

WIRELESS MINI LOGGER SERIES

Data Loggers



Bluetooth®



LR8410-20

Measure more than ever with our expanding lineup!
Effortless Data Logging

- Neat and tidy wireless design
- Compact, 2-channel modules
- Full lineup supports a wide variety of applications

Scheduled for release in Spring 2015

Collect data on your tablet!

Use Wireless Mini Loggers to collect data from your tablet*, smartphone*, or PC via Bluetooth®.
(*Android™-only)
Transfer data even during recording, or check values and fluctuating waveforms on the spot.



ISO 9001
JMI-0216



ISO 14001
JQA-E-90091



www.hioki.com

HIOKI company overview, new products, environmental considerations and other information are available on our website.



Countries and regions where wireless operation is currently supported: Japan, U.S.A., Canada, EU, Norway, Switzerland, Turkey, Russia, Vietnam, India, and Thailand

Neat and Tidy Wireless Design

Install the Wireless Mini Logger near the measurement target. Send the measurement data to the LR8410-20 via Bluetooth® wireless technology. Only minimal wiring is required, making installation simple and keeping the area neat and organized.

Note: LR8410-20 required for data collection.

Control up to 7 logging modules

Mix-and-match up to 7 logging modules to measure various data on the same time axis. You can also integrate the 15-channel Hioki LR8510 or LR8511 wireless modules.

Communications range: line-of-sight up to 30 m

Since data can be sent over line-of-sight distances of up to 30 m, the LR8410-20 can play a useful role collecting measurement data in locations where it would be difficult to run wiring.

Simple operation

Use the LR8410-20's built-in "Quick Set Function" to configure wireless settings.

Multi-channel modules LR8510/ LR8511

Data collection with the LR8410-20

Acquire data via wireless communication with the Wireless Logging Station LR8410-20.

Communication cutouts? No problem

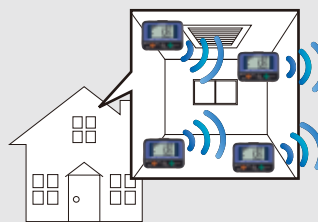
If communications are interrupted, measurement data for that period of time is stored in the logging modules. This data is resent once communications are restored, allowing the measurement data to be safe and secure.

With wiring...



With wireless technology, these problems are solved!

Easy to install in difficult-to-reach places such as the ceiling or under the floor.



Exterior wiring is not necessary, so you can close windows and doors to maintain airtightness.



Because wiring is minimal,
• the area is neat and organized.
• there is less noise to pick up.

Attach onto moving objects (vehicles, machines, etc.).

Compact 2-channel Modules

1/4th the volume of the Multi-channel Logging Modules LR8510/ LR8511*. Smaller and thinner, it can be installed in narrow spaces that couldn't be reached before. Plus, with 2 channels per module, it's a breeze to perform measurements on both channels in multiple locations. (*The LR8513, LR8515 is 1/3rd compared to the LR8510/ LR8511.)

LR8510/LR8511

For more extensive jobs
150W×90H×56D mm
(5.91W×3.54H×2.20D inches)
No. of channels: 15 ch

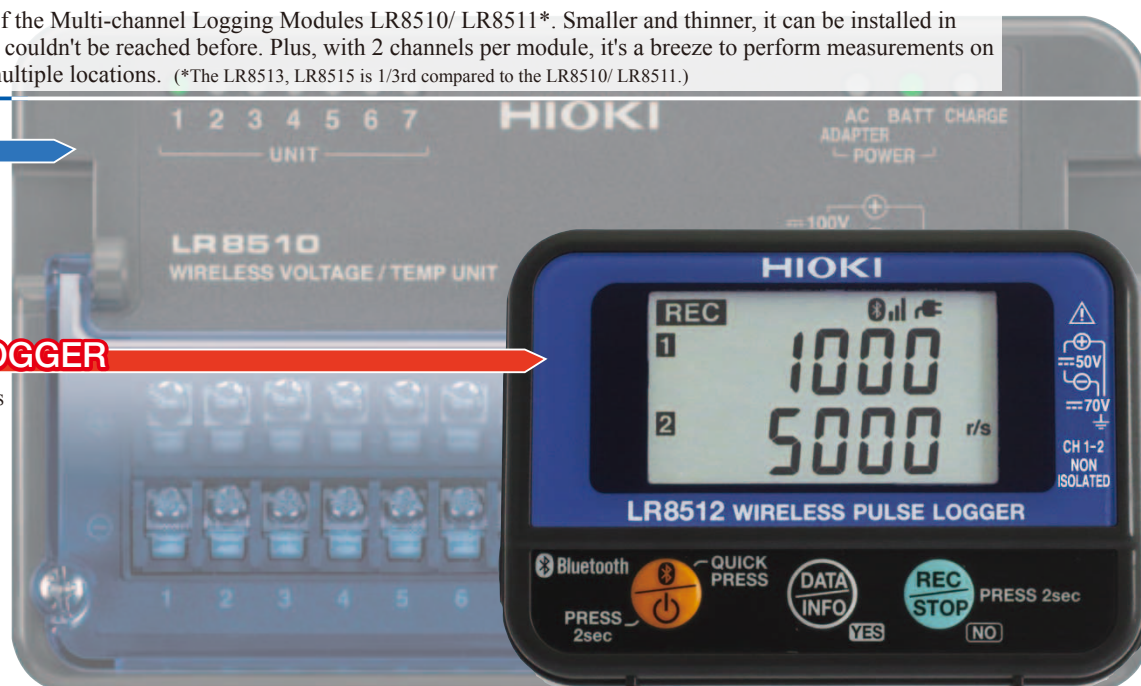
WIRELESS MINI LOGGER

For simple, 1- or 2-channel applications
85W×61H×31D* mm
(3.35W×2.40H×1.22D inches)

No. of channels: 2 ch

*LR8513/ LR8515: 85W×75H×38D (mm).

<Comparison of actual sizes>



Full Lineup Supports a Wide Variety of Applications

Now also available - pulse and current loggers in addition to voltage and temperature modules. Measure multiple channels of voltage and temperature fluctuations, flow, or electric power on the same time axis with ease.

WIRELESS PULSE LOGGER LR8512

Air conditioning (flow rate), automobiles (flow rate, vehicle speed), cogeneration (flow rate)



For pulse totalization and measuring logical ON/OFF signals or revolutions

No. of input channels	2 channels (common GND)
Measurement modes	Pulse (Totalization/Instant), no. of revolutions, logic (Records an 1/0 for each recording interval)
Measurement ranges (Resolution)	Totalization: 1000M pulse f.s. (1 pulse) No. of revolutions: 5000/n[r/s]f.s. (1/n[r/s]) *n is the number of pulses, 1 to 1000, per revolution.

Supported input format	Non-voltage "a" contact (always-open contact point), open collector, or voltage input (0 to 50 V)
Recording intervals	0.1 to 30 sec, 1 to 60 min, 16 switches
Recording modes	Instant value recording
Dimensions	85W×61H×31D mm (3.35W×2.40H×1.22D in)
Weight	95 g (Not including the battery)



WIRELESS CLAMP LOGGER LR8513

PV maintenance, automobile tests, forklifts, railroads, equipment maintenance



For simple power measurement based on voltage and power factor settings as well as AC and DC load current and AC leak current measurement

No. of input channels	2 channels (common GND)
Measurement items	AC load current, DC load current AC leak current (using current sensor)
Effective value calculation	Software calculates the true effective value
Measurement ranges	AC500.0 mA to 2000 A (By current sensor) DC10.00 A to 2000 A (By current sensor)

Measurement accuracy	±0.5% rdg. ±5 dgt. (DC, AC 50/60 Hz) *Add the sensor's accuracy when the current sensor is connected
Recording intervals	0.5 to 30 sec, 1 to 60 min, 14 switches
Recording modes	Instant value recording, average value recording
Dimensions	85W×75H×38D mm (3.35W×2.95H×1.50D in)
Weight	130 g (Not including the battery)



WIRELESS HUMIDITY LOGGER LR8514

Environmental testing, construction, factories, storage



Convenient for recording the surrounding temperature and humidity when using the LR8410-20 to conduct experiments

No. of input channels	2 ch for temperature + 2 ch for humidity (2 sensors can be attached)
Measurement items	Temperature, humidity
Dimensions	85W×61H×31D mm (3.35W×2.40H×1.22D in)
Weight	95 g (Not including the battery)

Scheduled for release in Spring 2015



WIRELESS VOLTAGE/ TEMP LOGGER LR8515

Various tests for electronics/automobiles/transportation, PV maintenance



Supports voltage input and thermocouple types K and T

No. of input channels	2 ch (select voltage or thermocouple for each channel)
Measurement items	Voltage/Thermocouple (K, T)
Dimensions	85W×75H×38D mm (3.35W×2.95H×1.50D in)
Weight	140 g (Not including the battery)

Scheduled for release in Spring 2015



Continuous operating time (Battery) *Use of the AC adapter is recommended when recording data over an extended period of time.

	WIRELESS PULSE LOGGER LR8512	WIRELESS CLAMP LOGGER LR8513
When measuring at the fastest recording interval, in real-time	1 day (recording interval 0.1 secs)	1 day (with instant value recording, recording interval 0.5 secs)
Recording interval of 1 sec, Bluetooth® ON	7 days	5 days (for instant value recording)
Recording interval of 1 min, Bluetooth® OFF	20 days	2 months (for instant value recording)

Shared specifications

- Accuracy guarantee: 1 year.
- Communication: Bluetooth®2.1 + EDR communication
- Communications range: 30 m, line-of-sight
- Internal memory: Nonvolatile memory (Flash memory)
- Storage capacity: 400,000 data items for each channel
- Standard compliance: Safety EN61010, EMC EN61326 class A/EN61000-3-2/EN61000-3-3
- Countries where wireless certification has been acquired: Japan, U.S.A., Canada, EU, Norway, Switzerland, Turkey, Russia, Vietnam, India, and Thailand
- Vibration endurance: JIS D 1601:1995 5.3(1), Category 1: Vehicle, Condition: Category A equiv.
- Operating temperature and humidity: Temperature: -20 to 60 °C (-4 to 140 °F), Humidity: 80%rh or less (non-condensing)
(Depends on battery and current sensor specifications when they are in use)
- Power supplies: AC Adapter Z2003 (sold as a separate option), AA alkaline batteries × 2, external power source 5 to 13.5 VDC

Other Characteristics

Measure even in high-temperature environments

The operating temperature range is -20 to 60 °C (-4 to 140 °F). Even in high temperatures, you can measure with peace of mind. (Depends on the operating temperature ranges for the battery and current sensor when they are in use)

Three-way power that can be selected to match the location

Power with the AC adapter (sold separately), AA alkaline batteries (2), and an external power supply (such as a power supply from 5 to 13.5 VDC or USB). (Power supply from USB requires a converter cable. Please inquire with your local Hioki distributor.)

Built-in Bluetooth® wireless technology

Bluetooth® is a wireless technology standard that uses frequency hopping to avoid interference from wireless LAN or cordless telephones and also has little effect on peripherals.

Data can be collected even inside a case

Even when you put the product in a plastic case or vinyl bag to protect it from dust or water, the wireless connection is not cut off and data can continue to be collected.

Built-in average value recording mode

Record the average value for each recording interval at the maximum sampling rate. (Built-in to the LR8513)

High speed sampling at 0.1 second

The recording interval can be as fast as 0.1 second, enabling you to clearly grasp even small variations. (LR8513: 0.5 sec.)

Models and Options

WIRELESS MINI LOGGERS

The AC adapter is not bundled.

WIRELESS PULSE LOGGER LR8512

WIRELESS CLAMP LOGGER LR8513

WIRELESS HUMIDITY LOGGER LR8514.....Scheduled for release in Spring 2015

WIRELESS VOLTAGE/TEMP LOGGER LR8515..Scheduled for release in Spring 2015

Accessories: CD-R (Instruction Manual, Logger Utility) × 1, Measurement Guide × 1, Caution for Using Radio Waves × 1, AA alkaline batteries (LR6) × 2 Note: Only included with the LR8512: Connection Cable L1010 × 2

The Wireless Logging Station LR8410-20 is required to collect and forward to a PC the data recorded by the Wireless Mini Logger. One LR8410-20 can control up to 7 logging modules. Mix-and-match modules as needed.

Shared options		LR8512 only	LR8514 only : Humidity sensors	
	AC ADAPTER Z2003 100 to 240 VAC, 50/60Hz		HUMIDITY SENSOR Z2010 50 mm (0.16 ft) Scheduled for release in Spring 2015	HUMIDITY SENSOR Z2011 1.5 m (4.92 ft) Scheduled for release in Spring 2015
	MAGNETIC STRAP Z5004	CONNECTION CABLE L1010 Bundled and also available for additional purchase		

LR8513 only : Current sensors			
AC load current  CLAMP ON SENSOR CT6500 φ46 mm, AC 500A, cord length 3 m (9.84 ft)	AC load current  CLAMP ON SENSOR 9669 φ55 mm, AC 1000A, cord length 3 m (9.84 ft)	AC load current  CLAMP ON SENSOR 9695-02 φ15 mm, AC 50A Requires the Connection Cable 9219	 CONNECTION CABLE 9219 For connecting the 9695-02, cord length 3 m (9.84 ft)
AC leak current  CLAMP ON LEAK SENSOR 9657-10 φ40 mm, AC 10A, cord length 3 m (9.84 ft)	AC leak current  CLAMP ON LEAK SENSOR 9675 φ30 mm, AC 10A, cord length 3 m (9.84 ft)	AC/DC load current  CLAMP ON AC/DC SENSOR CT9691-90, CT9692-90, CT9693-90 CT9691-90: φ35 mm, AC/DC 100A, cord length 2 m (6.56 ft) CT9692-90: φ33 mm, AC/DC 200A, cord length 2 m (6.56 ft) CT9693-90: φ55 mm, AC/DC 2000A, cord length 2 m (6.56 ft)	

Also Available : Multi-Channel Logging Modules

The Wireless Logging Station LR8410-20 is required to collect and forward to a PC the recorded data. One LR8410-20 can control up to 7 logging modules. (Can be mixed with Wireless Mini Loggers.)

- Control up to 105 channels with the LR8410-20 by connecting up to 7 modules
- Max. 100 ms sampling on all channels
- Power with the AC adapter, battery, or DC power supply (10 to 28 VDC)



WIRELESS VOLTAGE/TEMP UNIT LR8510
2 terminals M-3 mm screw type, 15 ch
For measuring voltage or temperature with thermocouples

AC adapter included



WIRELESS UNIVERSAL UNIT LR8511
Push-button type terminals, 15 channels
For measuring voltage/ temperature (with thermocouples or RTDs)/ resistance/ humidity

AC adapter included

Note: Company names and Product names appearing in this catalog are trademarks or registered trademarks of various companies.

HIOKI

HIOKI E. E. CORPORATION

HEADQUARTERS:

81 Koizumi, Ueda, Nagano, 386-1192, Japan
TEL +81-268-28-0562 FAX +81-268-28-0568
http://www.hioki.com / E-mail: os-com@hioki.co.jp

HIOKI USA CORPORATION:

TEL +1-609-409-9109 FAX +1-609-409-9108
http://www.hioki.com / E-mail: hioki@hioki.com

HIOKI (Shanghai) SALES & TRADING CO., LTD.:
TEL +86-21-63910090 FAX +86-21-63910360
http://www.hioki.cn / E-mail: info@hioki.com.cn

HIOKI INDIA PRIVATE LIMITED:
TEL +91-124-6590210 FAX +91-124-6460113
E-mail: hioki@hioki.in

HIOKI SINGAPORE PTE. LTD.:
TEL +65-6634-7677 FAX +65-6634-7477
E-mail: info-sg@hioki.com.sg

HIOKI KOREA CO., LTD.:
TEL +82-42-936-1281 FAX +82-42-936-1284
E-mail: info-kr@hioki.co.jp

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