FLUXTEQ

HTHFS-01

HTHFS-01 Heat Flux Sensor Description

The HTHFS-01 is fabricated solely from high temperature materials capable of extended operation at temperatures up to 1000 °C. It operates on the basic principle of measuring the temperature drop across a known thermal resistance using a thermoelectric thermopile to amplify the heat flux signal. Thermocouples are also used to monitor the surface temperatures of the sensor, which provides additional information on the state of the thermal system.

Potential Applications

- High-temperature heat-flux measurement
- Combustion research & development
- Fire protection research
- Metallurgy research and control of quenching & heat treatment processes

Heat Flux Sensor Specifications

Sensor Type	Differential-Temperature Thermopile
Encapsulation Material	Copper (other materials available)
Nominal Sensitivity	Approx. 300 μV/(W/cm^2)
Sensor Thickness (t)	3.175 mm
Maximum Temperature	Up to 1,000°C
Sensor Surface Thermocouple	Type-K
Sensing Area Dimensions	9.8 cm x 5.7 cm
Sensing Area	55.9 cm^2