

# LR8432 - HEAT FLOW LOGGER

Compact & Lightweight Heat Flow Logger for Analyzing the Causes of Temperature Change.

Rating: Not Rated Yet  
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Manufacturer [Hioki](#)

Description

## Overview

Hioki Memory HiLoggers are high-speed data loggers for recording multiple channels of voltage, temperature, pulse or rotation signals, providing complete isolation between channels and strong noise resistance. The Hioki LR8432 is a handheld 10-channel data logger especially designed for heat flow measurement. The Heat Flow Logger is ideal for evaluating insulation performance and analyzing the causes of temperature change. **Key Features** • Use a heat flow sensor to measure the movement and volume of heat energy • Measure of temperature and voltage • Record measurement data on a USB flash drive for easy transfer to a computer • Record to reliable Compact Flash cards during long-term measurement applications for increased peace of mind • Ten isolated analog input channels • 10 ms sampling and recording across all channels • Record raw waveforms and post-calculation waveforms at the same time. (Heat transmission coefficient processing) • Two graduations can be displayed with a double gauge

**Principal Applications** \* Automotive market (evaluating the flow of heat into the vehicle interior from the engine compartment, assessing heat damage to vehicle parts, identifying sources of heat, etc.) \* Residential construction market (evaluating the insulation performance of building materials, evaluating the performance of radiant heating systems, etc.)

## Specification:

Specialized functions for heat flow measurement	? Easy scaling settings?directly enter the sensitivity of the heat flow sensor ? Calculations?waveform processing function for the analysis of temperature and heat flow (Simple average, moving average, integration, heat transmission coefficient), Integration with numerical calculations
Analog inputs	[No. of channels] 10 isolated analog channels using scanning input method (M3 mm dia. screw terminal block) [Voltage measurement range] ±10 mV to ±60 V, 1-5V, Max. resolution 500 nV [Temperature : thermocouples] ?200 ?C to 1800 ?C (depending on sensor), thermocouples (K, J, E, T, N, R, S, B), Max. resolution 0.1 ?C

	<p>[Humidity] not available</p> <p>[Max. allowable input] 60 V DC</p> <p>[Max. rated voltage between input channels] [Max. rated voltage to earth]</p> <p>30 AC Vrms, 60 V DC (max. voltage between input channel terminals, and from terminals to chassis ground without damage)</p>
Pulse inputs	<p>[No. of channels] 4 pulse input channels (requires CONNECTION CABLE 9641, all pulse inputs share common ground with the main unit)</p> <p>[Totalized pulses] 0 to 1000M (count) (No-voltage 'a' contact, open collector or voltage input), Max. resolution 1 pulse</p> <p>[Rotation count] 0 to 5000/n (r/s), Resolution 1/n (r/s) * n = pulses per rotation (1 to 1,000)</p> <p>[Max. allowable input] 0 to 10 V DC</p> <p>[Max. rated voltage between input channels] [Max. rated voltage to earth] Non-isolated</p>
Recording intervals	10 ms to 1 hour, 19 selections (All input channels are scanned at high speed during every recording interval)
Selectable filters	50 Hz, 60 Hz, or OFF (digital filtering of high frequencies on analog channels)
Memory capacity	Internal storage: 3.5 M-words, External storage: CF card or USB memory stick (only the HIOKI CF cards are guaranteed for correct operation)
External interface	USB 2.0 mini-B receptacle x1; Functions: Control from a PC, Transfers files from the installed CF card to a PC (cannot transfer files from the connected USB memory stick to a PC via USB communication), Data copy between CF card and USB memory stick
Display	4.3-inch WQVGA-TFT color LCD (480 x 272 dots)
Functions	Save data to the CF Card or USB memory stick in real time, Numerical Calculations, etc.
Power supply	<p>AC Adapter Z1005: 100 to 240 VAC (50/60 Hz), 30 VA Max. (including AC adapter), 10 VA Max. (main unit only)</p> <p>Battery Pack 9780: Continuous use 2.5 hours (@25°C/77°F), 3 VA Max.</p> <p>External power source: 10 to 16 V, 10 VA Max. (please contact HIOKI distributor for cable; less than 3 m/9.84 ft cable length)</p>
Dimensions and mass	176 mm (6.93 in) W x 101 mm (3.98 in) H x 41 mm (1.61 in) D, 550 g (19.4 oz) (Battery Pack 9780 not installed)
Accessories	Measurement Guide x1, CD-R (Instruction manual PDF, Logger Utility Instruction Manual PDF, Data acquisition application program Logger Utility) x1, USB cable x1, AC Adapter Z1005 x1