

Honeywell

Interactive Catalog Replaces Catalog Pages

Honeywell Sensing and Control has replaced the PDF product catalog with the new **Interactive Catalog**. The **Interactive Catalog** is a power search tool that makes it easier to find product information. It includes more installation, application, and technical information than ever before.



**Click this icon to try the new
Interactive Catalog.**

Sensing and Control
Honeywell Inc.
11 West Spring Street
Freeport, Illinois 61032



- HVAC – room, duct and refrigerant equipment
- OEM assemblies
- Electronic assemblies – semiconductor protection, temperature compensation
- Process control – temperature regulation

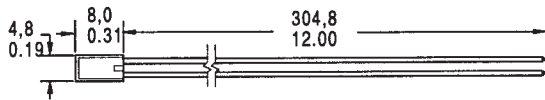
A thin layer of platinum is deposited on an alumina substrate and laser trimmed to a resistance interchangeability of $\pm 0.2\%$ with $\pm 0.5^\circ\text{C}$ accuracy or $\pm 0.1\%$ with $\pm 0.3^\circ\text{C}$ accuracy. The sensor chip is then glassed, wired and potted or ceramic fired to result in a cylindrical alumina package with either Teflon or fiber glass insulated lead wires.

ORDER GUIDE

HRTS-5760-B	Miniature, ceramic body, 28 ga TFE Teflon insulated leads (2-wire only)
HRTS-61	Bolt-on, nickel plated copper alloy body, 24 ga fiberglass insulated leads, SST braid, TFE overwrap, spiral armor
-T	100 Ω , 0.00385 $\Omega/\Omega/^\circ\text{C}$, 3-wire leads, DIN specification
-U	1000 Ω , 0.00375 $\Omega/\Omega/^\circ\text{C}$, 2-wire leads
-0	$\pm 0.2\%$ Resistance Trim (Standard)
-1	$\pm 0.1\%$ Resistance Trim (Optional)
-12	Standard length, HRTS-5760-B
-24	Standard length, HRTS-61

MOUNTING DIMENSIONS (for reference only)

HRTS-5760-B



HRTS-61

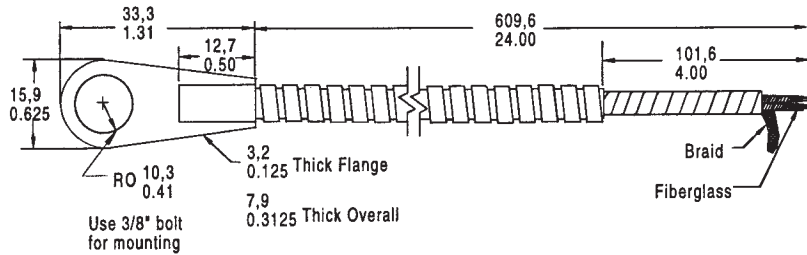


Fig. 1: Wheatstone Bridge 2-Wire Interface

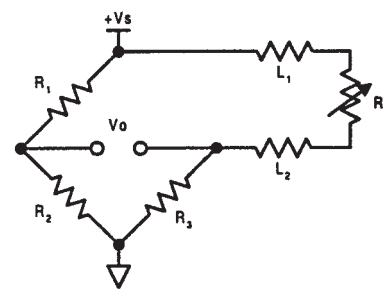


Fig. 2: Linear Output Voltage

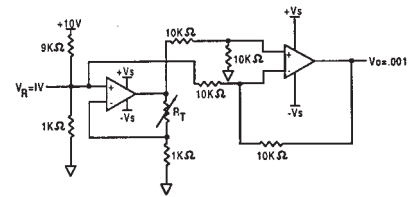
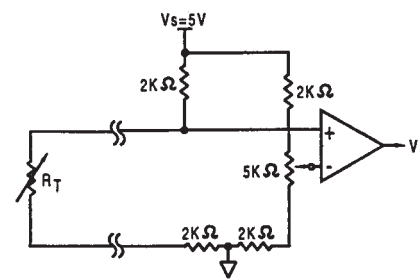


Fig. 3: Adjustable Point (Comparator) Interface



Temperature

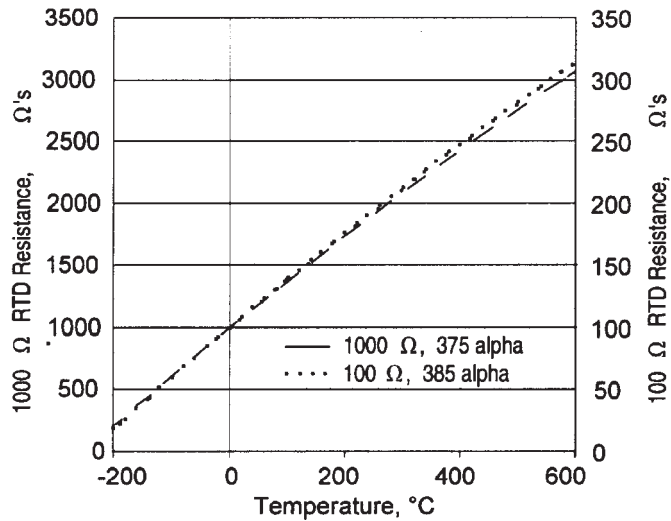
Alpha, α ($^{\circ}\text{C}^{-1}$)	0.00375 ± 0.000029	0.003850 ± 0.000010
Delta, δ ($^{\circ}\text{C}$)	1.605 ± 0.009	1.4999 ± 0.007
Beta, β ($^{\circ}\text{C}$)	0.16	0.10863
A ($^{\circ}\text{C}^{-1}$)	3.81×10^{-3}	3.908×10^{-3}
B ($^{\circ}\text{C}^{-2}$)	-6.02×10^{-7}	-5.775×10^{-7}
C ($^{\circ}\text{C}^{-4}$)	-6.0×10^{-12}	-4.183×10^{-12}

Both $\beta = 0$ and $C = 0$ for $T > 0^{\circ}\text{C}$

-100	2.9	0.8	2.4	0.6
0	2.0	0.5	1.0	0.3
100	2.9	0.8	2.2	0.6
200	5.6	1.6	4.3	1.2
300	8.2	2.4	6.2	1.8
400	11.0	3.2	8.3	2.5
500	12.5	4.0	9.6	3.0
600	15.1	4.8	10.4	3.3

*1000 Ω RTD. Divide ΔR by 10 for 100 Ω RTD.

RESISTANCE VS TEMPERATURE CURVE



CAUTION

PRODUCT DAMAGE

The inherent design of this component causes it to be sensitive to electrostatic discharge (ESD). To prevent ESD-induced damage and/or degradation, take normal ESD precautions when handling this product.

SPECIFICATIONS

Sensor Type	Thin film platinum RTD: $R_0 = 1000 \Omega @ 0^{\circ}\text{C}$; $\alpha = 0.00375 \Omega/\Omega/^{\circ}\text{C}$ $R_0 = 100 \Omega @ 0^{\circ}\text{C}$; $\alpha = 0.00385 \Omega/\Omega/^{\circ}\text{C}$
Temperature Range	HRTS-5760-B: -200° to $+260^{\circ}\text{C}$ (-320° to $+500^{\circ}\text{F}$) HRTS-61: -75° to $+425^{\circ}\text{C}$ (-100° to $+800^{\circ}\text{F}$)
Temperature Accuracy	$\pm 0.5^{\circ}\text{C}$ or 0.8% of temperature @ 0.2% R_0 Trim $\pm 0.3^{\circ}\text{C}$ or 0.6% of temperature @ 0.1% R_0 Trim Optional
Time Constant, 1/e	HRTS-5760-B: Typically 0.6 sec. on metal surfaces HRTS-61: Typically 20 sec. On metal surfaces
Operating Current	2 mA max. for self-heating errors of 1°C 1 mA recommended
Self-Heating	0.3 mW/ $^{\circ}\text{C}$
Lead Material	Nickel coated stranded copper, Teflon or Fiberglass insulated

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Industrial Temperature Sensors](#) category:

Click to view products by [Honeywell](#) manufacturer:

Other Similar products are found below :

[590-32AC34-103-WRI](#) [590-59CN02-103](#) [A1004SG22P0](#) [HEL-736-U-2-36](#) [G9864ST22F0](#) [HEL-717-U-0-24-00](#) [R-8203](#) [519-39AW09-245](#)
[519-39CH01-295](#) [521-43BC01-202](#) [535-34AE08-303](#) [512-32AQ01-503](#) [521-33AG04-303](#) [521-53BR01-503](#) [E52P6DY4M](#) [535-34AE09-222](#)
[590-32AC34-103](#) [590-32AD05-103](#) [3MS1 00211280](#) [E52-P6DY 2M](#) [A1004SX22P0](#) [E52-P20C-N D=8](#) [E52-THE5A 100-200 2M](#) [T200-C32-](#)
[M14-C](#) [HRTS-5760-B-T-0-18](#) [IOT-9CLT](#) [IOT-9CLT-2](#) [IOT-9CLT-8](#) [LTPCTGA20MBSIBX01](#) [LTPCTFA30MBSITX01](#)
[LTPCTFA20MBSIDX01](#) [LTPCTAA20MDSIEX01](#) [BB-HS-104T2505402](#) [NCP81255MNTXG](#) [HEL-707-T-1-24-00](#) [HEL-716-U-0-24-00](#) [A-](#)
[2142](#) [USW2247](#) [R-11614-1](#) [RP103ST22P2](#) [R-10331-3F6](#) [E52-P20AY-D32 4M](#) [89750186](#) [79696038](#) [79696039](#) [A1004AS20T1](#) [JS7352](#) [JI-](#)
[F103WN-L301](#) [JI-F103WN-L252](#) [JI-103C1R2-L102](#)