

H4805 and H4815 Miniature Rangeable RTD Temperature Transmitters

Specification

Overview

The Honeywell H4805 and H4815 are miniature temperature transmitters which offer excellent performance properties and full rangeability. They are suitable for a wide variety of commercial, industrial, and OEM applications. Their compact size allows usage in installations with small condulets.

Description

Both the H4805 and H4815 transmitters provide a linear 4-20 mA output signal.

The H4805 is:

- Designed for use with 385 Platinum 100 RTD input.
- Available with screw terminals as standard for quick and easy installation. Pigtail leads are also available (H4805P).

The H4815 is:

- Designed for use with 1000 ohm 375 Platinum RTD input.
- Available with screw terminals as standard.

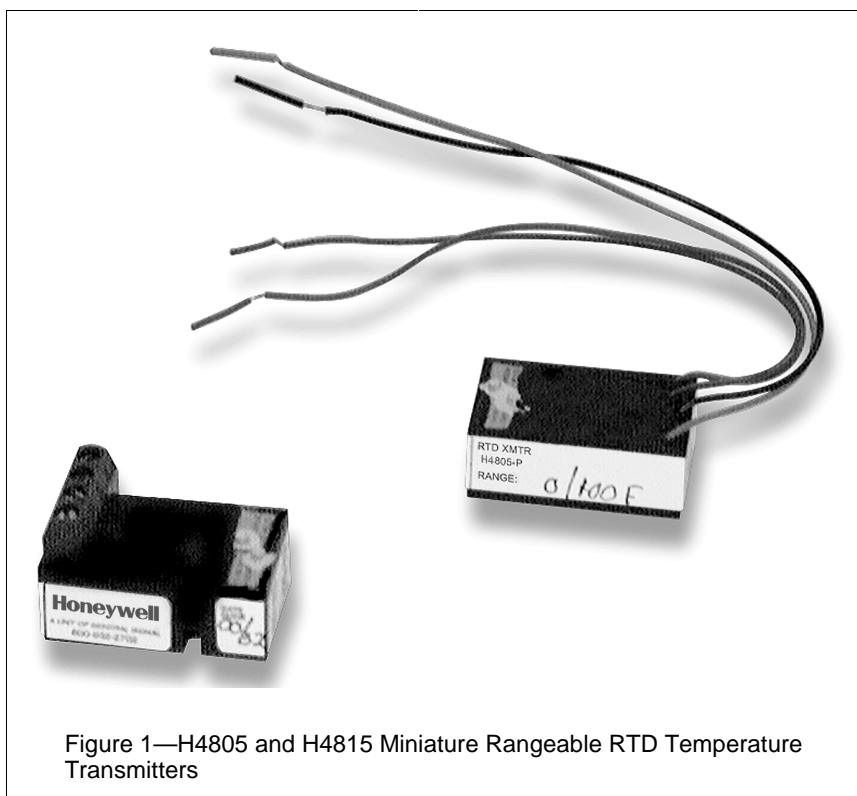


Figure 1—H4805 and H4815 Miniature Rangeable RTD Temperature Transmitters

Features

Superior Performance

- Accuracy of $\pm 0.05\%$ of span or better
- Strong RFI rejection
- Immunity for input voltage fluctuations

Easy Field Calibration

Non-interacting constant resolution zero and span controls allow easy, quick field recalibration. This independence allows full calibration to be accomplished without repeating operations.

Features, continued

Cost Savings

Results from superior voltage regulation. Voltage requirements are 8.7 Vdc, minimum plus the load drop.

Moisture Resistant Housing

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

Reduced Need for Multiple Spares

Ease of re-ranging reduces requirement for multiple spares.

Specifications

Transmitter Description	<i>H4805</i> : Miniature Potted. Not Rangeable. <i>H4815</i> : Miniature Potted. Rangeable.
Compatible Sensor*	<i>H4805</i> : 100 ohm, 385 Platinum RTD, 2-wire <i>H4815</i> : 1000 ohm, 375 Platinum RTD, 2-wire
Transmitter Accuracy	± 0.08 % of span
Zero Range	–28 °C to 5 °C (–20 °F to 40 °F)
Span Range	22 °C to 66 °C (40 °F to 120 °F)
Field Rangeability: Zero	<i>H4805</i> : Limited <i>H4815</i> : –28 °C to 5 °C (–20 °F to 40 °F)
Span	<i>H4805</i> : Limited <i>H4815</i> : 22 °C to 66 °C (40 °F to 120 °F)
Range Adjustment	<i>H4805</i> : Potentiometer for both zero and span. Field re-calibratable. Not re-rangeable. <i>H4815</i> : Potentiometer for both zero and span (no jumpers). Field re-rangeable.
Output	Linear 4-20 mA, 2-wire
Input Voltage Effect	<i>H4805</i> : 0.002 % of span/Volt maximum from 6.5 Vdc to 35 Vdc <i>H4815</i> : 0.002 % of span/Volt maximum from 6.5 Vdc to 30 Vdc
Temperature Coefficient	0.008 °C/°C (°F/°F) maximum output error
RTD Current	1 mA nominal
RFI Immunity	Per SAMA specification PMC 33.1
Housing(s)	<i>H4805</i> : Fiberglass reinforced; silicone potted suitable for outdoor use. <i>H4815</i> : Fiberglass reinforced PPS See Figures 2 and 3 for dimensions.
Operating Environment	–50 °C to 70 °C (–58 °F to 158 °F), non-condensing
Storage Environment	–55 °C to 85 °C (–67 °F to 185 °F), non-condensing
Power Requirements	<i>H4805</i> : 6.5 Vdc + (Rload x 0.02 A) minimum to 35 Vdc maximum, unregulated <i>H4815</i> : 6.5 Vdc + (Rload x 0.02 A) minimum to 30 Vdc maximum, unregulated
Recommended Rload	100 ohms ± 0.1 % at 8.5 Vdc minimum 250 ohms ± 0.1 % at 11.5 Vdc minimum 500 ohms ± 0.1 % at 16.5 Vdc minimum
Connections	<i>H4805A</i> , <i>H4815</i> : Screw terminals <i>H4805P</i> : Pigtail leads
Polarity Protection	Diode protected
Sensor Short Indication	Downscale to 3.9 mA nominal
Sensor Open Indication	<i>H4805</i> : Upscale to 35 mA nominal <i>H4815</i> : Upscale to 23 mA nominal
Zero and Span Adjustment	Non-interacting zero and span adjust. Resolution is constant. In-situ field calibration can be difficult due to coarse resolution of adjust.
Universal Spares	<i>H4805</i> : Not re-rangeable <i>H4815</i> : Re-range via zero and span pots.

*RTDs not included with transmitters

Dimensions

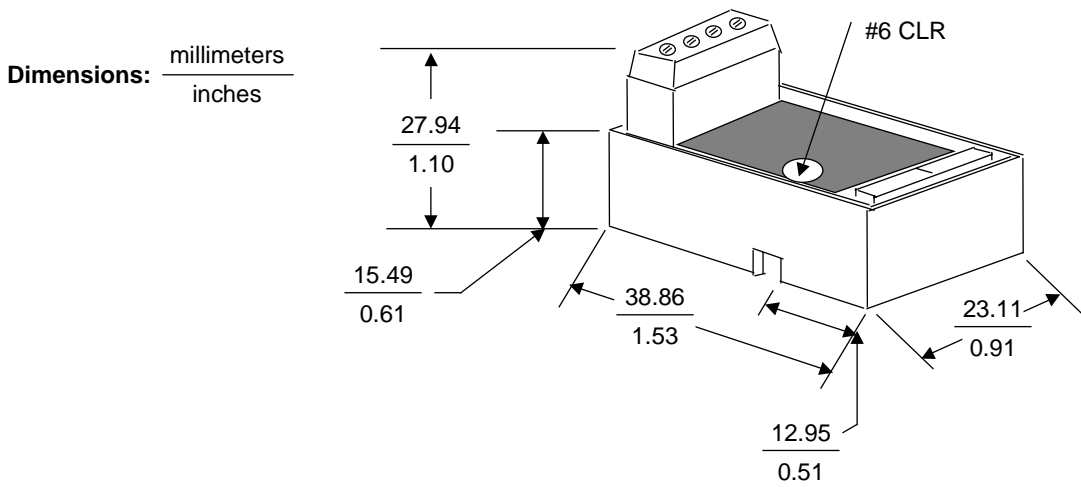


Figure 2—H4805, H4815 – Miniature, Silicone Potted, Screw Terminals

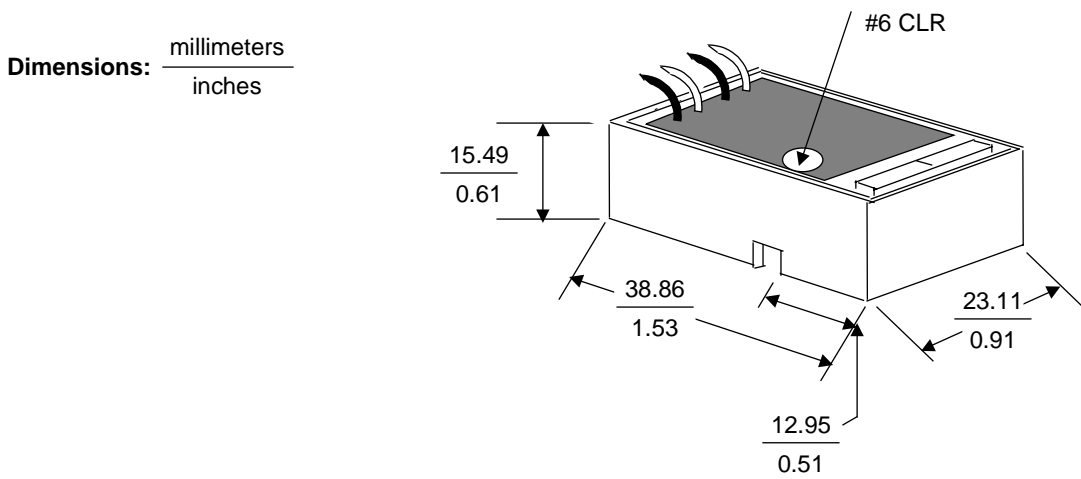


Figure 3—H4805 – Miniature, Silicone Potted, Pigtail Leads

Warranty/Remedy

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is **in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose**. Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Distributor :

For more information, contact Honeywell sales at 1-800-343-0228.

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