

Ultra-Sensitive Plate Heat Flux Sensors

The Ultra-09 are the first low-cost ultra-sensitive plate heat flux sensors on the market. The high sensitivity design makes it ideal for accurately measuring relatively low-heat fluxes such as those seen in both building envelope and soil testing. A rigid, robust & water-proof construction makes the sensor durable and effective in various testing conditions

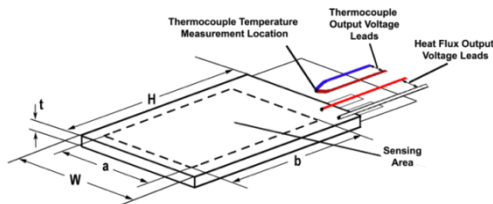
Current Sensor Applications

- In-situ testing & validation of building envelope thermal performance
- Measure soil heat flux for geothermal studies
- Thermal monitoring of buildings



Heat Flux Sensor Specifications

Sensor Type	Differential-Temperature Thermopile
Encapsulation Material	Kapton (polyimide)
Temperature Range*	-20 °C to 200 °C
Sensor Surface Thermocouple	Type-T
Nominal Sensitivity	Approx. 110 uV/(W/m ²)
Sensing Area Dimensions	a = 6.8 cm b = 7.6 cm
Total Sensor Dimensions	W = 9.2 cm H = 8.7 cm
Sensing Area	52 cm ²
Total Sensor Area	80 cm ²
Sensor Thickness	1.5 mm
Thermal Conductivity	0.2 W/(m-K)
Absolute Thermal Resistance	1.25 K/W
Specific Thermal Resistivity	6.3 K/(kW/m ²)
Response Time	5 seconds



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

** Both sensing area dimensions as well as total sensor dimensions are subject to change.

For additional information about Ultra heat flux sensors specifications, applications, or general inquiries, use the following contact information or visit the FluxTeq website at www.FluxTeq.com