

## Thin-Film Thermocouple Overview

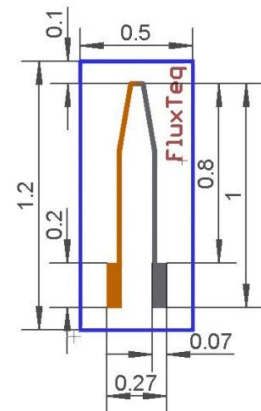
FluxTeq introduces its thin-film, fast response and low profile thermocouples for collecting quick and accurate temperature measurements.

## Product Features & Design Options

- Extremely flexible for easy mounting onto curved surfaces.
- Available with adhesive on underside of sensor for sticking to surfaces or without adhesive for cementing, taping, gluing, etc.
- Can be purchased with bare, exposed thermocouple elements or electrically & physically insulated by polyimide Kapton® film.
- Available in standard wire lead lengths of 1, 2 and 3 meters (40", 80", and 120"). Custom wire lead lengths available upon request.
- Works perfect with FluxTeq's TC-DAQ Thermocouple Temperature Recorder / Data Acquisition System.
- Very thin (5 mils), low profile, with minimal thermal resistance and capacitance for extremely quick response time critical for accurate temperature measurements.
- 30 AWG lead wire with extruded PFA insulation connecting sensor to either bare wire leads or miniature male thermocouple connector.

## Dimensions / Layout

- Overall size of the pad is 1.2" x 0.5" (3.05 x 1.27cm) while thermocouple dimensions are 1.0" x 0.27" (2.54 x 0.7cm). Pad can be trimmed closer to the perimeter of the traces with scissors if desired.



## Thermocouple Specifications

<b>Thermocouple Type:</b>	T-Type Thermocouple
<b>Thermocouple Element Thickness:</b>	1 mil / 0.001" (25 microns)
<b>Encapsulation &amp; Substrate Material:</b>	Kapton® (polyimide)
<b>Total Thickness (t) with Adhesive:</b>	5 mils / 0.005" (127 microns)
<b>Operating Temperature Range*:</b>	-50 to 120°C (-58 to 248°F)
<b>Total Dimensions:</b>	W = 0.5" (1.27cm)    H = 1.2" (3.05")
<b>Thermocouple Trace Width:</b>	20 mils / 0.020" (0.51mm)

\* Temperature range may be larger than specified. Further testing is being conducted.

\*\*Response time is time for one time constant or 63% of sensor output signal to a heat flux step input.