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# FLAME INTENSITY CALORIMETERS



Model C-3500 Flame Intensity Calorimeter

The Model C-3500 Flame Intensity Calorimeter probe is applied to the determination of the total heat flux (Radiation plus Convection) in high temperature combustion of gases.

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The model C-3500 Flame Intensity Calorimeter provides a total (convection plus radiation) heat flux measurement of the intensity of combustion gases. Designed for direct immersion in flame fronts, this water-cooled instrument thermoelectrically transduces a signal which is calibrated in accordance with ASTM C177-76 (modified).

The calorimeter may be used to assist in verifying heat source intensities for demonstrating compliance with fire protection requirements. Another important application is the measurement of combustion chamber heat fluxes in power generating facilities. The sensor may also be applied to the flame testing of materials and components under Federal Aviation Regulations.

The flame intensity sensor is a small diameter, refractory metal rod which is placed in contact with the heated gasses. The signal generated is directly proportional to the local heat flux; a radial traverse of the source yields a measure of the total power output. The sensor yields D.C. millivolt signals that can be measured with conventional millivolt meters or recorders.

## FEATURES

- Heat Fluxes to 500 Kw/M<sup>2</sup>
- Linear signal

## SPECIFICATIONS

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### Temperature (max):

3500°F

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### Response Time:

0.1 Sec.

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### Accuracy:

5%

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## APPLICATIONS

- Standardization of high temperature heat sources
- Combustion chamber heat flux determinations

## ORDERING INFORMATION

Delivery.....3-4 Weeks, ARO

FOB..... Del Mar, California

## OTHER ITI THERMAL INSTRUMENTS

Thermal Conductivity Apparatus, Heat Flux Meters, HEAT-PROBE™, Accelerator target Calorimeters, Radiometers, Thermal Flux Standards.