HIOKI

INSTRUCTION MANUAL

3641-20

HUMIDITY LOGGER

HIOKI E. E. CORPORATION

Contents

Introduction 1
Inspection 1
Safety Notes 2
Usage Notes 3

1 Overview 5

1.1 Product Overview 5
1.2 Parts Names 6

2 Measurement Preparations 7

2.1 Installing or Replacing the Batteries 7
2.2 Power Save Function 8
2.3 Setting Current Time 9
2.4 Connecting the Humidity Sensor 10

3 Settings 11

3.1 Setting Items 11
3.2 Manual Setting 13
3.3 Setting by the COMMUNICATION BASE 14
3.4 Connecting the COMMUNICATION BASE with the 3641-20 15
3.5 Precautions 16

4 Specifications 17

4.1 3641-20 HUMIDITY LOGGER 17
4.2 Temperature and Humidity Sensors 20

5 Maintenance and Service 25

5.1 Cleaning 25
5.2 Repair and Servicing 26

Introduction

Thank you for purchasing the HIOKI “3641-20 HUMIDITY LOGGER”. To obtain maximum performance from the product, please read this manual first, and keep it handy for future reference.

Inspection

Checking the contents of the package

When you receive the product, inspect it carefully to ensure that no damage occurred during shipping. If damage is evident, or if it fails to operate according to the specifications, contact your dealer or Hioki representative.

The HUMIDITY SENSOR- 1
LR03 alkaline battery (built into this unit) - - - - - - - - - - - - - - - - - 2
Instruction Manual - 1

Before using the product

- Before using the product the first time, verify that it operates normally to ensure that the no damage occurred during storage or shipping. If you find any damage, contact your dealer or Hioki representative.
- Before using the product, make sure that the insulation on the sensor cable is undamaged and that no bare conductors are improperly exposed. Using the product in such conditions could cause an electric shock, so contact your dealer or Hioki representative for repair.

Shipping precautions

Use the original packing materials when reshipping the product, if possible.

Safety Notes

⚠WARNING **This product is designed to conform to IEC 61010 Safety Standards, and has been thoroughly tested for safety prior to shipment. However, mishandling during use could result in injury or death, as well as damage to the product. Be certain that you understand the instructions and precautions in the manual before use. We disclaim any responsibility for accidents or injuries not resulting directly from product defects.**

Safety Symbols

This manual contains information and warnings essential for safe operation of the product and for maintaining it in safe operating condition. Before using the product, be sure to carefully read the following safety notes.

⚠	In the manual, the ⚠ symbol indicates particularly important information that the user should read before using the product. This manual contains information and warnings essential for safe operation of the product and for maintaining it in safe operating condition. Before using the product, be sure to carefully read the following safety notes.
⎓	Indicates DC (Direct Current).

The following symbols in this manual indicate the relative importance of cautions and warnings.

⚠DANGER	Indicates that incorrect operation presents an extreme hazard that could result in serious injury or death to the user.
⚠WARNING	Indicates that incorrect operation presents a significant hazard that could result in serious injury or death to the user.
⚠CAUTION	Indicates that incorrect operation presents a possibility of injury to the user or damage to the product.
NOTE	Advisory items related to performance or correct operation of the product.

Other Symbols

❖	Indicates the reference.
*	Indicates terminology explained at the bottom of the page.

Usage Notes

Follow these precautions to ensure safe operation and to obtain the full benefits of the various functions.

⚠CAUTION

- This product should be operated between -20 and 70°C (-4 and 158°F) and 80% RH.
- If used outside the specified environmental ranges for operation (or storage), the sensor accuracy may deteriorate in less than one year, and accurate measurement may not be possible.
- If used outside the specified environmental ranges for operation (or storage), the operation of the unit cannot be guaranteed.
- When the HUMIDITY SENSOR is not being used, seal it in a plastic bag with a desiccating agent, and store in a dark, cool place.
- Take care to avoid condensation. In particular, if there is a sudden change of temperature (for example moving from a cold place to a warm one), condensation is likely to occur.
- To avoid damage to the product, do not allow the product to get wet, and do not use it when your hands are wet.
- Do not use the product where it may be exposed to corrosive or combustible gases. The product may be damaged.
- Exposing the optical data transfer of the 3641-20 to light that uses an AC power supply (e.g., fluorescent light) may cause the 3641-20 to malfunction. Depending on the intensity of the light, move the 3641-20 away from the light source or cover the optical data transfer.
- The protection rating (per EN60529) for the exterior of this device is *IP54.

*__IP54__:
This shows the degree of protection provided by the exterior of the device against use in hazardous locations, entry of foreign matter, or penetration by water.
"__5__": Dust-resistant design prevents access to hazardous components by wires with diameters as small as 1.0 mm.
"__4__": The equipment inside the case is protected from all directions against the harmful effects of water splashes.

NOTE

- Testing monitor batteries installed in the unit may possibly be weak. Replace batteries before extended measurement usage.
- Use only LR03 Alkaline batteries. Using manganese batteries may not result in accurate measurements or proper communication with the Communication Base.
- Unless otherwise specified, the temperature and humidity sensor described in this manual is a 9680 temperature and humidity sensor (including branch codes like 9680-01 and 9680-50).

Connecting Sensors and Cables to the Unit

Figure 1 shows improper connection of sensor or cable jack to connection terminal failing to display accurate measurement value. To properly connect sensor or connection cable to the unit, securely insert cable jack as designated by triangle marks ▲ on both connection terminal and cable jack as shown in figure 2.
Be sure to verify that the measurement value is properly displayed.

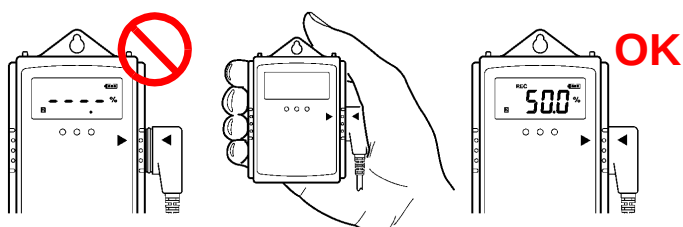


Figure 1 Figure 2

Overview 1

1.1 Product Overview

3641-20 HUMIDITY LOGGER enable temperature and humidity measurement and recording at fixed intervals.
Data is saved in nonvolatile memory when batteries are weak or removed for replacement. Further, since the product comes equipped with a capacitive-type humidity sensor, it provides the following features for humidity measurement:

- Stable characteristics
- Wide measuring range
- Extended sensor life (deterioration-resistant)
- Fast response time
- Condensation-resistant (if condensation occurs, restore functionality by drying out the device)

❖4 Specifications (page 17)

Recording Interval and Maximum Recording Time
(Power save function: On)

Single 3641-20 records temperature and humidity each up to 8000 data.

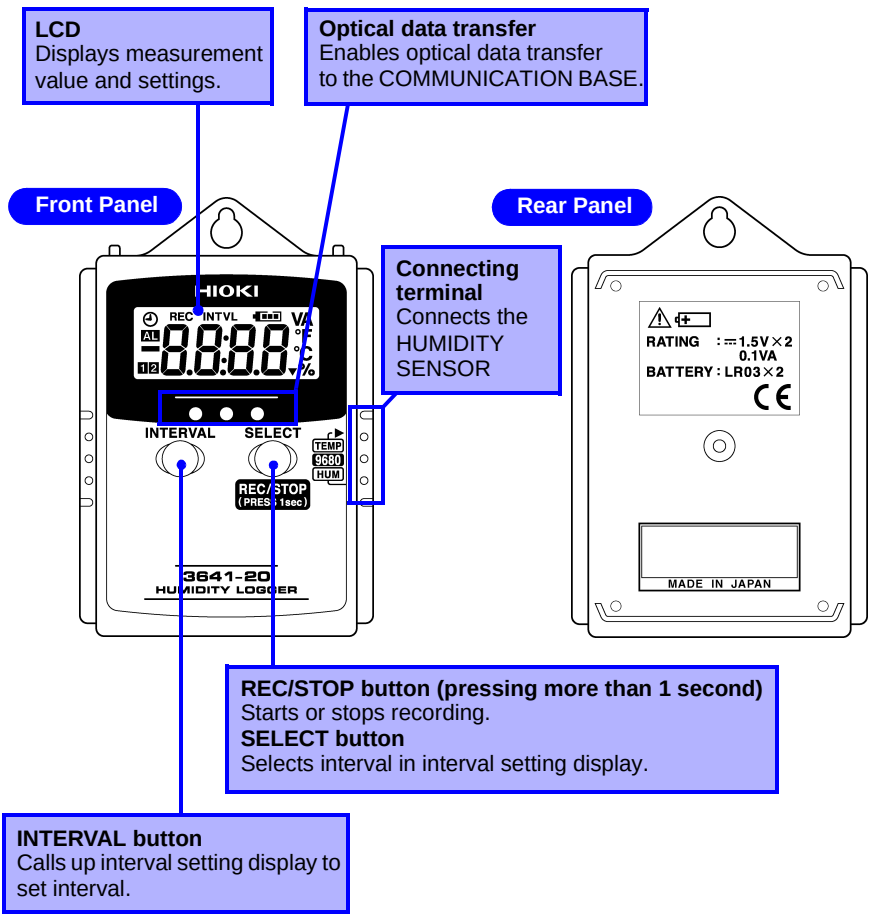
INTVL	REC time	INTVL	REC time
2 s	4 h 26 min 40 s	2 min	11 day 2 h 40 min
5 s	11 h 6 min 40 s	5 min	27 day 18 h 40 min
10 s	22 h 13 min 20 s	10 min	55 day 13 h 20 min
15 s	33 h 20 min	15 min	83 day 8 h
20 s	44 h 26 min 4 s	20 min	111 day 2 h 40 min
30 s	66 h 40 min	30 min	166 day 16 h
1 min	5 day 13 h 20 min	60 min	333 day 8 h

Battery Life

The battery life varies depending on recording intervals.
* The table below lists the values when the power save function is enabled. When this function is disabled, the battery lasts about 20 days.
* These estimated values (at 20°C) are intended only as a guide and do not guarantee battery life.

INTVL	Battery life	INTVL	Battery life
2 s	Approx. 20 days	1 m	Approx. 90 days
10 s	Approx. 45 days	2 m	Approx. 180 days
30 s	Approx. 50 days	5 m or more	Approx. 1 year or more

1.2 Parts Names



Measurement Preparations 2

2.1 Installing or Replacing the Batteries

WARNING

- **After replacing the batteries, replace the cover and screws before using the product.**
- **Do not mix old and new batteries, or different types of batteries. Also, be careful to observe battery polarity during installation. Otherwise, poor performance or damage from battery leakage could result.**
- **Do not touch board when replacing batteries. Touching board may result in damage.**
- **Handle and dispose of batteries in accordance with local regulations.**

CAUTION

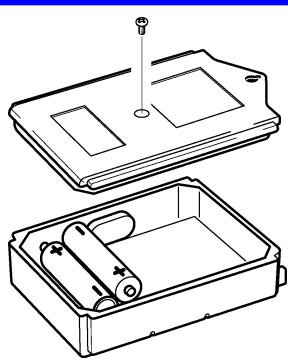
When exchanging the batteries, the circuit may sometimes short circuit due to static electricity. As far as possible, do not touch the base board with bare hands.

Installing new batteries assures operation for more than three months. (at 20 °C temperature, power save function: on, interval set at 1 minute)

Battery power indicator

	Indicates remaining battery life reducing incrementally from right.
	Indicates time to replace batteries.

Installing or Replacing the Batteries

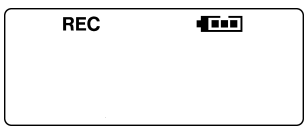


1. Remove back cover screw to remove cover.
2. Verify polarity and install two new LR03 alkaline batteries.
3. Fit cover properly and tighten screw.

2.2 Power Save Function

Display window is automatically turned off in approximately 15 seconds after last key entry. (Sleep)
However, while recording, "**REC**"/" "/" " mark shows each conditions.

Setting the Power Save Function



1. Connect the 3641-20, COMMUNICATION BASE and personal computer.
2. Start up application software packaged with the COMMUNICATION BASE.
3. Go to Communications on the menu bar and select Power Save Options. Choose Off to turn off power save function.

Press any button to turn display on to display measurement value or to set settings.
Note when interval setting display is on, sleep does not engage even after 15 seconds has passed with no button press.
Initially, power save function is on.
If the power save function is disabled, life of the battery will be 20 days.

Changing power save settings initializes the product measurement conditions (excluding measurement data).

- To connect the COMMUNICATION BASE with the 3641-20 and personal computer:
  To install application software:
  COMMUNICATION BASE Instruction Manual
- To use application software: Help

2.3 Setting Current Time

After replacing batteries in the product current time must be set when connecting with the COMMUNICATION BASE for the first time.
See how to set current time in the COMMUNICATION BASE instruction manual.

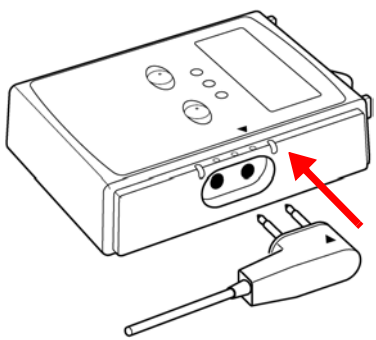
❖COMMUNICATION BASE Instruction Manual

2.4 Connecting the Humidity Sensor

⚠CAUTION To avoid damage to the unit, only connect the 9680 HUMIDITY SENSOR series or 9631 HUMIDITY SENSOR series with the product.

The product records temperature and humidity in 2 channels when connected to 9680 HUMIDITY SENSOR series.
When connected to 9631 TEMPERATURE SENSOR series, humidity measurement is not available.
When sensor is not connected, internal temperature sensor carries out temperature measurement only.

Connecting the Humidity Sensor



Securely insert sensor cable to unit as designated by triangle mark on connection terminal.

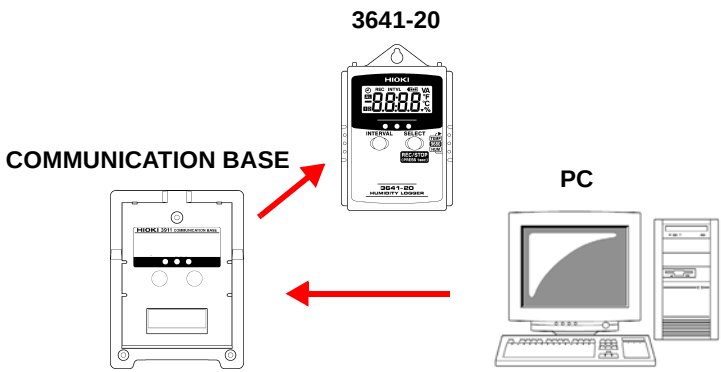
Do not connect sensor cable in reverse.
Improper connection results in failure to display accurate value.

NOTE Correct values will not be displayed even if the 9630 HUMIDITY SENSOR (for the 3631 HUMIDITY LOGGER) is connected. Always use the 9680 HUMIDITY SENSOR series.

Settings 3

3.1 Setting Items

The 3641-20 stand-alone manual settings and settings in combination with COMMUNICATION BASE with measurement conditions stored in memory loaded from personal computer.



	3641-20	3641-20+ COMMUNICATION BASE	3641-20+ COMMUNICATION BASE+PC
(1) Start recording	Yes	Yes	Yes
(2) Stop recording	Yes	No	No
(3) Interval setting	Yes	Yes	Yes
(4) Current time setting	No	Yes	Yes
(5) Start control	No	Yes	Yes
(6) Recording format	No	Yes	Yes
(7) Comments	No	No	Yes

Comment setting is available when personal computer is connected to the 3641-20 and the COMMUNICATION BASE.

(1) Start recording

Start manual recording by pressing **REC/STOP** button for 1 second or initiate by prescheduled start set using the COMMUNICATION BASE.

Appears when time scheduled start is engaged

When batteries are weak, recording does not start.
During recording, weak battery interrupts recording.

(2) Stop recording

Stop recording by pressing **REC/STOP** button for 1 second.
Or recording stops automatically when data is full when set to recording format: one time.

(3) Interval setting

Set interval with the product alone or using the COMMUNICATION BASE.
(Interval: 2/5/10/15/20/30 s, 1/2/5/10/15/20/30/60 min)

(4) Current time setting

❖COMMUNICATION BASE Instruction manual

(5) Start control

Set specific recording date and time using the COMMUNICATION BASE to engage time scheduled start. When time scheduled start is engaged, clock icon appears in display.

(6) Recording format setting

Set recording format using the COMMUNICATION BASE.
Choose either one time or endless recording format. Default setting is one time.
One time: Ends recording when data reaches.
Endless: Overwrites previously recorded data when data exceeds.

(7) Comments

Set comments entered by personal computer to the product using the COMMUNICATION BASE. When sorting collected recording data, comments are helpful.
Comment setting is available when personal computer is connected to both the 3641-20 and the COMMUNICATION BASE.

3.2 Manual Setting

When the power save function is enabled and the LCD display is OFF, press any key to change the display to ON before operation.

(1) Interval setting

Press **INTERVAL** button to switch measurement value display to interval setting display. ("**INTVL**" mark appears.)

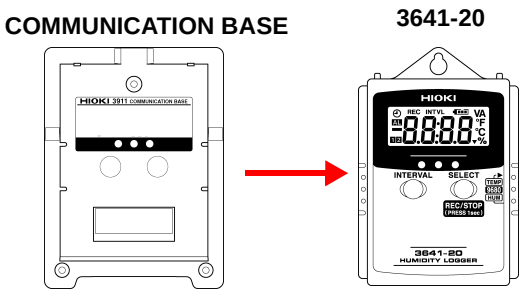
Press **SELECT** button to designate interval.
Press **INTERVAL** button to complete setting.

(2) Starting and ending recording

Press **REC/STOP** button for 1 second to clear last recorded data and start recording. ("**REC**" mark appears.)

Press **REC/STOP** button for 1 second to stop recording.
When memory is full, recording automatically stops when recording format: one time is selected.
When batteries are weak, recording does not start. During recording, weak batteries interrupt recording.
❖2.1 Installing or Replacing the Batteries (page 7)
When the auto save function becomes on while recording, the measured value stops being displayed.
❖2.2 Power Save Function (page 8)

3.3 Setting by the COMMUNICATION BASE

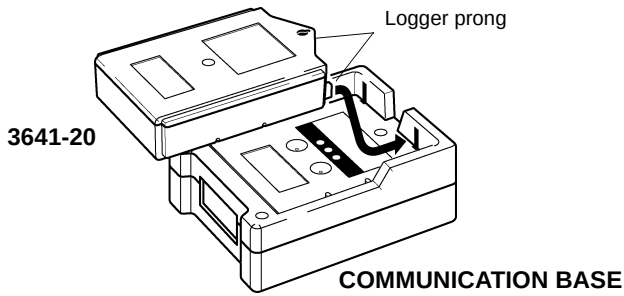


1. Press **INTERVAL** button lightly to display LCD.
2. When LCD shows "**REC**" mark or "◴" icon, press **REC/STOP** button for more than 1 second to stop recording.
   During recording or waiting time before recording start time, data transfer cannot be established with the COMMUNICATION BASE.
3. Press **INTERVAL** button to display interval setting display. ("**INTVL**" mark appears.)
4. Connect the COMMUNICATION BASE with the 3641-20.
   ❖3.4 Connecting the COMMUNICATION BASE with the 3641-20 (page 15)
5. Press the COMMUNICATION BASE **SEND** button for more than 1 second to send data settings to the 3641-20.

Previously recorded the 3641-20 data is erased when recording is resumed.
Be sure to load data to be saved to the COMMUNICATION BASE or to personal computer before recording.

3.4 Connecting the COMMUNICATION BASE with the 3641-20

Align and insert the 3641-20 prongs to the COMMUNICATION BASE slots and fasten the 3641-20 securely.



Improper connection between the 3641-20 and the COMMUNICATION BASE results communications failure and the COMMUNICATION BASE error indicator LED appears.

Error Reset

When error occurs in the COMMUNICATION BASE, Press any button on the COMMUNICATION BASE to reset. The 3641-20 may freeze in communications mode. Connect the 3641-20 to the COMMUNICATION BASE again and press the COMMUNICATION BASE **RECEIVE** button. Although communications failure occurs in the COMMUNICATION BASE again the 3641-20 returns to normal. Correct the COMMUNICATION BASE error and reestablish communication with the 3641-20.

3.5 Precautions

9680 power control

The 3641-20 HUMIDITY LOGGER supplies power to the HUMIDITY SENSOR while measuring humidity. However, to help conserve battery life and provide stable measurement results, power supply to the 9680 begins approximately 30 seconds before measurement starts. Further, if the recording interval is set to less than 30 seconds during recording (while the "**REC**" mark is lit), the 3641-20 provides the 9680 with a constantpower supply. If recording is not in progress, power is only supplied to the 9680 when the screen display on the 3641-20 is ON. If the screen display is OFF, no power is supplied to the 9680.

Measurement start time

The 3641-20 HUMIDITY LOGGER supplies power to the HUMIDITY SENSOR at the recording start time, and the first measurement is taken approximately 30 seconds later. Therefore, the recording start time for data recorded on the 3641-20 is approximately 30 seconds after the scheduled recording start time.
For example, if you set recording to begin at 12:00 using the scheduled start setting, recording will actually begin at 12:00:30. However, if the 3641-20 is not in sleep mode at the time of the first measurement (scheduled start time + 30 seconds), measurement will begin at the scheduled start time + 32 seconds.

Measurement values (during recording)

During recording (while the "**REC**" mark is lit), the measurement result display is not updated until the next measurement is displayed. The screen always displays the most recent measurement result.

Measurement values (when not recording)

If you want to use the 3641-20 as a humidity monitor or to calibrate the device, start recording or disable the power saving function. After the HUMIDITY SENSOR is supplied with power, it takes approximately 30 seconds before the 3641-20 displays the correct measurement result. The 3641-20 displays the measurement result even when recording is not taking place. However, when the 3641-20 is not recording and screen display is OFF, no power is supplied to the HUMIDITY SENSOR, and it takes some time before the correct measurement result is displayed once the sleep mode is released and power is supplied to the HUMIDITY SENSOR.

Humidity values

Values displayed for humidity may be negative or exceed 100%rh. While negative humidities and humidities exceeding 100% are impossible in the reality, display is allowed in order to enable monitoring of changes in humidities that are extremely high or low.

Specifications 4

4.1 3641-20 HUMIDITY LOGGER

These specifications apply to the 3641-20 HUMIDITY LOGGER.

Environmental & Safety Specifications

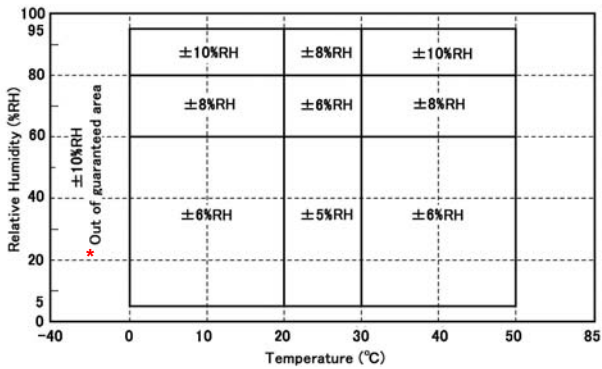
Location for use	Indoors. < 2000 m (6562 feet) ASL
Operate temperature and humidity range	-20 to 70°C (-4 to 158°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-20 to 70°C (-4 to 158°F), 80% RH or less (no condensation)
Water Resilience	IP54 (water resistant): Unaffected by showering test.
Effect of radiated radio-frequency electromagnetic field	±10°C (50°F) at 3 V/m
Standards applying	Safety EN 61010 Pollution Degree 2 EMC EN 61326

General Specifications

Internal temperature sensor	Thermistor
Internal temperature sensor response time	Approx. 25 min
Recording capacity	8000 data X 2 channels
Recording start options	Manual start, Prescheduled
Recording options	One time, Endless
Recording stop options	Manual stop, Memory fulls
Recording interval	2/5/10/15/20/30 s, 1/2/5/10/15/20/30/60 min
Data backup	Available (Data not erased by weak batteries or battery replacement)
Measurement range	Temperature: -20.0 to 70.0°C (-4 to 158°F) (Internal sensor) -40.0 to 180.0°C (-40 to 356°F) (External sensor*) -40.0 to 85.0°C (The HUMIDITY SENSOR) Humidity: 0.0 to 100.0% RH (The HUMIDITY SENSOR) (at -40 to 85°C/-40 to 185°F) * External temperature sensor: 9631-01/11/21/02/03/04/14/24/05 TEMPERATURE SENSOR

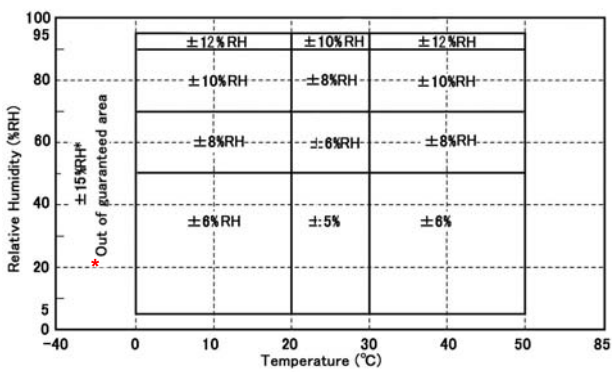
General Specifications

Accuracy	Temperature: -40.0 to -0.1°C ± 1.0°C (-40 to 32°F ± 1.8°F), 0.0 to 35.0°C ± 0.5°C (32 to 95°F ± 0.9°F), 35.1 to 70.0°C ± 1.0°C (95 to 158°F ± 1.8°F), 70.1 to 120.0°C ± 2.0°C (158 to 248°F ± 3.6°F), 120.1 to 180.0°C ± 5.0°C (248 to 356°F ± 9°F) Humidity:9680, 9680-01/02 HUMIDITY SENSOR



*: However, only when the power save function is disabled or during recording

Humidity:9680-50/51/52 HUMIDITY SENSOR



*: However, only when the power save function is disabled or during recording

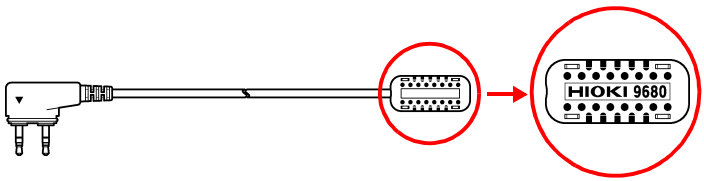
Interface	Infrared optical data transfer
Input	Temperature 1 ch + Humidity 1 ch (with the HUMIDITY SENSOR) When external temperature sensor* is in use, internal temperature and humidity measurements are invalid.
Rated power	LR03 alkaline battery 1.5 V X 2

General Specifications

Battery life	Approx. three months (at 20°C(68°F) temperature, power save function: on, interval at 1 minute) Approx. twenty days (at 20°C(68°F) temperature, power save function: off)
Maximum rated power	0.1 VA
Guaranteed accuracy period	1 year
Dimensions	Approx. 57(W) x 74(H) x 19.5(D) mm (2.24W" X 2.91H" X 0.77D") (excluding projections)
Mass	Approx. 70 g (2.5 oz.) (including batteries)
Accessories	The HUMIDITY SENSOR Instruction Manual LR03 alkaline battery X 2
Options	COMMUNICATION BASE 9680-51 HUMIDITY SENSOR 9680-52 HUMIDITY SENSOR

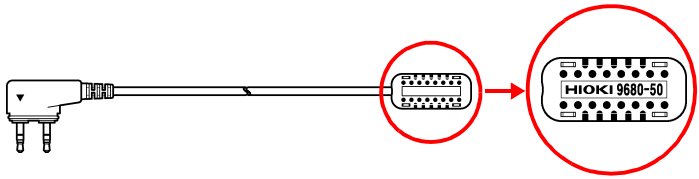
4.2 Temperature and Humidity Sensors

9680, 9680-01/02 HUMIDITY SENSOR



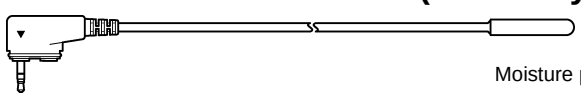
Operate temperature and humidity range	-40 to 85°C (-40 to 356°F) (no condensation) 0.0 to 100.0%RH
Storage temperature and humidity range	-40 to 85°C (-40 to 356°F) (no condensation) 0.0 to 100.0%RH
Response time	Temperature: Approx. 100 s Humidity: Approx. 300 s
Temperature sensor	Thermistor
Humidity sensor	Macromolecular membrane (capacity)
Cord length	9680 : Approx. 1000 mm (3.28 feet) 9680-01 : Approx. 5000 mm (16.25 feet) 9680-02 : Approx. 10000 mm (32.50 feet)
Dimensions	Sensor : Approx. 30W X 13H X 8D mm (1.18W" X 0.51H" X 0.31D")
Long time stability	±1%rh (5 years at 25°C/77°F and 50%rh, reference value)

9680-50/51/52 HUMIDITY SENSOR



Operate temperature and humidity range	-40 to 85°C (-40 to 356°F) (no condensation) 0.0 to 100.0%RH
Storage temperature and humidity range	-40 to 85°C (-40 to 356°F) (no condensation) 0.0 to 100.0%RH
Response time	Temperature: Approx. 100 s Humidity: Approx. 300 s
Temperature sensor	Thermistor
Humidity sensor	Macromolecular membrane (capacity)
Cord length	9680-50 : Approx. 1000 mm (3.28 feet) 9680-51 : Approx. 5000 mm (16.25 feet) 9680-52 : Approx. 10000 mm (32.50 feet)
Dimensions	Sensor : Approx. 30W X 13H X 8D mm (1.18W" X 0.51H" X 0.31D")
Long time stability	±0.5%rh (1 years at 25°C/77°F and 50%rh, reference value)

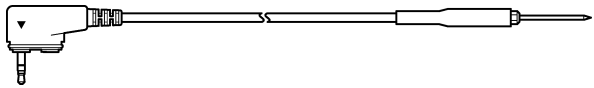
9631-01/11/21 TEMPERATURE SENSOR (molded type)



Moisture proof

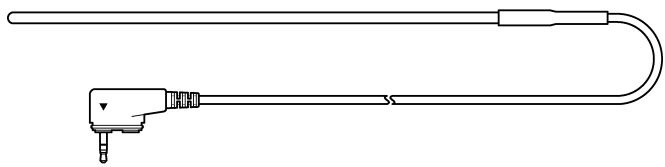
Operate temperature range	-40 to 180°C (-40 to 356°F) (no condensation)
Storage temperature range	-40 to 180°C (-40 to 356°F) (no condensation)
Response time	Approx. 100 s
Temperature sensor	Thermistor
Cord length	9631-01: Approx. 1000 mm (3.28 feet) 9631-11: Approx. 5000 mm (16.25 feet) 9631-21: Approx. 10000 mm (32.50 feet)
Dimensions	Sensor: Approx. ϕ5 X 28 mm (0.2" X 1.1")

9631-02 TEMPERATURE SENSOR (needled type)



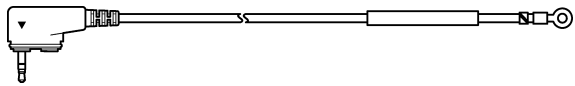
Operate temperature range	-40 to 120°C (-40 to 248°F) (up to 180°C/356°F at the metal tip) (no condensation)
Storage temperature range	-40 to 120°C (-40 to 248°F) (up to 180°C/356°F at the metal tip) (no condensation)
Response time	Approx. 20 s
Temperature sensor	Thermistor
Dimensions	Sensor : Approx. 25 mm (0.98"), ϕ1.3 mm (0.05") Cord length: Approx. 1000 mm (3.28 feet)

9631-03 TEMPERATURE SENSOR (cease type)



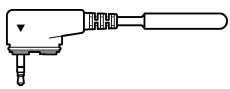
Operate temperature range	-40 to 120°C (-40 to 248°F) (up to 180°C/356°F at the metal tip) (no condensation)
Storage temperature range	-40 to 120°C (-40 to 248°F) (up to 180°C/356°F at the metal tip) (no condensation)
Response time	Approx. 90 s
Temperature sensor	Thermistor
Dimensions	Sensor : Approx. 180 mm (7.09"), ϕ4 mm (0.16") Cord length: Approx. 1000 mm (3.28 feet)

9631-04/14/24 TEMPERATURE SENSOR (rag connector terminal type)



Operate temperature range	-30 to 180°C (-22 to 356°F) (no condensation)
Storage temperature range	-30 to 180°C (-22 to 356°F) (no condensation)
Response time	Approx. 45 s
Temperature sensor	Thermistor
Cord length	9631-04: Approx. 1000 mm (3.28 feet) 9631-14: Approx. 5000 mm (16.25 feet) 9631-24: Approx. 10000 mm (32.50 feet)
Dimensions	Sensor: Approx. 16.5 mm (0.65") (major diameter: ϕ7 mm/ 0.28", minor diameter: ϕ3.2 mm/ 0.13")

9631-05 TEMPERATURE SENSOR (molded type)



Moisture proof

Operate temperature range	-40 to 180°C (-40 to 356°F) (no condensation)
Storage temperature range	-40 to 180°C (-40 to 356°F) (no condensation)
Response time	Approx. 100 s
Temperature sensor	Thermistor
Moisture proof	JIS C 0920
Dimensions	Sensor : Approx. ϕ5 X 28 mm (0.2" X 1.1") Cord length: Approx. 30 mm (1.18")

Response time (reference value):
Time to display 90% value change in temperature and humidity.

Maintenance and Service 5

5.1 Cleaning

To clean the product, wipe it gently with a soft cloth moistened with water or mild detergent. Never use solvents such as benzene, alcohol, acetone, ether, ketones, thinners or gasoline, as they can deform and discolor the case.
Wipe the LCD gently with a soft, dry cloth.

5.2 Repair and Servicing

If the product seems to be malfunctioning, confirm that the sensor cable is not open circuited before contacting your dealer or Hioki representative.
Pack the product carefully so that it will not be damaged during shipment, and include a detailed written description of the problem. Hioki cannot be responsible for damage that occurs during shipment.

Error Messages

When an error occurs in the 3641-20, an error message will appear as shown below.

Err 1	Adjustment data error: Adjustment data is no longer available. Please send it for repair.

When this occurs, repair or check the device. Contact your dealer or Hioki representative.

HIOKI

DECLARATION OF CONFORMITY

Manufacturer's Name:	HIOKI E.E. CORPORATION
Manufacturer's Address:	81 Koizumi, Ueda, Nagano 386-1192, Japan
Product Name:	HUMIDITY LOGGER
Model Number:	3641-20
Accessory:	9680-50 HUMIDITY SENSOR
Options:	9680-51 HUMIDITY SENSOR
	9680-52 HUMIDITY SENSOR

The above mentioned products conform to the following product specifications:

Safety:	EN61010-1:2001
EMC:	EN61326-1:2006 ClassB equipment Portable test and measurement equipment

Supplementary Information:

The products herewith comply with the requirements of the EMC Directive 2004/108/EC, but is not applicable to the Low Voltage Directive 2006/95/EC.

HIOKI E.E. CORPORATION

11 April 2008

M. Tanaka

Mitsuyoshi Tanaka

Director of Quality Assurance

3641A999-03

HIOKI 3641-20 HUMIDITY LOGGER
Instruction Manual

Publication date: June 2008 Revised edition 6

Edited and published by HIOKI E.E. CORPORATION
Technical Support Section

All inquiries to International Sales and Marketing Department
81 Koizumi, Ueda, Nagano, 386-1192, Japan
TEL: +81-268-28-0562 / FAX: +81-268-28-0568
E-mail: os-com@hioki.co.jp
URL http://www.hioki.com/

Printed in Japan 3641A981-06

HIOKI

HIOKI E. E. CORPORATION

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

HIOKI USA CORPORATION
6 Corporate Drive, Cranbury, NJ 08512, USA
TEL +1-609-409-9109 / FAX +1-609-409-9108

3641A981-06 08-06H

Printed on recycled paper