

# SIEMENS



The worldwide  
standard for  
home and  
building control



## Demand-based primary control for optimum room temperature

Central control unit RMB795B – the ideal basis for energy-efficient  
building automation in accordance with EN 15232

### Convenient individual room control

The central control unit RMB795B is a key component for ensuring an energy-efficient and comfortable room temperature. It receives the heating/cooling demand signals from the individual rooms and passes them on combined to the primary plant controllers. Time-based programs can be set for up to 10 rooms or groups of rooms. This provides a convenient means of controlling groups of rooms in large single- and multi-family houses as well as in office and multi-functional buildings.

### Highly flexible installation

In addition to Synco room controllers, any KNX-compatible room temperature controller can also be connected to the central control unit RMB795B via the bus. The control unit thus acts as interface between the temperature control in the groups of rooms and the primary control. On the primary side, KNX heating/cooling controllers can be connected as well as not-bus-compatible controllers with a heat demand signal input.

### Energy-efficient primary control

Control of the primary plant depends on the heating/cooling requirement in the rooms. Time of day, room occupancy, outside temperature and heat sources such as PCs and lights, for example, play an important role in this. These factors are included in the heating/cooling requirement via KNX room controllers. Thanks to the direct communication with the RMB795B, this provides extremely energy-efficient control of the primary plant, and offers optimum conditions for achieving the highest efficiency class in accordance with EN 15232.

### Reliability from the KNX expert

Siemens is a single source of supply for all products for energy-efficient building automation. They are backed by 60 years of experience in HVAC control technology. Siemens is also a co-founder of the KNX Association and has been a key driving force behind the further development of the KNX standard for 20 years.

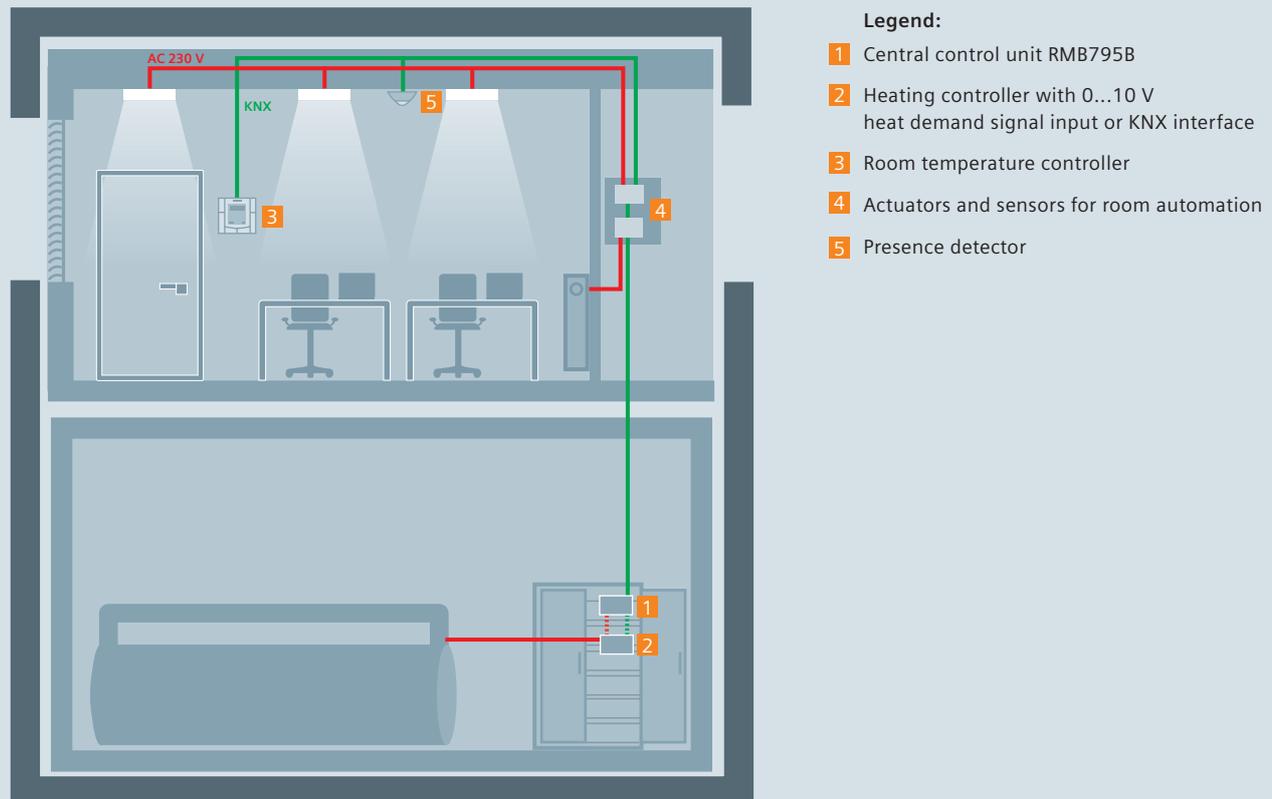
### Highlights

- High level of comfort thanks to optimal room temperature
- High energy efficiency through demand-based control of the primary plant
- Highly efficient interface between room temperature controllers and primary plant
- Integration of vendor-neutral room temperature controllers possible via KNX
- Reliability thanks to KNX communication
- Integration of vendor-neutral heating/cooling controllers possible

# Integrated applications with Synco and Gamma

A room and building automation system with a complete product range based on KNX saves energy, reduces time and effort for installation and lowers operating costs.

## High energy saving potential through time- and presence-based temperature control



The heating in office buildings is often controlled according to the outside temperature. It is more efficient, though, to regulate a building on the basis of the actual heating/cooling demand from the individual rooms. This demand depends on the time (night, weekend, vacation) and on the occupancy of the room. The temperature setpoint is lowered or raised at these times. However, other factors also influence the heating/cooling requirement, for example additional heat sources such as computers and lights, the activity of persons in the room as well as the building shell and the outside temperature.

Each room signals its heating/cooling requirement directly via the KNX bus to the central control unit RMB795B. This transmits the information to the heating controller (generator), for example via KNX or a 0...10 V signal.

The heating controller reacts directly by adjusting the burner output so that the highest valve settings on the radiators/heating areas do not drop below 90 percent. This enables the heating or cooling to be transported into the rooms efficiently.

In combination with presence detectors, the heating/cooling requirement can be matched to the actual presence of people in the room. In this way, for instance, a conference room will only be adjusted to the comfort temperature if a meeting actually takes place.

## Technical data

Type	Description	
	<p><b>Central control unit RMB795B</b></p> <ul style="list-style-type: none"> <li>■ Up to 10 individual room groups can be configured with separate year timer switch (weekly program, vacations, special days)</li> <li>■ Automatic summer/winter time changeover</li> <li>■ Control per room group of the                             <ul style="list-style-type: none"> <li>– Room operating mode</li> <li>– Room setpoint value</li> <li>– Setpoint correction (summer-winter compensation)</li> </ul> </li> <li>■ Receiving and forwarding of demand signals (hot water, cold water)</li> <li>■ Input for heating/cooling changeover with 2-pipe heating systems</li> <li>■ Universal modules for enlarging the number of I/Os</li> </ul>	<ul style="list-style-type: none"> <li>■ 6 universal inputs for passive or active analog input signals of different measurands (°C, %, g/kg, kJ/kg, W/m<sup>2</sup>, bar, mbar, m/s, Pa, ppm)</li> <li>■ Digital input signals (potential-free contacts)</li> <li>■ Input signals can also be received or transmitted via the bus.</li> <li>■ 4-relay outputs, 2 continuous 0...10 V outputs</li> <li>■ Output signals can also be transmitted via the bus.</li> <li>■ 10 freely configurable logic function blocks for linking several universal input quantities</li> <li>■ Configuration via operator unit RMZ79x or ACS790 software</li> </ul>

## Accessories

	<p><b>Plug-in type operator unit RMZ790</b></p> <ul style="list-style-type: none"> <li>■ Operator unit can be snapped onto the Synco™ 700 controller</li> <li>■ For displaying and altering plant data, for service and end users</li> <li>■ Plain text operation</li> </ul>	<ul style="list-style-type: none"> <li>■ Can be clicked on and taken off even when the controller is live</li> <li>■ Power is fed via the controller</li> </ul>
	<p><b>Detached operator unit RMZ791</b></p> <p>Like the plug-in type operator unit but:</p> <ul style="list-style-type: none"> <li>■ Different mounting variants (typically for panel doors or wall mounting)</li> <li>■ Larger display</li> <li>■ Connection by means of ready-to-connect, 3-m long cable included in delivery</li> </ul>	
	<p><b>Expansion modules for inputs/outputs RMZ78..</b></p> <p>The central control unit and the modules are designed for:</p> <ul style="list-style-type: none"> <li>■ Installation in a DIN 43 880 standard cabinet</li> <li>■ Wall mounting on pre-installed DIN rail (EN 50 022-35×7.5)</li> </ul>	<ul style="list-style-type: none"> <li>■ Wall mounting with two fixing screws</li> <li>■ Front mounting</li> </ul>

## Selection and ordering data

Type	Description	LK	Article no.	Price per PE	PE (ST, SZ, M)	PKG/VPE	PG	Weight per PE (kg)
RMB795B	Central control unit RMB795B	A	S55370-C162		1	1		0.536

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The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract. The document contains a general product overview. Availability can vary by country. For detailed product information, please contact the company office or authorized partners.

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Our world is undergoing changes that force us to think in new ways: demographic change, urbanization, global warming and resource shortages. Maximum efficiency has top priority – and not only where energy is concerned. In addition, we need to increase comfort for the well-being of users. Also, our need for safety and security is constantly growing. For our customers, success is defined by how well they manage these challenges. Siemens has the answers.

**“We are the trusted technology partner for energy-efficient, safe and secure buildings and infrastructure.”**