

INSTRUCTION MANUAL

Moisture indicator for wood and buildings IM 15



Description



INSTRUCTION MANUAL



Foreword

Dear customer,

We thank you for having purchased the moisture indicator for wood and buildings IM15 and we are very glad that you decided a product of **B+B Thermo-Technik GmbH**. We hope this product will fully satisfy you and will assist you effectively in your work.

This Device has been developed to be technically highly up-to date. This product has been designed in accordance with the regnant European and German national directives and rules. For a proper and effective usage of the product the customer shall observe the following Operating Instructions. In the case that against one's expectations any trouble occurs which you can not resolve yourself, please contact our service centers or our authorized dealer. We will provide you rapid and competent help to minimize the risk of long time outfalls.



The following operating Instruction is an indispensable part of this Product. It contains important advices for the starting up and further use of the device.

General Information

This Operation Manual is intended to serve as an aid in the proper setup, installation and operating of the B+B product.

All essential details of the equipment and all actions required on the part are clearly presented and explained. We thus ask that you read this manual carefully before proceeding to work with the equipment. Keep this manual available for ready reference in a convenient and conspicuous location near the equipment.

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Symbols Employed

Sign	Meaning	Notice
	Advice	It is necessary to read the following advices before using the product. The used symbols in the manual acts first of all as eye catcher for security risks. The symbols do not replace the security advices. The text must be read completely.
	Necessarily to observe	This symbol designates important advices and tips which are necessary for the success of a procedure. They have to be followed in order to get good results.

Warning Signs

Warning Signs	Meaning
	This symbol advises the user of danger for persons, material or environment. The text gives information that must be necessarily followed to avoid any risks
	Caution against hot surfaces (BGV A8, GUV-V A8/W26) and hot liquids or substances
	Caution against liquids and hot substances
	Caution against dangerous explosive substances (BGV A8, GUV-V A8/W02)
	Caution against moving machines (W29) Caution against moving parts
	Caution against electromagnetic fields (BGV A8, GUV-V A8/W12)
	Caution against severe cold (BGV A8, GUV-V A8/W17)
	Caution against dangerous high electrical voltage (BGV A8, GUV-V A8/W08)
	Caution against dangerous explosive atmosphere (BGV A8, GUV-V A8/W21)
	Electronic waste

Safety Instructions

B+B Thermo-Technik GmbH assume no liability for damages occurred through failure to observe these security advices. A usage none conform to the instructions given in this manual can damage the device.

This device has been designed and tested in accordance to the safety regulations for electronic devices. However, its trouble-free operation and reliability cannot be guaranteed unless the standard safety measures and special safety advises given in this manual will be adhered to when using it.

Trouble-free operation and reliability of the device can only be guaranteed if it is not subjected to any other climatic conditions than those stated under "Specification".

If the device is transported from a cold to a warm environment condensation may result in a failure of the function. In such a case make sure the device temperature has adjusted to the ambient temperature before trying a new start-up.

If device is to be connected to other devices the circuitry has to be designed most carefully. Internal connection in third party devices (e.g. connection GND and earth) may result in not-permissible voltages impairing or destroying the device or another device connected.

Warning:



Just devices with mains input: If device is operated with a defective mains power supply (e.g. short circuit from mains voltage to output voltage) this may result in hazardous voltages at the device (e.g. at sensor socket)

If there is a risk whatsoever involved in running it, the device has to be switched off immediately and to be marked accordingly to avoid re-starting. Operator safety may be a risk if:

- there is visible damage to the device
- the device is not working as specified
- the device has been stored under unsuitable conditions for a longer time

In case of doubt, please return device to manufacturer for repair or maintenance.



Caution:

Do not use these product as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury or material damage. Failure to comply with these instructions could result in death or serious injury and material damage.

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Intendend Use



The use of the unit in fields other than those indicated under "SAFETY INSTRUCTIONS" is not allowed for safety reasons.

This instruction manual does not at all substitute any additional instruction manual of connected accessory!

Disposal



This unit has been marked in accordance with the European Directive 2002/96/EC on waste electrical and electronic equipment (WEEE)

At the end of its useful operating life, dispose of the unit as electrical scrap.

Please ask either **B+B Thermo-Technik GmbH** or your specialist dealer for information on your local collection point. Within the scope of application of this Directive, **B+B Thermo-Technik GmbH** is responsible for proper disposal of this unit

1. Range of application:

- This device is designed for quick-response measuring of moisture in buildings, on building sites etc..
- The IM 15 allows moisture measurements in wood down to a depth of approx. 3 cm. and down to a depth of approx. 4 cm in concrete or wash floor. It is even able to detect moisture behind ceramic tiles or behind and under various floor or wall coverings!
- Simply place device on top of the surface to be measured - no injection into the measuring object required!

2. Measuring and operating instructions

- 2.1. Place bottom of indicator housing on a level part of the material to be measured. When measuring wood make sure that measurements are carried out in accordance with its fibre direction - otherwise the values achieved will be too low. For the measuring direction to be correct the wood fibre direction has to be parallel to the indication (from left to right).
- 2.2. The value indicated has to be evaluated depending on the material measured:

Concrete / wash floor

Indication Moisture rating

0 ... 5 = **dry**
6 ... 9 = **moist**, normal degree of moisture
10 ... = **wet**, too wet for machining and/or finishing.
We recommend to wait till the material moisture has gone down to a standard of 6 to 9.

The IM 15 allows moisture measurements in concrete and wash floor down to a depth of approx. 4 cm.

Please note:

the moisture rating „**dry**“ is dependent on the measured material (different flagstones have a higher rating), in this case the scale is relative to this point of origin.

Wood / fibre-reinforced polyester

Indication Moisture rating

0 ... 3. ~ 0...12% : **dry**, a varnish coating can be applied.
3 ... 6. ~ 12...20% : **air dry**, if a varnish coating is to be applied make sure to use varnishes allowing for moisture in the ground material.
6 ... 11 ~ 20...30% : **wind dry**, finishing treatment is only possible using agents with a high moisture permeability. Whenever several layers are to be applied we recommend to consider drying intervals.
11 ~ 30% ... : **wet**, finishing is only possible with a paint system especially suitable for wet wood.

The IM 15 allows moisture measurements in wood down to a depth of approx. 3 cm.

- 2.3. The moisture indicator reacts to metal in the same way as it does to humidity. In case there is a nail, an armoring or another metal object to be found in the material to be measured within the radiation area (measuring plate on back side of device) the value indicated will be too high! Correct measurements cannot be obtained.
- 2.4. **The moisture indicator GMI15 is no measuring device and cannot be used in this capacity!**
We shall not assume any liability for potential damage resulting from incorrect use of the indicator or from the fact that the indicator has been used as a measuring device.
- 2.5. As soon as „BAT“ is displayed this is an indication that the battery has been used up and needs to be e-changed. Too low an operating voltage may result in wrong measurements.

Please note:

If the battery voltage falls even lower the voltage may not be sufficient for „BAT“ to be displayed so that there will be no „BAT“ indication although the battery has been used up.

We recommend to make it a rule to always check the battery if the values indicated seem to be completely out of range.

- 2.6. The battery has to be taken out, when storing device above 50°C.
It is recommended to take the battery out, when storing device for a longer period of time.
- 2.7. Handle the device carefully and use in accordance with above mentioned specifications only (do not throw or hit against any other object, etc.)

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3. Specification

Display:	3½-digit, 13 mm high LCD-display
Power supply:	9V-battery type IEC 6F22 (included) as well as additional d.c. connector (internal pin Ø 1.9mm) for external 10-12V direct voltage supply. (suitable power supply: GNG10/3000)
Power consumption:	approx. 5mA
Low battery warning:	automatic warning „BAT“ if battery is low
Working temperature:	0 to 50° C
Atmospheric humidity:	0 to 80 % r. h. (non condensing)
Dimensions of case:	impact resistant ABS housing, 106 x 67 x 30 mm (h x w x d).
Weight:	approx. 150 g (ready for operation)
EMV:	The IM 15 corresponds to the essential protection ratings established in the Regulations of the Council for the Approximation of Legislation for the member countries regarding electromagnetic compatibility (2004/108/EWG)

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4. Scope of Delivery

Articlename	Articelnumber	Description
Moisture indicator for wood and buildings IM 15	0560 1150	1 x Moisture indicator for wood and buildings IM 15 with Operating Instruction on CD-R



Moisture indicator for wood and buildings IM 15

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General Questions

If you still have questions concerning this product of B+B Thermo-Technik GmbH, please do not hesitate to contact us at:

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We wish you a successful measuring!

Your Temperature-Partner
B+B Thermo-Technik GmbH

All technical information in this document are proved by us with high accuracy and shall inform you about all application possibilities. This information's are not confirmed by us and need to be proved by every user in regard to his intended use of the equipment. All foreign trade mark rights need to be considered.

Edition September 2010. This manual substitutes all former editions.