Heat Flux Sensor PHF-02/03





Measurement example by using Datalogger PMMS-100

General:

Heat Flux Sensors are the common sensors, that have been used for the purpose of measurement of the soil heat flux, and walls.

However, it is also commonly used by the industrial field for the research and testing of the various materials.

PHF-02 and PHF-03 can measure the amount of transient heat per unit area of the surface, and read out the voltage output in mV.

Every single PHF-02 and PHF-03 were indivisually calibrated with it's own sensitivity, so that they are very suitable to be used with data logger.

Features:

- High Sensitivity
- Low internal resistance
- Indivisual sensitivity values
- Robust



Measurement example with multiple heat flux sensors

PHF-02 and PHF-03 are low cost and easy to install (only 2 wires), so that some of the customers are using certain quantity of heat flux sensor for the multi point measurement (One of our customer used more than 80 heat flux plate for the specific purpose of research at once). PHF-02/03 are water tight, so that this sensor can be used for the rooftop gardening, with water sprinkler.

Application

- Soil heat flux
- Evaluation of constraction material
- Wall heat flux
- Lot other potential applications!!

Specification	PHF-02	PHF-03
Standard Sensitivity	Approx. 40 to $60W/m^2/mV$	Approx. 7 to 9W/m²/mV
Standard internal resistance	Approx. 2 Ohm	Approx. 5 Ohm
Dimension	40(φ) x 5(t) mm	76(φ) x 6(t) mm
Material	Epoxy resin, Alminum	Epoxy resin, Alminum
Operating Temperature	−30 to +70°C	−30 to +70°C
Cable	10m duplex shield cable	10m duplex shield cable

Temperature sensor built in type is also available. (Temperature can be measured together with heat flux simultaneously by this version).

