Perfectly in tune.

Next generation room-by-room temperature control.
The multi-purpose system excels in terms of energy efficiency and ease of use.
It can even be controlled with smartphones and PCs.

OEM ALPHA 2: System

Tomorrow's smart, room-by-room temperature control

→ www.moehlenhoff.de

OEM Alpha 2: System

Perfectly in tune.

OEM Alpha 2:

Room control unit
- A flat, high-quality design
- A broad range of devices for different applications
- User-friendly and intuitive to operate
- Wireless or with a BUS system

OEM Alpha 2:

Base station
- 24 V and 230 V versions, with 4, 8 or 12 zones, with and without Ethernet
- Wireless or with a BUS system
- All-in-one solution for all applications
- Easy installation with a proven track record

OEM Actuator 5
- 24 V and 230 V, normally closed (NC) or normally open (NO)
- Power consumption just 1 watt
- 100% waterproof at 360° installation position
- Established adaptor system for 99% of all valves
- Optionally with plugs too

Möhlenhoff's OEM Alpha 2 is a new, multi-purpose, customisable room-by-room temperature control system for heating- and cooling-applications. Available as a wireless- or BUS-solution, even the standard version of the system is extremely user friendly.

A number of inputs and outputs, as well as measurement and control functions, guarantee superb, energy-efficient communication with external equipment and systems. The system is primarily used in detached houses and homes containing several apartments, purpose-built and admin buildings, as well as hotels and schools with centralised management requirements.

The on-going development of new modules for the Alpha 2 system ensures an increasing number of functions for future applications, such as controlled ventilation of living space.

Connection via

BUS

868 MHz

Design with Ethernet interface for integration into the home network and access worldwide through the Internet

Intelligent heating control with the EZR Manager

The optional Ethernet interface integrates the base station into the home network. The EZR Manager's interface allows convenient access to all the system's settings and functions using a PC, laptop or smartphone during on-going operation. As a result, room-by-room operation, programming, set-up and status monitoring are child's play. The generic smartphone application, included in the Ethernet designs' webserver, also permits mobile access to practical settings such as the holiday- and party-function.

Specifications
at a glance

- Wireless (868 MHz wireless technology) or 2-wire BUS communication of the system components
- Intuitive operation, centralised programming, easy initialisation
- If properly designed, no hydraulic adjustment is necessary
- Intelligent control generates up to 20% greater energy efficiency
- Various inputs and outputs for communication with external equipment and systems
- Optional Ethernet interface for straightforward, room-by-room operation, programming and set-up of each room-temperature control system, status displays using PCs or smartphones
- MicroSD card slot for system upgrades and uploading system parameters
- Bi-directional wireless solution for reliable communication between the system components
- Integrated system clock
- Customised programming and settings in each heating zone
- LC display with info on the operating status and functions
- Control systems work perfectly over several storeys using a serial bus (syBUS) or 868 MHz wireless technology
- Customised hardware and software solutions
- Fully equipped for optimum energy management
- Remote maintenance and diagnosis possible
- Smart start function
- Now also available with a new XML interface for easy third-party system integration

OEM Alpha 2: Room control unit

Pleasant indoor temperatures

Modern interior design requires control panels that complement today's and tomorrow's interiors. The OEM Alpha 2: Room control units offer timeless, understated design. And they're simple and intuitive to use at the same time.

The room control units give users both customised parameters for each heating zone, as well as general functions and settings in no time. Users can opt for convenience functions like holiday, party and presence. Therefore, they can influence control individually.

High-quality materials and technologies promise a system that users are sure to enjoy for a long time to come. Customised features are of course possible for a specific brand image.

Scratchproof plastic

Large-size LC display
(60 mm x 40 mm)

Flat (approx. 22 mm) and
compact (86 mm x 86 mm)

Easy to use with a knob (rotary-push
mechanism with small, dynamic
increments)

Optional design:
Room control unit display with
- Remote sensor

Wireless design:
Battery life > 2 years

BUS design:
2-wire bus, including voltage supply
and back-lit display

Specifications
at a glance

Functions and settings for users such as:
- Day, automatic, present, ECO mode (night status), party function, holiday function with date entries
- 4 pre-set lifestyle time programs
- Target room temperature settings can be restricted
- Date and time with automatic changeover to summer time/winter time
- Low battery warning
- The control can be switched off (frost protection is automatically activated)
- Lock prevents operation in public buildings

Settings for technicians (code-protected) such as:
- Selecting the heating type (including choice of 2-point, or PI system per heating zone)
- Activating active switching between heating and cooling
- Setting frost-protection temperature
- Preventing heating/cooling
- Parameters for pump-/boiler-output can be changed
- Smart start function

OEM Alpha 2: Room control unit

Pleasant indoor temperatures

Room control unit display	Room control unit analogue	Room control unit sensor
868 MHz / BUS	868 MHz / BUS	868 MHz / BUS
Standard	Standard	Standard
Remote sensor / floor sensor	–	–
external humidity sensor	–	–

Function

The room control unit, with and without a display, is the system's operational and control unit. Its purpose is to allow communication between the end users and fitters with the base station. Both as a wireless or BUS system, the bi-directional transmission of data between the devices guarantees reliable forwarding of room data and operational status-data and that the system is easy to program.

Room control unit with display

The room control unit with display allows users to program according to the system and room and to make settings. The LC display with easy-to-understand symbols can be viewed from any position.

Operation and navigation is performed by using a knob that has a top-quality rotary-push mechanism with small increments, familiar from the luxury end of the automotive industry. Practical functions like holiday, party and presence can be specifically selected. Therefore, control is customisable.

A number of designs for each application

An internal sensor detects the room temperature. The room control unit with display is also available with a wired floor sensor to measure the temperature of the floor. A version with a humidity sensor is also obtainable. The analogue room control unit comes in standard and room-sensor versions.

OEM services

Special product features:
- individual body design and colour
- printed with customer-specific logo
- individual labels, article numbers, barcodes and packaging

Market entry support:
- Providing information on products such as data sheets, manuals and product photos
- Providing support on creating tailor-made technical literature and marketing activities

Do you have further wishes?
Just tell us your requirements and we'll liaise with you to turn them into reality.

⚙ Lifestyle functions	⟿ Low battery	ᴬᵁᵀᴼ Automatic mode	≋ Heating
⚙ Parameter	⏻ Switched off	☼ Day mode	Ⴑ Presence
🔧 Service	((•)) Radiated power	☾ Night mode	Party function
⚠ Error signal	88.8 Temperature	ꙮ Condensation	—— Floor temperature
🔒 Child safety lock	88:88 Date/time	❄ Cooling	🛍 Holiday function

Keep track with an LC display

The Alpha 2: Room control unit with display stands apart with its functional, language-neutral display. The international symbols ensure intuitive operation. Three menu levels provide all the functions that users or technicians require. As a result, key functions are not altered by mistake.

Navigation

The knob enables easy navigation through the room temperature control unit's intuitive menu structure. Turning the knob to the left or right alternates between the different functions. By pressing the knob, these are activated, deactivated, and selected for further configuration.

Floor temperature monitoring

The room control unit's display monitors the floor temperature through a wired remote sensor. This prevents the floor from cooling down while the room's heated by a stove for example.
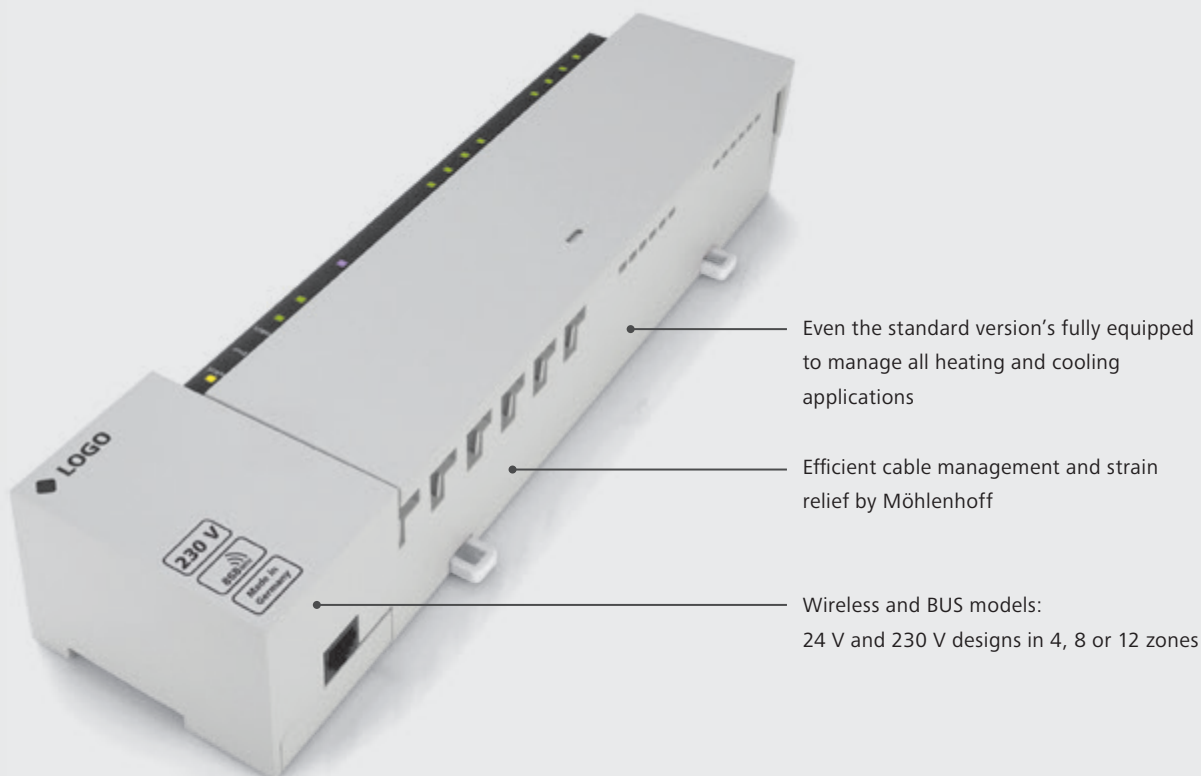
OEM Alpha 2: Base station

Very user friendly due to intelligent technology

The OEM base stations are the intelligent control and connection units for centralised data processing and communication with all the OEM Alpha 2 system's components. They capture and analyse a large amount of measurement data for customised, energy-efficient temperature control in every room and a maximum of user-friendliness.

Even in the standard design, the advanced system software complies with all the demands of today's and tomorrow's systems. Changes and updates to a changing technological environment are easy with a microSD card slot.

Even the standard version's fully equipped to manage all heating and cooling applications

Efficient cable management and strain relief by Möhlenhoff

Wireless and BUS models:
24 V and 230 V designs in 4, 8 or 12 zones

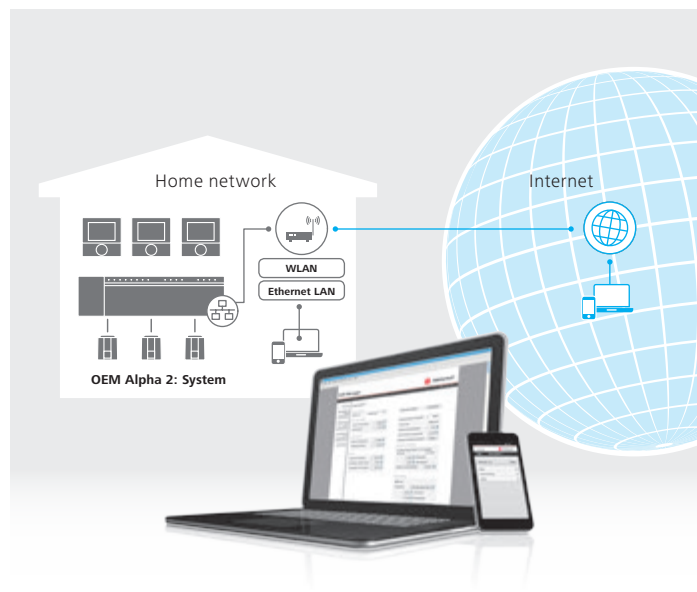*Picture shows:*
Wireless 8-channel OEM base station

Specifications at a glance

- Up to 18 OEM Actuator 5, 1 to 2 per zone, can be connected
- LED status displays: 9 system LEDs / 1 LED per zone
- Different control algorithms per heating zone adjustable
- Designs with Ethernet interface
- Multi-storey solution that connects up to 7 base stations wirelessly or per serial BUS (syBUS), centralised control via master unit
- System's status (NC/NO) configurable in the factory or on site
- Decrease in temperature (ECO mode) per room via an integrated system clock, or centrally via an external switching signal
- Operating modes (frost protection, heating, cooling, ECO, automatic, emergency)
- Pilot function for heating and cooling
- Boiler output
- Dew point monitoring
- Valve protection function can be configured on all outputs
- Integrated, configurable pump module including pump-protection function
- Connection for a safety temperature limiter
- Transformer body in a matching design (in the 24 V version)
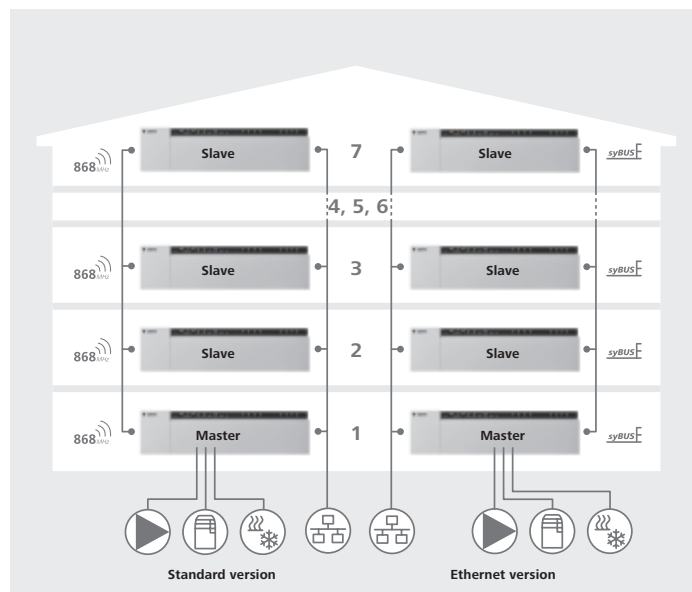- Accessories like external antenna or repeater

OEM Alpha 2: Base station

Very user friendly due to intelligent technology

OEM Alpha 2: System with Ethernet

Monitoring and control by PC or smartphone via the home network, or the Internet for global access.

Multi-storey solution (wireless example)

The base stations can be connected to form a multi-storey solution on an 868 MHz wireless basis, or via the syBUS system bus, or a combination of both.

Function

The Alpha 2: Base stations capture and analyse a large amount of measurement data for customised, energy-efficient temperature control in every room and a maximum of user-friendliness. Reliable, bi-directional communication between the relevant room control units, base stations and actuators connected is provided in the various designs by 868-MHz wireless technology, or the 2-wire BUS.

Control behaviour can be adjusted, so that various sources of heat, such as convectors and radiators, can therefore be controlled simultaneously in one system.

Compliant with DIN EN 60730-1:2009-6

There is no limit to fitting locations due to strain relief that complies with the standard. Installation with a top-hat rail is carried out on walls, or in the heating distribution box. Separate strain relief is unnecessary.

Smart Home ready

The Ethernet versions of the base stations not only allow control of the OEM Alpha 2: system locally through a home network or worldwide via the Internet. Thanks to Smart Home ready the system is convenient to connect via an open XML interface to existing home automation systems. In this case the home automation system discretely takes care of the control process. Existing components such as door/window contacts are used without any problems to control the OEM Alpha 2: system.

Flexible expansion and updates

Due to the system's flexible hardware and software structure, expanding future systems is easy. And customised requirements are of course taken into account. The integrated MicroSD card slot adapts and updates the software. As a result, new features and components are incorporated into the system in no time.

OEM services

Special product features:

- individual body design and colour
- customer-specific parameterisation
- individual function range – from basic functionality up to the maximum
- printed with customer-specific logo
- individual labels, article numbers, barcodes and packaging
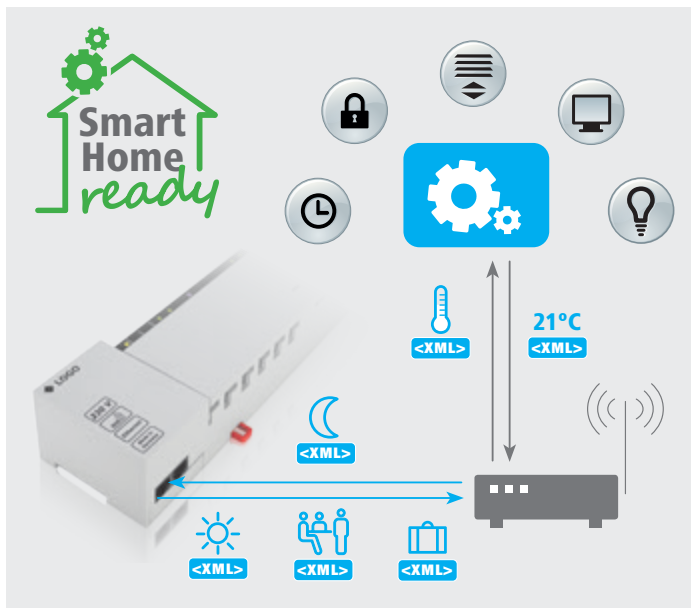- individual layout and content of a support website

Market entry support:

- Providing information on products such as data sheets, manuals and product photos
- Providing support on creating tailor-made technical literature and marketing activities
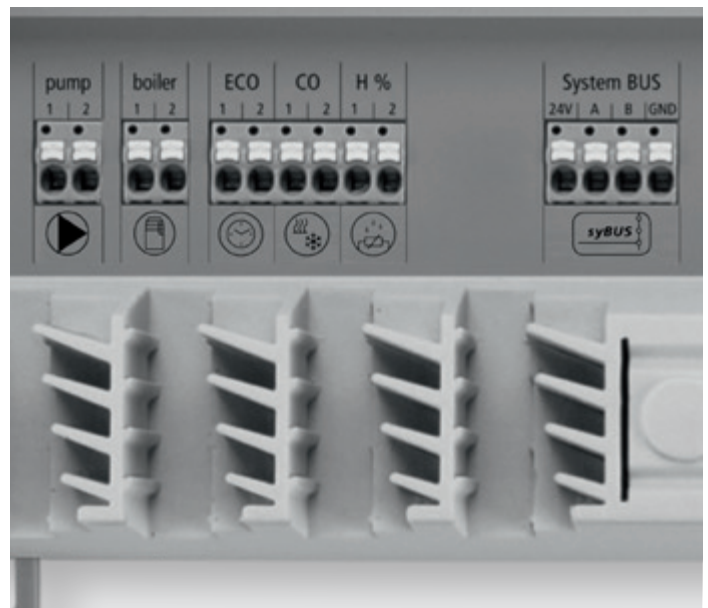
Do you have further wishes?

Just tell us your requirements and we'll liaise with you to turn them into reality.

XML interface for integration into home automation systems

The XML interface allows simple integration of the OEM Alpha 2: system into higher-level home automation systems. The existing home network (routers, WiFi, switches etc.) can be drawn on in the process. Integration into building control systems and EIB / KNX applications is also possible.

All-in-one solution for all applications

Even in the standard version each base station is fully equipped to manage all heating and cooling applications. Therefore, from the very beginning choosing the right device is no problem.

Fit for the future

The base stations have a microSD card slot for firmware upgrades and so that users can conveniently carry out configurations online on PCs.

Ethernet interface (optionally)

• Simple integration into the home network and global access
• Web-based EZR Manager application software for straightforward control and status displays by PC or smartphone
• XML data exchange with any third-party systems

Easy installation and commissioning

Systematic, distinct connections with the Alpha base product family's established cable management and strain relief, as well as screwless plug/clamp connections guarantee fast and reliable installation.

Everything under control

LEDs constantly keep up with current operation and ensure every-thing's working perfectly: Operating status, NO/NC, Fuse, Pairing, Cooling, System error, Alarm, Heating zone, Dew point.

Prospects for the OEM partner

Range of services

We can offer OEMs application-driven advice and technical support on our products and systems. We round off our service portfolio by providing our customers with information on products such as data sheets, manuals, product photos and other printed matter for tailor-made technical literature and marketing activities.

Marketing benefits

Automatic heating control in homes is state of the art. In future, it will become a major convenience factor for users. The OEM Alpha 2: System gives customers significant added value when adding to systems. This will inevitably boost your brand's expertise on the market. The system offers new options in automating systems in homes. It looks outstanding and provides superb value, excellent quality, straightforward installation and commissioning too.

Customisation

Due to a number of customisable options, the OEM Alpha 2: System's components allow you to set your brand apart. Tailored solutions boost your brand and give you a competitive edge. Just tell us your requirements and we'll liaise with you to turn them into reality.

ALPHA
TECHNIK

Der Garant für Funktionssicherheit, Kompatibilität und Freude am Produkt durch innovative Technologie

Innovative technology for reliable, compatible and excellent products

Your OEM partner

Möhlenhoff GmbH has been an established player on the international market for more than 3 decades. The company is a reliable, expert OEM that excels. These factors, combined with innovative ideas and a spirit of fairness in partnerships, have made it a very successful player worldwide for years. As an OEM, Möhlenhoff GmbH supplies products and complete systems for heating, ventilation and air-conditioning systems. As a specialist in control components and systems, the company offers its expertise to manufacturers worldwide. Möhlenhoff GmbH is a global market leader in thermal valve drives.

 Möhlenhoff

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