

## ► Brunata FuturaHygro<sup>+</sup>

### Electronic humidity sensor measuring humidity and room temperature

- Measures the current temperature and humidity via internal sensor.
- Shows the temperature in °C with one decimal on the display.
- Shows the humidity in % RH with one decimal on the display.
- The allocator's range of measurement is 0 °C to +55 °C (273.2 K to 328.2 K) and 0 % to 100 % RH (without condensation).
- Carries out measurements every second minute.
- Sends a telegram every hour.
- Supplied with radio transmitter module for remote reading as standard.
- Easy to read display.
- Replaceable environmentally compatible battery. After 10 years of use the battery can be replaced, without changing the allocator.



### Data stored in the memory

Values for the 1st and 15th of every month are stored in the meter's memory. In total, data for 52 log periods are stored, corresponding to data for 26 months.

The following data are stored for each period:

- The last fortnight's average temperature and humidity.
- Number of measurements in mode 1: The number or registrations during a fourth night the humidity went below 60 % RH (RH < 60 %).
- Number of measurements in mode 2: the number or registrations during a fourth night the humidity was between 60% and 70 % RH (60 % < RH < 70 %).
- Number of measurements in mode 3: the number or registrations during a fourth night the humidity was between 70% and 80 % RH (70 % < RH < 80 %).
- Number of measurements in mode 4: the number or registrations during a fourth night the humidity was above 80 % RH (RH > 80 %).

All temperatures are stored in Kelvin with a resolution of 0.1 K and all humidity measurements are stored in % RH with a resolution of 0,4 % RH.

### Humidity measurements

FuturaHygro<sup>+</sup> is using a measuring principal which is based on kapacitive measurements of the air's relative humidity. Alongside with measurements of the relative humidity measurements of the temperature the room temperature is also measured. These two measurements give a precise indication of the air's relative humidity. It is not necessary to calibrate FuturaHygro<sup>+</sup> which means that you never have to take the allocator down.

### With or without radio transmitter

Supplied with a radio transmitter allowing remote reading as standard. When the meter is read remotely, the full development of the measured temperatures can be seen. However, the meter can also be supplied without radio transmitter.

*Brunata is a 100 % Danish owned company. We have more than 90 years of experience within developing and producing heat cost allocators and heating accounts. Brunata a/s has implemented a quality system in accordance with EN ISO 9001. Please contact us for further information on our products.*

## Easy-to-read display

FuturaHygro+ is easy to read and it is not necessary to press any buttons. Brunata FuturaHygro+ shows the different recordings by turns alongside easy-to-understand icons.

### Display reading 1

Shows the current temperature from the resent measurement



### Display reading 2

Shows the current humidity from the resent measurement



### Display reading 4

Shows the allocator's number. Each allocator has its own unique number. As a result, Brunata can always find details of installation location



## Radio telegram

Every hour a telegram is send from the allocator. Several information are included in the telegram, such as:

- Meter number
- Current temperature from the resent measurement
- Current relative humidity from the resent measurement
- Average temperature for the previous 24 hours
- Average relative humidity for previous 24 hours
- Average temperature for the previous fortnight
- Average humidity for the previous fortnight

All temperatures are transmitted in Kelvin with a resolution of 0.1K, and humidity in % RH with a resolution of 0,4 % RH.

## Replaceable batteries

FuturaHygro+ is supplied with a replaceable lithium battery. The allocator can be set to different transmission frequencies. With a telegram transmission frequency of a sent telegram every hour the battery will have a durability of 10 years (+ one year backup).

## Technical information

<b>Operating principle</b>	Electronic humidity and temperature allocator in the same unit, thus more precise measurements of the temperature and the humidity are achieved this way. These measurements can be used in order to see if there might be at problem with too high humidity.
<b>Application area</b>	In buildings where you want to monitor the humidity e.g. in basements, apartments or new constructions, where you suspect there might be a problem with humidity, and therefore want to monitor the indoor climate.
<b>Placement</b>	FuturaHygro+ must always be placed on an inner wall. If the allocator is placed on an outer wall it might result in imprecise measurements. Further more the allocator must be placed at least 2 m from a radiator, wood burning-stove etc. FuturaHygro+ must not be placed in direct sunlight.
<b>Transmission frequency</b>	Brunata FuturaHygro+ sends a telegram every hour. Brunata FuturaHygro+ ver2 sends a telegram every 2nd minute.
<b>Protocol</b>	Brunata FuturaHygro+ use BrunataNet protocol Brunata FuturaHygro+ ver2 use BrunataNet ver2 protocol
<b>Memory</b>	The last 52 measurements from the 1st and 15th day of the month.
<b>Measures and weight</b>	FuturaHygro+ :131 x 39 x 19 mm, approx.65 g.
<b>Battery</b>	Replaceable lithium battery with an expected life of at least ten years.