

Fire Testing Technology Limited

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SMOKE DENSITY PHOTOMETRIC SYSTEM (DIN 50055)

The FTT 'Smoke Density Photometric System' (DIN 50055) is designed to be used in conjunction with equipment that measures smoke from burning materials. The unit can be fitted to several instruments such as the Room Corner Test, (ISO 9705), Single Burning Item (SBI), (prEN 13823), Heat Release Apparatus for IEC 60332 Part 3 (as developed in the FIPEC project), Steiner Tunnel or Flooring Radiant Panel (prEN ISO 9239) etc..

The apparatus consists of: -

- Light Source
- Light Measuring System
- Control Unit

The **Light Source** is a gas filled tungsten filament lamp. Power for the lamp is provided by a regulated power supply housed in the Control Unit.

The **Light-Measuring Device** consists of: -

- Achromatic system of lenses
- Silicon photo-electric cell
- High gain low noise amplifier

These components are housed in an assembly with a collimating lens.

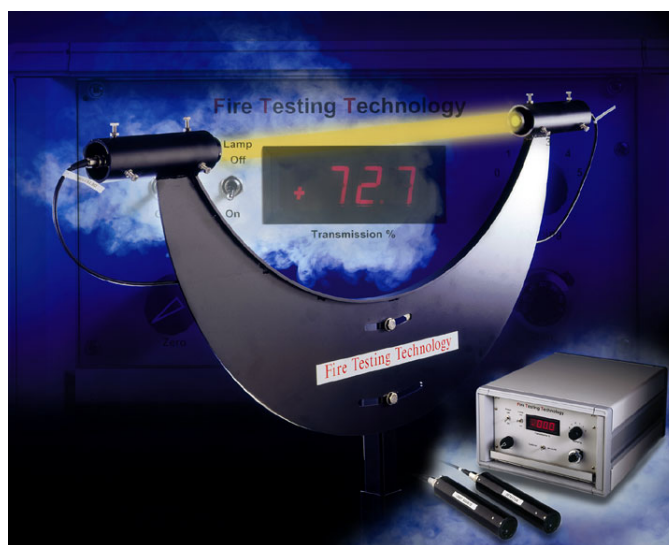
The signal from the Light-Measuring Device is taken to the **Control Unit**, which is capable of continuously measuring relative light intensity against time as percentage transmission over the ranges to be studied. The system has a linear response with respect to transmittance and an accuracy of better than $\pm 1.5\%$ of the maximum reading. The Control Unit also regulates the damping of the amplifier so that the response times required to achieve 95% accuracy (T95) correspond to the specifications given in the standard.

An analogue output on the control unit of 0–1V = 100% transmission is available to be taken to a data acquisition unit. A Windows based software package is also available to enable simple data acquisition, analysis and storage via a data logger. All parameters are displayed. The versatile data logger may be used in other applications and is supplied with software that allows the data stored in the logger to be downloaded to a PC for further analysis.

FTT is a world leader in fire testing instrumentation and offers a comprehensive spares and maintenance service for fire testing equipment.



Smoke Density Photometric System



SBI Smoke Measuring System

Please visit our web-site (www.fire-testing.com) or contact us directly for any further information on our range of fire testing instrumentation.