

Heat Flux Plate HFP01

The sensor in HFP01 is a thermopile. This thermopile measures the temperature difference across the ceramic-plastic composite body of HFP01. A thermopile is a passive sensor; it does not require power. Using HFP01 is easy. It can be connected directly to commonly used data logging systems. The heat flux in W/m^2 is calculated by dividing the HFP01 output, a small voltage, by the sensitivity. The sensitivity is provided with HFP01 on its calibration certificate.

A typical measurement location is equipped with 2 or more sensors. HFP01 is the world's most popular sensor for heat flux measurement in the soil as well as through walls and building envelopes.

Unique features and benefits

- low thermal resistance (essential for use on walls and windows)
- large guard area (required by the ISO 9869 standard)
- low electrical resistance (low pickup of electrical noise)
- high sensitivity (good signal to noise ratio in low-flux environments such as buildings)
- robustness, including a strong cable
- IP protection class: IP67 (essential for outdoor application)

Specification

Part number: 7.1417.10.000

Heat flux

Measuring range	-2000 ... 2000 W/m^2
Sensitivity	60 $\mu V/W/m^2$
Typ. signal output	-120 ... +120 mV
Sensor type	Thermocouples
Impedance	1 ... 4 Ω
Accuracy	$\pm 3\%$
Time response	4 min
Temperature coefficient	0.1 %/K

General

Ambient temp.	-30 ... +70 $^{\circ}C$
Electr. connection	5 m cable
Protection	IP 67
Dimension	$\varnothing 80 \times 5.4$ mm
Weight	0.2 kg

Versions

No other versions of this product are available.

Accessories

No accessories are available for this product.

