SAUTER EY-modulo **5**

The complete building management solution

SAUTER

Creating Sustainable Environments.

SAUTER high-end technology – for the highest standards in fully integrated building management.

The best of the best. In a single system. Integrated, distributed intelligence based on nearly a hundred years of knowledge and experience in building automation. Our high-end solution for fully integrated building management once again pushes back the boundaries. SAUTER EY-modulo 5 is the top-of-the-range solution for intelligent and energy-efficient buildings – an ideally configurable, modular system that can meet any demand for state-of-the-art building technology.

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SAUTER EY-modulo 5: the open, multifunctional and efficient **building management system**

BACnet/IP: the communication protocol
Networked building intelligence

SAUTER EY-modulo 5 comprehensively meets all the challenges posed by an open, modular and cross-platform building management solution. This innovative technology is entirely based on the open BACnet/IP communication protocol via Ethernet and any existing IT networks. SAUTER EY-modulo 5 allows a complete exchange of data for complex building management functions, including air conditioning with pinpoint precision, alarm and fire protection functions, as well as convenient room automation, all integrated within a single system that is unlimitedly scalable.

ASHRAE **BACnet**™

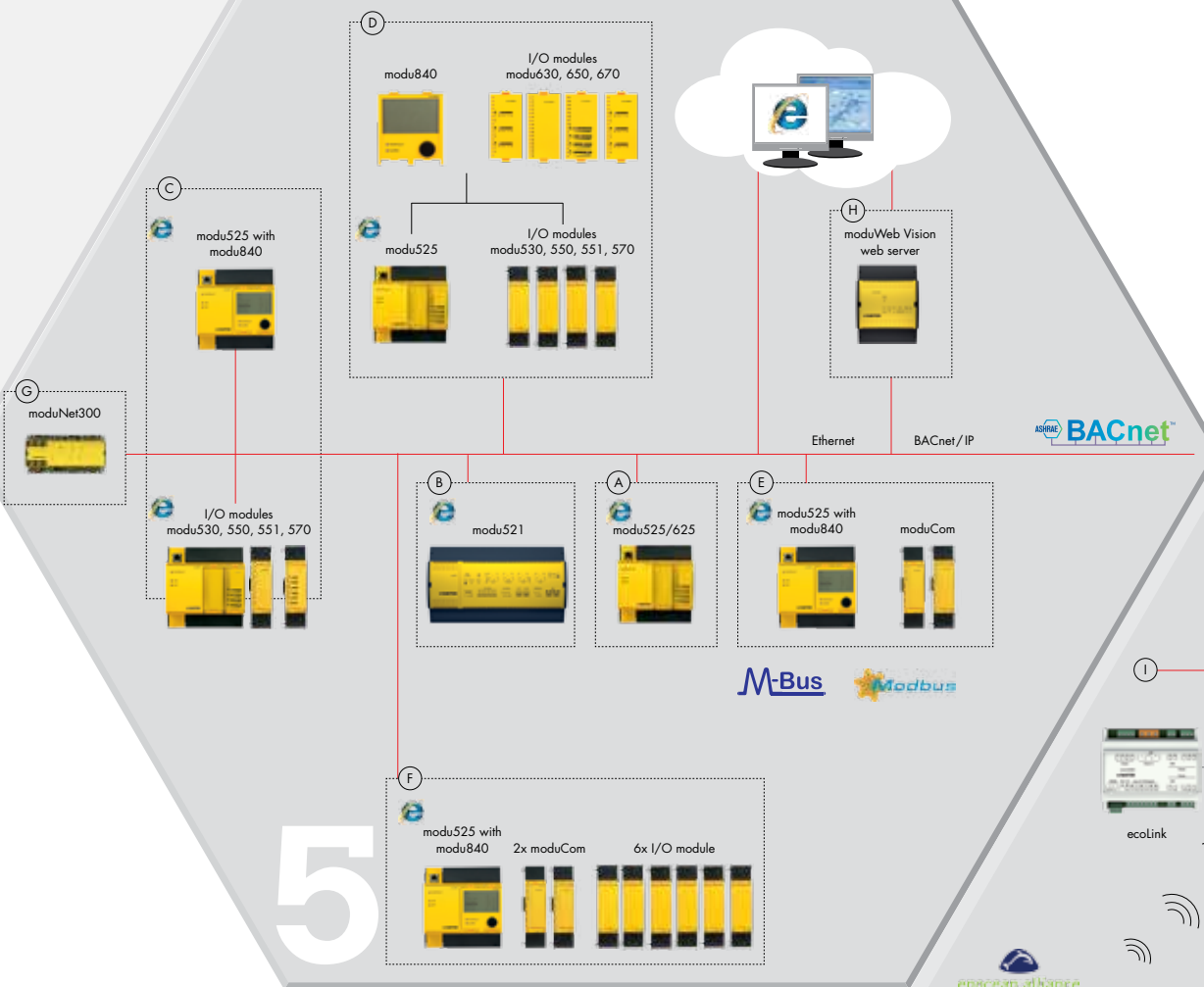**SAUTER EY-modulo 5 guarantees energy efficiency.**

The distributed intelligence concept ensures that there is more efficiency at every point in the building management system. The automation stations have adaptive algorithms and energy optimisation functions as standard. These combine to adapt to the latest situation automatically, even if changes are made to the rooms. This means the energy requirement is controlled with absolute precision according to demand among the energy sources and consumers. As a result, we achieve maximum energy efficiency, to the benefit not only of our customers' budgets but also of the environment for future generations.
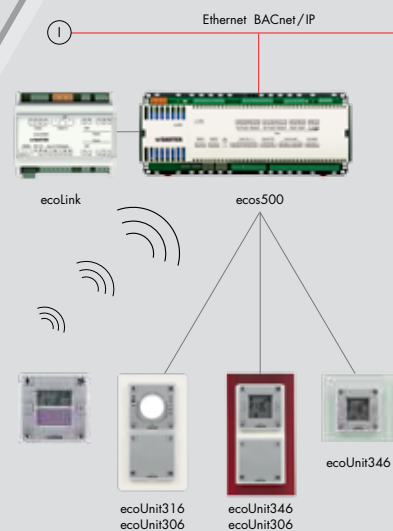
eu.bac european building automation controls association

Unlimitedly scalable with completely open communication.

System integration

modu 5

D   modu840   I/O modules modu630, 650, 670

C   modu525 with modu840

modu525   I/O modules modu530, 550, 551, 570

H   moduWeb Vision web server

G   moduNet300

I/O modules modu530, 550, 551, 570

B   modu521

A   modu525/625

E   modu525 with modu840   moduCom

Ethernet   BACnet/IP

ASHRAE BACnet™

M-Bus   Modbus

F   modu525 with modu840   2x moduCom   6x I/O module

5

ecos 5

Ethernet BACnet/IP

I

ecoLink   ecos500

ecoUnit316 ecoUnit306   ecoUnit346 ecoUnit306   ecoUnit346

5

A	Base station:	The most simple type of automation station
B	Compact station	
C	Operation:	The controls can be positioned directly on the station
D	Remote control:	The controls can be positioned in a separate frame several metres away

E	Third-party integration: Integration of third-party systems
F	Scalability: The maximum I/O mix
G	Integration of EY-modulo 2 EY3600 migration
H	moduWeb500 with moduWeb Vision BACnet web server
I	ecos502 with ecoUnits for two rooms: temperature, lights and window blinds

Large or small, left or right, above or below: **compatible** with any system.

Whether for new buildings, modernisations or migrations – complete upwards and downwards compatibility protects your investment.

When you invest in a state-of-the-art building management system, you need to be certain that it will meet any future requirements. At SAUTER, we offer the expertise you need, as well as a uniquely consistent set of products ranging from automation stations to unitary controllers with the ranges of EY-modulo automation stations, field devices and our comprehensive wealth of experience. SAUTER systems offer the utmost flexibility and scalability because they are fully compatible with any system, regardless of age or generation, including novaNet, LON, BACnet MS/TP or BACnet/IP based systems.
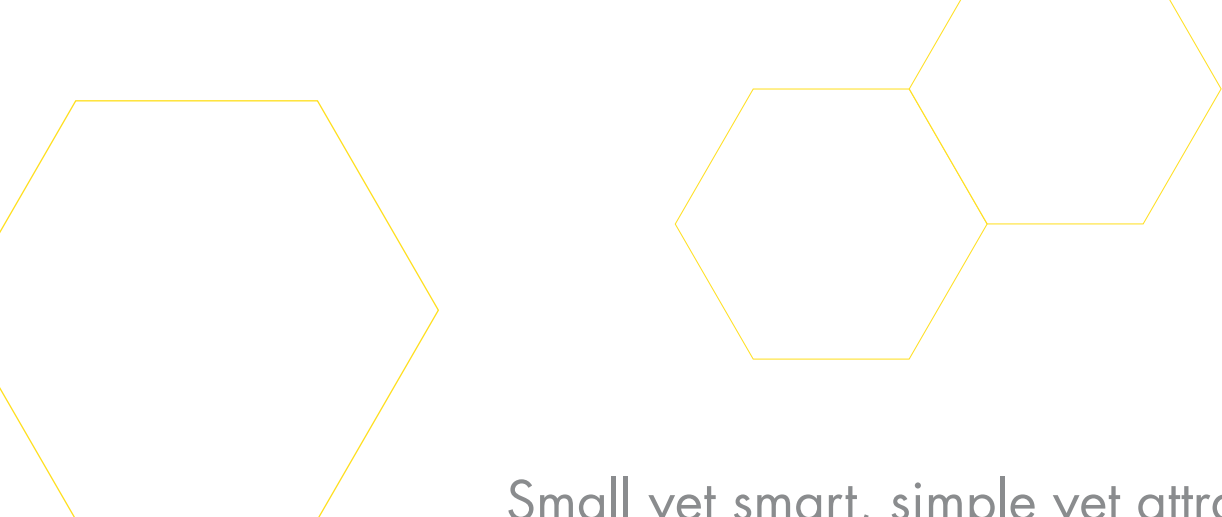
The system is open both vertically and horizontally – providing perfect interfaces for an overall concept independent of any manufacturer.

Thanks to BACnet/IP, we are even able to seamlessly integrate existing systems (M-Bus, Modbus, LON etc.). The benefits are clear. You are no longer tied to one manufacturer and can upgrade your existing system with the entire variety of functions offered by SAUTER without any problems at all. As well as vertical integration, SAUTER EY-modulo 5 and BACnet/IP provide you with a basis for a building management system that can cater for multiple specialist systems. These might include room booking applications, access control, fire protection and alarm systems. The variety of possible interfaces within your building management system means that every conceivable wish is possible.

A system for completely integrated building management:

Heat | Cooling | Heating | Plumbing | Lighting | Sun protection | Electrics | Communication | Fire protection | Security | Access control | Lifts | Emergency power | HVAC | Internet and much more!

Small yet smart, simple yet attractive:
The perfect combination of function and design.

Maximum functionality in the minimum of space – intelligent modules make it all possible.

Using the modular automation stations from SAUTER, even the most complex requirements for regulation and technical optimisation can be met. All the functions are available directly in the SAUTER firmware. Tailor-made data point solutions can supplement functions individually and simply be added to the automation station. The modular design means that existing systems can be upgraded with operating, indication and control units with the minimum of effort and expense.

The design strikes an optimum balance between the appearance and function of the product.

State-of-the-art buildings need state-of-the-art technology. We package this in a functional yet attractive design. Here, too, experience is crucial, because the intuitive method of operation must be practical and, at the same time, robust. It must be simple to install and be open for possible extensions. That's why we have developed concepts that combine optimum design with maximum functionality for whatever requirements you might have: whether as an automation station concealed in a cabinet or as a single-room controller integrated in a living area.

Attractive

Flexible

Functional

Intuitive

Clear

Simple

SAUTER EY-modulo 5 offers a custom range of comfort levels for **efficient operation**.

SAUTER moduWeb Vision

- Intuitive operation, very latest interface design
- Not tied to any location
- Direct notification via internet
- Dynamic tables and animated diagrams
- Password-protected, virus-resistant, traceable logs
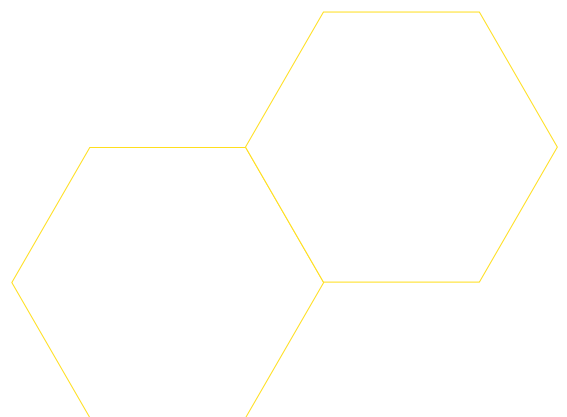
SAUTER automation station with moduWeb on board

- Integrated web server as standard
- Operation via PC or touch- panel
- Graphical representation showing the main information
- Control loop diagrams and alarm summaries at a glance

SAUTER modu840

- One-button, turn-and-press manual operation
- Display with intuitive menu directly on the station
- Table view
- Clear status display
- Flexible mounting options

SAUTER EY-modulo local override operation

- Settings made directly on the module
- Plug-and-play installation and operation
- Colour LED display to indicate input and output statuses
- Generous labelling space
- Can be removed from I/O module and upgraded at any time

Remote access and alarm notification for rapid
reaction, central control and
the reassuring feeling of security.

Remote operation: fast, economical and secure.

The 'web on board' technology ensures that your system runs smoothly. Interactive operation enables you to carry out regular maintenance and inspection routines very efficiently. Any system errors or malfunctions are forwarded directly to you by e-mail or text message to your mobile phone or other devices. You can react immediately and initiate the necessary action remotely from your PC. Economy that pays for itself. In addition to highly reliable operation and quick resolution of problems, much less on-site maintenance is required.

Maximum convenience for technical services – visualisation, system access and maintenance via internet.
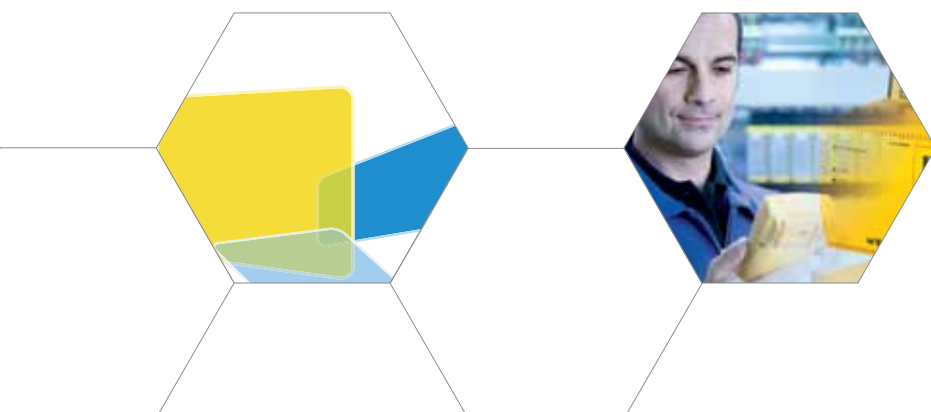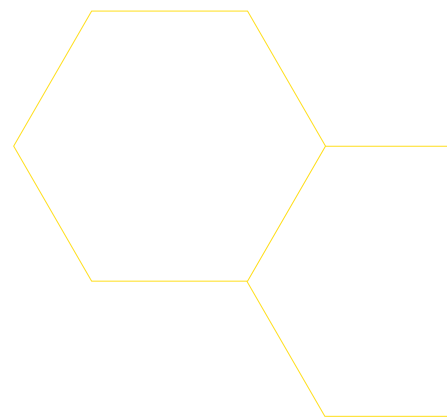

Web on board: an integral part of the SAUTER EY-modulo 5 automation stations.

Equipped with the latest web technology, the SAUTER EY-modulo 5 automation stations provide direct access to all the data that is relevant to your building. It could not be simpler: from the day the system is installed, you can use any common web browser to access important information, clear data point lists, precise analysis tools and log data evaluation options, and export the data to standard programs anytime and anywhere.

SAUTER EY-modulo 5 can provide alarm notification via numerous media:
• PC
• Smartphone
• Pager
• Fax
• Tablet PC

Where genuine **energy efficiency** is immediately apparent: trends, audits and the right reaction every time.

Easy to use, everything in view and total control –
SAUTER moduWeb Vision.

All in one. One for all.

moduWeb Vision is characterised by interoperability and system openness. The web server communicates with all the automation stations via BACnet/IP. This means that you can operate and monitor all the HVAC systems from a single web client. The structured lists and clear graphics for the system can been viewed on any web browser, no matter where you are.

Dynamic, modern and intuitive.

The graphical user interface means that even inexperienced users soon become experts. Time programs can be easily configured using a clear agenda view. The interface features the latest in HMI design. Experienced users can quickly navigate using the tree view. Dynamic tables and animated diagrams provide valuable information for optimising the systems. Wizards, as well as export and copy functions, make routine jobs easier and minimise the potential for errors.

SAUTER moduWeb Vision is secure and reliable.

Password-protected access is just the beginning of the comprehensive moduWeb Vision security concept. An integrated firewall provides additional protection from hackers, and computer viruses have no chance. Access to various parts of the installation or to specialist systems can be granted to individual users. A log records all user activity and guarantees traceability.

Security and efficiency in a single building management system – SAUTER novaPro Open.

Do you want more efficiency in operation and control?

SAUTER novaPro Open, the visualisation software for our new system, gathers together all the information from within the building. You can monitor functions individually and in groups, analyse processes and use anticipatory maintenance tools. This is because the software has been developed by experts specifically to meet all the requirements of building management. With the new remote access and visualisation options, based on the very latest technology, it is the ideal complement to SAUTER EY-modulo 5. Naturally, the system features open communication and support for various interfaces.

The intuitive graphics provide a simple overview of the system.

The latest technology with SAUTER novaPro Open:

- Seamless integration of SAUTER systems and subsystems
- The very latest web technology for efficient access and centralised control
- Comparison of target and actual values for an instant overview
- Comprehensive data recording and evaluation thanks to object orientation and BACnet
- Monitoring and analysis of entire function groups
- Scalable from small to very large systems

Clear trend graphics visualise the energy consumption of your building.

Much more than navigation and recording: active optimisation of consumption with SAUTER.
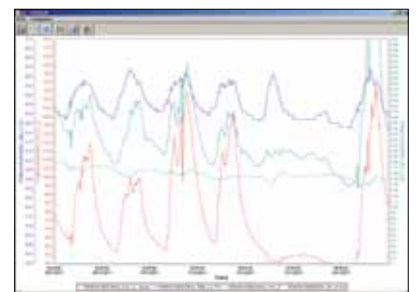
SAUTER novaPro Open keeps you in the picture – quite literally! Clear logs, real-time records of alarms, long-term statistics, trend graphics and permanent monitoring – all of these help to achieve the maximum energy efficiency in your building. Benchmark comparisons help you to constantly monitor your energy consumption and, therefore, keep an eye on costs. At the same time, SAUTER is always at hand with its tried-and-tested suggestions for energy optimisation, based on many years of experience.

Automatic logging of system events according to FDA guidelines.
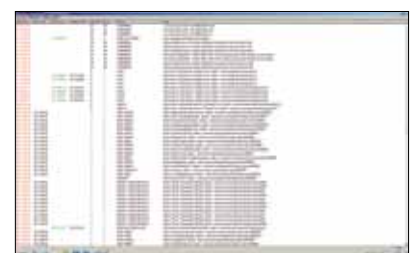
SAUTER novaPro Open supports the following energy modules:

Electricity peak monitoring | Gas peak monitoring | Weather forecast | Heating optimisation | Cooling optimisation | Much more besides
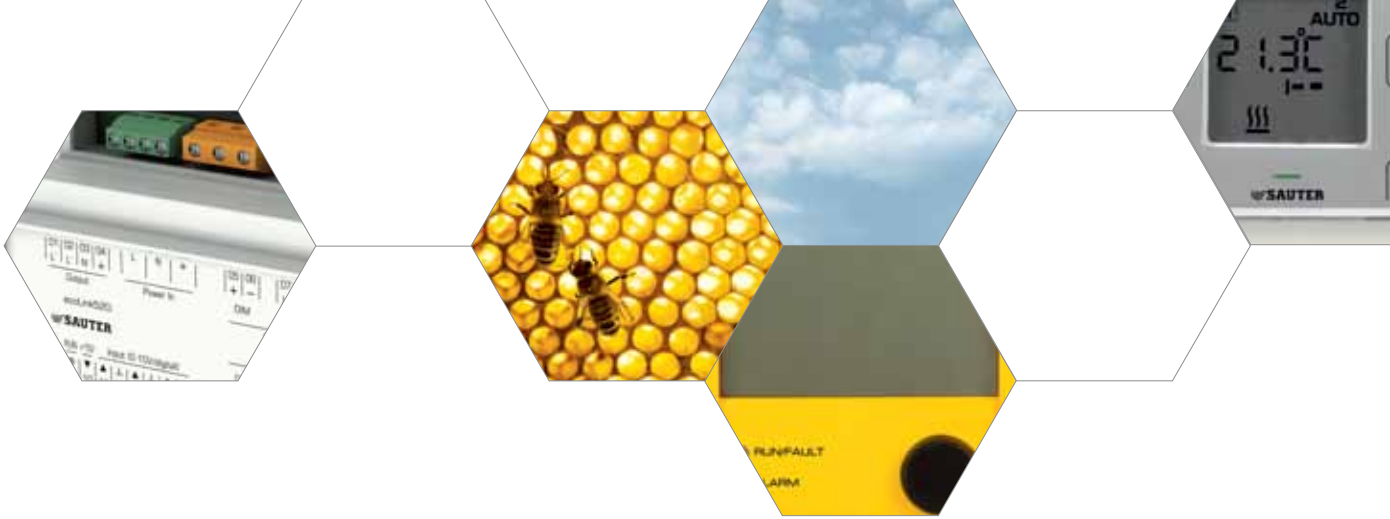
SAUTER EY-modulo 5 – functional building management and individual room climate control at the highest level.

A system that is impressive in every respect.

SAUTER EY-modulo 5 is the ideal solution for any application, requirement and quality expectation. We drew on all our experience to develop the best and most economical, flexible, efficient response to our customers' requirements. The result of the challenge that we set ourselves is SAUTER EY-modulo 5.

Fully automatic or at the touch of a button with SAUTER ecos.

Freely configurable functions for personal preferences in air-conditioning satisfy every individual requirement either automatically during periods of occupancy or at the touch of a button. When no-one is present in a room, EY-modulo reduces the entire energy supply to multi-zone functions – such as ventilation, lighting, heating or cooling – to a minimum in that particular room. This significantly lowers operating and additional costs. Investment costs are very quickly paid off by these savings, and there is also a contribution made towards active environmental protection due to the reduced carbon emissions.

The benefits of the SAUTER EY-modulo 5 system at a glance:

Your benefits:

+	High-end technology for total building management solutions	► Intelligent building technology
+	Open, standardised communication protocol with BACnet/IP as per ISO 16484-5	► High future protection of investment
+	A tried-and-tested system with comprehensive solutions for automated HVAC, room automation and energy-efficient building management	► Energy-efficient operation of buildings
+	Modular automation stations for unlimited scalability	► Extensible and upgradable for flexible, forward-looking construction
+	System integration on all levels for fully integrated building management	► Integration of many different specialist systems
+	Highly modular functionality with intelligent design	► Ease of installation
+	Efficient local operation on various levels (web technology, local LCD operating unit, local override operation)	► Custom comfort levels for intuitive operation
+	Web technology for visualisation, system access and maintenance, as well as alarm notification via internet	► Clear system overview with web browser, PDA, smart phone
+	Freely configurable with efficient software tools based on SAUTER's long-standing expertise in building automation, room automation and regulation systems	► Intelligent controls technology for individual climate control in the building

SAUTER EY-modulo 5 modu building automation

Type	Description	
EY-WS500F005	moduWeb500 BACnet web server	24 V, BACnet/IP, web
EY-WS505F010	moduWeb Vision software	800 BACnet objects, 75 images, 25 user accounts
EY-WS505F020	moduWeb Vision software	2500 BACnet objects, 250 images, 100 user accounts
EY-AS521F001	modu521 compact automation station	85...265 V or 24 V=, 46 I/O, BACnet/IP, web
EY-AS521F005	modu521 compact automation station	24 =, 46 I/O, BACnet/IP, web
EY-AS525F001	modu525 modular automation station	230 V, 26 I/O, BACnet/IP, web
EY-AS525F005	modu525 modular automation station	24 V, 26 I/O, BACnet/IP, web
EY-IO530F001	modu530 input module	8 UI/8 DI (universal/digital)
EY-IO531F001	modu531 input module	16 DI (digital)
EY-IO532F001	modu532 input module	16 UI (universal)
EY-IO533F001	modu533 input module	8 UI/8 DI (4 S0)
EY-IO534F001	modu534 input module	8 U/I electrical isolation
EY-IO550F001	modu550 output module	6 DO (relays)
EY-IO551F001	modu551 output module	16 DO (open collector)
EY-IO570F001	modu570 input/output module	8UI/4AO (universal/analogue)
EY-IO571F001	modu571 input/output module	16 DI/DO (open collector)
EY-IO572F001	modu572 input/output module	8 UI/4 AO/3 DI (universal/analogue/digital)
EY-CM721F010	modu721 communication module	Modbus/RTU (Master, EIA232 or EIA485)
EY-CM721F020	modu721 communication module	M-Bus (Master, EIA232 or EIA485)
EY-CM731F020	modu731 communication module	M-Bus (Master, M-Bus or EIA232)
EY-OP840F001	modu840 local operating unit	for modu 5
EY-LO625F001	modu625 dual operating unit	12 DI/6 DO (A-0-I)/4 AO
EY-LO630F001	modu630 LED indication	16 DI
EY-LO650F001	modu650 operating unit with LED	6 DO (A-0-I)
EY-LO650F002	modu650 operating unit with LED	3 DO (A-0-I-II)
EY-LO670F001	modu670 operating unit with LED	8 DI/4 AO

SAUTER EY-modulo 5 ecos room automation

Type	Description	
EY-RC500F001	ecos500 room automation station	4 room segments, 16 relays
EY-RC500F002	ecos500 room automation station	4 room segments, 16 relays, plug-in terminals
EY-RC502F001	ecos502 room automation station	2 room segments, 18 relays
EY-EM510F001	ecoLink510 remote I/O module	24 V~, 3 relays, 3 triacs
EY-EM511F001	ecoLink511 remote I/O module	24 V~, 3 triacs
EY-EM512F001	ecoLink512 remote I/O module	24 V~, 2 triacs
EY-EM520F001	ecoLink520 remote I/O module	4 relays, normally open, 2 DIM 1-10 V
EY-EM521F001	ecoLink521 remote I/O module	2 relays, normally open, 2 DIM 1-10 V
EY-EM526F001	ecoLink526 remote I/O module	3 relays, change-over, 2 DIM 1-10 V
EY-EM580F001	ecoMod580 wireless interface	Bidirectional, EnOcean wireless standard
EY-RU110F001	ecoUnit110 room control unit	NTC, wireless
EY-RU141F001	ecoUnit141 room control unit	NTC, dXs, wireless, LCD
EY-RU144F001	ecoUnit144 room control unit	NTC, dXs, 2 buttons, wireless, LCD
EY-RU146F001	ecoUnit146 room control unit	NTC, dXs, 4 buttons, wireless, LCD
EY-SU106F001	Switching unit for room control unit	6 buttons, wireless
EY-RU310F001	ecoUnit310 room control unit	NTC
EY-RU311F001	ecoUnit311 room control unit	NTC, dXs
EY-RU314F001	ecoUnit314 room control unit	NTC, dXs, 2 buttons
EY-RU316F001	ecoUnit3 room control unit	NTC, dXs, 4 buttons
EY-RU341F001	ecoUnit341 room control unit	NTC, dXs, LCD
EY-RU344F001	ecoUnit344 room control unit	NTC, dXs, 2 buttons, LCD
EY-RU346F001	ecoUnit346 room control unit	NTC, dXs, 4 buttons, LCD
EY-SU306F001	Switching unit for room control unit	6 buttons

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