

# EM-5 Emissometer

For measuring the emissivity of **all kind of surfaces** in the laboratory or in the field



**For infrared radiation energy flux measurements, it is essential to know the emissivity value**

Emissivity is a parameter which influences the thermal radiation of a surface. This characteristic of the surface of the materials is therefore generally known in the literature for a large number of materials.

However, this parameter can undergo multiple variations due to the environment. We therefore need a device capable of taking measurements in situ.

The principle is to measure the directional hemispherical reflectance  $\rho^{\text{nl}}$  which allows to calculate the emissivity  $\varepsilon$  :  $\varepsilon=1-\rho^{\text{nl}}$

**Full band measurement (1-50 $\mu\text{m}$ ) 8 to 14  $\mu\text{m}$  or 3-5  $\mu\text{m}$  optional**

Measurement of total emissivity by reflectometric method. The modulated flux method allows the measurement of emissivity over a wide temperature range

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**The emissometer allows these users to :**

**Measuring** total directional emissivity

**Calculate** the total hemispheric emissivity

**Possibility** of measuring emissivity as a function of temperature, using a variable temperature source

**The device can measure high and low emissivity.**

Optionally, you can also measure emissivity in a specific spectral band such as 8-14  $\mu\text{m}$ , 3-5  $\mu\text{m}$  or a custom band, specific to thermal cameras or other applications.

**Supplied with power supply,  
4 reference surfaces and carrying case**

*broadband (1-50 $\mu\text{m}$ ), 3-5 $\mu\text{m}$  and 8-14 $\mu\text{m}$  integrating sphere*

**Possibility of geolocating measurements by GPS (optional)**



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