

Temperature Sensors | Temperature Probes

Compact and easy to install.

Operate with enhanced sensitivity, reliability, and stability under diverse conditions of shock, vibration, humidity, and corrosion. Wide variety of custom packages available for air, liquid, and solid temperature sensing. Potential applications include transportation, compressors, HVAC/R, automation control, and aviation.



Series	LTP	R300	ES110
Temp. sensing type	immersion/air-gas	immersion	air-gas
Thermistor type	NTC	RTD	NTC
Nominal resistance at 25 °C [77 °F]	1000 Ohm, 2252 Ohm, 2057 Ohm, 2795 Ohm	100 Ohm	2000 Ohm
Operating temperature range	-40 °C to 150 °C [-40 °F to 302 °F]	-40 °C to 275 °C [-40 °F to 572 °F] continuous, excursion to 300 °C [572 °F] for 10 minutes max.	-40 °C to 150 °C [-40 °F to 302 °F]
Housing material	brass hex, stainless steel probe tip	stainless steel	brass
Electrical and mechanical interface	Bosch Kompakt, Delphi Metri-Pack 150 Series, AMP Seal 16, AMP Minimer, AMP Superseal, Deutsch DT04-2P; M10 to M18, 3/4 UNF, or G 1/4 threads, two hex options	overmolded connector with M14 x 1.50 thread	overmolded connector with M10 x 1.25 or M12 x 1.50 thread
Features	low temperature passive probes have durable, closed-tip design	enhanced response, reliability, and accuracy; stainless steel construction	exposed thermistor, rugged design, brass encapsulation



Series	ES120	500	6655
Temp. sensing type	immersion	air-gas/immersion-liquid level/surface	air/surface
Thermistor type	NTC or KTY	NTC	NTC
Nominal resistance at 25 °C [77 °F]	2000 Ohm	200 Ohm to 1,000,000 Ohm (inclusive)	10,000 Ohm, 12,000 Ohm
Operating temperature range	-40 °C to 150 °C [-40 °F to 302 °F]	-40 °C to 300 °C [-40 °F to 572 °F] (inclusive)	-20 °C to 110 °C [-4 °F to 230 °F]
Housing material	brass	plastic, aluminum, stainless steel, epoxy filled, tin- or nickel-plated copper, ceramic or kynar-filled tubing	phenolic
Electrical and mechanical interface	overmolded connector with M10 x 1.25, M10 x 1.0, M12 x 1.5, M14 x 1.50 thread, or 1/8 PTF	wide variety of connectors, lead types, materials, and insulation	quick connect terminal: (90°, 0.25 in), (0°, 0.25 in), (45°, 0.25 in), (90°, 0.1875 in)
Features	enclosed thermistor, rugged design, brass encapsulation	wide selection of housing, resistance, and termination options	low, compact profile, tight interchangeability, enhanced accuracy and response time

Temperature Sensors | RTD Sensors

Silicon-based, thin film RTDs (Resistance Temperature Detectors) are laser trimmed for accuracy and interchangeability. Offer stable, fast linear outputs with a wide temperature range. Accurate and interchangeable without recalibration. Available in discrete or packaged versions in plastic and ceramic, miniaturized and surface mount housings.



Series	HEL-700	HEL-775
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 °C to 260 °C [-94 °F to 500 °F] fiberglass: -75 °C to 500 °C [-100 °F to 932 °F]	-55 °C to 150 °C [-67 °F to 302 °F]
Packaging type	alumina tube	ceramic case
Termination	28 AWG or 24 AWG lead wire	SIP
Base resistance and interchangeability	100 Ohm: ±0.1 % at 0 °C 100 Ohm: ±0.2 % at 0 °C 1000 Ohm: ±0.1 % at 0 °C 1000 Ohm: ±0.2 % at 0 °C	100 Ohm: ±0.1 % at 0 °C 100 Ohm: ±0.2 % at 0 °C 1000 Ohm: ±0.1 % at 0 °C 1000 Ohm: ±0.2 % at 0 °C
Self-heating	<15 mW/°C for 0.85 O.D. typ.	<6.8 mW/°C typ.; 9.7 mW/°C typ.
Termination material	24 AWG nickel-coated, stranded copper 28 AWG nickel-coated, stranded copper	phosphor bronze with tin silver plating
Features	teflon or fiberglass lead wires, wide temperature range, ceramic case material, multiple sizes	enhanced stability, thin film platinum, ceramic SIP, solderable leads



Series	HEL-776/777	700
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] loaded: -50 °C to 130 °C [-58 °F to 266 °F]
Packaging type	molded plastic	radial chip or surface mount axial flip chip
Termination	SIP	lead wires or solderpads
Base resistance & interchangeability	100 Ohm: ±0.1 % at 0 °C 100 Ohm: ±0.2 % at 0 °C 1000 Ohm: ±0.1 % at 0 °C 1000 Ohm: ±0.2 % at 0 °C	100 Ohm: Class A; 100 Ohm: Class B 1000 Ohm: Class A; 1000 Ohm: Class B 1000 Ohm: Class 2B
Self-heating	<15 mW/°C typ.	0,4 K/mW, 0,6 K/mW, or 0,8 K/mW at 0 °C [32 °F]
Termination material	Cu alloy 194 solder dipped with Sn/Ag	Pt-clad Ni wire and end termination galvanic Sn-plated with Ni barrier layer
Features	enhanced stability, thin film platinum, molded plastic SIP package, solderable leads	interchangeability, SMD and chip package versions, enhanced stability and time response