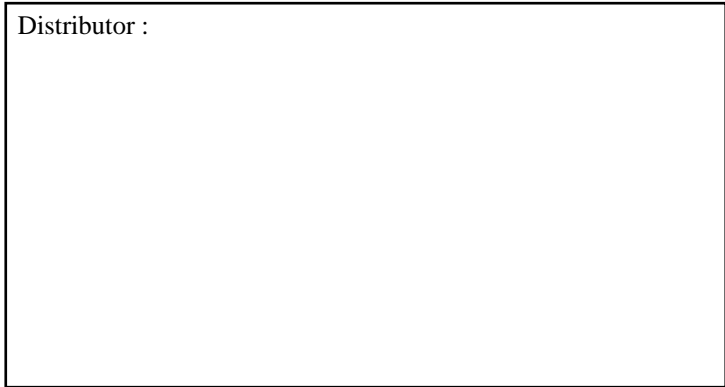
### Warranty/Remedy

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