

SIEMENS

Ingenuity for life



Desigo Room Automation

The unique solution for
enhanced comfort and productivity

siemens.com/desigo/room-automation

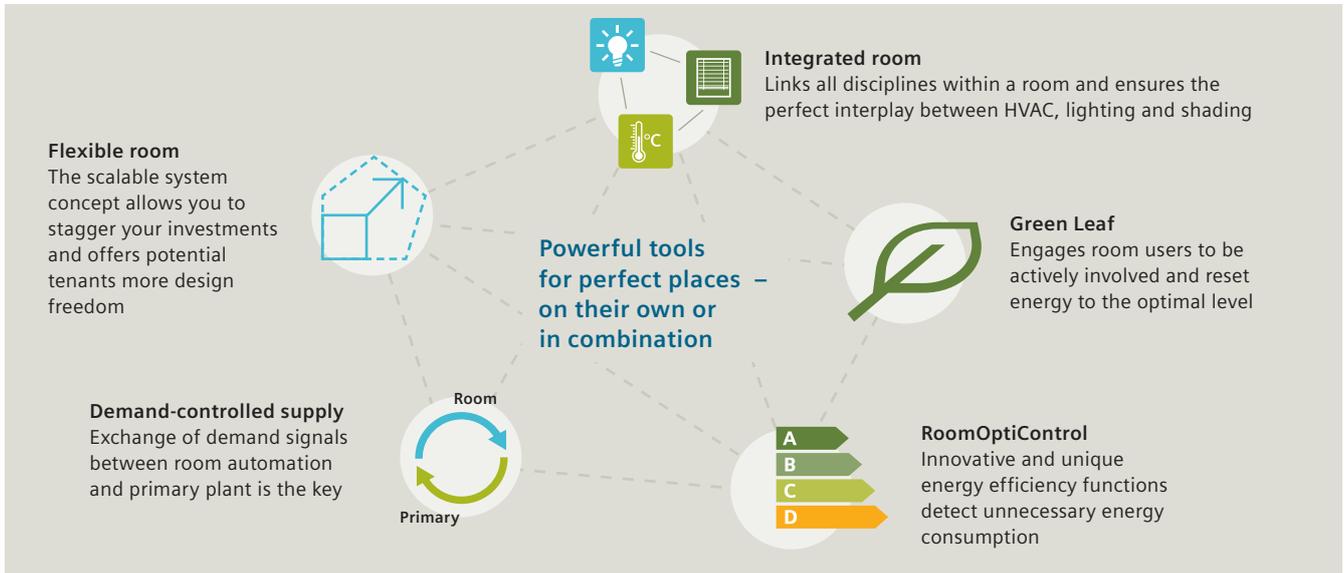


Turning rooms into perfect places

We spend about 90 percent of our lives indoors. Our comfort, and even our productivity, depend on the features of these buildings and their ability to treat air quality, cooling, heating and lighting. Despite an ever-increasing focus on energy efficiency, our quality of life and our performance are connected to the comfort enabled by the places that surround us.

Desigo™ Room Automation allows you to balance energy efficiency and people's productivity in a room. Productivity can be greatly influenced through personalized comfort conditions. For example, adequate ventilation control can improve performance in schools. Rooms and the comfort of their users is our passion. They drive us to help you create perfect places – every day.

Experience the ultimate comfort while increasing your productivity



Intelligent comfort for any room

Desigo Room Automation links all disciplines within a room and ensures the perfect interplay between heating, ventilation, air conditioning, lighting and shading. Desigo Room Automation ensures a comfortable room climate, good air quality and optimal lighting conditions with as little energy consumption as possible. Optionally, all room disciplines can be operated easily and intuitively from a single room operator unit. This creates a pleasant workplace environment and increases the motivation and productivity of room users.

High energy efficiency for your building

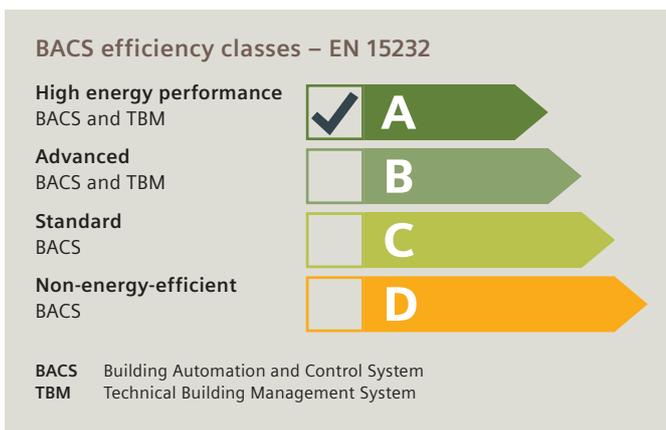
RoomOptiControl makes the perfect system. It guarantees that temperature, air quality and humidity limits – AirOptiControl – are not surpassed and reduces energy utilization up to 50 percent contrasted with a steady air volume framework. Through demand-controlled supply signals from room automation to primary plant, only the required energy is provided without ever compromising comfort conditions.

Save up to 25 percent energy by involving room users

The room operator unit's Green Leaf symbol changes from green to red, when unnecessary HVAC, lighting or shading energy consumption is detected. Simply pressing the Green Leaf symbol resets the room automation to the most energy-efficient operation. Thus the room user is actively involved in energy-efficient operation, while enjoying the flexibility to adapt room conditions to individual needs.

More flexibility for your building

Business goals and room usage change, and customer requirements grow. Desigo Room Automation can be expanded step by step, giving you the ability to add new features when you need them. Since it supports international communication standards, it can be integrated seamlessly into existing installations.



The Grosspeter Tower is one of Basel's highest buildings and dominates the city's skyline. Siemens was responsible for the room automation system, designed to deliver and install all room disciplines. Siemens room automation's flexible approach facilitated the adaptation of any need, and its proven technology guaranteed the success, the tenants' confidence and the users' comfort.

Green Leaf symbol for optimized room climate

Active energy management by room users

RoomOptiControl, an innovative energy efficiency feature, detects unnecessary energy consumption and alerts users by changing the color of the Green Leaf symbol on the room operator unit from green to red.

To reset the room controller to energy-efficient operation without loss of comfort, the user simply touches the symbol. The Green Leaf symbol returns to green.



Energy-optimized operation



Unnecessary energy consumption; energy saving potential exists

Highlights

- Energy-efficient operation through easy-to-use Green Leaf symbol
- Workplace comfort with optimized room conditions and air quality
- Better concentration because of fatigue-free lighting conditions
- CO₂ level in the air can be properly measured

Straightforward operation for a comfortable room climate

All disciplines within a room can be operated conveniently from a single room operator unit. The Desigo Room Automation room operator units are so user-friendly that operating errors – and associated energy losses – are virtually eliminated. In addition, the unique Green Leaf symbol alerts users when unnecessary energy consumption occurs. Simply pressing the Green Leaf symbol is all it takes to reset the room automation system to energy-efficient operation.

Pleasant air quality in the workplace

A pleasant workplace climate improves concentration and has a positive effect on motivation and productivity. Desigo Room Automation's innovative AirOptiControl application creates the

ideal framework. It ensures that temperature, air quality and humidity limits are not exceeded and lowers energy consumption by up to 50 percent compared to a constant air volume system.

For example, communicating sensors can measure and adjust the CO₂ level in the air as well as the humidity and room temperature.

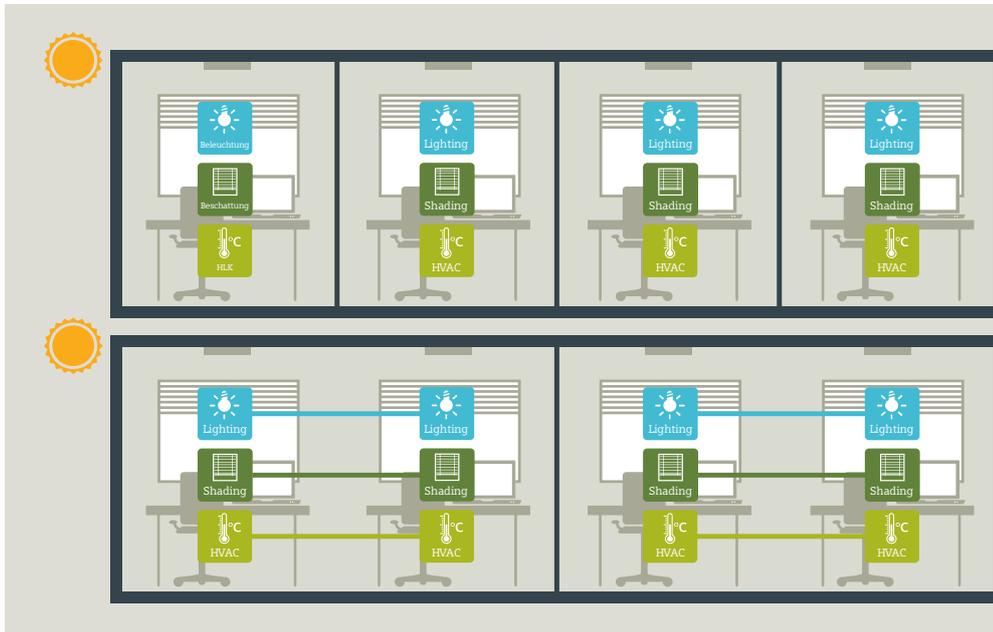
Ideal lighting conditions for productive work

Optimized lighting conditions at the workplace prevent eye strain. Desigo Room Automation automatically adjusts the lighting level to match the time of day. When needed, shading can be provided to utilize the positive effects of glare-free daylight on health over artificial light.

Through intelligent, energy-saving control of lighting and shading, Desigo Room Automation ensures optimized lighting conditions in the workplace. For example, artificial light is dimmed depending on natural light and information from presence detectors and controlled by integrated brightness sensors. Blinds are optimally adjusted to minimize glare, make use of natural light, and protect from the heat and the cold.



Maximum flexibility, minimal investment



Desigo Room Automation offers maximum flexibility. With its advanced segment concept, the building floor plan and the room layout can be adjusted easily and quickly – without modifying electrical or HVAC installations.

This means less initial expenditure and lower costs for the basic configuration.

Lower initial costs due to scalability

The scalable system concept allows you to offer tenants or buyers a great deal of freedom to design the space any way they wish. The basic configuration can be limited to a minimal installation, which can be easily expanded by tenants based on their requirements – from the room layout to individual workplace lighting. This shortens the construction phase and makes it easier to lease or sell the building.

Easy adaptation to changing requirements

When a reorganization becomes necessary or when the room usage or the tenant changes, the unique segment concept of Desigo Room Automation will lower your costs. Floors in the building are subdivided

into room segments and these, in turn, are flexibly combined into rooms. When the room layout changes, you can quickly adjust the segment grouping.

Flexible settings for different work situations

The room operator units also offer flexible functionality. Scenes that trigger multiple actions in the room can be programmed for different work situations – e.g. normal operation, break, meeting or presentation – and modified if needed.

Highlights

- Low initial costs due to scalability
- Flexible segment concept easily adapts to changes in room usage
- Room ambience can be changed by switching scenes

Using individually preprogrammed “scenes” displayed on the room operator unit, you can change the room conditions simply by fingertip. The scenes select the room temperature, ventilation, shading and lighting appropriate for each situation. For a presentation, the light is dimmed and the shades are lowered, while during a break, lighting and ventilation are turned on and heating or cooling is relaxed.



Desigo offers you a broad range of room operator units: whether a simple temperature, humidity or CO₂ sensor, a unit with operator adjustment, units with or without the Green Leaf symbol, all in either a wall- or flush-mounted design. The high-quality touch screen room operator unit features capacitive color display and can be installed horizontally or vertically.

The flush-mounted sensors can be combined with the Delta frame program and matched with any room design.



Innovative technology to minimize maintenance costs

Highlights

- The right product for any installation requirement
- Easy integration because of open communication standards
- Fast commissioning using plug-and-play products and predefined applications

A comprehensive range for any requirement

The Desigo Room Automation product range meets all functionality and installation requirements. In addition to room automation stations, it also includes operator units, push buttons, communicating sensors for wall and flush mounting and presence detectors with integrated brightness sensors. The Desigo Room Automation product range also combines harmoniously with different switch designs from Siemens and other manufacturers.

Standardized communication for easy installation and use

Standardized communication lowers installation and investment costs. You can easily reuse existing HVAC and lighting installations and optimize their functionality.

Less effort for more convenience

Desigo Room Automation offers you convenient handling, which makes installation, reconfiguration and maintenance significantly easier and faster. Simply remove the old unit and plug in the new one, and add and commission peripherals without engineering. Similarly, devices can be replaced without tools and engineering. An extensive library of tested applications facilitates planning and commissioning.





Siemens uses not only its own laboratories for testing but also eu.bac-accredited testing facilities. The eu.bac certification according to European standards confirms the high quality, control accuracy and energy efficiency of the Desigo Room Automation devices.



Long-term partnership with maximum reliability

Reliability from experience

Siemens offers optimized room automation from a single source. You will benefit from a reliable partner with more than 60 years of experience in HVAC control technology, more than 30 years of experience in building automation systems and active involvement in international standardization bodies. In addition, Desigo Room Automation is based on the proven quality of a broad installed base.

Proven reliability

Our extensive application knowledge is reflected in our products, systems and applications. They are thoroughly tested in the in-house laboratories from Siemens under real-life conditions to ensure smooth, error-free and efficient operation.

In touch with the latest trends

With its high level of compatibility and continuous development, Desigo Room Automation protects your investment across the entire lifecycle of your building. Changes, expansions or upgrades can be made gradually. Since Desigo Room Automation complies with global and European standards such as BACnet and eu.bac, you can rest assured that your building and room automation solution meets the latest requirements.

Highlights

- Reliability of an experienced, competent partner
- Investment protection across the entire lifecycle
- Reliability through tested, proven components and applications
- Meeting global standards



BACnet is an open communication standard for building automation used worldwide. Independent testing and certification authorities guarantee the reliability of BACnet devices.

Desigo room automation stations use BACnet to communicate with each other and with the management level. This ensures universal communication from the room to the management level.



KNX is an international open standard network communications protocol for building automation based on the communication stack of EIB enlarged with physical

layers, configuration modes and the application experience of BatiBUS and EHS. Desigo Room Automation integrates predefined applications for all HVAC functions plus basic functions required for lighting and shading. Extra functions can be provided by integrating KNX network in the building automation control system.



When building technology creates perfect places –
that's Ingenuity for life.

Never too cold. Never too warm.
Always safe. Always secure.

With our knowledge and technology, our products,
our solutions and our services, we turn places into
perfect places.

We create perfect places for their users' needs –
for every stage of life.

#CreatingPerfectPlaces
[siemens.com/perfect-places](https://www.siemens.com/perfect-places)

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