

The ABB i-bus KNX Room Master Concept Your first step into the KNX world



The Room Master Concept 1 New Step – 1,000 New Options

You specialize in installing electrical systems. With the ABB Room Master, it is simple to enter the KNX world – conveniently from your office.







Conventional installation

Room Master installation

Step 1 (NEW) ETS programming

Simple programming allows you to realize the internal connection of inputs and outputs via the parameter settings. This way, you can set up the operating principle of a Room Master device as agreed with the building owner in just a few minutes.

Step 2 Collection of materials

As in any other installation, you collect the materials required for the construction site in this step.

Step 3 Installation

Installation is performed on site as usual and involves no extra programming work for you.



With the new Room Master RM/S 3.1 and Room Master RM/S 4.1, ABB is expanding the concept of compact Room Master solutions. All Room Master devices allow various combinations of input and output functions. The special feature of the Room Master product family: inputs and outputs can be simply connected via internal linking without group addresses using the ETS software. A room (apartment, office, hotel/hospital room) is therefore already functional immediately after installation of a Room Master device. Function expansions through integration into a KNX network via group addresses are simple and can be realized at any time.

All Room Master advantages at a glance:

- simple programming via ETS at your office
- commissioning at the construction site without laptop and ETS programming
- room functions are available right away
- functions are optionally expandable
- your project is quickly ready for the acceptance inspection and billing
- preprogrammed and tested ETS project examples greatly simplify planning and installation
- combination with other KNX devices is possible



Step 4 Function test

The connected room is immediately functional once installation is complete and the power supply is connected.

Step 5 Acceptance inspection

The previously defined room functions are checked and accepted directly with the building owner. As with every conventional installation, you can bill for your services immediately after the acceptance inspection.

Added value for you Access to the KNX world

You have taken the first step into the multifunctional KNX world with the Room Master. You are now ready to meet additional customer requirements. Lighting comfort, energyefficient room heating, security and flexible control options for the building services – you and KNX make it possible.

Step 1: Parameterization in Detail Easily and Quickly

You can simply preprogram the Room Master devices RM/S 3.1 and RM/S 4.1 via the ETS software prior to installation. Only the control devices and the consumers will have to be connected at the construction site.





Step 1.1 Room planning

You plan the system together with the customer prior to installation: Where will the lamps be installed? How many electric roller shutters are there? Are the roller shutters operated individually or in groups? What are the desired control options? Are there switched socket outlets?





More detailed information and the Room Master eLearning tutorial are available at www.abb.com/knx



Step 1.2 Terminal assignments

You then assign the planned control options and electrical consumers to the input and output channels of the Room Master using a terminal diagram. Next, you plan the "internal wiring" by linking the input and output channels using a simple table. This is initially done on paper.



Step 1.3 Parameterization via ETS

Now program the Room Master devices using the Engineering Tool Software ETS in your office or at the workbench.

The inputs are "internally wired" to the outputs via ETS programming. This allows you to define which conventional control element (switch, button, motion detector, etc.) switches which consumer (light, socket outlets, blind motors, etc.).

Room Master Basic Functions

The Room Master concept is based on a technology whose basic functions already cover the central requirements for the electrical installation of rooms.

All Room Master devices are equipped with different combinations of input and output functions.

Version RM/S 3.1 offers the following functions, for example: - 12 x input channels for connection of conventional

- switches or buttons (light on/off, blind up/down, etc.) or sensors (window contact, water sensor, hotel card reader, etc.)
- 4 x switching channels for connection of lamps, socket outlets or fans
- 4 x blind/roller-shutter channels for connection of motors or for switching the lighting

In addition to the basic functions for controlling the lighting and roller shutters and for switching the socket outlets, it is possible to expand the scope of functions and realize additional automation functions through the combination with additional KNX devices.

Please refer to the function overview from Page 14 in this brochure for more details about the Room Master devices.







Room Master Additional Function Light

Lighting involves more than just switching the light on and off. Thanks to modern intelligent building technology, light can be designed and used to create moods. ABB offers one-of-a-kind versatility in lighting control with its integrated KNX intelligent building control.

If light is to be used to support different room scenarios, for example, the lamps employed must be dimmable. The increasing proliferation of LED technology also gives rise to more options and requirements for color control systems. The ABB i-bus KNX DALI Gateways can easily expand the Room Master basic functions by adapted solutions for custom lighting tasks.

Atmosphere on demand

Which lighting function does your customer require? Would he like to vary the brightness, e.g. in the bathroom in the morning, for a romantic evening together or for the trip to the bathroom at night? No problem. With the ABB Room Master, preset room scenarios, lighting moods and room conditions can be recalled and saved at the push of a button.

Colored light is possible with LED control systems. The LED light modules are controlled so that any desired hue can be produced from the primary colors red, green and blue by dimming and color mixing. Transitioning color sequences are particularly interesting. This permits very distinctive and effective lighting design.



Room Master RM/S 3.1 combined with DALI Gateway DG/S 1.16.1





Room Master Additional Function Room Climate

A pleasant climate is important? Ventilation, heating, cooling: With KNX, your customer can set just the right climate to suit his needs – energy saving and economical. This is possible manually on site, by timer operation or remotely by smartphone. Integrated into a KNX network, the room climate control system ensures comfort and well-being.

With ABB i-bus KNX, the Room Master 3.1 basic functions are simply expanded by adapted solutions for a custom room climate. By the way: the room climate control functions are already integrated into the Room Master RM/S 1.1 and RM/S 2.1. Ventilation, heating and cooling functions are all included.

The perfect room climate at all times

Your customer requires a certain room temperature? All he has to do is set it, and the convenient KNX control system will handle the rest. The heating or cooling valves open and close depending on whether or not somebody is in the room or whether it is hot or cold outside. The bathroom should be comfortably warm earlier in the morning on work days than on weekends? This can also be set just as required.

The heating or cooling valve is closed when a window is opened. The temperature level is adapted automatically when people are absent or present in the room. These two functions help to conserve energy. CO_2 sensors simultaneously monitor the quality of the air in the room and initiate automatic ventilation when necessary.







Room Master Additional Function Security

Your customers can sleep soundly thanks to the additional security function – because ABB offers approved security based on KNX.

High consequential costs due to technical defects can be avoided if faults such as faulty water pipes are recognized in time. In addition to recognizing and warning about technical faults, the ABB security solutions put people at ease because they recognize and warn about intrusion attempts and are reliable partners for people requiring emergency assistance.

The German VdS institute has certified the quality and functional scope of the ABB i-bus KNX security solutions. Testing of the devices' technical and logic functions extends beyond the standard in order to ensure compliance with the applicable standards and directives. It is therefore possible to install an approved Hazard Warning System according to the VdS directive for home hazard management systems (VdS 3438) with these security devices.

Security and comfort sensibly networked

Incorporating security functions into intelligent building control allows many simple additional functions to be realized besides multiple use of signaling devices. For example, arming of the KNX Hazard Warning System when leaving the building can also switch off the lighting and unneeded electrical circuits automatically. Depending on the time of day, the roller shutters can also be closed and the heater or air conditioner can be set to standby mode. When the Hazard Warning System is disarmed, all other functions are set to comfort mode again.



Room Master RM/S 3.1 combined with ABB i-bus KNX Hazard Warning System





Secure a Competitive Edge With the Room Master

The ABB Room Master concept brings the conventional electrical installation and networked KNX intelligent building control closer together. There are no longer any barriers to enter the fascinating world of intelligent building control and the diverse options it offers.

Four devices for flexible applications

Room Master devices are combined units with input and output functions – the right device for every application.

The special feature of the Room Master product range is its internal wiring: inputs and outputs can be internally connected without group addresses using the ETS software. This can be done quickly in advance at the workshop. After installation of a Room Master device with internal links, a room (apartment, classroom, office, hotel or hospital room) is promptly ready for use – entirely without software work at the construction site at first.

Start using the KNX intelligent building control system now, and offer your customers future-proof solutions for all requirements.

Comprehensive support

You can increase customer loyalty as an electrical contractor with technical expertise in intelligent building control, because only satisfied customers mean new customers. This expertise will allow you to increase your revenue over the long term. Let a sales representative present the simple first steps into intelligent building control with the ABB Room Master in person on site. Alternatively, you can make use of our classroom or online further training offers.

In addition to contact addresses and training dates, you can find a lot of helpful additional information, such as ETS projects, planning templates and instructional videos, at www.abb.com/knx.





Room Master Product Overview

	RM/S 1.1	RM/S 2.1	RM/S 3.1	RM/S 4.1	Application possibilities	
Binary inputs via contact scanning	8	18	12	8	For connection of conventional switches or buttons (light on/off, roller shutter up/down, etc.) or sensors (window contact, door contact, water sensor, hotel card reader, etc.)	
Outputs 20 A (16 AX)	1	3	4	-	Bathroom fan, switching of electrical sockets	
Outputs 16 A (10 AX)	2	1	-	-	Auxiliary electrical heating of fan coil units (with RM/S 1.1 and 2.1), lighting	
Outputs 6 A	3	12	-	8	3-stage fan control (with RM/S 1.1 and 2.1)	
Outputs 0.5 A electronic	4	4	-	-	Valve control (heating, cooling)	
Outputs 6 A changeover contact	-	1	4 (also configu- rable as switching outputs)		Blind or roller shutter control	



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Energy switching	Drive control	Fan control	Valve control (heating + cooling)
		Far	n coil control
Switch/button command detection and evaluation		Energy switching	
Eigeng / Insid 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ÖÖÖ	Un µ 55 56 57 58 S T U	J _h = 24, 230 VAC h = 20 A (16 AX C-Load) h = 16 A (10 AX)







Room Master RM/S 2.1











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