

---

## ET-TP - TEMPERATURE PROBES

---

### FEATURES:

- ◆ Industry standard 385 Platinum sensors or 10 k NTC thermistor.
- ◆ Environmentally protected (metal tubing).
- ◆ Fast response, easy installation.
- ◆ Low cost, ideal for Energy Management Applications.

### APPLICATION:

The RTD temperature probes complement Elkor's line of temperature and humidity transducers. They can be used with Elkor boards to interface with building automation systems that accept linear DC voltage.

The probes may also be used by system integrators to offer industry standard inputs to any third-party control and monitoring devices.

### PRODUCT DESCRIPTION:

Elkor offers two types of RTDs: an economical 10 k NTC thermistor (encapsulated in brass tubing), and precision platinum (Pt385) 100 Ohm and 1000 Ohm sensors, mounted in stainless steel tubing. Platinum RTDs are offered in application specific arrangements as universal (strap-on) sensor, air duct sensor and pipe well sensor. Elkor offers two types of RTDs: an economical 10 k NTC thermistor (encapsulated in brass tubing), and precision platinum (Pt385) 100 Ohm and 1000 Ohm sensors, mounted in stainless steel tubing.

Platinum RTDs are offered in application specific arrangements as universal (strap-on) sensor, air duct sensor and pipe well sensor.

---

### Economy Thermistor Probe



The ET-TP-TH1 probe contains a 10 k NTC thermistor encapsulated in a 1" x 1/4" brass tubing. The 15" long (24 AWG) wire leads are sealed in the tubing forming an environmentally protected assembly. This probe can be used for economical temperature monitoring in the range of  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ . Combined with Elkor's ETSCAL board it will provide a linear analog signal that can be easily scaled and interfaced with any generic controller. This thermistor probe may be also incorporated into other 'third party' OEM temperature circuitry. The R/T characteristics may be provided in tabular form or a polynomial.

---

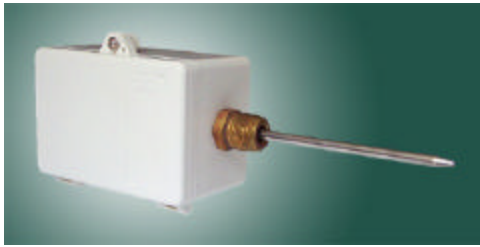
### Universal Probe (All purpose, Economy)

The ET-TP-U universal probe can be used anywhere where a termination enclosure is not required. It may be used as a 'strap-on' sensor for pipes, as a duct sensor in small air ducts or as a space/plate sensor in some DDC installations. Flexible PVC jacketed leads, eight ft (2.4 m) long, are incorporated directly into the tubing allowing for fast and economical installation and wiring.

The Pt element is mounted in a 2" stainless steel tubing using technology that eliminates thermal/mechanical strain and provides fast response.



## Well Probe (Pipe Immersion)



The ET-TP-W probe is used to measure the temperature of fluids or gases in pipes equipped with thermo-wells. For fast and accurate measurements the probe is spring loaded to provide a good thermal contact with the base of the mating pipe well. Stainless steel tubing and sealed construction ensures environmental protection and long life. The Pt element is mounted in the tubing using technology that eliminates thermal/mechanical strain and provides rapid heat transfer.

Molded plastic case, with hinged cover, is equipped with brass 1/2" NPT fitting that fits into most standard wells. The case may be used for termination of RTD leads and/or to install additional electronic device such as temperature transmitter or interface board.

## Duct Air Temperature Probe

The ET-TP-D duct air probes utilize precision, laser trimmed platinum elements. Stainless steel tubing and sealed construction ensures environmental protection and long life. The Pt element is mounted in the tubing using technology that eliminates thermal/mechanical strain and provides fast response.

The molded plastic case, with hinged cover, is easy to install on the duct. The case may be used to terminate the RTD leads and/or to install an additional electronic device such as a temperature transmitter or an interface board. The duct probe is available in lengths of 6", 12", 18" and 24".



## ORDERING INFORMATION:

### 10 k NTC Thermistor Probe:

**ET-TP-TH1** fully describes this product

### Platinum RTD Probes

**ET-TP-[application]-[resistance]-[probe length]**

#### Application

- D** - (duct probe)
- U** - (universal probe)
- W** - (well probe)

#### Resistance:

- 100R**
- 1K**

#### Probe Length:

- 4" or 6"** (well)
- 6", 12", 18", 24"** (duct)

ie: **ET-TP-D-1K-18** specifies a 1K Duct Probe with 18" probe length.

Note: As standard, all platinum probes are three-wire. Four-wire sensors can be obtained by special order.

Platinum RTDs have industrial standard 0.00385 ohm/ohm/°C temperature coefficient.