SAUTER ecos504/505

The modular room controller for demand-controlled, integral room automation.

SAUTER

Creating Sustainable Environments.

SAUTER ecos504/505 room controller.

The smart solution.

Integrated room automation for more comfort and efficiency.

Room automation with the SAUTER ecos504/505 provides a balanced overallsolution. The room controller is an addition to the SAUTER modulo BACnet/IP systemfamily, enabling both seamless integration into the building managementsystem and the automation of the primary installations. SAUTER therefore combines energy consumption and generation thereby allowing demandcontrolled regulation of the supply media.

Flexibility thanks to modularity.

The modularity of the ecos504/505 room controller provides maximum flexibility. Therefore, the room automation solution can be tailored to the specific requirements of the building – from the control of a heated/chilled ceiling to the complete integration of room climate, lighting and sunshade functions. The goal is always to achieve maximum comfort for the room users with the minimum use of energy.

Open and across all equipment systems.

The SAUTER ecos504/505 connects everything that belongs together in a room: Lighting via DALI, operation and display via KNX, sunshading either conventionally or via SMI, temperature control and ventilation conventionally or via SLC or Modbus. Using the best from every area to create an integrated, optimum overall solution for the room users, building operator and investor. This is what we mean by an open system for integrated room automation.

Here the SAUTER ecos504/505 **shows its full capability.**

Office buildings
- Easy conversion from open space to individual offices with the concept of flexible room segments
- Optimum working conditions through integration of sunshade with glare protection, lighting and room climate

Luxury apartments and flats
- App operation with smartphone and tablet
- Scene control for luminaires and blinds
- Remote monitoring using SAUTER cloud solution

Hotels
- Individual comfort through integration with the hotelbooking system
- Energy efficiency through occupancy-regulated room control

Hospitals and rehabilitation clinics
- Efficient notification and central monitoring
- High availability of systems through autonomous room controllers

Schools and universities
- Higher attention levels among students and re-ducedenergy costs through CO_2-based room ventilation
- Easy adjustment of occupancy plan and holiday calendar

Shopping centres
- Modular room segments for optimum area management
- Easy expansion of functions via open BACnet/IP system

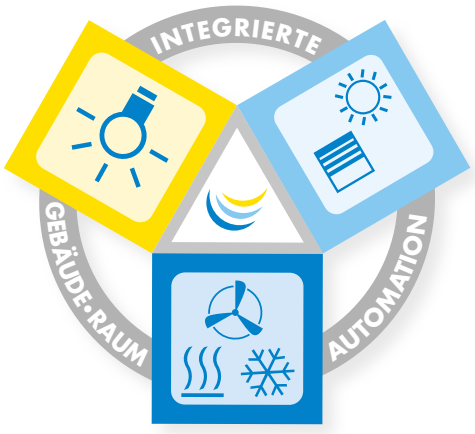
Ventilation and room-pressure control in life science applications
- Seamless integration, from the fume cupboard to the building management system
- Fast data transfer via BACnet/IP. This provides reliable monitoring and an efficient notification concept for critical areas

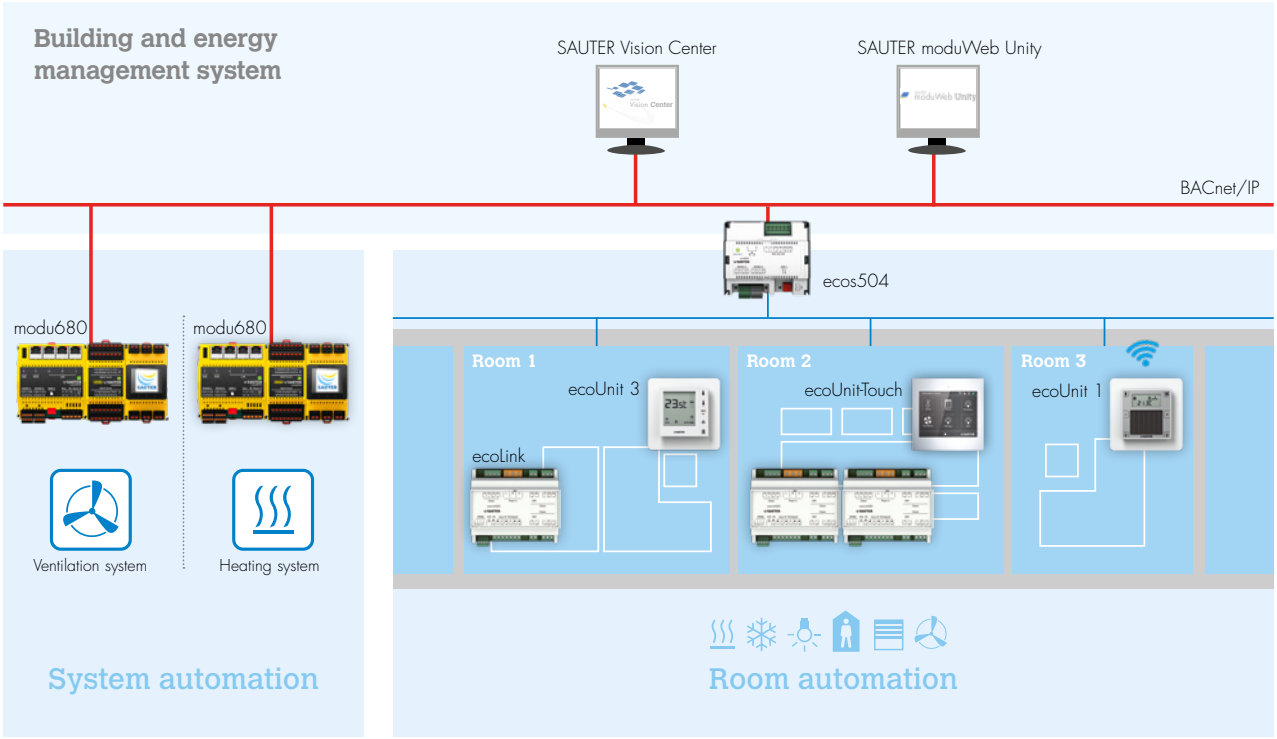
Scalable room automation
enables an excellent room climate.

One system for everything.

With an open, integrated system for regulating and controlling all the room automation tasks, you get many benefits:

- Control of room temperature via:
  - Fan coil/VAV units
  - Heated/chilled ceilings, chilled beams
  - Radiators/convectors
- Sunshade according to the position of the sun
  - Sunshade with maximum daylight usage
  - Internal glare protection
  - Minimum cooling load
- Lighting control:
  - Occupancy-dependent constant-light control
- Maximum energy efficiency through:
  - Demand-controlled room ventilation
  - Optimised control with occupancy profile and detection
  - Using the sunshade control to support the heating and cooling
  - Requirement feedback to the primary system
- Full flexibility when changing the room division via modular room segments ("moving walls")
- Direct integration into the building management system
- Simplified planning and maintenance through significant reduction of interfaces
- A balanced overall solution for all equipment systems
- Reduction in operating costs





SAUTER ecos504/505 – modular room automation for **maximum flexibility.**

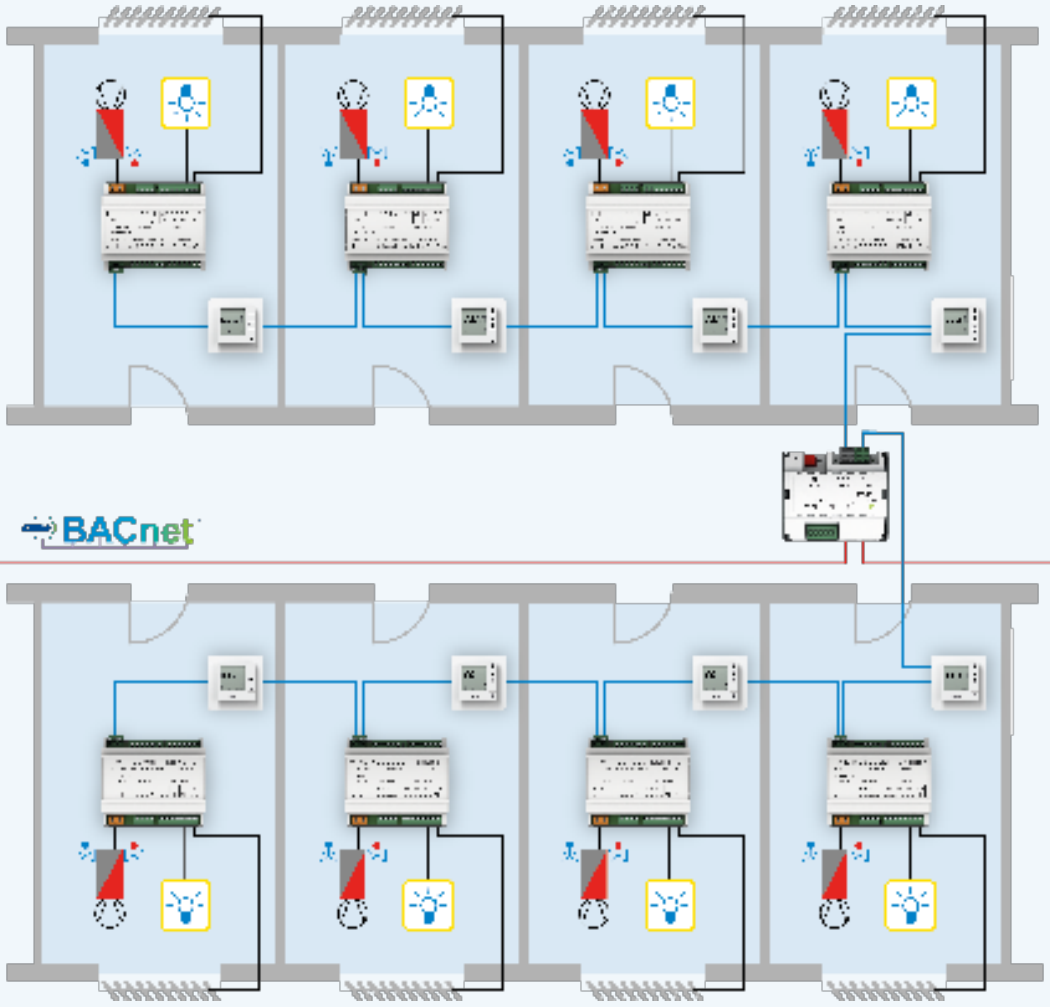
For all applications.

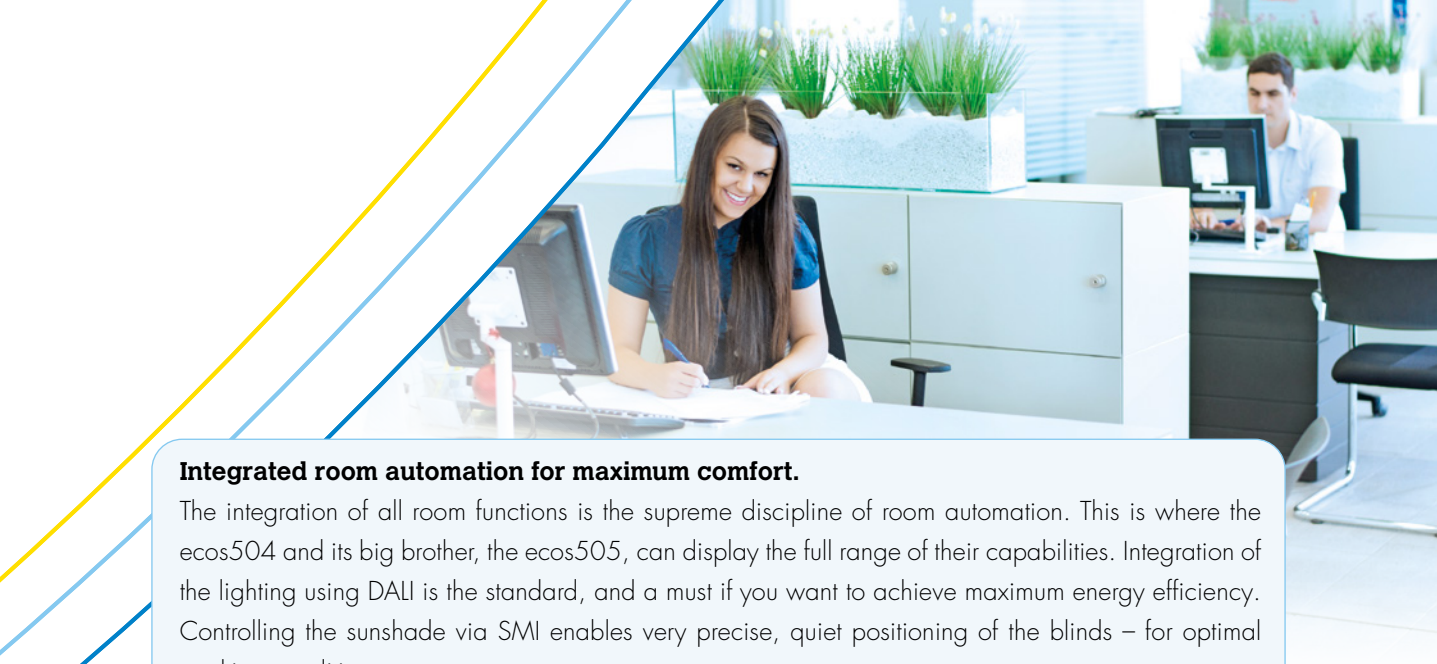
The requirements for room automation are as varied as the people who use the rooms. The widest range of solutions is created depending on how the room is used, the technical systems for heating/ventilation/cooling, the lighting, the sun and glare protection, the physical construction of the building and, last but not least, the comfort and design requirements. The modular system of the SAUTER ecos504/505 can be tailored precisely to the respective application, enabling everything from simple room control with a fan coil unit to fully integrated solutions of all kinds.

Simple room climate regulation with a fan coil unit.

An ecoLink module is positioned locally next to the fan coil unit and provides the necessary inputs and outputs. It can be used to directly integrate the switching of the lighting and control of the sunshade in buildings with fixed room divisions (schools, hotels etc.). An economical solution with optimised wiring and all the advantages of a freely programmable room automation station with the B-BC BACnet profile.

It enables the particular features of buildings to be considered and subsequent extensions to be implemented easily.



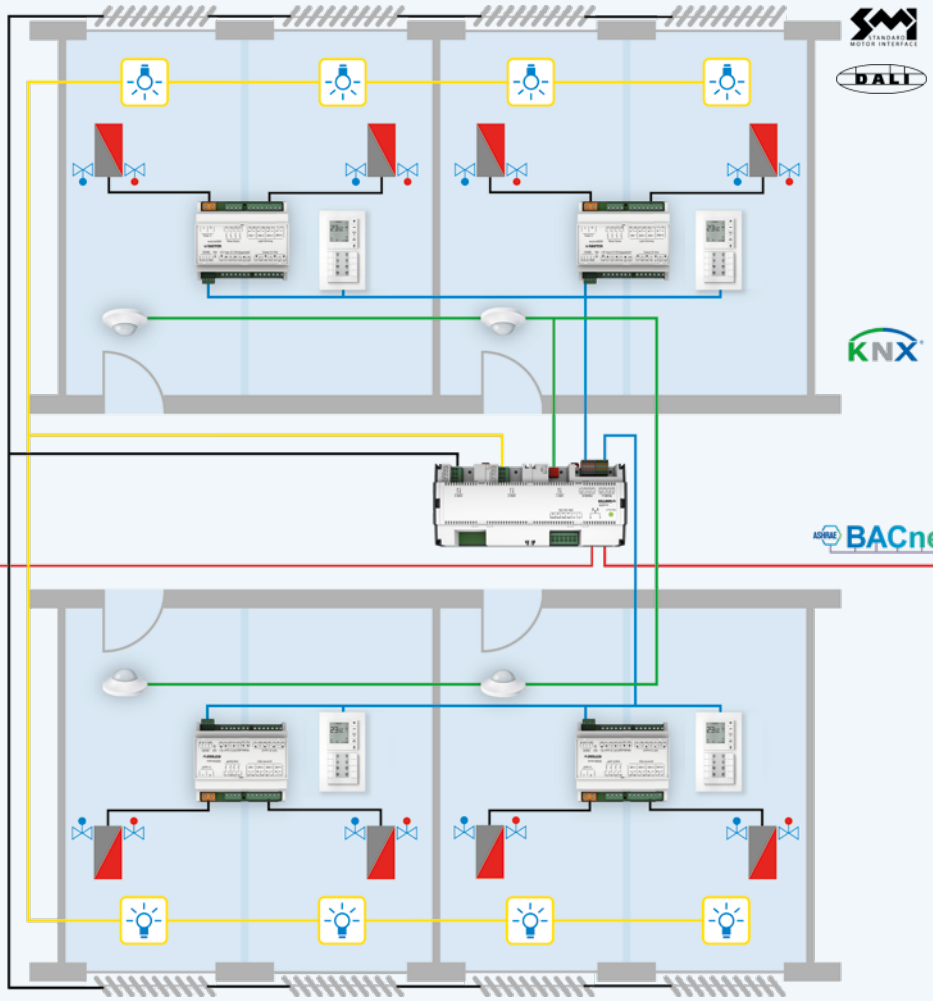


Integrated room automation for maximum comfort.

The integration of all room functions is the supreme discipline of room automation. This is where the ecos504 and its big brother, the ecos505, can display the full range of their capabilities. Integration of the lighting using DALI is the standard, and a must if you want to achieve maximum energy efficiency. Controlling the sunshade via SMI enables very precise, quiet positioning of the blinds – for optimal working conditions.

Using KNX or Modbus as a field bus in a room makes it possible to fulfil preferences, e.g. in design and ease of operation or a wide range of integrational capabilities.
An ecos504/505 with Modbus and M-Bus can be used as a floor controller which records the energy consumption in the various rental areas and room zones.

Flexible room division, central management of the setpoints, schedules and calendars, monitoring of all alarm messages and evaluation of historical data for system optimisation are just some of the functions by which the ecos504/505 supports the management of the building.



SAUTER ecos504/505 at a glance.

The advantages.	How you benefit.
SAUTER modulo system family Open communication via BACnet	Guaranteed quality and interoperability between devices from different manufacturers and high security of investment
Homogeneous solution	Elimination of gateways, standardised user address key
BACnet Building Controller B-BC profile with historical data, intrinsic reporting, local schedules and calendars	Local data logging for interruption-free monitoring. Efficient, event-oriented notification
Modular room automation with flexible room segments	Room divisions changed with a mouse-click in the management system, without rewiring or programming
KNX interface	Direct integration of room operating units and third-party actuators
DALI interface	Efficient integration of lighting control
SMI interface	Integration of sunshade
Modbus interface (RS-485)	Integration of smart sensors and actuators
M-Bus interface	Integration of energy and heat meters
Freely programmable room automation station	Maximum flexibility for versatile applications
Function libraries as per EN 15232	Optimum, efficient standard functions
Remote I/O modules	Scalable to the requirements of the project; local fitting and reduced wiring
DIN rail housing, small construction	Fitting in standard small distributor

Overview of types

	ecos504 105 × 90 × 58 mm	EY-RC504F001	8 room segments
		EY-RC504F011	8 room segments, KNX
		EY-RC504F021	8 room segments, DALI
		EY-RC504F041	8 room segments, SMI
		EY-RC504F0C1	8 room segments, Modbus (RS-485)
		EY-RC504F0D1	8 room segments, M-Bus (M-Bus physics)
		EY-RC504F101	8 room segments, moduWeb
	ecos505 210 × 90 × 58 mm	EY-RC505F...*	8 room segments, up to 3 interfaces with KNX, DALI, SMI, Modbus (RS-485), M-Bus

* for complete type list, see product data sheet

General features

- Part of the SAUTER modulo system family
- BACnet/IP Building Controller, B-BC profile
- Control of up to 8 flexible room segments or rooms
- Freely programmable with SAUTER CASE Suite
- Function libraries for HVAC, lighting and sunshade
- Expansion interfaces RS-485/SLC bus for ecoUnit room operating units, ecoLink I/O modules and EnOcean wireless interface
- KNX/TP interface
- DALI interface, integrated bus power supply
- SMI interface for controlling SMI drives
- RS-485 interface for Modbus
- M-Bus interface for integration of energy meters
- Integrated Ethernet 2-port switch for daisy chain wiring
- 24 V AC/DC power supply
- Compact construction due to DIN rail housing with top-hat rail mounting

BACnet properties

- BACnet B-BC profile
- 600 data points, 32 Loops, 32 Schedules, 16 Calendars
- 16 Notification Classes,1500 active COV subscriptions
- 256 Trend Log objects with up to 60,000 entries

Accessories

	ecoLink Remote I/O modules	EY-EM 510/511/512	24 V~, 3 relays, 3 Triacs, 3 AO, 4 AI
		EY-EM 514/515	24 V~/=, 4 relays, 6 DO-FET, 4 AO, 4 UI
		EY-EM 522/523	230 V~, 4 relays, 4 DIM-10 V, 4 AO, 4 UI
		EY-EM 527	230 V~, 4 relays, 4 UI, 4 DI/CI
	ecosCom581 Wireless interface	EY-CM 581	EnOcean, Bidirectional, SLC/RS-485
	ecoUnit 1 EnOcean wireless room operating units	EY-RU 110	NTC temperature sensor
		EY-RU 146	LCD, NTC, 6 buttons (+ , - , ...)
		EY-SU 106	Pushbutton unit, 6 buttons
	ecoUnit 3 Room operating units	EY-RU 310	NTC temperature sensor
		EY-RU 311/314/316	NTC, dXs (rotary knob, 4 buttons)
		EY-SU 306	Pushbutton unit, 6 buttons
		EY-RU 355	LCD, NTC, 5 buttons (+ , - , ECO , ...)
		EY-SU 358	Pushbutton unit, 4, 6 or 8 buttons
		EY-RU 365	Touch, NTC, Bluetooth, configurable
	Power supply modules	EY-PS 021	230 V AC, output 24 V DC, 1 A / 2 A / 4 A

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