

OEM Basis Wireless – 12-channel

The OEM Wireless Base is a connection unit for a wireless connection of the room thermostats (OEM Thermostats Wireless and Alpha-Thermostat Wireless 868 MHz) to the actuators (e. g. OEM actuators).

In terms of the requirements to modern residential buildings, the OEM Wireless Base is equipped with a pump control system as well as with a CO input for heating/cooling applications. The OEM Wireless Base is equipped with the modern, safe and forward-looking 868 MHz technology, allowing a bidirectional communication as well as higher coverage.

For cooling operation, the OEM Wireless offers the option to connect a dew point sensor with potential-free contact.

The OEM Wireless Base is available as 24 V and 230 V version.



Features

- OEM design
- 24 V and 230 V versions
- Screwless plug-in/clamping connection technique
- LED operating mode indicator (voltage supply)
- Function indicators (operating condition of thermostats)
- CO input for heating/cooling function
- Prepared connection for a dew point sensor with potential-free contact
- Normal operation or blocking of all zones for heating or cooling is possible
- Valve protection mode
- Integrated pump control
- Large labelling field
- Set button for programming purposes
- Up to 2 heating or cooling programs are possible with the optional timer clock
- Perfect price-performance ratio
- Integrated strain relief
- Maintenance-free

Application

The OEM Basis Wireless is applied for the installation of floor heating systems in new constructions or in the modernisation of privately owned residences, office buildings, multipurpose halls, and also for modernising and refitting older buildings. The advantage during the installation of this system is the wireless and individual placement of the Thermostats Wireless, as chiselling work and plastering are not necessary.

General Information

Type designation

B 4071-12: Version 24 V – 12-channel including external transformer
B 2070-12: Version 230 V – 12-channel

Scope of delivery (Standard)

Version 24 V:
1 x B 4071-12
1 x installation instruction in 6 or 7 languages

Version 230 V:
1 x B 2070-12
1 x installation instruction in 6 or 7 languages

Accessories

- External receiver
- 2-channel digital timer for automatic timed reduction (DS 1000)

Connection recommendations

- OEM Thermostat Wireless (R 4070)
- Alpha-Thermostat Wireless 868 MHz (AR 4070 (all versions))
- OEM actuator (230V: A 2004, 24 V: A 4004)

Customer-specific version:

Customer-specific versions are available on request

Ordering information

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

Function

The allocation of 12 room thermostats (OEM Thermostats Wireless or Alpha-Thermostats Wireless 868 MHz) and the connection of a total of 14 actuators (e. g. OEM Actuators) is possible.

The screwless connection technique (plug-in/clamping connections) of the actuators allows simple and quick installation. All electrical lines are secured with cable grips.

Control displays inform about the operating state of the thermostats and the availability of the operating voltage.

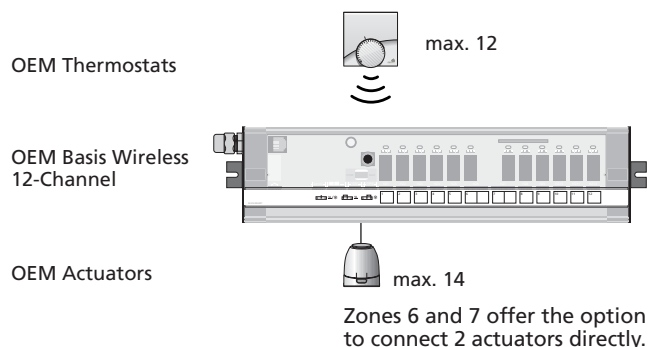
The installation of the Thermostats Wireless is very flexible and easy as they do not require cabling. The corresponding Thermostat Wireless can be assigned to the heating zone with the SET key at the OEM Base Wireless. The signal coding transmitted by the Thermostat Wireless guarantees exclusive communication with the allocated channel or channels of OEM Base. One Thermostat Wireless can be allocated to various heating zones.

An integrated pump module allows switching the pump on or off. In the 24 V version this is realised as a potential-free contact, and in the 230 V version this is realised optionally as potential-free contact or as circuit-switched 230 V source for the direct connection of the pump. The pump output is pre-defined with a starting delay and coasting delay of 2 minutes.

The OEM Base Wireless is able to change between the heating and the cooling mode via an external signal, as potential-free contact. Each zone can be blocked for the operating modes "only heating" or "only cooling" by means of jumpers. For use in cooling operation, the OEM Wireless Base is prepared for the connection of a dew point sensor. All variants with potential-free contact are adequate for this. With the contact closed, no actuator is activated during cooling operation.

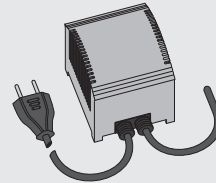
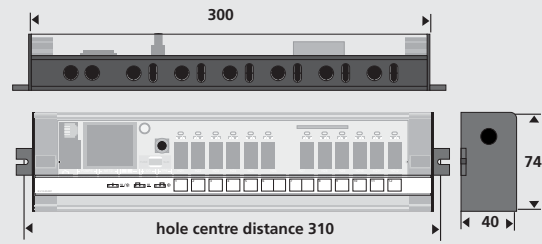
In conjunction with the Thermostats Wireless, an automatic temperature reduction by means of two separated heating programs can be realised using a timer signal.

The OEM-System



Technical Data

Typ	B 4071-12	B 2070-12
Operating voltage	24 V AC ¹⁾	230 V AC
max. power input	50 W	50 W
Fuse ²⁾	T 2A	T 4A H
Max. number of thermostats	12	12
Max. number of actuators (about 2 W)	14	14
Heating programs (Timer required)	2	2
Operating frequency	868.2 MHz	868.2 MHz
Radiated power	< 10 mW	< 10 mW
Receiver sensitivity	-107 dBm	-107 dBm
Radio test	EN 301,489-3	
Valve interval circuit if output inactive for 24 h	once per day	once per day
Economy mode	2 K	2 K
CO input	Connection for potential-free contact	Connection for potential-free contact
Dew point sensor input	Connection for potential-free contact with jumper	Connection for potential-free contact with jumper
Normal operation/ blocking of cooling / blocking of heating per zone		
Pump switching voltage / switching current	230 V AC, 200 W	230 V AC, 200 W
Dimensions (mm) H / W / L	40 / 74 / 326	40 / 74 / 326
Weight	1550 g (incl. transformer)	480 g
Protection class	III	I
Protection type	IP 20	IP 20
Ambient temperature	0 to +60°C	0 to +60°C
Storage temperature range	-25 to +70°C	-25 to +75°C
Relative humidity	max. 80% ³⁾	max. 80% ³⁾
Applicable wire sections		
single-core and multicore	0.25 - 1.5 mm ²	0.25 - 1.5 mm ²



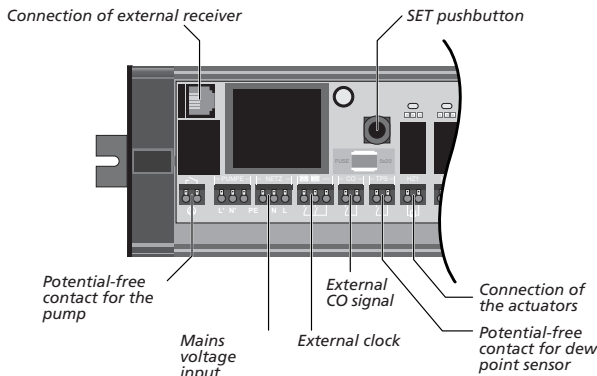
External transformer (AB ST 4000 N) for B 4071-12

Please take information on the start-up and on the controlling operation from the manual included in the scope of delivery.

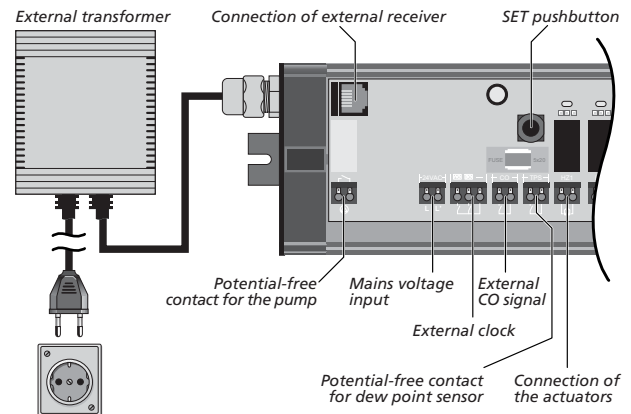
- 1) A 24 V safety transformer according to EN 61558-2-6 must be used
- 2) does not include pump output
- 3) not condensing



Connection Scheme 230 V



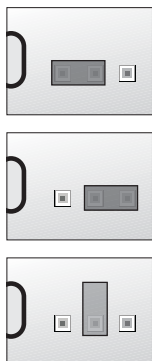
Connection Scheme 24 V



Blocking the heating or cooling operation

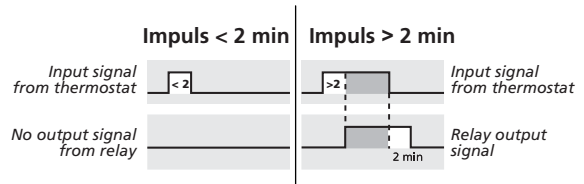
Only in single circuit systems is the heating/cooling application possible in conjunction with the OEM radio system. It is possible to block individual rooms by means of jumpers.

When programming a thermostat for several rooms, only the jumper position of the room with the lowest value is considered.



1. Cooling mode blocked.
2. Heating mode blocked.
3. The room participates in heating and cooling operation.

Pump Control



The pump control is designed in a way that a pump or optionally another electrical consumer is controlled by all thermostats (OR logic).

For this, the control algorithm is designed in a way that request pulses for heating or cooling with a duration < 2 min will not be processed from the internal pump control. There is no output pulse, i.e. the potential-free contact of the relay will not be switched.

Request pulses > 2 min will activate the pump control. For the remaining length of the output signal, the relay will be given additional 2 minutes of follow-up time.