

HUKX

Sensor
Technology

Fact sheet
Self-calibrating
heat flux sensor™

HFP01SC

HFP01SC

Self-calibrating heat flux sensor™

The standard for soil measurements

HFP01SC is the world's leading self-calibrating heat flux sensor designed for the highest accuracy in soil applications. Its integrated film heater and self-calibration feature significantly improve measurement accuracy and stability, eliminating the need for frequent removal and recalibration—even in long-term buried installations.



durable cables
with strain relief

corrosion-proof
plastic cover

sensing area with
thermal spreader

integrated heater

passive guard area

ceramic-plastic
composite body

Innovative self-calibration

- integrated film heater performs self-tests every 6 hours
- self-calibration corrects for soil thermal conductivity, drift and temperature
- regular self-calibrations extend recalibration interval to 5 years

Reliable data in all conditions

- sensitivity of $60 \times 10^{-6} \text{ V}/(\text{W}/\text{m}^2)$ enables measurements of very low heat fluxes: crucial in soil physics
- wide operating range (-30 to +70 °C) allows for year-round monitoring
- measures heat flux up to $\pm 2000 \text{ W}/\text{m}^2$

Low resistance, minimal disturbance

- special ceramic-plastic composite body minimizes thermal resistance
- thermal resistance equivalent to just 1.6 mm of standard plastic, ensuring minimal disturbance to heat flow

Field-proven durability

- IP67 rating ensures reliable performance when buried in soil
- robust cable-to-sensor connection withstands repeated installations
- passive guard area reduces errors due to edge effects

World market leader

- more than 20 years on the market: proven performance and quality
- trusted by the majority of surface flux measurement networks worldwide

Best paperwork

- formally traceable calibration certificates with every HFP01SC
- calibrated in accordance with ASTM C1130

About Hukx

Hukx is the leading innovator in solar radiation and heat flux sensor technology. We are proud to set the standard in high-accuracy measurement, and to be working at the heart of the energy transition.

Customers worldwide rely on our bestselling pyranometers and heat flux sensors. From sensor design and selection to supply and recalibration, we support you across the entire lifecycle.

Hukx is headquartered in the Netherlands, with locally owned representative sales offices in the USA, Brazil, India, China, Southeast Asia, and Japan.

Let us help you select the best sensor for your application. Get in touch with our experts today via: info@hukx.com

© Hukx

Version 2501

We reserve the right to change specifications without prior notice.

www.hukx.com

HUKX