

EN

OPERATING MANUAL
THERMOHYGROMETER



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Notes regarding the instructions


Symbols


 **Warning of electrical voltage**
This symbol indicates dangers to the life and health of persons due to electrical voltage.

 **Warning**
This signal word indicates a hazard with an average risk level which, if not avoided, can result in serious injury or death.

 **Caution**
This signal word indicates a hazard with a low risk level which, if not avoided, can result in minor or moderate injury.

Note
This signal word indicates important information (e.g. material damage), but does not indicate hazards.

 **Info**
Information marked with this symbol helps you to carry out your tasks quickly and safely.

 **Follow the manual**
Information marked with this symbol indicates that the instructions must be observed.

You can download the current version of the instructions and the EU declaration of conformity via the following link:




BC06



<https://hub.trotec.com/?id=40276>

Safety

Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use.

-  **Warning**
Read all safety warnings and all instructions.
Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.
Save all warnings and instructions for future reference.
- Do not use the device in potentially explosive rooms or areas and do not install it there.
 - Do not use the device in aggressive atmosphere.
 - Do not immerse the device in water. Do not allow liquids to penetrate into the device.
 - The device may only be used in dry surroundings and must not be used in the rain or at a relative humidity exceeding the operating conditions.
 - Protect the device from permanent direct sunlight.
 - Do not expose the device to strong vibrations.
 - Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.
 - Do not open the device.
 - Never charge batteries that cannot be recharged.
 - Different types of batteries and new and used batteries must not be used together.
 - Insert the batteries into the battery compartment according to the correct polarity.
 - Remove discharged batteries from the device. Batteries contain materials hazardous to the environment. Dispose of the batteries according to the national regulations.
 - Remove the batteries from the device if you will not be using the device for a longer period of time.
 - Never short-circuit the supply terminal in the battery compartment!

- Do not swallow batteries! If a battery is swallowed, it can cause severe internal burns within 2 hours! These burns can lead to death!
- If you think batteries might have been swallowed or otherwise entered the body, seek medical attention immediately!
- Keep new and used batteries and an open battery compartment away from children.
- Observe the storage and operating conditions (see Technical data).

Intended use

Only use the device for indoor temperature and humidity measurements within the measuring range specified in the technical data. Observe and comply with the technical data.

To use the device for its intended use, only use accessories and spare parts which have been approved by Trotec.

Foreseeable misuse

Do not use the device in potentially explosive atmospheres, for measurements in liquids or at live parts. Trotec accepts no liability for damages resulting from improper use. In such a case, any warranty claims will be voided. Any unauthorised modifications, alterations or structural changes to the device are forbidden.

Personnel qualifications

People who use this device must:

- have read and understood the instructions, especially the Safety chapter.

Residual risks



Warning of electrical voltage

There is a risk of a short-circuit due to liquids penetrating the housing!

Do not immerse the device and the accessories in water. Make sure that no water or other liquids can enter the housing.



Warning of electrical voltage

Work on the electrical components must only be carried out by an authorised specialist company!



Warning

Risk of suffocation!

Do not leave the packaging lying around. Children may use it as a dangerous toy.



Warning

The device is not a toy and does not belong in the hands of children.



Warning

Dangers can occur at the device when it is used by untrained people in an unprofessional or improper way! Observe the personnel qualifications!



Caution

Keep a sufficient distance from heat sources.

Note

To prevent damages to the device, do not expose it to extreme temperatures, extreme humidity or moisture.

Note

Do not use abrasive cleaners or solvents to clean the device.

Information about the device

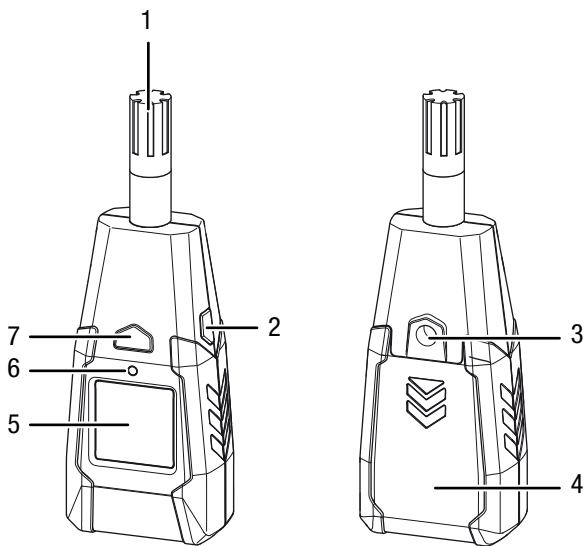
Device description

The thermohygrometer BC06 can be used to determine the air, dew point and wet-bulb temperature as well as the humidity level of indoor areas.

For assessing the measurements, a Max / Min function (maximum and minimum value) and a Hold function for freezing the currently measured value are also available. The display illumination is automatically activated in poor lighting conditions.

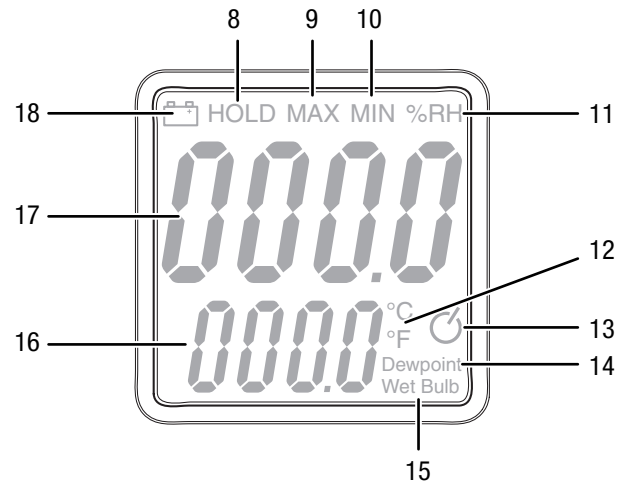
When not in use, an automatic switch-off saves the battery.

Device depiction



No.	Designation
1	Measuring sensor
2	MAX/MIN button
3	Tripod thread
4	Battery compartment cover
5	Display
6	Light sensor
7	Power button

Display



No.	Designation
8	HOLD indication
9	MAX indication
10	MIN indication
11	%RH (relative humidity) indication
12	Temperature unit °C / °F indication
13	Automatic switch-off indication
14	Dew point temperature indication
15	Wet-bulb temperature indication
16	Indication of the measured temperature value
17	Indication of the measured humidity value
18	Battery status indication

Technical data

Parameter	Value
Model	BC06
Temperature	
Measuring range	-20 °C to +60 °C or -4 °F to 140 °F
Accuracy	±1 °C (0 °C to 40 °C) ± 2 °C (-20 to 0 °C and 40 °C to 60 °C) ± 1.5 °F
Measuring range resolution	0.1 °C or 0.1 °F
Dew point temperature	
Measuring range	0 °C to 50 °C or 32 °F to 122 °F
Accuracy	± 2 °C (3.6 °F)
Measuring range resolution	0.1 °C / 0.1 °F
Wet-bulb temperature	
Measuring range	0 °C to +50 °C or 32 °F to 122 °F
Accuracy	±2 °C / 3.6 °F
Measuring range resolution	0.1 °C / 0.1 °F
Relative humidity	
Measuring range	0.0 to 100.0 % RH
Accuracy	± 3.5 % RH (20 % to 80 %) ± 5 % RH (0 % to 20 % and 80 % to 100 %)
Measuring range resolution	0.1 % RH
General technical data	
Display	LCD (monochrome)
Operating conditions	0 °C to 50 °C with < 80 % RH (non-condensing)
Storage conditions	-40 to 85 °C with < 99 % RH (non-condensing)
Power supply	1 x 9 V battery
Automatic switch-off	if automatic switch-off is activated, after approx. 30 minutes of non-use
Weight	approx. 145 g
Dimensions (height x width x depth)	146mm x 56 mm x 34 mm

Scope of delivery

- 1 x Device BC06
- 1 x 9 V battery
- 1 x Bag/holster
- 1 x Quick guide

Transport and storage

Note

If you store or transport the device improperly, the device may be damaged.

Note the information regarding transport and storage of the device.

Transport

For transporting the device, use the bag included in the scope of delivery in order to protect the device from external influences.

Storage

When the device is not being used, observe the following storage conditions:

- dry and protected from frost and heat
- protected from dust and direct sunlight
- with a cover to protect it from invasive dust if necessary
- the storage temperature complies with the values specified in the Technical data
- Remove the battery from the device.

Operation

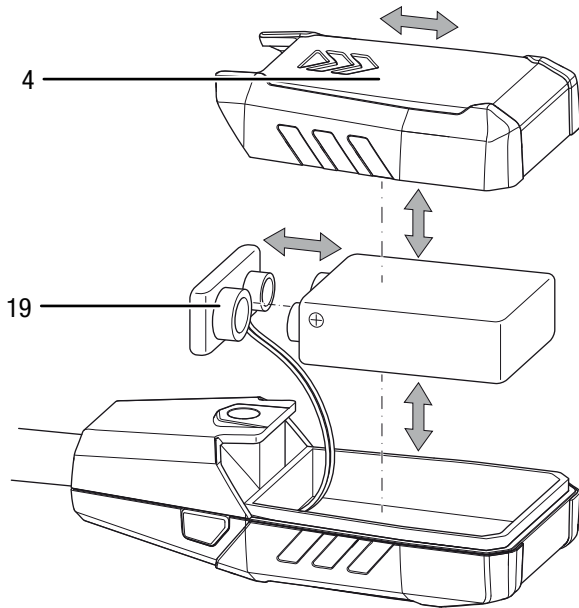
Inserting the batteries

- Insert the supplied battery before first use.



Caution

Make sure that the surface of the device is dry and the device is switched off.



1. In the direction of the arrow, remove the battery compartment cover (4) from the device.
2. Use the battery clip (19) to connect the new battery with correct polarity.
3. Insert the battery in the battery compartment.
4. Slide the battery compartment cover (4) back on the device.

Switch-on and measurements

1. Press the Power button (7).
 - ⇒ The display will be switched on and the device ready for operation.
 - ⇒ In case of poor lighting conditions the display illumination switches on automatically. The display illumination is controlled by the sensor (6).
2. Hold the sensor (1) into the area where the measurement is to be performed.
 - ⇒ The measured values are indicated in % RH and °C.
 - ⇒ Wait for a moment to achieve a stable measured value.

Note:

Note that moving from a cold area to a warm area can lead to condensation forming on the device's circuit board. This physical and unavoidable effect can falsify the measurement. In this case, the display shows either no measured values or they are incorrect. Wait a few minutes until the device has become adjusted to the changed conditions before carrying out a measurement.

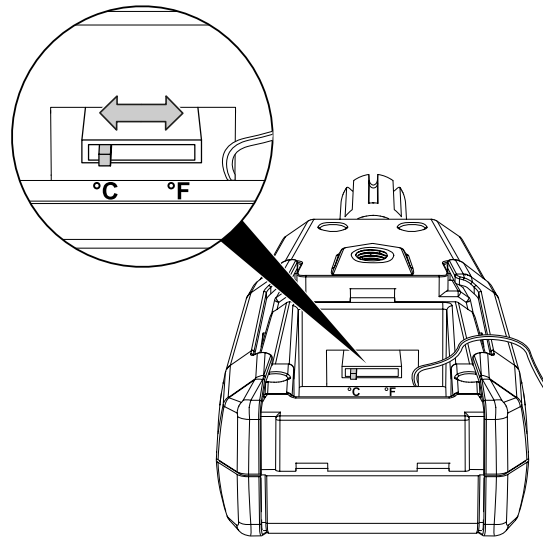
Changing the unit °C / °F

The default setting for the temperature unit is °C.

1. Open the battery compartment.
2. Remove the battery.
 - ⇒ At the upper edge you can see an opening leading to the inside of the device. That is where the switch is located.

Note

Proceed with great caution when sliding the switch. Make sure not to damage the sensitive board components.



3. Use a suitable tool (e.g. a small screwdriver) to slide the switch to the desired unit. In doing so, pay attention to the label inside the battery compartment. This label indicates the correct switch position.
 - ⇒ The display is now set to the desired unit (°C/°F).

Setting the HOLD function

1. Press the *MAX/MIN* button (2).
 - ⇒ The current value will be held.
2. Press the *MAX/MIN* button (2) three times.
 - ⇒ The display again indicates the current measured value.

Setting the Max/Min function

By use of the Max/Min function you can either read the highest or the lowest value of the current measurement interval.

1. Press the *MAX/MIN* button (2) twice.
 - ⇒ The *MAX* indication (9) appears on the display.
 - ⇒ The display now indicates the highest temperature and humidity values measured since the device was switched on.
2. Press the *MAX/MIN* button (2) again.
 - ⇒ The *MIN* indication (10) appears on the display.
 - ⇒ The display now indicates the lowest temperature and humidity values measured since the device was switched on.

Setting the wet-bulb or dew point temperature

The device additionally offers the option of displaying the wet-bulb or dew point temperature.

1. Press the *MAX/MIN* button (2) for approx. 2 seconds.
 - ⇒ The dew point indication (14) appears on the display.
 - ⇒ The dew point temperature is now indicated on the measured temperature value display (16).
2. Press the *MAX/MIN* button (2) again for approx. 2 seconds.
 - ⇒ The wet-bulb indication (15) appears on the display.
 - ⇒ The wet-bulb temperature is now indicated on the measured temperature value display (16).
3. Press the *MAX/MIN* button (2) again for approx. 2 seconds.
 - ⇒ The room temperature is again indicated on the measured temperature value display (16).

Automatic switch-off

If the automatic switch-off indication (13) is displayed, the device will switch off automatically when not in use for 5 minutes.

To deactivate automatic switch-off, please proceed as follows:

1. Press the Power button (7) to switch the device off.
2. Press and hold the *MAX/MIN* button (2).
3. Simultaneously press the Power button (7).
 - ⇒ The display will be switched on and the device ready for operation.
 - ⇒ The automatic switch-off indication (13) is no longer displayed.
 - ⇒ Automatic switch-off is deactivated.



Info

The next time the device is switched on, the device activates automatic switch-off. If you do not like to use the function, deactivate automatic switch-off again.

Switch-off

If automatic switch-off is activated, the device switches off after 5 minutes of non-use.

1. Press the Power button (7).
 - ⇒ The device will be switched off.
 - ⇒ Maximum and minimum values are reset.

Maintenance and repair

Battery change

A battery change is required when the battery status indication (18) flashes or the device can no longer be switched on.

Change the battery, if required (see chapter Operation, Inserting the battery).

Cleaning

Clean the device with a soft, damp and lint-free cloth. Make sure that no moisture enters the housing. Do not use any sprays, solvents, alcohol-based cleaning agents or abrasive cleaners, but only clean water to moisten the cloth.

Repair

Do not modify the device or install any spare parts. For repairs or device testing, contact the manufacturer.

Errors and faults

The device has been checked for proper functioning several times during production. If malfunctions occur nonetheless, check the device according to the following list.

Fault	Cause	Remedy
The device can no longer be switched on.	The battery is dead.	Insert a new battery (see chapter Operation).
Display segments are only faintly visible or flicker.	The battery voltage is too low.	

Disposal

Always dispose of packing materials in an environmentally friendly manner and in accordance with the applicable local disposal regulations.



The icon with the crossed-out waste bin on waste electrical or electronic equipment is taken from Directive 2012/19/EU. It states that this device must not be disposed of with the household waste at the end of its life. You will find collection points for free return of waste electrical and electronic equipment in your vicinity. The addresses can be obtained from your municipality or local administration. You can also find out about other return options that apply for many EU countries on the website <https://hub.trotec.com/?id=45090>. Otherwise, please contact an official recycling centre for electronic and electrical equipment authorised for your country.

The separate collection of waste electrical and electronic equipment aims to enable the re-use, recycling and other forms of recovery of waste equipment as well as to prevent negative effects for the environment and human health caused by the disposal of hazardous substances potentially contained in the equipment.



In the European Union, batteries and accumulators must not be treated as domestic waste, but must be disposed of professionally in accordance with Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators. Please dispose of batteries and accumulators according to the relevant legal requirements.

Only for United Kingdom

According to Waste Electrical and Electronic Equipment Regulations 2013 (SI 2013/3113) (as amended) and the Waste Batteries and Accumulators Regulations 2009 (SI 2009/890) (as amended), devices that are no longer usable must be collected separately and disposed of in an environmentally friendly manner.

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