H7-BM1

User Manual v2.1

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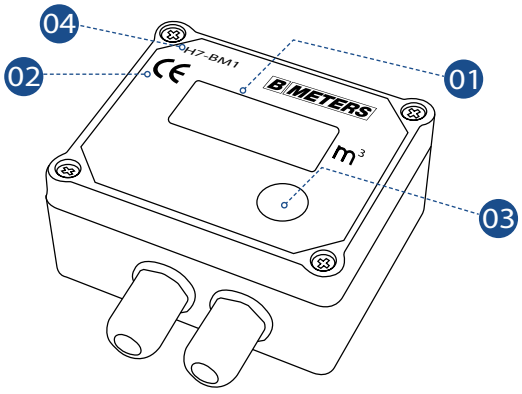
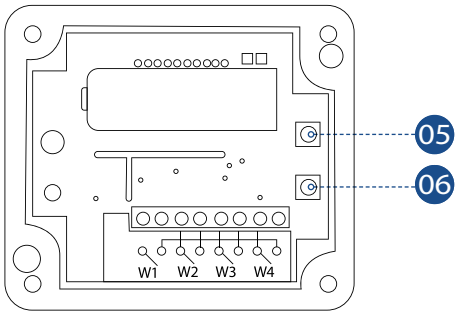
Index

1. Content

Device





01. LCD Display
02. CE marking
03. K1 button
04. Model
05. K3 button
06. K2 button

Functionality

The **H7-BM1** is used to present the readings of up to four water meters on the display. It is especially recommended for remote reading of the CW water meter in residential premises where, due to the large distance from the circulation riser, it is not possible to place the CW water meter in the corridor. The device has four pulse inputs for connecting water meters. The design is characterized by aesthetics and ease of installation.

2. Operation

For communication with the user, the device has **3** keys: **K1**, **K2**, **K3** and an LCD display. The display is usually off, it can be turned on by pressing the **K1 key**. The **K1 key** is located on the front panel and is used, in normal operation, to switch the display to the next channel view. The channel is switched by **pressing the K1 key twice**. The keys on the device are a bit slower (hardware specifics).

ⓘ **Note: Waiting 1 second between presses is necessary.**

Setting up scalling factor

ⓘ Comply to the following instructions to set the scalling factor:

→ 1. Press K1 so that the name of the desired channel appears, for example "ch1";

→ 2. While our example, "ch1", is displayed, press K3; the number of pulses per unit shown on the display appears and the youngest digit starts flashing. By pressing K3 again, you can increase it:
For example: 1000 means a pulse setting of 1000 pulses per one cubic meter;

→ 3. Press K2 to go through the next digits to the end;

→ 4. Repeat steps 1-3 for the remaining channels.

Setting up initial value of each channel

ⓘ Comply to the following instructions to set the initial value of each channel:

→ 1. Press K1 so that the name of the desired channel appears, e.g. "ch1";

→ 2. While "ch1" is displayed, press K2; the fractional part of the indication appears and the youngest digit starts flashing:

→ 3. Use the K3 key to set it to the desired value and press K2 to go through the next positions of the number until it stops flashing;
For example: .000 - means setting the initial value in liters
00000 - means setting the initial value in m3;

→ 4. Repeat steps 1-3 for the remaining channels.

ⓘ Note: programming of initial values should be performed after selecting the pulse constant.

Set up settings

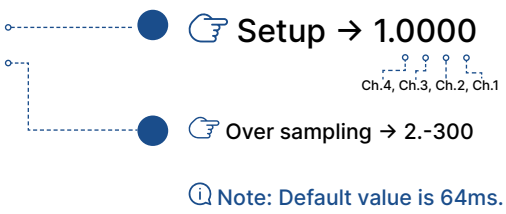
In the setup section, there are two modes available: setup1 and setup2. To enter setup, click the K2 button while the Setup is displayed on the screen. Then, use K2 to change the selected variable and use K3 to change its value. First, change the settings for setup1 and then setup2.

3. Input filters configuration

ⓘ Comply to the following instructions to configure input filters:

For each channel, you can set the minimum required pulse duration at the input. The default is set to about 64ms (setup1 – 1.0000). This allows you to accept pulses longer than 64ms; for example, 100ms will be accepted but 50ms will already cause counting errors. The table below shows the minimum pulse durations depending on the settings of setup1 and setup2.

Setup	Sampling rate			
Over sampling	1	2	3	4
0	16	32	64 (default value)	128
1	32	64	128	256
2	48	96	192	384
3	160	320	640	1280
4	320	640	1280	2560
5	480	960	1920	3840
6	640	1280	2560	5120
7	800	1600	3200	6400
8	960	1920	3840	7680
9	1120	2240	4480	8960



Setup 1 (e.g. 2.-300) - RTC settings:

This version does not have a built-in real-time clock, therefore this setting (setup2) has no significance for the operation of the device.

Number:

This setting is not supported in this version and therefore has no significance for the operation of the device.

Instruction for installation:

1. Unscrew the 4 screws holding the device housing together.
2. Screw the lower part of the housing to the base using 6 mm screws/pins.
3. Put the water meter cables through the glands and connect them to the appropriate device terminals (W1..W4).
4. Program the constant impulses for the individual channels (the factory setting is 1000 pulses/m³).
5. Program the initial state of the water meter and other parameters.
6. Write down the assignment of the channels to water meters/apartments on the front panel of the device

4. Information for the correct disposal

This product falls within the scope of Directive 2012/19/EU on the management of waste electrical and electronic equipment (RAEE). The appliance should not be disposed of with household waste as it consists of different materials that can be recycled at the appropriate facilities. Inquire through the municipal authority about the location of the ecological platforms to receive the product for disposal and its subsequent proper recycling. The product is not potentially dangerous to human health and the environment, but if abandoned in the environment impacts negatively on the ecosystem. The crossed-out bin symbol on the label on the appliance indicates that the product complies with the legislation on waste electrical and electronic equipment. The abandonment of the equipment in the environment or the improper disposal of the same is punished by law.

5. Specifications

Impulse signal sources	Up to 4
Maximum reading value	99999.999 m³
Settable impulse values	1 to 9999 pulse/unit
Wall mounting	Using 2 screws Ø6
Power supply	Internal lithium battery (11 years life*)
External dimensions (W x H x D)	89×73×42 mm
IP protection	IP54
Communication	WM-Bus (Optional)
Dimensions	89×73×42 (WxHxD)

*The battery life strongly depends on the working time window, set during the configuration process, and on the environmental conditions.