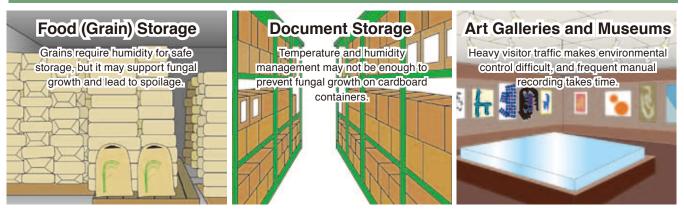


# Fungal Growth Rate at a Glance

Prevent fungal damage by predicting the start of fungal growth.

## **Prevent Fungal Occurrence in Business Critical Locations**



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

## What is the Fungal Index?



Fungal index, which predicts how easy it is for fungi to grow, was developed by Keiko Abe, Doctor of Agriculture and Director of the Japan Institute of Environmental Biology. Because fungal growth has a direct correlation with temperature and relative humidity, expected occurrence can be predicted. Mainly, this index can be used to express the indoor environment for fungal growth quantitatively. (Japanese Patent Number 2710903)

| Fungal Index | Period of time until the<br>start of fungal growth | Period of time until fungal contamination (estimate) | Locations in a home<br>(example)                                     |  |
|--------------|--|--|--|--|
| 1            | 2 months   | 10 years or more                                     | Dry areas  |  |
| 2            | 1 month  | 8 years  | Living spaces<br>Closets   |  |
| 5            | 2 weeks  | 3 years  |  |  |
| 10           | 5 days   | 2 years  | Shoe storage   |  |
| 20           | 3 days   | 1 year   | Basements and crawl spaces<br>Bathrooms<br>Inside an air conditioner |  |
| 50           | 1 day  | 4 months   |  |  |
| 100          | 12 hours   | 2 months   |  |  |
| 200          | 6 hours  | 1 month  | running in cool mode   |  |

\*Fungal contamination may be confirmed quicker in environments that are already contaminated or rich in nutrients necessary for fungal growth



### 2 Collect and manage data

Data is collected and centrally managed on a terminal. Up to 100 devices can be registered.

Microorganism Cellular Physiology. Received the Japan Society for Bioscience Biotechnology, and Agrochemistry's scholarship in 1985, for research in morphology changes in yeast. Developed the "fungal index" (Japanese Patent Number 2710903) which predicts the occurrence of indoor fungal growth. After establishing the Institute of Environmental Biology, she has been engaged in controlling fungal

growth through environmental control.





Developer of the "Fungal Index"

Director of the Institute

Doctor of Agriculture

Keiko Abe

Graduate of Chiba University, Faculty of Horticulture, Department of Agricultural Chemistry. Completed Tokyo University Graduate School Doctorate. Majored in

of Environmental Biology

Personal computer

\*Only Windows and Android™ are supported

## Specifications

| Supported                          | <ul> <li>Windows PC or Windows tablet (Use bundled software)</li> <li>Android™ smartphone or Android™ tablet (Download app from Google Play)</li> </ul> |   |
|------------------------------------|---|---|
| devices                            | WIRELESS LOGGING STATION LR8410     *The settings can only be configured from supported devices.  | Function  |
| Control and<br>communi-<br>cations | Bluetooth® 2.1+EDR<br>Communications range: 30 m, line-of-sight (*Depends on the performance<br>of the communication device)                            | Countries<br>where wir<br>certification<br>been acq |
| Display contents                   | Temperature, humidity, fungal index (0 to 200), growth prediction (5 levels)  |   |
| Input                              | 1 temperature channel + 1 humidity channel<br>(HUMIDITY SENSOR Z2010 or HUMIDITY SENSOR Z2011 is required<br>(sold separately))                         |   |
| Output                             | Outputs warning signals   |   |
|                                    |   | Dimensio  |

| Recording intervals   | 0.5 to 30 sec, 1 to 60 min, 14 selections   |  |
|---|---|--|
| Function  | Scaling, energy saver, etc.   |  |
| Countries<br>where wireless<br>certification has<br>been acquired | Japan, U.S.A., Canada, EU, Norway, Switzerland, Turkey, Russia,<br>Singapore, Thailand, Vietnam, and India  |  |
| Power source  | AC ADAPTER Z2003 (sold separately)<br>AA alkaline batteries (LR6) ×2<br>Continuous operating time: 3 months (Recording interval: 1 minute,<br>Bluetooth® OFF)<br>External power 5 to 13.5 V DC<br>USB bus powering is also possible (conversion cable required) |  |
| Dimensions and mass   | $85$ mm (3.35 in) W $\times$ 61 mm (2.40 in) H $\times$ 31 mm (1.22 in) D (Excluding protrusions), 95 g (3.3 oz) (Not including the battery)  |  |

\*Only the temperature and humidity sensors affect the measurement accuracy and are subject to calibration. The LR8514 logger does not require calibration.

## Options

HUMIDITY SENSOR Z2010 (50 mm) HUMIDITY SENSOR Z2011 (1.5 m) CONNECTION CABLE L1010

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

DISTRIBUTED BY

AC ADAPTER 72003 MAGNETIC STRAP Z5004

Precaution: Although the fungal index is a highly reliable index based on academic research, it does not assure that absolutely no fungus will grow in environments with a low fungal index.

device



HIOKI E.E. CORPORATION

#### HEADQUARTERS

measurement.

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WIRELESS FUNGAL LOGGER LR8520

CD-R (Instruction Manual, Logger Utility)  $\times$  1, Measurement Guide  $\times$  1, Caution for

HUMIDITY SENSOR Z2010 or HUMIDITY SENSOR Z2011 is required for

Using Radio Waves  $\times$  1, AA alkaline batteries (LR6)  $\times$  2, Connection Cable L1010  $\times$  2

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All information correct as of Feb. 12, 2015. All specifications are subject to change without notice.