

Alpha-Thermostat Wireless 868 MHz comfort with remote sensor – AR 4070 KF2E

The Alpha-Thermostat Wireless 868 MHz Comfort is a thermostat which, in combination with the Alpha-Basis Wireless as receiver and the OEM Actuator 24 V as valve controller, offers individual room temperature control.

The system components of the Alpha-Thermostat Wireless are made with modern, safe, and intelligent 868 MHz technology that provides greater range with less interference.

The temperature selection of the temperature dial is precise to ¼ degree steps. Apart from controlling the room temperature, an remote sensor enables the adjustment of the minimum floor temperature. With a switch-ball, the operating mode can be set to DAY, NIGHT, or AUTO.

The installation allows for individual placement choice through the simple plug-in system of the Mounting Base.



Features

Alpha-Thermostat Wireless

- Wireless communication between the Alpha-Basis and Alpha-Thermostat
- 868 MHz technology
- External sensor, for minimum floor-temperature control
- Temperature dial with ¼ degree soft setting
- Operating mode selector switch (Switch-ball)
- Limitation of set temperature range
- Precise control response
- Functional design
- Cable free, battery operation
- Simple installation concept
- Cooling function is provided (for use with the HK Module of the Alpha-Basis)

Alpha-System Wireless

- Receiver and transmitter function on 868 MHz band
- Protective functions in case of a failure of a Wireless Thermostat, e.g. weak battery (frost protection mode)
- Automatic release of the first-open function after start-up
- Error display in case of missing radio signal, weak battery, or weak reception signal
- Display for function control
- Radio transmission test for transmitter and receiver for assisting in the start-up installation
- Appropriate for use in 2-line HK installations, with heating/cooling extension module AB HK 4000

Applications

- Single room temperature control ideally suited for panel, radiator, and convector heating systems.
- The advantage of cable-free system is the high flexibility provided for new buildings, as well as modernisation projects. The installation is simple since there is no need for laying cables.
- Heating and cooling with a single system when combined with the HK Module of the Alpha-Basis. Single room temperature control ideally suited for panel heating applications, such as minimum floor temperature (e.g. bathrooms)
- Single room temperature control in open buildings. Thermostat can be placed in a different room and controlled only from the remote sensor.

General information

Type

AR 4070 KF2E – Version Wireless Comfort with remote sensor

Scope of supply

- 1 x Alpha-Thermostat AR 4070 KF 2 E
- 1 x Alpha-Mounting Base AS 1000
- 1 x Battery CR2032 - 3 V
- 1 x Remote sensor ES 1000
- 1 x User Manual

Versions of the Wireless System 868 MHz

- AR 4070 SF 2 – Version Wireless Standard
- AR 4070 KF 2 – Version Wireless Comfort

Ordering information

Our staff will be glad to assist you in finding the Alpha-Thermostat fitting your application. Call us at: +49 (0) 53 41 - 84 75 - 0

Functions

The Alpha-Thermostat Wireless 868 MHz Comfort with remote sensor provides individual room temperature control. Through a battery operated wireless transmitter, it transmits operation mode, current room temperature, and desired temperature to the Alpha-Basis Wireless 868 MHz for heating circuit control.

Analogously, the temperature adjustment signal from the external sensor provides parallel operation to insure a minimum floor temperature. The minimum floor temperature is selected using the potentiometer located under the temperature dial.

Note: the minimum floor temperature will be monitored and adjusted if the desired room temperature of the temperature dial is reached or over-reached. Temperature control using the internal sensor can be disabled using the potentiometer, so that the temperature is only regulated using the remote sensor.

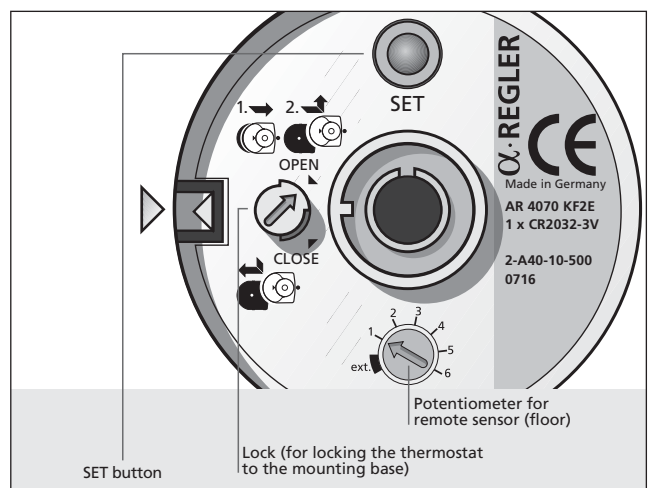
The preset coding of the Alpha-Thermostat Wireless guarantees an exclusive communication with the defined channel of the Alpha-Basis Wireless.

The Alpha-Thermostat Wireless provides maximal comfort for an individual room thermostat and helps save energy when combined with the Alpha-Basis Timer Module.

Selector switch

The desired operating mode can be selected with the selector switch. The operating modes "DAY" (sun symbol), "NIGHT" (moon symbol, e.g. for night operation) and "AUTO" (clock symbol) are available.

Control panel

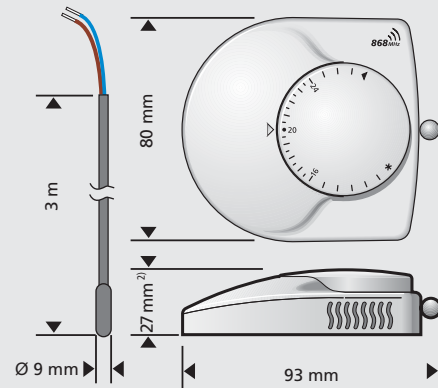


Technical data

Type	AR 4070 KF2
Settable temperature range	10°C – 28°C
Battery type	CR 20323 V
Battery service life	approx. 5 years
Switch-ball	DAY, NIGHT, AUTO
Remote sensor cable length	3 m
Remote sensor adjustment range	1 – 6 / 16°C – 28°C
Temperature measurement	max. deviation 1 K
Radiated power	< 10 mW
Transmitting interval	9 – 10 min
Ambient temperature	0°C to 50°C
Storage temperature range	-25°C to +60°C
Relative humidity	max. 80%, not condensing
Dimensions (mm) H / W / L	80 / 84 / 27

Alpha-System Wireless

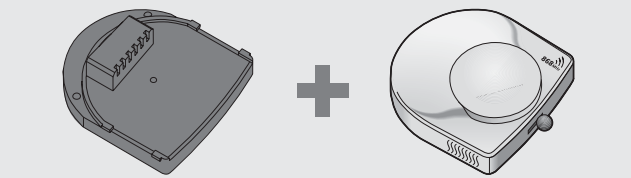
Transmission frequency	868 MHz
Range inside buildings	approx. 30 m.
Radio test according to	ETS 300220-3
EMC conformity according to	EN 301489-3
Hunting	approx. 0.2 K
Valve protection function	6 min / 24 h
Heating programs (optional)	2
Temperature difference for reduced operation in energy-saving mode	2 K (can be configured in a range of 2- 6 K in increments of 0.1 K with RC Inspector)



¹⁾ with Alpha Mountingbase + 3mm

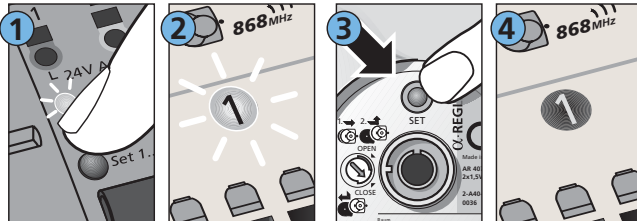
Planning and installation notes

Installation note



Installation and electric connection are only possible using the Alpha-Mounting Base AS 1000. The Alpha-Mounting Base AS 1000 is included in the scope of supply and does not need to be ordered separately.

Assigning zones



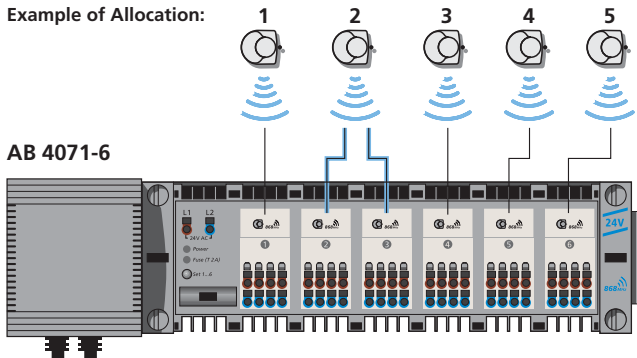
Press SET button for 3 seconds

When the LED of channel 1 flashes quickly (every 0.15 sec.), release SET button (LED will flash for 3 minutes).

The desired thermostat (room) is assigned to the channel of the Alpha-Basis by briefly pressing the SET button on the Alpha-Thermostat Wireless within three minutes.

The LED stops flashing when the assignment is complete. Press SET button several times if required.

Example of Allocation:

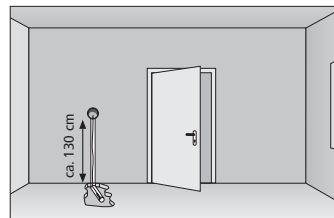


Recommended installation place

Note!

In order to ensure a trouble-free and thus optimum control operation, a thermostat with a remote sensor should be installed in a quiet zone - free from environment influence such as humidity, direct sunlight exposure or other sources of heat. Otherwise it may occur that the set temperature is exceeded or not achieved, depending on the respective environment influence.

Installation place AR 4070 KF2E – Floor / external sensor



Recommendations and notes on the installation of the remote sensor

- not to be positioned on the exterior walls of a room
- 2 to 8 cm distance from the heating system (e. g. floor heating tube)
- installation of the external sensor in empty tube
- only the temperature at the position of the remote sensor is measured.

