

Operating Instructions

Version 1.01



HYDROMETTE

BL COMPACT B 3



EN



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All relevant national, regional and local safety regulations must always be observed when installing and using this device. For reasons of safety and to ensure compliance with the documented system data, only the manufacturer is authorised to carry out repairs to components. Failure to observe this information may result in injury or damage to the equipment.

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1 Foreword

1.1 User Description

These instructions are intended for the end user of the product. The end user of the product is a person who has read and understood these operating instructions, is an experienced user of similar devices and is aware of all possible dangers and can act accordingly.

The device may only be used by persons aged 14 and over who have read and understood these operating instructions, are familiar with the operation of similar products and are aware of all possible dangers and act accordingly.

The device is intended for use by persons who have experience with moisture measurements (structural moisture, wood moisture, climate, etc.).

All personnel involved in the operation, installation, inspection and maintenance of the product must be qualified to carry out the associated work. If the personnel concerned do not already have the required knowledge and skills, appropriate training and instruction must be ensured.

All local regulations must be observed.

1.2 Intended Use

The Hydromette BL Compact B 3 is an electronic structural moisture indicator for the non-destructive measurement of moisture in building materials. The measuring device works according to the dielectric constant/high frequency measuring principle. The versatile ball electrode is used to sense moisture in all types of building materials and to detect moisture distribution in walls, ceilings and floors. The Hydromette BL Compact B 3 is an ideal pre-tester for all CM devices and resistance-based measuring devices.

The Hydromette BL Compact B 3 may only be used to measure moisture in building materials.

1.3 Non-Intended Use

The device is not intended for any applications that are not listed in these operating instructions.

The device, accessories, tools, software, etc. must be used in accordance with these instructions, taking into account the working conditions and the work to be performed. Using the product for work other than that for which it is intended will result in a hazardous situation.

The device may only be used together with the original accessories. The device must only be used within the specified performance limits as described in these instructions.

1.4 Explanation of the General Warnings

The following danger levels are used in this operating manual to indicate potentially dangerous situations and important safety instructions:

Danger Level	Description
 DANGER	Danger / Indicates a hazardous situation which, if not avoided, will result in death or serious irreversible injuries.
 WARNING	Warning / Indicates a hazardous situation which, if not avoided, could result in death or serious irreversible injuries.
 CAUTION	Caution / Indicates a hazardous situation which, if not avoided, could result in minor or moderate injuries.
 INFORMATION	Indicates important information.

1.5 General Safety Instructions

It must be ensured that the complete instructions and all safety instructions have been read and understood before using this device.

All instructions must be followed. This prevents accidents that can result in property damage or minor or moderate injuries.



INFORMATION

All safety information and instructions must be kept for future reference and passed on to subsequent users of the product.

The manufacturer shall not be liable for any damage to property or injuries to persons that can be attributed to incorrect handling or non-compliance with the safety instructions. In such cases, the warranty shall be void.

1.5.1 Persons at Risk

Persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge must be supervised or instructed in the safe use of the device and understand the associated hazards.

Children must be supervised to ensure that they do not play with the device. The device is not a toy. There is a risk of swallowing small parts of the device (e.g. battery compartment cover) or an accessory (e.g. TF-Stick, not for all BL device types).

This device is not intended for use by persons with reduced physical, sensory or intellectual capabilities, or lack of experience and/or knowledge.



WARNING

Risk of suffocation, injury or permanent disability. The device must not be used by persons under the age of 14!

Risk of suffocation! Keep packaging away from children.

1.5.2 Preparation and Start-up

Never store or place the device in a location where it can fall or be drawn into water or other liquids.

To avoid the risk of electric shock, never immerse the device in water or other liquids.

Always remove all packaging before operating the device.



WARNING

Fire hazard!
Do not use a damaged device.

In the event of visible damage, strong odours or excessive heating of components, the battery must be removed immediately and the appliance must not continue to be used.

1.5.3 Use / Operation



CAUTION

Risk of damage. The device is a highly sensitive measuring instrument. Only use the device in a controlled electromagnetic environment.

During measurement, the device generates a high-frequency electrical field which forms around the active ball electrode at the top of the device. Provided the standard minimum distance of > 30 cm from medical devices or portable electronic medical aids (e.g. pacemakers) is maintained, the device is safe to use.

Do not let the device drop onto hard surfaces. This can result in malfunctions or functional failures. Normal use of the device, without excluding hazards to the user, cannot be guaranteed.

The device is fragile.

To avoid overheating, the device must not be covered or used near heat sources or direct sunlight and only be used at ambient temperatures between 0 °C and 50 °C.

The device may not be stored or operated in aggressive atmospheres or atmospheres containing solvents!

The measuring device may be operated in residential and commercial areas.

When using the capacitive measurement method on or in the immediate vicinity of conductive materials, the measured values may be distorted.

Static charge - At low humidity levels, static electricity with high voltage can build up, favoured by external circumstances (friction during material transport, high insulation value of the surrounding area), which can lead to strong fluctuations in measured values. Even the instrument operator may - inadvertently - contribute to the build-up of a static charge by the clothing worn. A considerable improvement can be achieved by the operator and the measuring instrument being absolutely still during measuring, as well as by earthing (contact with conducting metal, water or heating pipes, etc.).

1.5.4 Care, Maintenance and Inspection



CAUTION

Remove the battery before cleaning the product. Do not use abrasive cleaning cloths or chemicals to clean the product as these can damage the surface.

Stop using the product in the case of visible damage, strong odour development or excessive overheating of components.

Only use original accessories.

Changes to the device and technical modifications are not permitted without the written consent of the manufacturer.

All connection options and the device itself must not be sprayed directly or indirectly with water when cleaning (connections depend on the device! e.g. BNC-, 2.5 mm, 3.5 mm jack receptacle, device socket and mini-USB port).

Our recommendation: To ensure functionality, have all your measuring equipment checked by the manufacturer every 2–3 years (depending on the frequency of use).

1.5.5 Troubleshooting

Do not repair the device yourself. Contact the manufacturer if the device is not functioning properly.

1.5.6 Disposal



Electrical equipment, accessories and packaging must not be disposed of together with household waste (only for EU countries) and must be disposed of in compliance with the European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in accordance with national law. Electrical equipment that has reached the end of its service life must be collected separately and sent to an environmentally compatible recycling facility.

The WEEE symbol draws attention to the need for disposal.

The device contains an alkaline battery on delivery. Batteries must not be disposed of with normal household waste. They may contain toxic heavy metals and are subject to the Hazardous Waste Ordinance. For this reason, please dispose of the battery at a local collection point for the recycling of waste electrical and electronic equipment. Caution: there is a risk of explosion if the wrong type of battery is inserted. Handle the batteries in accordance with the battery manufacturer's instructions.

Plenty of water is an effective extinguishing agent for alkaline batteries. Chemical dry extinguishing agents may also be used. If the battery casing is damaged, small amounts of electrolyte may leak out. Seal the battery airtight in a plastic bag and add dry sand, chalk powder (CaCO_3), lime powder (CaO) or vermiculite. Soak up any traces of electrolyte with dry kitchen paper. Rinse with water.

Gann Mess- u. Regeltechnik GmbH accepts no liability for damage caused by non-compliance with the operating instructions or by violation of a duty to care during transport, storage or operation of the instrument, even if this duty to care is not specifically discussed in the operating instructions.

2 Specifications

2.1 Technical Data

Hydromette

Display:	1.54" OLED display
Display resolution:	0.1 % for humidity
Response time:	< 2 s
Storage conditions:	+ 5 to + 40 °C - 10 to + 60 °C (for a short time)
Operating conditions:	0 to + 50 °C - 10 to + 60 °C (for a short time) < 85 % R.H. non-condensing
Power supply:	9-V-block battery
Types that can be used:	Types 6LR61 and Type 6F22
Dimensions:	225 x 50 x 30 (L x W x H) mm
Weight:	approx. 190 g
Protection class:	III
Protection rating:	IP20

2.2 Prohibited Environmental Conditions

- Condensation. humidity continuously too high (> 85% R.H.) and wetness
- Permanent presence of dust and combustible gases, vapours or solvents
- Ambient temperatures continuously too high (> +50 °C)
- Ambient temperatures continuously too low (< 0 °C)

2.3 Transport- & Storage Conditions

The Hydromette BL Compact B 3 may **only be stored in the packaging provided by the manufacturer or available from the manufacturer as an accessory**. The manufacturer shall not accept any liability or warranty for damage that may occur to the device or to the sensor system as a result of non-compliance.



INFORMATION

In particular, **avoid keeping or storing the devices in foams not supplied by the manufacturer**, as these can damage the sensors due to possible outgassing and result in incorrect measurements.

2.4 Measuring Range

Non-destructive measurement:

Scan mode: 0 to 200 digits

Building moisture:

Cement screed:	1.8 to 5.9 % by weight	and	0.7 to 4.0 CM-%
Anhydrite screed:	0.1 to 3.3 % by weight	and	0.1 to 3.3 CM-%
Concrete:	1.3 to 6.2 % by weight	and	0.3 to 4.2 CM-%
Cement mortar:	1.8 to 7.8 % by weight	and	0.6 to 5.6 CM-%
Lime mortar:	0.6 to 4.5 % by weight	and	0.6 to 4.5 CM-%
Lime cement mortar:	2.2 to 11.0 % by weight	and	1.5 to 10.0 CM-%
Gypsum plaster:	0.3 to 10.0 % by weight	and	0.3 to 10.0 CM-%

3 General Information

3.1 Standards and Directives

This measuring instrument fulfils the requirements of the applicable European and national directives (2014/30/EU) and standards (EN 61010). Appropriate declarations and documentation are held by the manufacturer.

To ensure trouble-free operation of the measuring instrument and operational reliability, the user must carefully read and understand the operating instructions.

3.2 Warranty

The measuring instrument may only be operated under the specified climatic conditions. These are listed in [chapter 2.1 "Technical Data"](#) of the Hydromette".

This measuring instrument may only be used under the conditions and for the purposes that it has been designed for. Operational reliability and functionality are no longer ensured if the device is modified or adapted. Gann Mess- u. Regeltechnik GmbH shall not be liable for any damage arising from such modifications or adaptations. The risk is borne solely by the user.

The measuring instrument and any accessories may only be properly used as described in these instructions. Keep the device and accessories out of the reach of children!

The device must not be stored or operated in air that is corrosive or contains solvents!

The notes and tables in these instructions regarding permitted or normal humidity conditions in practice and the general definitions of terms have been taken from the specialist literature. Therefore, the manufacturer cannot guarantee the correctness. The conclusions to be drawn from the measurement results depend for each user on the individual circumstances and the knowledge gained from his professional experience.

The measuring instrument may be used in the residential and commercial sectors.

The measuring instrument may only be stored in the packaging provided by the manufacturer or available from the manufacturer as an accessory. The manufacturer accepts no liability for damage that may occur to the device or the sensor system as a result of non-compliance.

Gann Mess- u. Regeltechnik GmbH accepts no liability whatsoever for damage caused by non-compliance with the operating instructions or by breach of the duty of care during transport, storage and handling when operating the device, even if this duty of care is not specifically referred to in the operating instructions.

4 Description of the Product

The Hydromette BL Compact B 3 is an electronic **building moisture indicator** for the non-destructive measurement of moisture in hard, set building materials. The measuring device works according to the dielectric constant/high frequency measuring principle. The versatile ball electrode is used to detect moisture in all types of building materials and to recognise the **moisture distribution** in walls, ceilings and floors..

The Hydromette BL Compact B 3 is an ideal pre-tester for all CM devices and resistance-based measuring devices.

The Hydromette BL Compact B 3 offers the following **measuring functions**:

- Basic measurement ([see chapter 8 Basic measurement](#))
- Average measurement ([see chapter 9 Average measurement](#))
- Batch measurement ([see chapter 10 Batch measurement](#))

A detailed description of the measurement functions can be found in the corresponding sections.

The device offers the option of setting **individual** limit values. If the limit values set by the user are exceeded, an **acoustic warning signal** is emitted by a loudspeaker and a message is also shown on the display ([see chapter 7.4 Alert](#)).

The display values are shown clearly and with high contrast on the **OLED display**. The additional brightness settings allow the display to be read even in unfavourable lighting conditions.

An **internal memory** is available for storing data.

The silicone buttons give haptic feedback for important functions.

The Hydromette BL Compact B 3 has a **mini-USB port** that can be used to transfer measurement data to a PC or to update the firmware, among other things.

5 Device Layout and Button Assignment



Article no.: 30012033

Figure 5-1: Front view of the Hydromette BL Compact B 3

5.1 Display Symbols

5.1.1 Main Menu Symbols

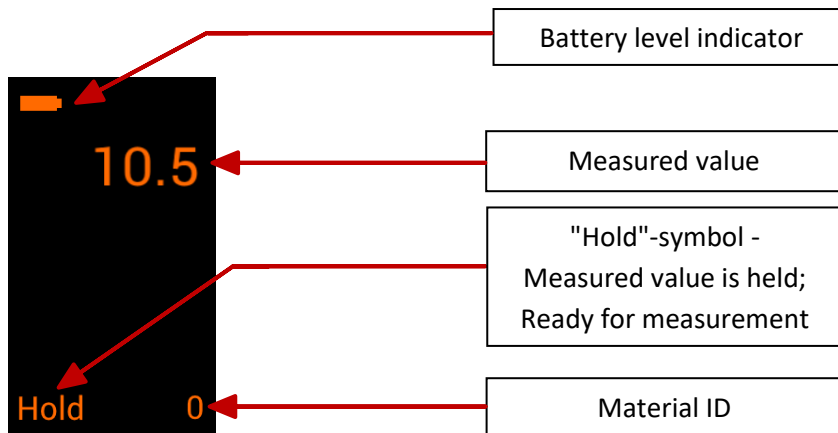


Figure 5-2: Main menu symbols

5.1.2 Other Symbols

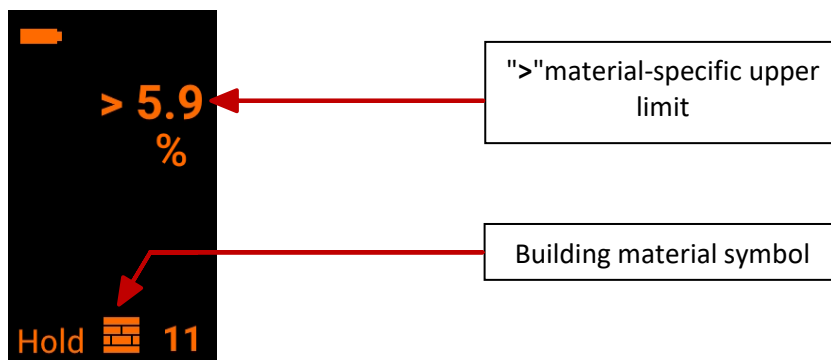


Figure 5-3: Other symbols for upper measuring range

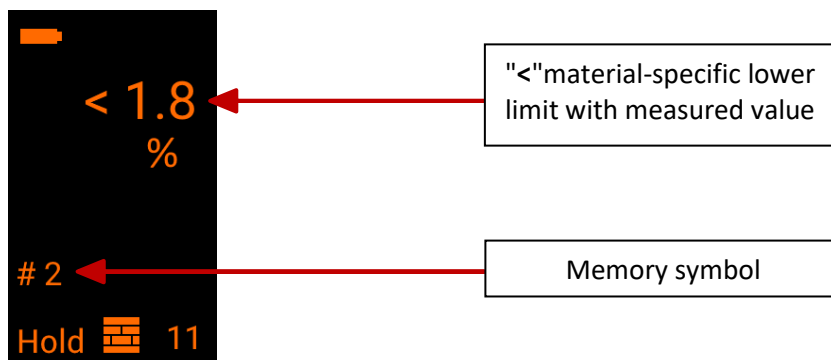


Figure 5-4: Other symbols for lower measuring range

6 Basic Functions

6.1 Switching the Device On and Off

The device is switched on and off by pressing the "On / Off" button .

The GANN logo is shown on the display while the device is starting up. The device name and the installed firmware version are also displayed.



Figure 6-1: Start screen

After switching on, the Hydromette BL Compact B 3 always starts in the last menu opened. When the device is started for the first time, the Hydromette starts in the basic measurement mode. From here, you can access other menus by pressing the **Up** or **Down** buttons.

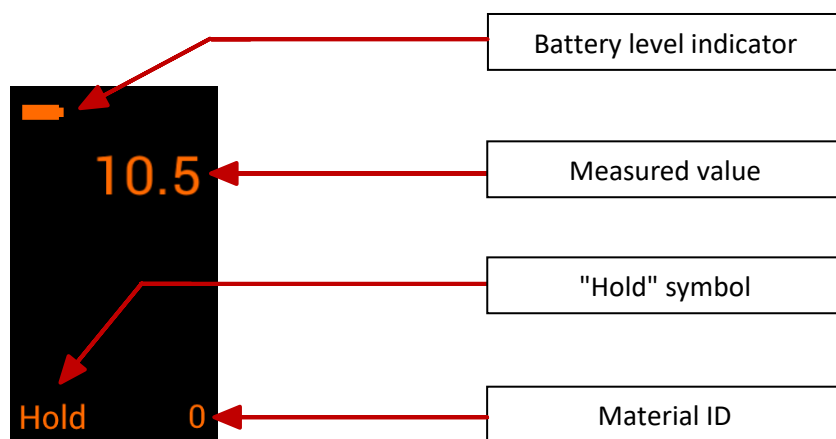


Figure 6-2:
Basic measurement mode

6.2 Menu Guidance

The device must be switched on in order to make menu selections. Starting from the measurement menu, you can access other menus by pressing the **"Up"** or **"Down"** buttons.

Each menu selection must be confirmed by briefly pressing the **"M"** button. To leave a menu, either confirm the (changed) menu selection by pressing the 'Measure' button or select the **"Return"** symbol using the **"Up"** or **"Down"** buttons and confirm by pressing the **"M"** button.

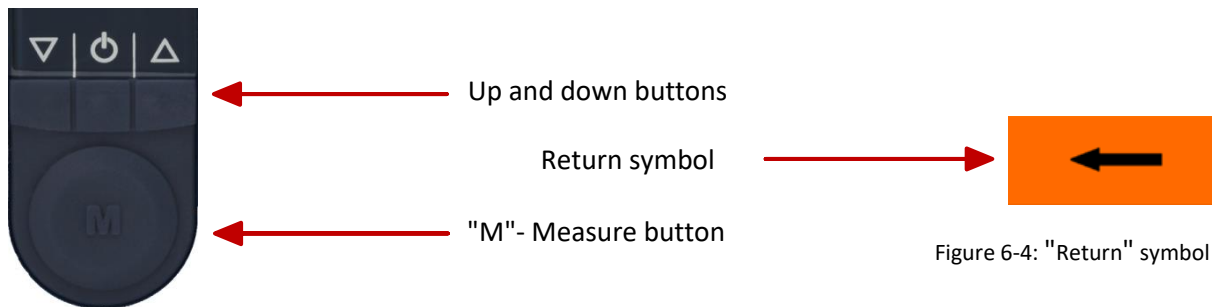


Figure 6-3: Button assignment

Menu selection overview:

1. **Measuring Menu** (Main Menu): The measuring process can be performed here.
2. **Settings:**
 - **Material:** Selection of the material to be measured using the [material ID table](#).
 - **Brightness:** Setting the display brightness.
 - **Language:** Setting the menu language.
 - **Alert:** Setting the limit value for an acoustic warning signal.
3. **Average value:** An average of up to five measurements can be output here.
4. **Batches:** Activation or deactivation of storage in batches. Measurements that have already been saved can be viewed and / or deleted.
5. **Memory:** Contains the last ten measurements that were not saved in batches.

6.3 Automatic Switch-Off

If no button is pressed within approx. 90 seconds, the device switches off automatically. The current values are retained and are displayed after the device is switched on again

6.4 Battery Status

The battery symbol indicates the battery charge status on the measurement screen. The three possible battery states are described in [Table 6_4](#). If the battery voltage is very low, the display becomes darker during measurement. In addition, measured values may be falsified during measurements as the battery can no longer supply the current required for a correct measurement. For this reason, the battery must be replaced when the 'low battery' symbol appears on the display.

A list of battery types that can be used can be found in chapter ["2.1 Technical Data"](#).

The device serial number is also located in the battery compartment.

	Optimum battery voltage.
	Battery voltage OK. All functions available without restriction. It is not necessary to change the battery.
	Battery voltage very low. Functions only available to a limited extent. Battery must be replaced.

Table_6_4: Battery symbols



INFORMATION

Under no circumstances should you use the mini-USB interface to charge an empty battery – the device does not have a charging circuit. It is only supplied with the typical USB voltage. No measurements are possible when the USB connection is plugged in.

7 Settings



The parameters and functions of the device are adjusted in the settings. The individual menus are explained below.

You can access the settings by pressing the **up** or **down button** on the measurement screen and then selecting the "Settings" menu item and confirming with the **measurement button**.



Figure 7-1: Settings submenu

7.1 Material Selection



The desired material can be selected in this menu by selecting the corresponding material ID. The measured values are then displayed in weight % or CM %, depending on the selection:

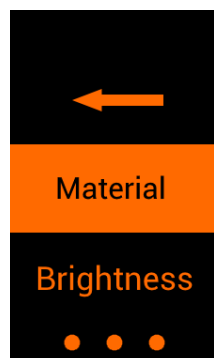


Figure 7-2: Selection material

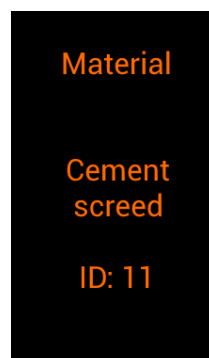


Figure 7-3: Selection of the material ID

The following materials are available:

Material ID	Material designation
0	Scan mode (display in digits)
11	Cement screed in weight-%
12	Anhydrite screed in weight-%
13	Concrete in weight-%
14	Cement mortar in weight-%
15	Lime mortar in weight-%
16	Lime cement mortar in weight %
17	Gypsum plaster in weight %
18	Cement screed in CM %
50	Anhydrite screed in CM %
54	Gypsum plaster in CM %
55	Lime mortar in CM %
58	Cement mortar in CM %
72	Lime cement mortar in CM %
73	Concrete in CM %

Table 7-1: Available materials

The scan mode is used for comparative measurements of unknown materials or measurements of material compositions, as is often the case in buildings. Additional specific measurement curves for single-variety building materials are also available.

The “Material selection” menu item is omitted for batch measurements where at least one measured value has already been saved. This means that measurements of different materials cannot be saved in a list. Please also note the application instructions for measurement in [Chapter 13.4 Using the Hydromette BL Compact B 3!](#)

7.2 Brightness



The brightness setting allows you to increase or decrease the brightness of the display. Three brightness levels are available for this, with level 1 being the darkest and level 3 being the brightest. Please note that the longer the brightness of the display, the shorter the battery life. The activated setting is indicated by a dot.

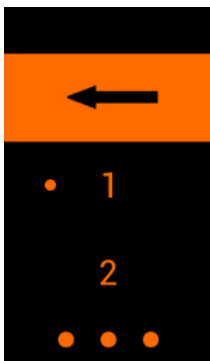


Figure 7-4: Brightness setting selection menu

7.3 Language



The menu language is set in the language menu. You can choose between German, English, Italian, French and Spanish.



Figure 7-5: Selection menu for language setting

7.4 Alert



Material moisture limit values are set in this menu. These are checked during basic and batch measurement. The limit value is regarded as a maximum value; if it is exceeded, an acoustic warning signal sounds and a visualisation appears on the display. This alarm function is activated or deactivated as required. The limit values are set between 0 and 200 in the scan range or within the specific limits of the material types using the up and down buttons. The alarm values are entered in 0.1 steps. The value is changed in 0.5 steps by pressing and holding the up or down button. A separate limit value can be set for each material within the respective permissible measuring range.



Figure 7-6: Selection menu for limit values and alarm messages



Figure 7-7: Limit value selection

8 Basic Measurement

The basic measurement is the standard measurement function. This is suitable for quick measurements that do not require documentation of the results. The last 10 measured values are simply stored in a ring memory (see also [the "Memory" chapter](#)). If limit values are exceeded or undercut, an acoustic alarm is emitted and a visualisation is shown on the display.



After switching on for the first time, the device is in the measurement menu, i.e. the basic measurement. From here, you can access the other menus by pressing the **"Up"** or **"Down"** buttons. In the measurement menu, the last measured values are displayed according to the material setting with the corresponding units and the **"Hold"** note.

Figure 8-1: Screen view of basic measurement

8.1 Measuring Process

A new measurement is started by pressing the **"M"** button (*> 2 seconds*). During the measurement process, the **"Hold"** symbol disappears from the display. After releasing the **"M"** button, the measured value is held and automatically saved in the ring memory. The oldest stored value is overwritten. The **"Hold"** symbol is displayed again.



INFORMATION

For a reliable measurement result, the measurement button must be pressed for at least *two seconds*.



Figure 8 2: Measuring process of the basic measurement

min. 2 seconds

8.2 Query the last Ten Measured Values (Memory)



The measurements of the basic measurement are stored in a ring memory. The last 10 measured values are automatically saved and assigned to memory locations "#1" - "#10". The last measured value is stored in memory location "#1". The memory is structured as a ring memory. As soon as an eleventh measured value is recorded, the oldest measured value in memory location "#10" is automatically removed from the memory.

The measured values are displayed with #1...#10, where #1 corresponds to the last measured value and #10 is the furthest in the past.

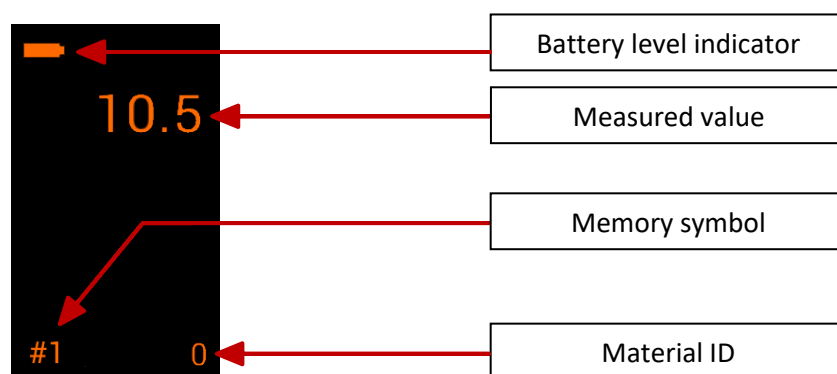


Figure 8-3: Exemplary representation of a measured value in the ring memory

9 Average Measurement



The average value measurement offers the option of recording up to five measured values and immediately displaying the average value of the recorded measured values. The recorded values cannot be saved. This measurement function is therefore mainly suitable for gaining a short-term overview and recording measured values on the fly. In addition, this function makes it easier to determine a reference value when comparative measurements are to be carried out on unknown materials or multi-layer structures - [see chapter Comparative measurement](#).

9.1 Measuring Process

The active position is signalled by a flashing measured value. The measurement process is started by pressing the **measurement button**. As long as the **measurement** button is pressed, the measured value is updated. If the **measurement** button is released, the last measured value remains and the selection automatically jumps to the next position. An existing value is overwritten by a new measurement at the same position.

Use the **up and down buttons** to navigate through the positions. The material ID is displayed in the bottom to the right-hand side of the screen. The average value is shown at the bottom of the display and is updated during the measurements.

When the average value measurement is exited, the recorded measured values are deleted. In the event of an automatic switch-off, the measured values are retained when the device is restarted.

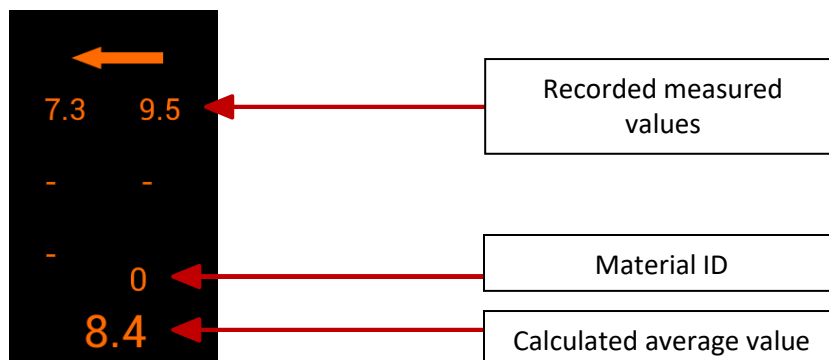


Figure 9-1: Average measurement

10 Batch Measurement



With batch measurement, the measured values are saved in batches. Five batches are available to the user on the device's internal memory. 50 measurements can be saved per batch. Press the **up** and **down buttons** to navigate through the batch menu. The number of measurements already saved is displayed next to the batch number. If a batch is active, it is marked with a dot. Batches only contain measured values of a single material ID. The material ID can only be changed as long as there are no saved measured values in the batch.

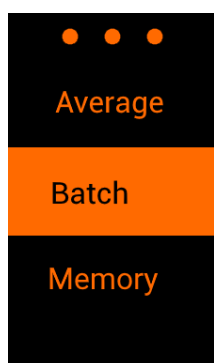


Figure 10-1:
Batch menu

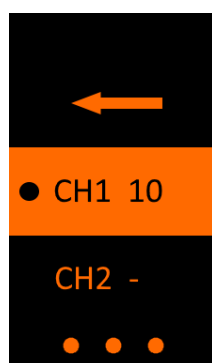


Figure 10-2 Selecting the
batch

If an attempt is nevertheless made to change the material ID within an active batch, the message 'Material: Batch active' appears. If the material ID is really to be changed, a new batch must be activated.

10.1 Measuring Process

The measurement process is started by pressing the **measurement button**. As long as the **measurement button** is pressed, the measured values are updated. If the **measurement button** is released, the displayed value is written to the batch memory and the displayed number of stored measured values is increased by one. While a batch is active, no measured value is written to the ring memory.

10.2 Options in the Batch Menu

10.2.1 Activite / Deactivate Batches



(*) stands for a batch number between 1 and 5

Batches are activated and deactivated in the batch menu. Only **one** batch can be active at a time. Activating a batch deactivates another batch if it was active.



INFORMATION

As long as a batch is activated, the device is in the "Batch measurement" measuring function. If the device is to be switched back to the "Basic measurement" measurement function, the active batch must first be deactivated.



Figure 10-3: Activite batch

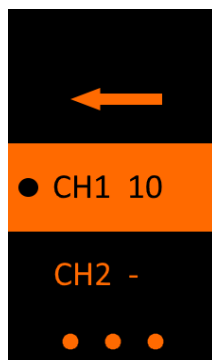


Figure 10-4: Selection the batch

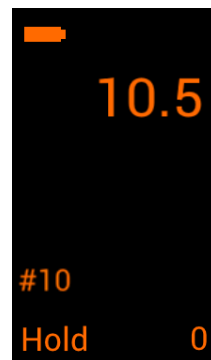


Figure 10-5: Batch measurement mode



Figure 10-6: End the batch

10.2.2 View Measured Values



(*) stands for a batch number between 1 and 5

With the **up** and **down buttons** can be used to navigate through the individual measured values.

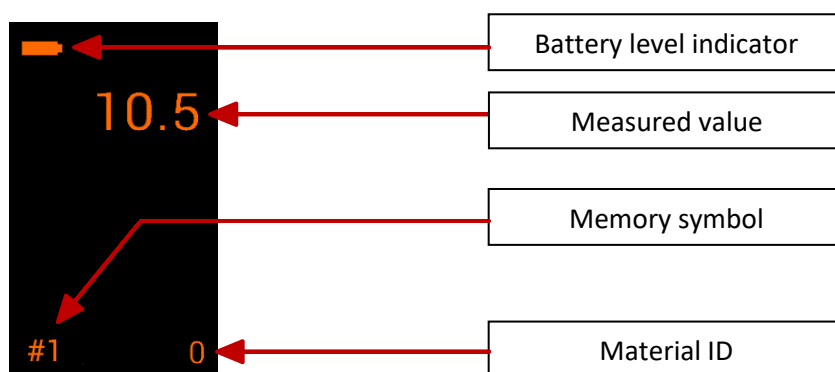


Figure 10-6: Saved measured values in batch

10.2.3 Delete Measured Values in Batches

Delete last measured value in batch



(*) stands for a batch number between 1 and 5

Deletes the last recorded measured value of the selected batch.

Delete complete batch



(*) stands for a batch number between 1 and 5

Deletes all measured values of the selected batch.

11 Installation of the PC-Software GANN Dialog Pro

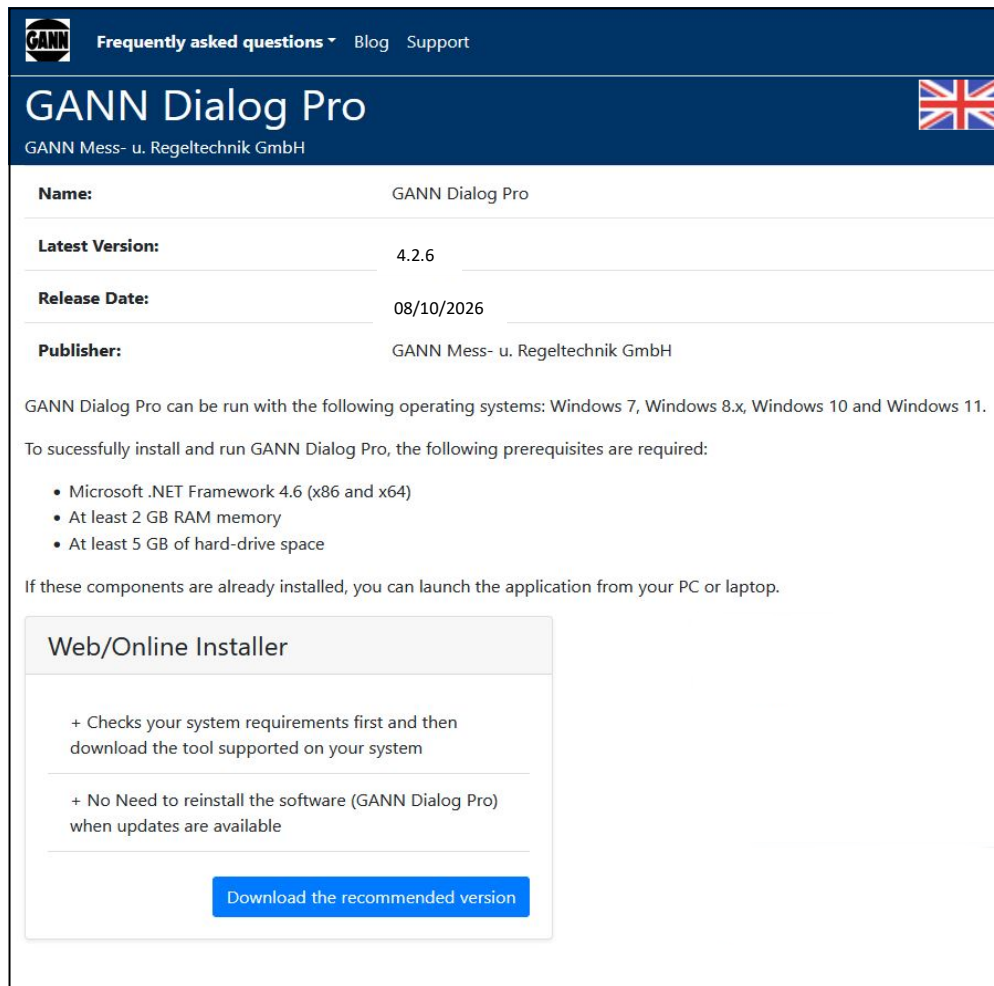
The system requirements for the PC software GANN Dialog Pro are as follows:

- Operating system Windows 7 / Windows 8 / Windows 10 / Windows 11
- 2 GB free hard disk space
- 4 GB RAM memory
- USB-port
- Minimum screen resolution 1280 x 800 (1920 x 1080 is recommended)
- Internet connection for software downloads, updates and upgrades

The PC software GANN Dialog Pro is available for download free of charge at the following link:

<http://download-ota.gann.de/dlg>

Detail information about the PC software GANN Dialog Pro can be found in the associated user manual.



The screenshot shows the GANN Dialog Pro download page. At the top, there is a navigation bar with the GANN logo, 'Frequently asked questions', 'Blog', and 'Support'. Below this is a header section with 'GANN Dialog Pro' and a UK flag. The main content area features a table with the following information:

Name:	GANN Dialog Pro
Latest Version:	4.2.6
Release Date:	08/10/2026
Publisher:	GANN Mess- u. Regeltechnik GmbH

Below the table, it states: 'GANN Dialog Pro can be run with the following operating systems: Windows 7, Windows 8.x, Windows 10 and Windows 11. To successfully install and run GANN Dialog Pro, the following prerequisites are required:'

- Microsoft .NET Framework 4.6 (x86 and x64)
- At least 2 GB RAM memory
- At least 5 GB of hard-drive space

It then says: 'If these components are already installed, you can launch the application from your PC or laptop.'

There is a section titled 'Web/Online Installer' with two bullet points:

- + Checks your system requirements first and then download the tool supported on your system
- + No Need to reinstall the software (GANN Dialog Pro) when updates are available

At the bottom of this section is a blue button labeled 'Download the recommended version'.

Figure_11_1: Download of the PC software GANN Dialog Pro

If you click on the "Download recommended version" button, you will be asked whether you want to download the software. Confirm this with "Save file" to start the download. Perform the installation steps of setup.exe.

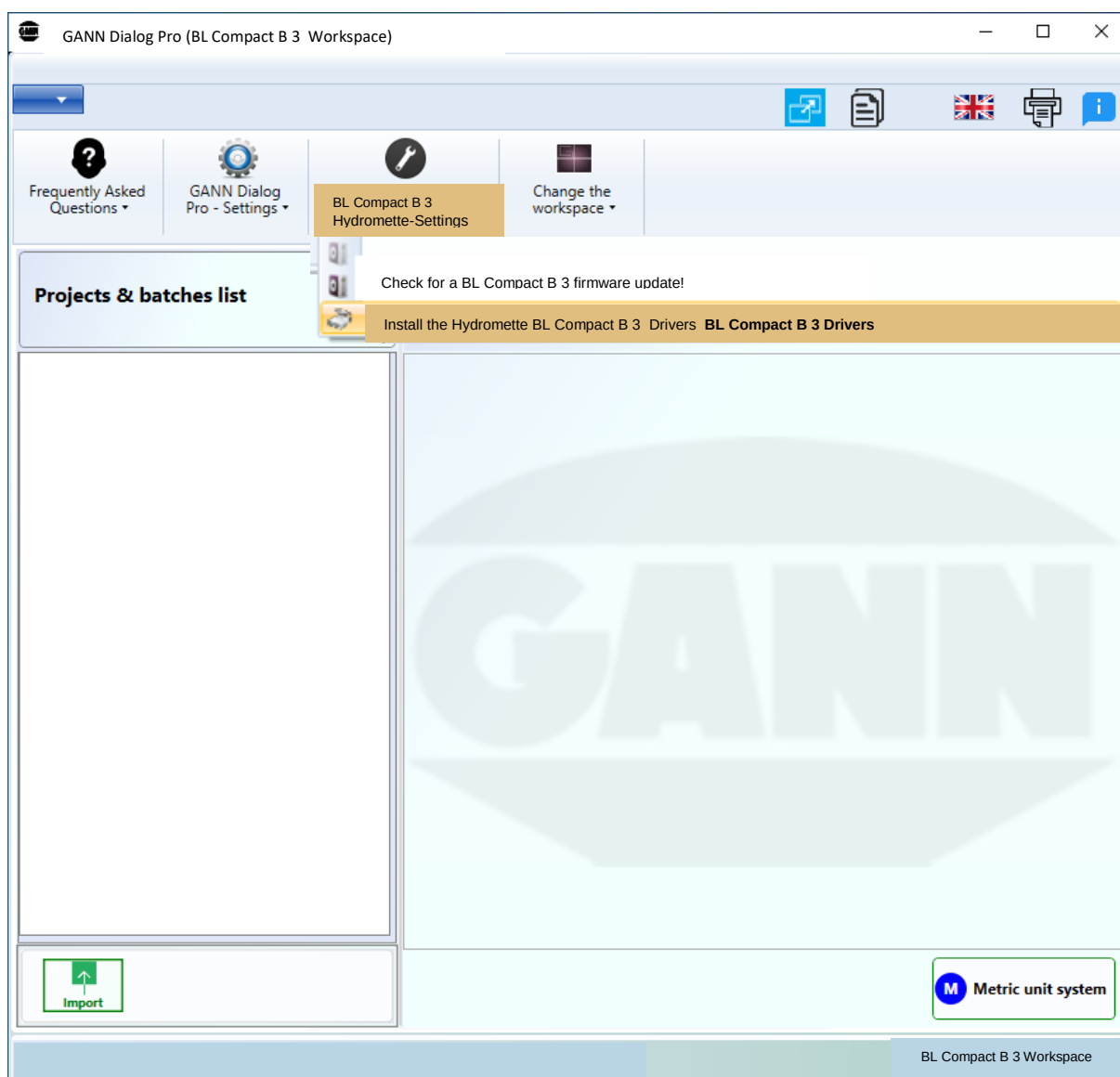


Figure_11_2: Download device drivers of the Hydromette BL Compact B 3

To download the device drivers, the working range of the desired Hydromette must first be selected in the menu item "Select working range"

12 USB Communication with a PC

The software "GANN Dialog Pro" must be installed before the Hydromette BL Compact B 3 is connected to a PC (see chapter 11, [Figure 11_1](#)). GANN Dialog Pro includes the associated device drivers, which must also be installed (see chapter 11, [Figure 11_2](#)).

If the Hydromette BL Compact B 3 is connected to a PC with Windows operating system when it is switched off, the Hydromette starts in USB mode. No measurements can be performed during the communication with the PC. The GANN Dialog Pro software now provides the possibility to update the firmware of the Hydromette BL Compact B 3 via the Internet. The Hydromette remains in USB mode after disconnecting the USB cable. The Hydromette will only restart in standard mode after it has been switched off and switched on again.

The USB connection must not be disconnected during the communication with the PC!



INFORMATION

If the connection is disconnected during a firmware update, the Hydromette BL Compact B 3 can no longer be started. In this case, the problem can be solved by reconnecting to a PC and installing the firmware. If it is not possible to install firmware on the device after several attempts, GANN Support must be contacted.



Figure 12-1: USB data transfer

13 Application Notes

13.1 Comparative Measurement or Reference Measurement

With this type of measurement, almost all (set) building materials or mixed materials or mixed structures can be measured comparatively. It is important that these measurements are only carried out on the same materials or structures.

A deliberately dry spot must be determined on the structure to be measured. Select up to 5 measuring points within an imaginary square with a side length of approx. 20 cm. A dry sample of material with minimum dimensions of 20x20x5 cm can also be used as a reference. When measuring using a sample piece, it is important that this measurement is carried out on a non-conductive surface (e.g. polystyrene). The mean value is now to be calculated from these up to 5 measured values. This forms the reference value for the dry condition of the material or structure. Larger areas can thus be analysed using increased display values, e.g. with regard to the maximum moisture or the extent of moisture damage, and a two-dimensional moisture profile can be created. Drying progress can also be checked and observed by repeating measurements at defined measuring points.

When assessing the display values using the **capacitive measuring method**, it should be noted that metal in the substrate (iron armouring, cables, pipes, plaster rails, etc.) can lead to an increase in the measured value depending on the overlap height. Furthermore, it must be ensured that the minimum distances of 8–10 cm to corners, angles and edges are observed. Measurements in drilled holes or mortises are always incorrect measurements and cannot be used for assessment. Please note that digit measurements taken with devices with a measuring range of 0–100 digits and devices with a measuring range of 0–200 digits are not comparable. Due to the different measuring depths, no conversion factor should be used either!

When assessing the display values using the **resistance-based measuring method**, it is essential that you use suitable means to ensure that there are **no** electrical cables, water pipes or other supply lines in this location **before** drilling holes for probes or before knocking electrode pins into walls, ceilings, floors, etc.



INFORMATION

Digit readings obtained using the resistance-based measurement methods are not comparable with digit readings obtained using the capacitive measurement method.

Digit values are non-dimensional measured values and no real humidity values in per cent (%)! For this reason, the measured values are displayed in digits WITHOUT %!

13.2 General Notes on Structural Moisture Measurement

The structural moisture is mainly displayed in "digits" (depending on the device). Digit values are non-dimensional measured values and no real humidity values in per cent (%)! This can be used to measure almost all set building materials or mixed materials or mixed structures by comparative measurements within the same material or structure.

Pure building materials with corresponding characteristic curves are specified with weight percentages (wt. %) in relation to the dry weight or also in CM-% (moisture determination according to the calcium carbide method). Depending on the type of GANN Hydromette used, this is done using programmed characteristic curves or independent conversion using tables.

If a material is in a certain ambient climate for a longer period of time, it takes on a moisture content corresponding to this climate, which is also referred to as equilibrium moisture or practical moisture content. On reaching the equilibrium moisture content, the material no longer loses moisture if the surrounding climate remains the same and also no longer absorbs any moisture. The equilibrium values generally mentioned refer to a climate of 20 °C and 65 % relative humidity. However, these values must not be confused with the values at which the material can be worked or processed.

Floor coverings and paints must be considered and assessed in conjunction with the diffusion capacity of the material used. For example, when laying a PVC floor covering, the subsequent average levelling moisture content must be taken as a basis, i.e. in a centrally heated room with an anhydrite screed, installation should wait until a moisture content of approx. 0.6 % by weight has been reached. In contrast, wood parquet flooring can be laid on a cement screed with normal stove heating at a moisture content of 2.5 - 3.0 % by weight.

The respective long-term ambient climate must also be taken into account when assessing **wall surfaces**. The lime mortar plaster in an older vaulted cellar may well contain a moisture content of 2.6 % by weight, but a gypsum plaster in a centrally heated room would have to be labelled as too damp from a moisture content of 1.0 % by weight.

When evaluating the moisture content of a material, the surrounding climate is the primary consideration. All materials are subject to continuously changing temperatures and air humidity. The influence of the material moisture depends significantly on the heat conductivity, the thermal capacity, the resistance to water vapour diffusion and the hygroscopic properties of the material.

The "target humidity" of a material is the humidity that corresponds to the mean value of the equilibrium humidity under changing climatic conditions to which it is constantly exposed. The humidity values in living spaces in Central Europe are approx. 45 - 65 % R.H. in summer and approx. 30-45 % R.H. in winter. These fluctuations can cause damage in centrally heated rooms in winter.

It is not possible to lay down generally applicable values. Much more it always requires the technical and expert experience to correctly evaluate the measured values.

Different building materials, such as clay building materials, etc. cannot be measured with the usual accuracy due to their different mineral admixtures or burning times. However, this does not mean that comparative measurements in the same building material and on the same object are not meaningful. Different display values can be used, for example, to localise the extent of a moisture

field (water damage), or comparative measurements on dry interior walls and damp exterior walls can be used to determine progress in drying out.

Attention:

The notes and tables in these operating instructions on permitted or normal humidity conditions in practice and the general definitions of terms have been taken from the specialist literature. No responsibility can therefore be assumed by the manufacturer of the measuring instrument for the correctness of this information. The conclusions to be drawn from the measurement results are related to the individual conditions and the knowledge from professional experience for each user.

13.3 Notes on non-destructive Structural Moisture Measurement

The non-destructive structural moisture measurement is based on an electrical capacitance determination depending on the dielectric constant (DK) of the measurement object. During the measurement, water molecules are polarised by applying an electric field. The dielectric constant of water is very high compared to the building material and therefore determines the measurement result.

The measuring field is formed between the active sphere on the top of the device and the substrate mass to be analysed. The change in the electric field caused by the material and moisture is recorded and shown digitally on the display of the measuring device.

The bulk density of the building material has a measurable influence on the measured variable. With a higher bulk density, a higher dielectric constant is to be expected.

It is only possible to draw conclusions about the absolute moisture content in per cent by weight or the moisture content in per cent CM if the drying process is normal. If the building material dries out too quickly (e.g. due to warm air, dehumidifiers, underfloor heating, etc.), the measured values may be too low due to the low surface moisture.

It is difficult to make a generally valid statement on the accuracy of measurement in relation to weight or mass percentages. Pure building materials with specific characteristic curves can be measured with good accuracy, whereas mixed masonry and laminates made of different materials are less accurate. However, exact percentages are often not necessary and so-called comparative measurements are completely sufficient.

The following points must also be observed for capacitive measurement:

- Capacitive measuring devices are moisture indicators and not measuring devices with 100 % reliable measured value statements.
- The conversion tables or characteristic curves for capacitive measuring devices generally refer to pure building materials (not to layered building materials, e.g. plaster on masonry etc.).

- The measurement results obtained with the capacitive measuring devices alone are not reliable or sufficient for expert reports. The measurement results should always be backed up by a second measurement method (e.g. resistance or CM measurement).
- There are no exact values for the penetration depth. The depth effect depends, among other things, on the bulk density, the current moisture content, the roughness of the surface, the pore size and quantity and the moisture distribution in the material. Therefore, no binding statements can be made in this regard.
- Of course, this problem does not only apply to capacitive measuring instruments from GANN, but is the physical basis for all moisture probes and sensors that work dielectric constant (DK), high-frequency or microwave basis.

13.4 Using the Hydromette BL Compact B 3

To prevent any influence from the hand of the operator who is performing the measurement, during the measurement and inspection process, only the rear half can be covered by the hand. The front half (display/ball) of the device must remain free.

Correct handling of the device:

While measuring, always grip the device by the lower end of its housing.



Figure 13-1: Correct device position

Improper handling of the device:

During measurement, the hand influences the measurement field of the ball electrode and thereby changes the measurement value, as shown.



Figure 13-2: Improper device position

Measuring:

Press the measurement button "**M**" for longer than 2 seconds, and scan the area to be inspected. The electrode must rest firmly on the building material and be held as vertically as possible (approx. 90°) to the area. A measuring process is carried out as long as the measurement button is pressed. After releasing the "**M**" button, the measuring process is interrupted and the "**Hold**" symbol is displayed.



Figure 13-3: Measuring as vertically as possible to the measurement area

Measurements in drill holes lead to faulty measurements. This results in an overlay of the measuring field and thus an increase in the measured value.



Figure 13-4: Incorrect use – measurement in drill hole

In the corner/angle area, it is essential to maintain a distance of approx. 8 - 10 cm from the edge/angle.

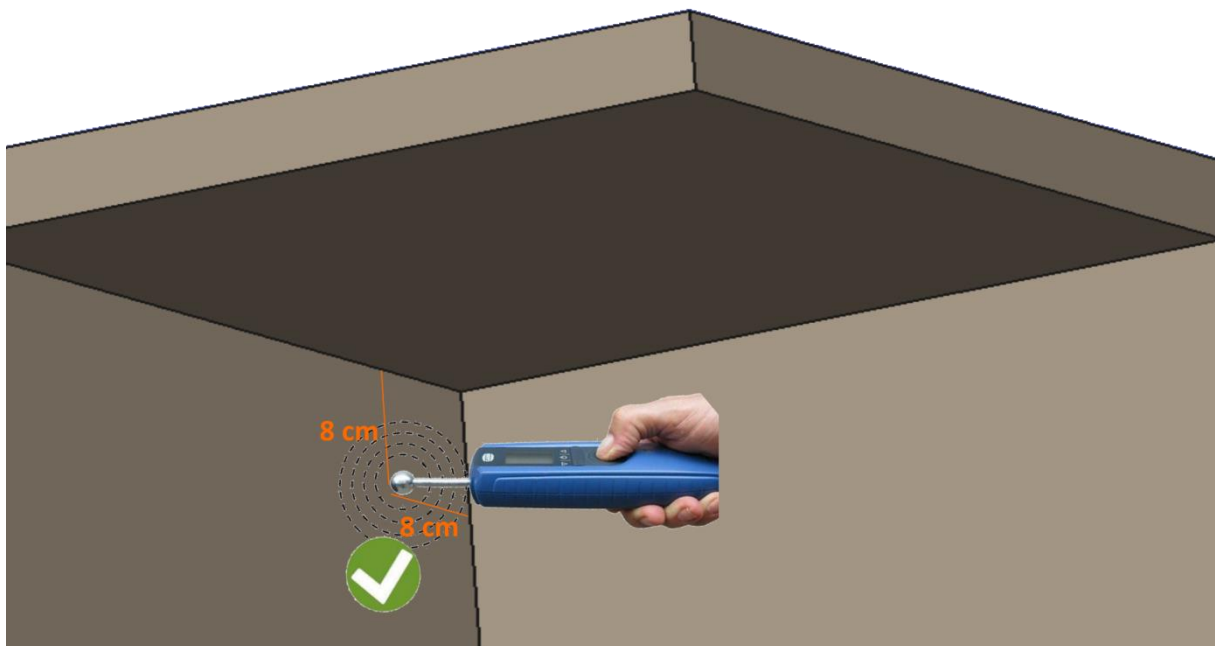


Figure 13-5: Correct use of distances when measuring

Measurements directly in the corner/angle area lead to an overlapping of the measuring field and thus change the measured value!



Figure 13-6: Incorrect use in corner/angle area

13.5 Display/Conversion Values (Digits) depending on the Raw Material Density

Density of the building material kg/m ³	Corresponding relative humidity in %					
	30-----50-----70-----80-----90-----95-----100					
	Display in Digits*					
	very dry	normal dry	semi dry	moist	very moist	wet
up to 600	10 - 20	20 - 40	40 - 60	60 - 90	90 - 110	above 110
600 - 1200	20 - 30	30 - 50	50 - 70	70 - 100	100 - 120	above 120
1200 - 1800	20 - 40	40 - 60	60 - 80	80 - 110	110 - 130	above 130
above 1800	30 - 50	50 - 70	70 - 90	90 - 120	120 - 140	above 140

* Digital values are dimensionless measurement values and not real moisture values as a percentage!

Figure 13-7: Display values as a function of the material bulk density

13.6 Orientation Values

The following data serves as an orientation guide for anticipated display values:

Residential spaces

dry 20 - 40 Digits

moist 80 - 140 Digits

Cellars (old buildings)

dry 40 - 60 Digits

moist 100 - 150 Digits



INFORMATION

Dew point undershoots or condensation on the surface to be measured can cause higher display values and thus make the wall appear more humid than is actually the case! It is therefore always advisable to carry out an additional indoor climate measurement and dew point calculation (Hydromette BL Compact TF-IR 2, TF 3 & RH-T). This can prevent misinterpretations. If readings exceed 130 digits, condensation (or the presence of liquid water) may already be starting to form, depending on the bulk density.

Depending on the height of the covering, metal in the subsurface (iron reinforcements, wires, pipes, stucco bars, etc.) can raise the measurement value. This should be considered when evaluating the displayed values in relation to the covering.

13.7 Display Values (Digits) by Weight Percentage or CM Percentage

Display in Digits		40	50	60	70	80	90	100	110	120	130
Cement screed	wt.-%	1.8	2.2	2.7	3.2	3.6	4.1	4.5	5.0	5.5	5.9
	CM-%	0.7	1.0	1.4	1.8	2.1	2.5	2.9	3.2	3.6	4.0
Anhydrite screed	wt.-%	0.1	0.3	0.6	1.0	1.4	1.8	2.2	2.5	2.9	3.3
	CM-%	0.1	0.3	0.6	1.0	1.4	1.8	2.2	2.5	2.9	3.3
Concrete C12/15, C20/25, C30/37	wt.-%		1.3	1.9	2.5	3.2	3.8	4.4	5.0	5.6	6.2
	CM-%		0.3	0.8	1.3	1.7	2.2	2.7	3.2	3.7	4.2
Cement mortar	wt.-%	1.8	2.7	3.5	4.6	6.0	7.0	7.8			
	CM-%	0.6	1.5	2.3	3.1	4.0	4.8	5.6			
Lime mortar	wt.-%	0.6	2.0	3.3	4.5						
	CM-%	0.6	2.0	3.3	4.5						
Lime cement mortar	wt.-%	2.2	3.6	5.0	6.4	7.8	9.2	10.6	11.0		
	CM-%	1.5	2.7	4.0	5.2	6.4	7.6	8.8	10.0		
Gypsum plaster	wt.-%	0.3	0.5	1.0	2.0	3.5	6.5	10.0			
	CM-%	0.3	0.5	1.0	2.0	3.5	6.5	10.0			

Figure 13-8: Display values in digits

14 Accessories

Connection cable MK 26 – Length: 1.80 m (order no. 31016920)



For device connection with a USB port.

15 Appendix

15.1 Material Table

Material ID	Material designation
0	Scan mode (display in digits)
11	Cement screed in weight-%
12	Anhydrite screed in weight-%
13	Concrete in weight-%
14	Cement mortar in weight-%
15	Lime mortar in weight-%
16	Lime cement mortar in weight %
17	Gypsum plaster in weight %
18	Cement screed in CM %
50	Anhydrite screed in CM %
54	Gypsum plaster in CM %
55	Lime mortar in CM %
58	Cement mortar in CM %
72	Lime cement mortar in CM %
73	Concrete in CM %

15.2 General Concluding Remarks

The notes and tables in these operating instructions on permitted or normal humidity conditions in practice and the general definitions of terms have been taken from the specialist literature. No responsibility can therefore be taken by the manufacturer of the measuring device for the correctness of this information.

The conclusions to be drawn from the measurement results are related to the individual conditions and the knowledge from professional experience for each user. In cases of doubt, for example concerning the permitted moisture content in coating or screed substrates when laying floor coverings, it is recommended to contact the manufacturer of the coating or floor covering and to take account of the recommendations of trade organisations.

Please note:

The instructions for use for the device and any accessories should be carefully observed, as supposed simplifications in handling often lead to measurement errors.

- Subject to technical changes-

Status: October 2026



GANN MESS- U. REGELTECHNIK GMBH

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16 EU Declaration of Conformity



Document no. / order no.: 30012033

Product identifier: **HYDROMETTE BL Compact B 3**

We declare that the hand-held meter and related accessory correspond with the protection requirements and if used according to their intended purpose, comply with the requirements of the directives:

☒ 2014/30/EU EMC Directive

☒ 2011/65/EU RoHS

Applied harmonized standards:

☒ EN 61326-1 : 2021 General EMC requirements

☒ EN IEC 63000 : 2018 Restriction of hazardous substances

This declaration is given in responsibility for:

Gann Mess- u. Regeltechnik GmbH

Schillerstr. 63

70839 Gerlingen

Germany

issued by:

name: Michael Gann

Position in the company of manufacturer: Managing Director

Place / date: Gerlingen, 01 September 2026



(Legally valid signature)