

PHFS-09e Heat Flux Sensor Description

The PHFS-09e is the first low-cost large area heat flux sensor on the market. It is particularly useful for monitoring the performance of thermal insulation and directly in-situ measuring insulation thermal resistance R-values. The sensor has excellent sensitivity that is perfect for measurements of heat transfer through building thermal insulation. Metal encapsulation increases the robustness of the sensor itself for repeated applications of the sensor to measurement surfaces.

Potential Applications

- Thermal monitoring of buildings
- In-situ R-value measurements
- R&D
- Thermal energy efficiency

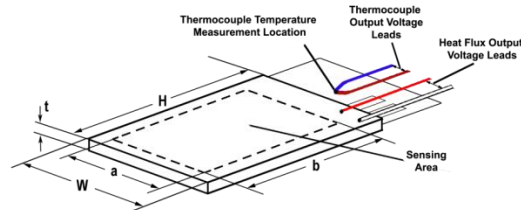


Heat Flux Sensor Specifications

Sensor Type	Differential-Temperature Thermopile
Encapsulation Material	Copper (other materials available)
Nominal Sensitivity	Approx. 70 - 90 mV/(W/cm ²)
Sensor Thickness (t)	Approx. 600 microns
Specific Thermal Resistivity	Approx. 0.9 K/(kW/m ²)
Heat Flux Range	+/- 150 kW/m ²
Temperature Range**	-50 °C to 120 °C
Response Time*	Approx. 0.9 seconds
Sensor Surface Thermocouple	Type-T
Sensing Area (cm ²)	84 cm ²

*Response time is time for one time constant or 63% of sensor output signal to a heat flux step input and dependent on encapsulation material/thickness.

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



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

Direct General Inquiries To: info@FluxTeq.com

Phone: +1-(540) 257-3735

Email: info@FluxTeq.com

Homepage: www.FluxTeq.com

Phone: +1-(540)257-3735

1800 Kraft Drive, Suite 109, Blacksburg, VA 24060-6370