



WIRELESS FUNGAL LOGGER LR8520

Data Loggers

Fungal Growth Prevention: Shifting from Temperature and Humidity Management to **Fungal Index Management**



Growth Prediction

Fungal index



Fungal Growth Rate at a Glance

Prevent fungal damage by predicting the start of fungal growth.

Prevent Fungal Occurrence in Business Critical Locations

Food (Grain) Storage

Grains require humidity for safe storage, but it may support fungal growth and lead to spoilage.

Document Storage

Temperature and humidity management may not be enough to prevent fungal growth on cardboard containers.

Art Galleries and Museums

Heavy visitor traffic makes environmental control difficult, and frequent manual recording takes time.



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

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



Developer of the "Fungal Index"
 Director of the Institute of Environmental Biology
 Doctor of Agriculture
Keiko Abe


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

How to Use


1 Install it anywhere you want to measure

Just set and press the start button to start recording.


Fits in the palm of your hand
Easy installation



Outputs warning signals



Wireless Communication



30 m, line-of-sight


*Depends on the performance of the communication device.

Select from 3 different power supplies: dry cell batteries, AC adapter, or external power source.


Also records and displays temperature and humidity

2 Collect and manage data

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



Tablets



Smartphones



Personal computer

*Only Windows and Android™ are supported

Specifications

Supported devices	<ul style="list-style-type: none"> Windows PC or Windows tablet (Use bundled software) Android™ smartphone or Android™ tablet (Download app from Google Play) WIRELESS LOGGING STATION LR8410 <p><small>*The settings can only be configured from supported devices.</small></p>	Recording intervals	0.5 to 30 sec, 1 to 60 min, 14 selections
Control and communications	Bluetooth® 2.1+EDR Communications range: 30 m, line-of-sight (*Depends on the performance of the communication device)	Function	Scaling, energy saver, etc.
Display contents	Temperature, humidity, fungal index (0 to 200), growth prediction (5 levels)	Countries where wireless certification has been acquired	Japan, U.S.A., Canada, EU, Norway, Switzerland, Turkey, Russia, Singapore, Thailand, Vietnam, and India
Input	1 temperature channel + 1 humidity channel (HUMIDITY SENSOR Z2010 or HUMIDITY SENSOR Z2011 is required (sold separately))	Power source	AC ADAPTER Z2003 (sold separately) AA alkaline batteries (LR6) ×2 Continuous operating time: 3 months (Recording interval: 1 minute, Bluetooth® OFF) External power 5 to 13.5 V DC USB bus powering is also possible (conversion cable required)
Output	Outputs warning signals	Dimensions and mass	85 mm (3.35 in) W × 61 mm (2.40 in) H × 31 mm (1.22 in) D (Excluding protrusions), 95 g (3.3 oz) (Not including the battery)

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Accessories

CD-R (Instruction Manual, Logger Utility) × 1, Measurement Guide × 1, Caution for Using Radio Waves × 1, AA alkaline batteries (LR6) × 2, Connection Cable L1010 × 2

HUMIDITY SENSOR Z2010 or HUMIDITY SENSOR Z2011 is required for measurement.

*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) AC ADAPTER Z2003
 HUMIDITY SENSOR Z2011 (1.5 m) MAGNETIC STRAP Z5004
 CONNECTION CABLE L1010

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.

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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.hiokiusa.com/> / E-mail: hioki@hiokiusa.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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