EBERLE

IN STAT+ 868 wireless control system

Next-generation programmable room thermostats

Wireless individual room control

Comfort and peace of mind
Battery powered
Easy to use

NEW
with real-time clock

HEATING TECHNOLOGY

Mon Tue Wed Thu Fri Sat Sun

18:15   21.0 °C

MAN AUTO Day

EBERLE

IN STAT+ 868

Environmentally Optimised

Packed full of features
and suitable for a wide variety of applications

Features:

- Pre-set clock that never needs setting
- Very easy to program using only 4 buttons
- Combined holiday and party function
  (reduced or increased temperature for hours or days)
- Optimum start (room temperature is reached at the time set)
- 3 pre-set programs
- Automatic summer/winter time change
- 24hr, 5day/2day or 7day programming::
  every day the same
  workdays/holidays
  each day individually
- Automatic address allocation or manual address setting to create wireless link
- Test of transmission distance
- A choice of 2, 4 or 6 time/temperature events per day
- Easy to use temperature override
- Temperature limit locks (high and low)
- Frost protection
- PWM or ON/OFF control
- Access protection/child lock for important settings
- Latest technology, means no loss of settings in the event of power loss
- Can be switched off (with or without frost protection)
- Can be used for "Heating only" or "Cooling only"
- Valve protection and valve protection time can be adjusted, or switched off
- Battery operated
- Easy-to-read large LCD display

Technical data

Article No:
0536 21 296 000

Supply voltage
Battery
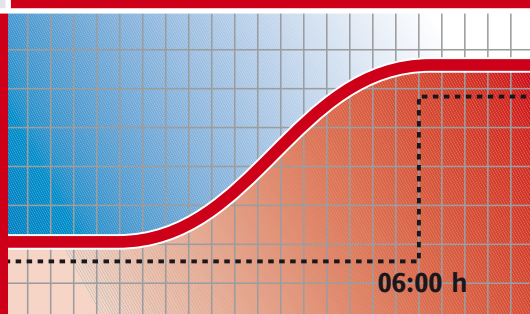2 x 1,5 V (AA),

Output
Wireless RF 868MHz

Control method
Proportional controller
(similar to continuous, via PWM)
or ON/OFF

Optimum Start saves energy

The programmable room thermostat ,with its microprocessor "learns" how long it takes to reach the desired temperature by a certain time then delays the start of heating. In Spring and Autumn, in particular, this intelligent function can save a lot of energy as well as helping the environment by reducing CO_2 emissions.
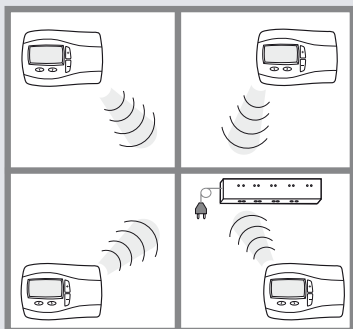
06:00 h

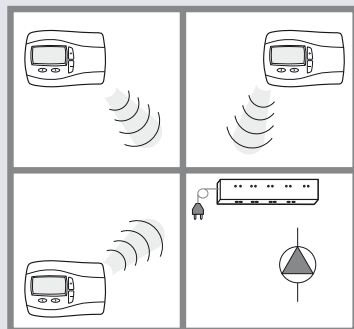## Controlling room temperature in numerous applications:

- Thermal actuators for underfloor and convector heating systems
- Oil and gas hot-water heating systems
- Circulating pumps
- Heat pumps
- Electrical heating appliances

A wireless receiver of the INSTAT-series is required for operation, see last page.
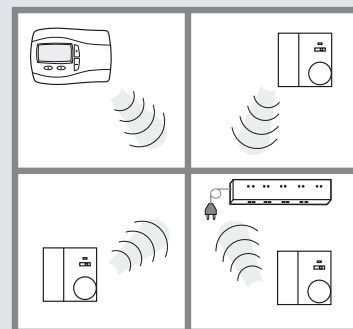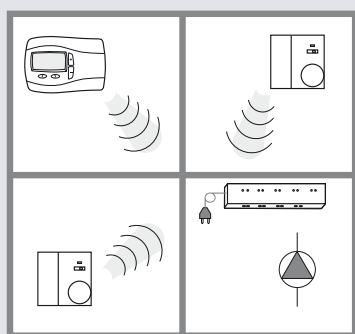
Programmable thermostats
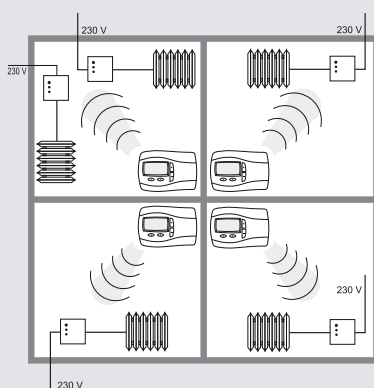for each room
with 4 or 6-channel receiver

Programmable thermostats
for each room
with 4 or 6-channel receiver and
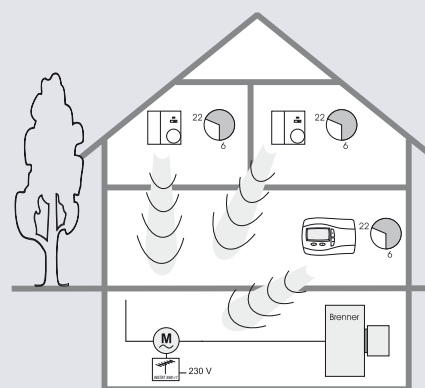circulation pumps with pump logic

Programmable thermostats
with non-programmable room
thermostats and with 4 or 6-channel
receiver (master/slave function)

Programmable thermostats
with non-programmable room
thermostat and with 4 or 6-channel
receiver (master/slave function) and
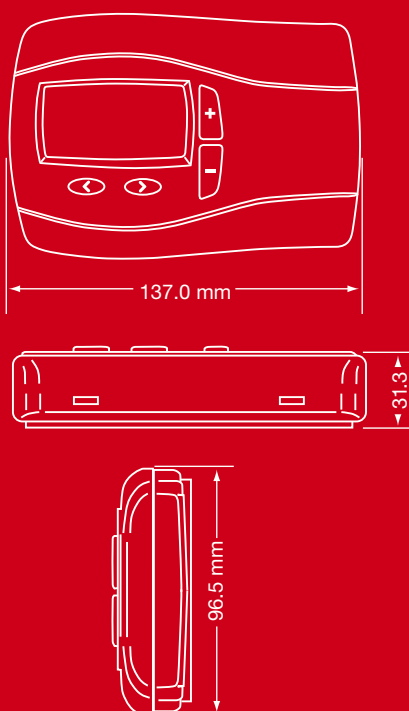circulation pump with pump logic

Programmable thermostats
with 1-channel receivers

Master-Slave
with pump control

Transmission distance for all examples approx. one ceiling or two walls

Dimensions

137.0 mm

31.3

96.5 mm

Wireless individual room control

Individual room control in the form of either thermal or electro-thermal control has been state of the art in new buildings for years. In many existing buildings, however, there is an increased need to retrofit these systems for added comfort and energy savings. Radiators can be economically retrofitted with radiator thermostats. In the past, it has always been difficult to retrofit underfloor hot-water heating systems that are not equipped with controls in each room. Today, these rooms are still controlled with manually-set flow controllers in central distribution boxes installed on each floor or in the basement. Unfortunately, solar radiation or other sources of heat such as tiled stoves are rarely taken into account by this type of control system.

Our solution to the problem of retrofitting controls using Eberle wireless technology is very simple. Expensive investments are avoided. This state-of-the-art modular system combines the benefits of individual room control with the convenience of wireless controls. The values are radio transmitted to the receiver, and no mains supply is needed. In this way temperature can be measured and controlled conveniently from any heating zone in the house without the need for electrical cables from the room thermostat to the thermal actuator or heat source. This not only allows the heating system to be designed more flexibly, but it also helps to reduce the time and costs involved in renovation or recent installations.

The *INSTAT 868* wireless controller range offers the ideal RF transmitters and receivers for any type of application. For one heating zone, either the *INSTAT 868-r1* wireless transmitter with analogue temperature setting or the *INSTAT+868* programmable thermostat can be combined with the *INSTAT 868-a1* 1-channel receiver. For several heating circuits, the 4, 6 or 8-channel receivers *INSTAT 868-a4/a6/a8U* are used, and can be expanded and combined with each other as desired. For portable electric heaters, such as wall-mounted heaters or towel dryers, the power-socket receiver *INSTAT 868-a1S* offers an ideal solution. This device is supplied as a set, including a wireless transmitter. The advantage of this version is that both of the devices are paired to each other in the factory and are ready for immediate operation.

Commissioning

Commissioning of the *INSTAT 868* radio wireless controller range is easy. The RF transmitter is paired with the RF receiver by starting the learning mode.

Safety and reliability

The 868 MHz transmitting frequency is used for such applications throughout Europe. The transmission reliability is ensured by internal test procedures and signal repetitions.

The wireless programmable room thermostat (transmitter)

See the first page of this brochure for details.

The non-programmable wireless room thermostat (transmitter with analogue temperature setting)

The *INSTAT 868-R1* wireless room thermostat is very easy to use thanks to its analogue temperature selector dial. Using the *Day/Night/Automatic/Off* selector switch, it is possible to set a set-back temperature permanently or in combination with an *INSTAT+ 868* wireless programmable thermostat.

An internal slide switch allows the selection of either "*Heating*" or "*Cooling*".

The INSTAT 868-r1H is especially suited to applications where the temperature setting range is to be limited, e.g. in hotels.

The temperature setting range is 17...24°C.

Wireless receivers

There is a suitable wireless receiver for every type of application:

1-channel receiver
INSTAT 868-a1
for wall mounting

4-channel receiver
INSTAT 868-a4 and

6-channel receiver
INSTAT 868-a6
All ready to plug in for 230V AC including DIN rail

8-channel receiver
INSTAT 868-a8U
ready to plug in for 230V, or with 24V transformer

With 8-channel timer and external heating/cooling changeover

This receiver is thus suitable for under-floor heating and under-floor cooling.

Plug in receiver
INSTAT 868-a1S
for 230V AC

Notes: In the event of a fault, each wireless receiver provides an *optical* and *acoustic indication* as well as an *emergency program*, i.e. the heating system continues to operate at 30%. This safeguards against overheating and also allows *frost protection*.

RF Repeater - INSTAT 868 Series

INSTAT 868-rep
Signal amplifier for RF signals.

To increase the normal transmission distance (up to 90m) and to improve the signal in difficult ambient conditions.

Repeaters are not necessary for normal applications.

Transmitter   Repeater   Receiver