

# Moisture meter

# **Operating Manual**

# **BLC** moisture transmitter

for measuring the moisture content of wood chips,

pellets, sawdust and other materials



78,0°F | 6,16% | 456 kg/m³ | -27,3td | 0,64aw | 51,9%r.H. | 14,8%abs | 100,4g/m² | 09m/s | 4,90Ugl | 1

# Your BLC device at a glance

## The main unit



| No. | Name                              |
|-----|-----------------------------------|
| 1   | Display                           |
| 2   | Aluminium housing for electronics |
| 3   | Sensor plug                       |
| 4   | Pressure equalisation element     |
| 5   | Keypad                            |



### Rear of the main unit



| No. | Name           |
|-----|----------------|
| 1   | Sensor surface |

# The display



| No. | Name  |
|-----|---|
| 1   | Calibration curve   |
| 2   | Moisture content in % ("6.2 How moisture content is defined") |
| 3   | Display symbols   |
| 4   | Temperature display   |

# The display symbols

| Symbol   | Name                | Symbol           | Name               |
|----------|---------------------|------------------|--------------------|
| ц.       | Enter               | <br>all,         | Left               |
| <u>.</u> | Up                  | <br>$\checkmark$ | Yes                |
|          | Down                | <br>X            | No                 |
| H.       | Back                | <br>Û            | Change input level |
| 09       | Enter numbers       | OK               | ОК                 |
| A.Z      | Enter letters       | <br>Ģ            | Change menu        |
| , Here   | Continue / go right | <br>Ċ            | On/off button      |



#### The menus

The device has two different menus: product selection and main menu:

#### Product selection menu



| No. | Name                               |
|-----|------------------------------------|
| 1   | Change menu                        |
| 2   | Device on/off                      |
| 3   | For changing the calibration curve |

#### Main menu

The main menu comprises the following menu items:

- Adjust
- Options:

Language, Unlock, °C/°F, Averaging, BL On Time, Materialcalibration, Password, Reset

Status

# **Table of contents**

| Your BL    | C device at a glance                                      | 2  |
|------------|---|----|
| The main ( | unit  | 2  |
| The displa | y symbols   | 4  |
| The menu   | 5   | 5  |
| 1.         | Introduction  | 8  |
| 1.1        | Information about this operating manual                   | 8  |
| 1.2        | Limitation of liability                                   | 8  |
| 1.3        | Symbols used in this manual                               | 9  |
| 1.4        | Customer service  | 9  |
| 2.         | For your safety   | 10 |
| 2.1        | Proper use  | 10 |
| 2.2        | Improper use  | 10 |
| 2.3        | User qualifications                                       | 10 |
| 2.4        | General safety information                                | 10 |
| 2.5        | Warranty  | 11 |
| 3.         | On receipt of your device                                 | 11 |
| 3.1        | Taking the device out of its packaging                    | 11 |
| 3.2        | Making sure that all of the components have been included | 11 |
| 4.         | Installation of the moisture transmitter                  | 12 |
| 4.1        | Laying of the supply line or transmission line            | 12 |
| 4.2        | Mounting the sensor                                       | 12 |
| 4.3        | Pin assignment  | 13 |
| 4.4        | Wiring diagram  | 14 |
| 5.         | Using the device - Basics                                 | 14 |
| 5.1        | Selecting the calibration curve                           | 14 |
| 5.2        | Taking a measurement                                      | 14 |
| 6.         | Calibration curves  | 15 |
| 6.1        | Selection of calibration curve for wood chips             | 16 |
| 6.2        | How moisture content is defined                           | 16 |
| 7.         | Checking the device's status                              | 17 |
| 8.         | Configuring the device                                    | 18 |
| 8.1        | Selecting a language                                      | 18 |
| 8.2        | Activating options  | 18 |



| 8.3  | Deactivating options                          | 19 |
|------|---|----|
| 8.4  | Selecting °C/°F                               | 19 |
| 8.5  | Setting the averaging time                    | 20 |
| 8.6  | Configuring the display illumination time     | 20 |
| 8.7  | Configuring the material calibration function | 21 |
| 8.8  | Changing the password                         | 21 |
| 8.9  | Resetting the device to its factory settings  | 22 |
| 9.   | Cleaning and maintenance                      | 22 |
| 9.1  | Care instructions                             | 22 |
| 9.2  | Cleaning the device                           | 22 |
| 9.3  | Adjusting the moisture transmitter            | 23 |
| 10.  | Faults  | 24 |
| 11.  | Storage and disposal                          | 25 |
| 11.1 | Storing the device                            | 25 |
| 11.2 | Disposing of the device                       | 25 |
| 12.  | Device information                            | 26 |
| 12.1 | CE declaration of conformity                  | 26 |
| 12.2 | Technical data                                |    |
| 12.3 | Technical drawing BLC                         | 31 |
|      |   |    |

## 1. Introduction

#### 1.1 Information about this operating manual

This operating manual is designed to enable you to use the BLC safely and effectively. It is part of the device, has to be stored nearby and must be easily accessible to users at all times.

All users are required to carefully read and make sure that they have understood this operating manual before using the BLC. All of the safety and operating instructions detailed in this manual have to be observed to ensure the safety of the device.

#### 1.2 Limitation of liability

All of the information and instructions provided in this operating manual have been compiled on the basis of the current standards and regulations, the state of the art, and the extensive expertise and experience of Schaller Messtechnik GmbH.

Schaller Messtechnik GmbH does not accept any liability for damage associated with the following, which also voids the warranty:

- Non-observance of this operating manual
- Improper use
- Inadequately qualified users
- Unauthorised modifications
- Technical changes
- Use of unapproved spare parts

This fast measuring procedure can be affected by a range of different factors. For this reason, we recommend periodically checking the device's measurements with a standardised oven-drying method.

We, as the manufacturer, do not accept any liability for any incorrect measurements and associated consequential damage.



### 1.3 Symbols used in this manual

All of the safety information provided in this manual is shown with a corresponding symbol.

# ATTENTION

It is essential to observe this warning. Non-compliance can lead to damage to property or equipment.

# Information

This symbol indicates important information that enables users to use the device more efficiently and cost-effectively.

#### 1.4 Customer service

For technical advice, please contact our customer service department at:

Schaller Messtechnik GmbH Max-Schaller-Straße 99 A - 8181 St.Ruprecht an der Raab

Telephone: +43 (0)3178 28899 Fax: +43 (0)3178 28899 - 901

E-mail: info@humimeter.com Internet: www.humimeter.com

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## 2. For your safety

The device complies with the following European directives:

- Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS)
- Electromagnetic compatibility (EMC)

The device corresponds to state-of-the-art technology. However, it is still associated with a number of residual hazards.

These hazards can be avoided through strict observance of our safety information.

#### 2.1 Proper use

- Online measurement of the water content (optionally water content and temperature) of wood chips, pellets, sawdust and other materials by installation of a sensor in the material flow
- Fully calibrated system with calculation of the measuring value by the transmitter unit

#### 2.2 Improper use

- The device must not be used in ATEX.
- The installation location must be chosen in such a way that it is ensured that no condensation occurs in the sensor!

#### 2.3 User qualifications

The device must only be operated by people who can be expected to reliably take the measurements. The device must not be operated by people whose reaction times may be slowed due to, e.g. the use of drugs, alcohol or medication.

All persons using this device must have read, understood and follow the instructions provided in the operating manual.

#### 2.4 General safety information

The following safety information has to be observed at all times to avoid damage to objects and injury to people:

• In case of damages or loose parts on the device, contact Schaller Messtechnik GmbH or your dealer.



All of the device's technical features have been inspected and tested before delivery. Every device has a serial number. Do not remove the tag with the serial number.

#### 2.5 Warranty

The warranty does not apply to:

- Damage resulting from non-observance of the operating manual
- Damage resulting from third-party interventions
- Products that have been used improperly or modified without authorisation
- Products with missing or damaged warranty seals
- Damage resulting from force majeure, natural disasters, etc.
- Damage from improper cleaning

# 3. On receipt of your device

#### 3.1 Taking the device out of its packaging

- Take the device out of its packaging.
- Next, make sure that it is not damaged and that no parts are missing.

#### 3.2 Making sure that all of the components have been included

Make sure that all of the components have been included by checking the package contents against the following list:

#### 3.2.1 Scope of supply

- BLC
- Connecting cable of 1.9 m length
- Operating manual

Optional accessories:

• Analogue output for temperature measurement (-10 °C to +70 °C)

# 4. Installation of the moisture transmitter

#### 4.1 Laying of the supply line or transmission line

- The cable must not be laid in the area of interference fields.
- Do not operate the transmitter in the area of electromagnetic interference fields.
- The cable must not be bent excessively.
- The permissible cross-sections for the installation must be observed.
- The cable length must be kept as short as possible.
- » If an extension of the cable is required, the cross-section of the extension must not be below 0.25 mm<sup>2</sup>.

#### 4.2 Mounting the sensor

- During the measurement, continuous contact between the sensor surface and the material being measured has to be ensured.
- For a correct measurement result, there must be a constant quantity of material to be measured in the measuring field of the sensor.
- There must be no contact of any conductive materials with the sensor surfaces.
- Mount the sensor on the four drilled holes (Ø 9.0 mm) .

#### Possible mounting locations:

- Bunker
- » Installation at the side wall
- Screw conveyor
- » This mounting location is only possible for measuring sawdust!
- » Installation at the bottom of the trough
- » There must be no windings above the sensor



#### 4.3 Pin assignment



| Cable color | Pin no. | Function  |
|-------------|---------|---|
| Brown       | 1       | Power supply V- (0 VDC)<br>Ground current output    |
| White       | 2       | Power supply V+ (24 VDC)                            |
| Blue        | 3       | Analogue output humidity 4 - 20 mA                  |
| Black       | 4       | n.c.  |
| Grey        | 5       | Analogue output temperature 4 - 20 mA<br>(optional) |
| Purple      | Housing | Equipotential bonding GND                           |



#### Damage to the electronics due to incorrect cable connection

Incorrectly connected cables can lead to severe damage of the electronics.

Connect all cables correctly.

#### 4.4 Wiring diagram



## 5. Using the device - Basics

#### 5.1 Selecting the calibration curve

To do so: The device has to be in the product selection menu (figure 1).

For an overview of the different calibration curves and the criteria for selecting them, please refer to "6. Calibration curves"es".

- 1. Press the  $\bigtriangledown$  or  $\bigtriangleup$  button to move from one calibration curve to the next Or
- 2. Press the  $\bigtriangledown$  or  $\bigtriangleup$  button for 3 seconds to open the calibration curve overview (figure 2).
- 3. Use the arrow keys to move from one calibration curve to the next
- 4. and keep any of them pressed to scroll through the types.
- I through the
- 5. Confirm your selection by pressing 🖊.
- » The calibration curve you selected will now be shown at the top of the display.

#### 5.2 Taking a measurement

• In order to obtain the currently measured values, the device has to be in the measuring window.





# 6. Calibration curves

| Calibration curve | Material   | Measuring<br>range | Scaling<br>Analog output |
|-------------------|--|--------------------|--------------------------|
| 625 Pellets       | Wood pellets with a bulk density of 625 kg/m <sup>3</sup>                        | 2 - 20%            | 0 to 20%                 |
| 640 Pellets       | Wood pellets with a bulk density of 640 kg/m <sup>3</sup>                        | 2 - 20%            | 0 to 20%                 |
| 655 Pellets       | Wood pellets with a bulk density of 655 kg/m <sup>3</sup>                        | 2 - 20%            | 0 to 20%                 |
| 670 Pellets       | Wood pellets with a bulk density of 670 kg/m <sup>3</sup>                        | 2 - 20%            | 0 to 20%                 |
| 685 Pellets       | Wood pellets with a bulk density of 685 kg/m <sup>3</sup>                        | 2 - 20%            | 0 to 20%                 |
| 1 Sawdust         | Sawdust with very high atro bulk density   | 2 - 60%            | 0 to 60%                 |
| 2 Sawdust         | Sawdust with high atro bulk<br>density   | 2 - 60%            | 0 to 60%                 |
| Sawdust           | Sawdust with medium atro bulk density  | 2 - 60%            | 0 to 60%                 |
| 4 Sawdust         | Sawdust with low atro bulk density   | 2 - 60%            | 0 to 60%                 |
| 5 Sawdust         | Sawdust with very low atro bulk density  | 2 - 60%            | 0 to 60%                 |
| -1 Woodchips      | Fine wood chips with very high<br>atro bulk density<br>(fine and heavy hardwood) | 2 - 60%            | 0 to 60%                 |
| 0 Woodchips       | Wood chips with very high atro<br>bulk density (heavy hardwood)                  | 2 - 60%            | 0 to 60%                 |
| 1 Woodchips       | Wood chips with high atro bulk density (hardwood)                                | 2 - 60%            | 0 to 60%                 |
| 2 Woodchips       | Wood chips with medium atro<br>bulk density (hardwood/softwood)                  | 2 - 60%            | 0 to 60%                 |
| 3 Woodchips       | Wood chips with medium atro<br>bulk density (hardwood/softwood)                  | 2 - 60%            | 0 to 60%                 |
| 4 Woodchips       | Wood chips with low bulk atro density (softwood)                                 | 2 - 60%            | 0 to 60%                 |

| 5 Woodchips | Wood chips with very low atro bulk density (light softwood)                         | 2 - 60% | 0 to 60% |
|-------------|---|---------|----------|
| 6 Woodchips | Coarse wood chips with very low<br>atro bulk density<br>(coarse and light softwood) | 2 - 60% | 0 to 60% |
| Reference   | ! Only for testing the instrument !   |         |          |
| 0% = 4mA    | ! Only for testing the instrument !   |         |          |
| 60% = 20mA  | ! Only for testing the instrument !   |         |          |

### 6.1 Selection of calibration curve for wood chips

The calibration curves for wood chips depends on the atro bulk density (bulk density at 0% water content), the wood type (hardwood, softwood), the size of the chips as well as on the content of fine fraction.

If you are not sure which calibration curve is the best suited for your material, it is recommended to carry out a reference measurement by kiln-drying (according to EN ISO 18134-2).

Schaller Messtechnik GmbH will be happy to advise you on the selection of the right calibration curve. Please send a picture of your wood chips, placing a measuring tape to the material, to support@schaller-gmbh.at. You will receive a recommendation from us immediately.

#### 6.2 How moisture content is defined

The device measures and shows the material's moisture content. The moisture content readings it displays are calculated in relation to the material's overall mass:

$$\% WG = \frac{M_n - M_t}{M_n} \times 100$$

M<sub>n</sub>: Mass of the sample with average moisture content

M<sub>t</sub>: Mass of the sample with zero moisture content

%WG: Moisture content (in accordance with EN ISO 18134-2)



## 7. Checking the device's status

- 1. Press 🙀 twice or hold for 2 seconds.
- 2. Select **Status**. To do so, press **T** or **i** and confirm by pressing **4**.
  - » The display will then show the status indicator humimeter.
  - » The display will show the following information:



| No. | Name             |
|-----|------------------|
| 1   | Serial number    |
| 2   | Software version |
| 3   | Battery status   |
| 4   | Memory status    |

- 3. Confirm by pressing 📢.
- 4. Press  $\bigcirc$  to leave the main menu.

# 8. Configuring the device

#### 8.1 Selecting a language

- 1. Press 😱 twice or hold for 2 seconds.
- 2. Select **Options**. To do so, press **T** or **a** and confirm by pressing **4**.
- 3. Select Language. To do so, press 🐺 or 🛓 and confirm by pressing 🚚.
- 4. Navigate to the required language. To do so, press T or  $\mathbf{A}$  and confirm by pressing  $\mathbf{A}$ .
  - » The settings have been saved.
- 5. Press **I** to leave the **Options** menu.
- 6. Press 😱 to leave the main menu.

#### 8.2 Activating options

To do so: Some of the options must be deactivated.

- 1. Press 🙀 twice or hold for 2 seconds.
- 2. Select **Options**. To do so, press **T** or **h** and confirm by pressing **+**.
- 3. Select Unlock. To do so, press 🐺 or 🛓 and confirm by pressing 🖊
  - » The display will now appear as shown in figure 3.
  - » On delivery, the four-digit password is the device's serial number.
- Inputting numbers:
  Press and hold **1**.9 to quickly scroll to the required number and either press it for 3 seconds or press **4** to confirm the selected number (figure 4).
- Moving back: Press to switch to another input level. To move back, press .





- 6. Confirm the four-digit password by pressing **O**K.
  - » The setting has been saved.
  - » The °C/°F, Averaging, BL On Time, Materialcalibration, Password, Reset options are now activated
- 7. Press **+** to leave the **Options** menu.
- 8. Press  $\mathbf{\hat{q}}$  to leave the main menu.

#### 8.3 Deactivating options

Once the device has been switched restarted, the C/°F, Averaging, BL On Time, Materialcalibration, Password, Reset options will be deactivated again.

#### 8.4 Selecting °C/°F

To do so: All of the options must be activated (see "8.2 Activating options").

- 1. Press 😱 twice or hold for 2 seconds.
- 2. Select **Options**. To do so, press  $\overline{\Psi}$  or  $\underline{\blacktriangle}$  and confirm by pressing  $\cancel{\blacksquare}$ .
- 3. Select °C/°F. To do so, press T or 📥 and confirm by pressing 🕌.
- 4. Navigate to the required temperature scale, i.e. Celsius (°C) or Fahrenheit (°F). To do so, press T or in and confirm by pressing i.
- » The setting has been saved.
- 5. Press **F** to leave the **Options** menu.
- 6. Press  $\widehat{\mathbf{q}}$  to leave the main menu.

#### 8.5 Setting the averaging time

To do so: All of the options must be activated (see "8.2 Activating options").

- 1. Press  $\mathbf{\hat{i}}$  twice or hold for 2 seconds.
- 2. Select **Options**. To do so, press **T** or **h** and confirm by pressing **+**.
- 3. Select Averaging. To do so, press  $\overline{\Psi}$  or  $\underline{A}$  and confirm by pressing  $\underline{4}$ .
- - » The setting has been saved.
- 5. Press **4** to leave the **Options** menu.
- 6. Press 🙀 to leave the main menu.

#### 8.6 Configuring the display illumination time

To do so: All of the options must be activated (see "8.2 Activating options").

- 1. Press  $\bigcirc$  twice or hold for 2 seconds.
- 2. Select **Options**. To do so, press  $\overline{\Psi}$  or  $\underline{A}$  and confirm by pressing  $\cancel{P}$ .
- 3. Select **BL On Time**. To do so, press **T** or **h** and confirm by pressing **+**.
- 4. Navigate to the required setting, turned off (**0 Off**) or turned on (**1 On**). To do so, press **T** or **i** and confirm by pressing **i**.
  - » The setting has been saved.
- 5. Press **F** to leave the **Options** menu.
- 6. Press 🗘 to leave the main menu.



#### 8.7 Configuring the material calibration function

The type calibration function is described in a separate operating manual.

#### 8.8 Changing the password

To do so: All of the options must be activated (see "8.2 Activating options").

- 1. Press  $\bigcirc$  twice or hold for 2 seconds.
- 2. Select **Options**. To do so, press  $\overline{\Psi}$  or  $\underline{I}$  and confirm by pressing  $\underline{4}$ .
- 3. Select **Password**. To do so, press **T** or **i** and confirm by pressing **4**.
- » The display will show the current password.
- 4. Overwrite the current password. To do so, press and hold **1** ... **9** to quickly scroll to the required number and either press it for 3 seconds or press **4** to confirm the selected number.

Moving back: Press in to switch to another input level. To move back, press in .

- 5. Confirm the new four-digit password by pressing **OK**.
- » The setting has been saved.
- 6. Press **F** to leave the **Options** menu.
- 7. Press  $\widehat{\mathbf{q}}$  to leave the main menu.

#### 8.9 Resetting the device to its factory settings

To do so: All of the options must be activated (see "8.2 Activating options").

- 1. Press 😱 twice or hold for 2 seconds.
- 2. Select **Options**. To do so, press **T** or **h** and confirm by pressing **H**.
- 3. Select **Reset**. To do so, press **T** or **h** and confirm by pressing **4**.
- » The display will then show the message **Reset?** (figure 5).
- 4. Confirm by pressing 😾
  - The device will now be reset to its factory settings. All of your personal settings will be lost.
  - » The display will show the status indicator humimeter (figure 6).
  - » Resetting the device will not affect the saved measuring values.

## 9. Cleaning and maintenance

Regularly cleaning and maintaining the device will ensure that it will have a long service life and stay in good condition.

#### 9.1 Care instructions

- The moisture transmitter must be adjusted every four weeks.
- Do not immerse the sensor in water.
- Do not expose the device to extreme temperatures.
- Do not bend the sensor cable excessively. Repeated bending of the sensor cable can lead to a damage of the sensor.
- Protect the device from strong mechanical shocks and loads.

#### 9.2 Cleaning the device

#### Sensor surface

Clean the sensor surface with a cloth and cleaning alcohol.



Page 23

### 9.3 Adjusting the moisture transmitter

The moisture transmitter must be adjusted after installation and every four weeks during operation.

To do so: The moisture transmitter must be turned on for at least 30 minutes. There must be no material in the vicinity of the white sensor surface!

- 1. Press 😱 twice or hold for 2 seconds.
- 2. Select **Options**. To do so, press **T** or **i** and confirm by pressing **i**.
- 3. Select **Adjust**. To do so, press **▼** or **▲** and confirm by pressing **↓**.
  - » The display will then show the message Adjust? (figure 7).
  - » There must be no material in the vicinity of the white sensor surface!
  - » The temperature of the sensor should be similar to that during a measurement.
- 4. Confirm by pressing 📝.
  - » The display will now appear as shown in figure 8.
  - » The bar will run upwards.
  - This will only take a couple of seconds to complete and when completed, the display will show the **Options** again.
- 5. Press  $\mathbf{F}$  and then  $\mathbf{F}$  to leave the **Options** and the main menu.







# 10. Faults

If the measures listed below fail to remedy any faults or if the device has faults not listed here, please contact Schaller Messtechnik GmbH.

| Fault  | Cause  | Remedy   |
|--|--|--|
| Measuring error  | The temperature of the ma-<br>terial being measured is too<br>low or high. I.e. the material's<br>temperature is lower than 0 °C<br>or higher than +50 °C. | The temperature of the<br>material being measured<br>has to be between 0 °C and<br>+50 °C.     |
|  | Measurement error due to too<br>short temperature adjustment<br>time   | Let the device adjust to the surroundings.   |
|  | Frozen material or material<br>mixed with snow<br>Accuracy decreases signifi-<br>cantly  | The material must not be frozen or mixed with snow.  |
|  | Mouldy or rain wet material<br>Accuracy decreases signifi-<br>cantly   | Only measure dry, not mouldy material.   |
|  | Air value being displayed  | If there is no material above<br>the sensor, the air value will<br>be displayed (2.0 %).       |
|  | Uneven pressure of the mate-<br>rial   | Make sure that the material applies even pressure onto the sensor.                             |
|  | Polluted sensor  | Clean the sensor surface<br>(see "9.2 Cleaning the<br>device").                                |
|  | Conductive material on the sensor plates   | Make sure that there is no<br>contact of any conductive<br>material with the sensor<br>plates. |
|  | The sensor plug is not con-<br>nected correctly  | Make sure that the sensor plug is connected properly.  |
| Incorrect adjustment<br>(the exclamation<br>mark on the display<br>does not go away) | There is an object/material in<br>the vicinity of the white sensor<br>surface (during calibration)   | Remove any objects/ma-<br>terials in the vicinity of the<br>white sensor surface.              |



## 11. Storage and disposal

#### 11.1 Storing the device

The device must be stored as follows:

- Avoid mechanical shocks/loads
- Storage temperature: -20 °C to +60 °C

#### 11.2 Disposing of the device



Devices marked with this symbol are subject to Directive 2012/19/ EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE). If the device is being operated outside the European Union, the national regulations on the disposal of such devices that apply in the country of use must be observed.

Electronic devices must not be disposed of as domestic waste.

The device must be disposed of appropriately using appropriate collection systems.

## 12. Device information

#### 12.1 CE declaration of conformity

## **CE** KONFORMITÄTSERKLÄRUNG *DECLARATION OF CONFORMITY*

| Name/ Adresse des Herstellers:                | Schaller Messtechnik GmbH   |
|---|---|
| Name/ address of manufacturer:                | Max-Schaller-Straße 99  |
|   | A – 8181 St. Ruprecht   |
| Produktbezeichnung:                           | Schaller  |
| Product designation:                          |   |
| Typenbezeichnung:<br><i>Type designation:</i> | BRC ; BLC   |
| Produktbeschreibung:                          | Messgerät zur Bestimmung des Wassergehalts in Bio-<br>masse       |
| Product description                           | Measuring instrument for determining the water content in biomass |
|   |   |

Das bezeichnete Produkt erfüllt die Bestimmungen der Richtlinien: The designated product is in conformity with the European directives:

| EMV - Richtlinie 2014/30/EC  | EMC Directive 2014/30/EU  |
|------------------------------|---------------------------|
| RoHS - Richtlinie 2011/65/EG | RoHS-Directive 2011/65/EU |

Die Übereinstimmung des bezeichneten Produktes mit den Bestimmungen der Richtlinien wird durch die vollständige Einhaltung folgender Normen nachgewiesen:

Full compliance with the standards listed below proves the conformity of the designated product with the provisions of the above-mentioned EC Directives:

| EN 61326–1:2013   | Elektrische Mess-, Steuer-, Regel- und Laborgeräte - EMV-An-<br>forderungen<br>Electrical equipment for measurement, control, and laboratory<br>use – EMC requirements   |
|---|--|
| EN IEC 63000:2019-05<br>ersetzt / replaced<br>EN 50581:2012 | Technische Dokumentation zur Beurteilung von Elektro- und<br>Elektronikgeräten hinsichtlich der Beschränkung gefährliche<br>Stoffe.<br>Technical documentation for the assessment of electrical and<br>electronic products with respect to the restriction of hazardous<br>substances. |



Für das angeführte Produkt ist eine vollständige Dokumentation mit Betriebsanleitung in Originalfassung vorhanden.

For the mentioned product a complete documentation with manual of instruction in original version is available.

Bei Änderungen, die nicht vom Hersteller spezifiziert sind, verliert diese Konformitätserklärung die Gültigkeit.

In case of any changes not agreed upon with the manufacturer, this declaration of conformity loses its validity.

St. Ruprecht a.d. Raab, 31.07.2022

Bernhard Maunz Rechtsverbindliche Unterschrift des Ausstellers Legal binding signature of the issuer

# UK CA DECLARATION OF CONFORMITY

| Name/ address of manufacturer: | Schaller Messtechnik GmbH<br>Max-Schaller-Straße 99<br>A – 8181 St. Ruprecht |
|--------------------------------|--|
| Product designation:           | Schaller   |
| Type designation:              | BRC ; BLC  |
| Product description:           | Measuring instrument for determining the water content in biomass            |

The designated product is in conformity with the following directives:

- Electromagnetic Compatibility Regulations 2016 Great Britain
- RoHS-Directive 2011/65/EU Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment

Full compliance with the standards listed below proves the conformity of the designated product with the provisions of the above-mentioned Directives:

| EN 61326-1:2013      | Electrical equipment for measurement, control, and laboratory<br>use – EMC requirements |
|----------------------|---|
| EN IEC 63000:2019-05 | Technical documentation for the assessment of electrical                                |
| replaced             | and electronic products with respect to the restriction of                              |
| EN 50581:2012        | hazardous substances.   |



For the mentioned product, a complete documentation with manual of instruction in original version is available.

In case of any changes not agreed upon with the manufacturer, this declaration of conformity loses its validity.



St. Ruprecht a.d. Raab, 31.07.2022

Bernhard Maunz Legal binding signature of the issuer

### 12.2 Technical data

| Measuring range<br>moisture content | 2 % to 60 %<br>(calibration curve dependent)   |
|-------------------------------------|--|
| Measuring range temperature         | -10 °C to +70 °C   |
| Operating temperature               | 0 °C to +50 °C   |
| Measuring depth                     | 200 mm   |
| Outputs                             | Moisture content (4 - 20 mA)<br>-Scaling (0% to 60% Sawdust, Woodchips)<br>-Scaling (0% to 20% Pellets)<br>Temperature (4 - 20 mA) (optional)<br>-Scaling (-10 °C to +70 °C)<br>Working resistance < 500 Ohm (UB 24 V) |
| Temperature compensation            | Automatic  |
| Power supply                        | 24 VDC (18 to 29 VDC)  |
| Current consumption                 | 50 mA (without output)   |
| Electrical connection               | Connecting cable 1.9 m   |
| Menu languages                      | English, German, French, Italian, Spa-nish,<br>Portuguese, Czech, Polish, Russian, Inter-<br>national  |
| Display                             | 128 x 64 illuminated matrix display  |
| Device dimensions                   | 226 x 156 x 86 mm (without cable)  |
| Device weight                       | 2,500 g (without cable)  |
| Device IP rating                    | IP 54  |



## 12.3 Technical drawing BLC





Schaller Messtechnik develops, produces and sells professional moisture meters and turnkey solutions.

#### Schaller Messtechnik GmbH

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