

Discrete and Packaged RTD Sensors:

Our platinum-based RTDs are laser-trimmed for accuracy and flexibility — designed to offer stable and fast linear outputs, accurate and interchangeable, plus plastic and ceramic, miniaturized and surface mount housings (including printed circuit board termination). Potential applications include motor overload and semiconductor protection, electronic assembly thermal management and temperature compensation, as well as HVAC equipment.

Discrete Thermistors: These sensors don't amplify, rectify, polarize or generate a signal, but rather change resistance with any change in temperature. The change can occur in the surrounding temperature or by passing a current through the thermistor to self-heat.

Packaged Temperature Probes



	6655 Series	500 Series
Temperature sensing type	air/surface	air/gas, immersion, surface, and liquid level
Sensing element	NTC	NTC
Nominal resistance at 25 °C [77 °F]	10,000 Ohm, 12,000 Ohm	200 Ohm to 1,000,000 Ohm (inclusive)
Operating temperature range	-20 °C to 110 °C [-4 °F to 230 °F]	-60 °C to 300 °C [-76 °F to 572 °F] (inclusive)
Housing material	phenolic	plastic, aluminum, stainless steel, epoxy filled, tin- or nickel-plated copper, ceramic or kynar-filled tubing
Electrical and mechanical interface	quick connect terminal: (90°, 0.25 in), (0°, 0.25 in), (45°, 0.25 in), (90°, 0.1875 in)	wide variety of connectors and lead types, materials and insulation

Discrete RTD Sensors



	HEL-705, 707, 710 Series	HEL-775 Series
Sensor type	100 Ohm, 1000 Ohm platinum RTD	100 Ohm, 1000 Ohm platinum RTD
Temperature coefficient	0.00385 Ohm/Ohm/°C, 0.00375 Ohm/Ohm/°C	0.00385 Ohm/Ohm/°C, 0.00375 Ohm/Ohm/°C
Temperature sensing range	TFE Teflon: -70° to +260°C (-94° to +500°F) fiberglass: -75° to +500°C (-100° to +932°F)	-55 °C to 150 °C [-67 °F to 302 °F]
Packaging type	alumina tube	ceramic case
Termination	28 ga. or 24 ga. leadwire	SIP
Base resistance and interchangeability	100 Ohm ±1; 0.6 Ohm at 0 °C, 100 Ohm ±1; 1.2 Ohm at 0 °C, 1000 Ohm ±1; 0.6 Ohm at 0 °C, 1000 Ohm ±1; 1.2 Ohm at 0 °C	100 Ohm ±1; 0.6 Ohm at 0 °C, 100 Ohm ±1; 1.2 Ohm at 0 °C, 1000 Ohm ±1; 0.6 Ohm at 0 °C, 1000 Ohm ±1; 1.2 Ohm at 0 °C
Self-heating	<15 mW/°C for 0.85 O.D. typ.	<6.8 mW/°C typ., 9.7 mW/°C typ.

Temperature Sensors Line Guide



Discrete RTD Sensors

	HEL-777/776 Series	700 Series
Sensor type	100 Ohm, 1000 Ohm platinum RTD	100 Ohm, 1000 Ohm platinum RTD
Temperature coefficient	0.00385 Ohm/Ohm/°C, 0.00375 Ohm/Ohm/°C	0.00385 Ohm/Ohm/°C, 0.00375 Ohm/Ohm/°C
Temperature sensing range	-55 °C to 150 °C [-67 °F to 302 °F]	-70 °C to 500 °C [-94 °F to 932 °F] lead version: -50 °C to 130 °C [-58 °F to 266 °F]
Packaging type	molded plastic	radial chip or surface mount axial flip chip
Termination	SIP	leadwires or solderpads
Base resistance and interchangeability	100 Ohm ±1; 0.6 Ohm at 0 °C, 100 Ohm ±1; 1.2 Ohm at 0 °C, 1000 Ohm ±1; 0.6 Ohm at 0 °C, 1000 Ohm ±1; 1.2 Ohm at 0 °C	100 Ohm ±1; 0.6 Ohm at 0 °C, 100 Ohm ±1; 1.2 Ohm at 0 °C, 1000 Ohm ±1; 0.6 Ohm at 0 °C, 1000 Ohm ±1; 1.2 Ohm at 0 °C
Self-heating	<15 mW/°C typ.	0,4k /mW, 0.6k /mW or 0.8k/mW at 0 °C [32 °F]



Discrete and Packaged RTD Sensors

	HRTS Series	TD Series
Sensor type	100 Ohm, 1000 Ohm platinum RTD	2000 Ohm silicon resistive element
Temperature coefficient	0.00385 Ohm/Ohm/°C, 0.00375 Ohm/Ohm/°C	N/A
Temperature sensing range	-70 °C to 260 °C [-94 °F to 500 °F]	-40 °C to 150 °C [-40 °F to 302 °F]
Packaging type	ceramic case	plastic or threaded aluminum case
Termination	leadwires	SIP or leadwires
Base resistance and interchangeability	100 Ohm ±1; 0.6 Ohm at 0 °C, 100 Ohm ±1; 1.2 Ohm at 0 °C, 1000 Ohm ±1; 0.6 Ohm at 0 °C, 1000 Ohm ±1; 1.2 Ohm at 0 °C	R2000 Ohm ±5 Ohm at 20 °C
Self-heating	<0,3 mW/°C typ.	N/A