Information NEW

HIOKI

HEAT FLOW LOGGER LR8432

Data Loggers

Where does the heat go?

Simplifying heat flow measurement

Available in November 2015

Introducing a new compact heat flow logger!

Featuring a small lightweight design that's readily portable.

Simultaneously measure up to 10 channels.

— Measurable parameters —

W/m² Heat flows | °C Thermocouples | V Voltage | Pulse

Also measure and record voltage and pulse data.

Affordable | **User Friendly** | **High sensitivity 10mV f.s.**

Ideal for evaluating insulation performance and analyzing the causes of temperature change

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*Heat flow sensors and thermocouples sold separately.

Visualize the underlying causes of temperature change.

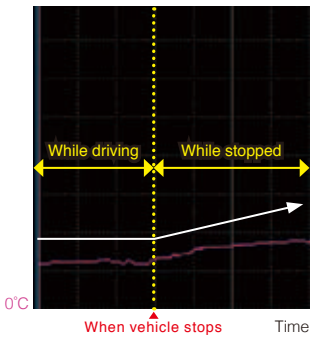
Temperatures change due to specific reasons.
Heat flow measurement lets you pinpoint those reasons that have been difficult to identify until now.

Application 1 See whether automotive parts are releasing or absorbing heat

By identifying why temperature rises, you can design optimal insulation and heat dissipation characteristics.

Conventional approach to measurement : Thermocouples only

The temperatures of parts in the engine compartment are measured using thermocouples.



It's clear that the temperature increases but not why, making it difficult to develop thermal countermeasures.

New approach that adds heat flow measurement : Thermocouples + heat flow sensors

When the vehicle stops, the graph changes from positive to negative.

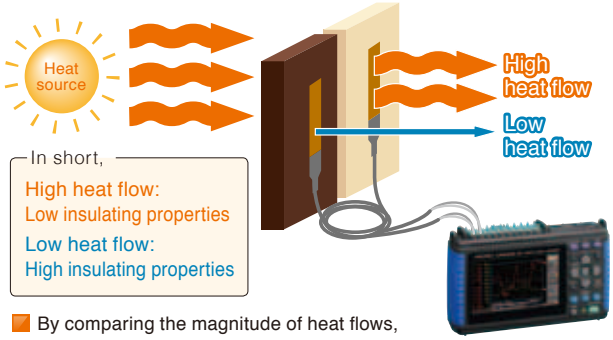
In short,
While driving : Releasing heat
While stopped : Absorbing heat

Optimal thermal countermeasures
Lowering the temperature while driving:
Heat dissipation measures
Lowering the temperature while stopped:
Insulation measures

By identifying whether heat is being released or absorbed, you can implement optimal thermal countermeasures.

Application 2 Evaluate the thermal performance of building materials

The performance of insulating materials can be compared in an effective manner.



In short,
High heat flow: Low insulating properties
Low heat flow: High insulating properties

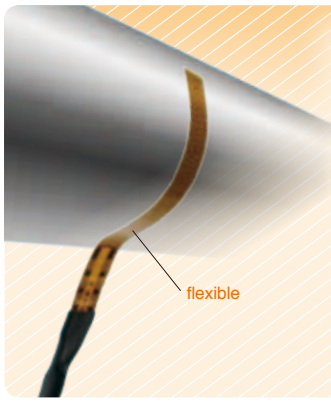
By comparing the magnitude of heat flows, you can confidently choose building materials with high insulating performance.

Basic Specifications

(Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)

Number of channels	10 analog channels + 4 pulse channels (Standard equipment; pulse ground common with instrument)
Maximum sampling speed	10 ms for all channels
Power supply	AC adapter (standard accessory), battery pack (optional), or external power supply
Dimensions and weight	176 (W) × 101 (H) × 41 (D) mm, 550 g
External storage media	CF card, USB flash drive
Measurable parameters	Voltage, heat flow, thermocouple, pulse, RPM
Voltage measurement range	±10 mV to ±60 V (maximum resolution: 500 nV)
Numerical calculations	Up to four simultaneous calculations: Average value, peak value, maximum value, minimum value, maximum value time, minimum value time, integration
Waveform calculations	Perform basic operations between channels (+, -, ×, and ÷) and display the results as calculation channel (W1 to W10) data (valid during measurement only).Calculate data for the specified channel from the simple average, moving average, integration, or coefficient of heat transfer and display as calculation channel (W1 to W10) data (valid during measurement only).

Order Code: **LR8432-20** (English model)

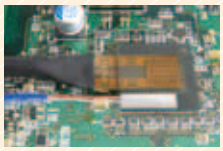


Measure curved surfaces!

Heat flow sensors

Because they can bend, these flexible sensors broaden the range of objects that can be measured.

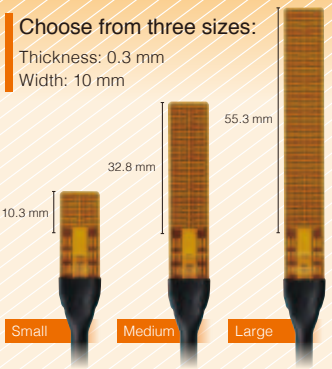
Waterproof design
Bendable sensors
Cost effective



Measure small parts alone

Now you can measure objects that were impossible to isolate for measurement before, for example the surfaces of small parts and narrow gaps resulting from increasing miniaturization of technology.

Choose from three sizes:
Thickness: 0.3 mm
Width: 10 mm



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All information correct as of Aug. 26, 2015. All specifications are subject to change without notice.

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