- online registration of energy consumption, temperature, relative humidity and water consumption







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The mobile laboratory

In connection with field work, a handy case is provided with the necessary equipment for logging data, which are sent via the GSM network to Brunata's database and presented via the internet in WebMon Visual.

The mobile laboratory is based on the Brunata Futura⁺ meter family with radio transmitter for logging data from heat cost allocators, temperature loggers and humidity meters.



- Brunata Futura⁺, a heat cost allocator with radio transmitter and logging of consumption data, which measures the consumption every other minute and sends data every other hour.
- Brunata FuturaComfort⁺, a temperature meter with radio transmitter, which as standard measures the temperature every other minute and transmits data every 15 minutes.
- Brunata FuturaTerm⁺, a temperature meter with radio transmitter, which measures 60 times over a period of ten minutes and transmit the calculated average temperature every ten minutes.
- Brunata FuturaHygro⁺, a humidity meter with radio transmitter, which measures the relative humidity and current temperature every other minute, at the same time calculates the dew point and transmits data every four hours or at meter readings.
- Brunata FuturaSignal⁺, a pulse counter with radio transmitter, is used for collecting simple measurement signals from various consumption meters, such as water meters, electricity meters, heat meters etc. Data is transmitted every four hours.

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Brunata WebMon Visual

WebMon Visual is a web-based graphic module for presenting temperature data from own measurements via the internet anywhere in the world with browser-based internet connection.



Installation

The meters are supplied in a handy case, which also contains radio receiver and GPRS module for sending data. The meters can be mounted in a fixed location or used as mobile units.

Operation

Data from the meters are sent directly to a radio receiver connected to a GPRS unit. Via the GSM network, the collected data are sent to Brunata's database.

Usage options with overview

Heating: In connection with operation monitoring and investigation of special temperature conditions or mapping of energy flow in all kinds of buildings.

Cooling: In connection with operation monitoring and own control for registration of temperature data in freezer and refrigeration units within the food, catering and restaurant and domestic sector.

Ventilation and humidity: In connection with registration of temperature conditions with associated values for relative humidity and indoor temperature.

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Standard system package

- Five meters (two Brunata FuturaComfort⁺ and three Brunata FuturaHygro⁺)
- One radio receiver with GPRS module
- Standard configuration (GPRS transmits every 15 minutes and meter measures every 15 minutes)

Configuration (option)

	GPRS transmitter	Meter reading
1	Twice a day	Every two hours
2	Every 30 minutes	Every 15 minutes
3	Every four hours	Every 15 minutes
4	Twice a day	Every 30 minutes
5	Every 15 minutes	Every 5 minutes

System packages and configurations can be supplied as required.

The standard system package can be expanded with various different meter types. The above are examples of alternative configurations of transmission frequencies. Note that data can be sent in "packages", so that the communication costs are reduced.



System overview of WebMon Visual Mobile

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Reading and report products

Brunata WebMon

WebMon, which is a part of the BrunataNet system, gives you an overview of the consumption. WebMon is a web-based programme for presentation of data, which are read remotely. The browser-based software enables you to view and print the information available in the BrunataNet system. Connected to a building's installation with meters, WebMon can present all the gathered data.

Brunata WebMon Visual

WebMon Visual is an extra module to WebMon with graphical presentation of current Web-Mon data in a clear way.

The system is especially well suited to presentation of data for both conditions and consumption in a building. The data are collected with short or long intervals. In this way graphs showing consumption on a 24 hour or an hourly basis can be generated.

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Brunata WebMon Visual Mobile

Please, see pages 2-4 of this brochure.

Brunata DriveBy

Today, most heat cost allocators are read manually by a visiting meter reader. This method usually requires the resident to be at home at the time of the visit. To avoid inconvenience Brunata has developed a solution, which is flexible, mobile and meets the requirements at a very reasonable price. The solution is wireless and simple.

Brunata Visit

A majority of meters are still being read by Brunata service employees visiting the individual consumers. Brunata's employee carries an electronic hand terminal, which is used to read all types of meter.

Brunata WebArchive

WebArchive is a web-based archive containing heating bills and lists of how the consumption is distributed as a fair, consumption-dependent share of the total heating costs of the building. The information is saved for back years.

Do you utilise your resources sufficiently?

Brunata can help you to check the energy efficiency!

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BrunataNet

BrunataNet is the collective name for Brunata's remote reading systems, which consist of two standard systems: A partially cabled system and a purely radio-based system. They are both designed to meet the various requirements in both small and large buildings. The solution is therefore tailored to the individual building. With WebMon, WebMon Visual and WebMon Visual Mobile BrunataNet constitutes a complete remote reading system for collecting meter data and presenting them to the interested parties.

BrunataNet ensures accurate and secure transfer of meter data from consumption meters to Brunata's Oracle server. Selected data can be accessed here and used for e.g. allocation accounts or WebMon presentation.

System description

All consumption meters, such as humidity, water, energy, electricity and gas meters, can be connected to the system provided they have pulse output. Heat cost allocators from Brunata are read directly. Meter data are radio transmitted wirelessly from the meters to strategically placed receivers. In a partially cabled system, the information is transferred via a RS485 network to a centrally placed controller box or GPRS module. Depending on the circumstances, the controller box is connected to the internet, GSM or an accessible telephone socket. Data are transferred through these to Brunata's database server.



Brunata

Brunata a/s · Vesterlundvej 14 · DK-2730 Herlev tel. +45 77 77 70 00 · fax +45 77 77 70 01 www.brunata.com · brunata@brunata.com Brunata a/s is a Danish owned company. We have more than 90 years of experience in developing and manufacturing heat cost allocators and cost billing. As overall supplier in energy metering, we constantly pursue high quality and efficiency in service, technical solutions, fair and precise measurements.