



Intelligent Building Control

# ABB i-bus<sup>®</sup> KNX

## The new Room Master

### RM/S 3.1 and RM/S 4.1

# ABB i-bus® KNX

## The new Room Master RM/S 3.1 and RM/S 4.1



### The connection between

- conventional electrical installation and
- the networked KNX Intelligent Building Control

# The news ABB i-bus<sup>®</sup> KNX Room Master

## The connection to the KNX world



R/M/S 3.1



R/M/S 4.1

- Room Master provide for defined functional areas (hotel room, apartment, school) all necessary electrical connections and control capabilities, simplifying considerably the design, installation and commissioning of electrical systems.
- With the new ABB i-bus<sup>®</sup> KNX Room Master move conventional electrical installation and networked KNX Intelligent Building Control closer together.

# ABB i-bus® KNX

## The new Room Master RM/S 3.1 and RM/S 4.1



RM/S 3.1



RM/S 4.1

- Many buildings worldwide are already using the full potential of a networked electrical installation.
- The new Room Master opens new opportunities for residential and commercial properties in the area. It provides intelligent building control systems for various floor plans and layouts of a room, for example, in
  - hotels
  - apartments
  - student dormitories
  - homes for the elderly
  - hospitals
  - assisted living
  - ...

# ABB i-bus® KNX

## The new Room Master RM/S 3.1 and RM/S 4.1



- **Apartments**

Increasing the attractiveness and quality of life.

Decisive factors for the lease or sale:

- Automatic switching of different lighting in the room
- Automatic shading (blinds, curtains or shutter)
- Simple and convenient operation of room functions

# ABB i-bus® KNX

## The new Room Master RM/S 3.1 and RM/S 4.1



### ▪ Residences

Increase comfort and safety:

- Easy operation of room functions
- Automatic shading on blinds, curtains or shutters
- Automatic transfer of messages to the control panel
- Fast localization of faults in rooms
- Day / night visit

# ABB i-bus<sup>®</sup> KNX

## The new Room Master RM/S 3.1 and RM/S 4.1



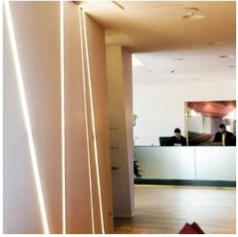
- **Hospitals**

Efficient operation:

- Easy operation of room functions
- Automatic shading of the space
- Display of the visit and the room states, for example in the nurses' station
- Simplified space maintenance, fault localization in rooms

# ABB i-bus® KNX

## The new Room Master RM/S 3.1 and RM/S 4.1



- **Hotel**

All functions required by a modern room. Advantage over a conventional electrical installations:

- Simple and convenient operation
- Transmission of messages
- Fast localization of faults



# ABB i-bus<sup>®</sup> KNX

## The new Room Master RM/S 3.1 and RM/S 4.1



- **Benefits during the planning stage**
  - Worldwide use
  - Compact design
  - A standard solution for many projects

# ABB i-bus® KNX

## The new Room Master RM/S 3.1 and RM/S 4.1



RM/S 3.1



RM/S 4.1

- **Compact design with the following basic features:**
  - Switching light
  - Shadowing (blinds, curtains or shutter)
  - Switching outlets and consumers
- Based on the combination with an occupancy sensor
  - additional automation functions to be implemented
- The communication of the devices on the KNX bus also allows
  - central control functions



# ABB i-bus<sup>®</sup> KNX Room Master Overview and function

# The new ABB i-bus<sup>®</sup> KNX

## The new Room Master



RM/S 3.1



RM/S 4.1

- ABB expands the Room Master 3.1 and 4.1, the concept of Room Master solutions.
- The Room Master 3.1 has four switching outputs, four blinds outputs or a total of 8 switching outputs, twelve binary inputs required in the electrical distribution twelve module width.
- The new Room Master 4.1 has eight switching outputs and 8 binary inputs required in the electrical distribution eight module width.

# The new ABB i-bus<sup>®</sup> KNX The new Room Master



RM/S 3.1



RM/S 4.1

- As with the Room Master 1.1 and 2.1, even with the new version 3.1 and 4.1 devices, the internal logic function is incorporated all the input to the output channels.
- Thus, the overall control of the connected rooms on internal commands executed and does not link to ETS group addresses.
- Prior to installation, the Room Master device using the ETS software is inevitable. At the construction site then just have the conventional control devices such as switches, sensors, motion detectors, etc. and consumers such as lights, sockets and blind motors are connected.
- Once the supply voltage all connected rooms function without further programming.

# The new ABB i-bus<sup>®</sup> KNX

## The new Room Master



RM/S 3.1



RM/S 4.1

- Of course, the second step is also an integration into a networked KNX building installation no obstacle.
- The inputs and outputs, in addition to the internal link, like any other KNX device can be connected via the ETS group addresses.

# The new ABB i-bus<sup>®</sup> KNX

## The new Room Master



RM/S 3.1



RM/S 4.1

### **Preconfigured ETS applications as a service for the beginner:**

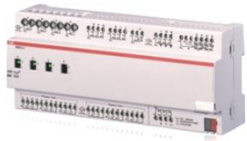
- ABB offers a special service to the Room Master to 3.1 and 4.1 pre-tested and about ETS applications for hotel rooms, senior apartments, classrooms and offices. These applications can use the ETS software for easy assignment of the physical address are loaded into the device. They are then programmed for the desired application. Another parameter with the ETS is not necessary. Each application ABB also provides a detailed description and planning assistance.

The ETS preconfigured applications and the associated descriptions and planning assistance to [www.abb.com/knx](http://www.abb.com/knx) be downloaded free from the ABB website.

# ABB i-bus® KNX: Room Master Overview In-/Outputs



RM/S 1.1



RM/S 2.1



RM/S 3.1



RM/S 4.1

	RM/S 1.1	RM/S 2.1	RM/S 3.1	RM/S 4.1
<b>Inputs</b>				
Binary via contact scanning*	8	18	12	8
<b>Outputs</b>				
Switch contact 20 AX	1	3	4	-
Switch contact 16 A (10 AX)	2	1	-	-
Switch contact 6 A	-	9	-	8
Fan speed 6 A or switch contact 6 A	3	3	-	-
Electronic 0.5 A	4	4	-	-
Changeover contact 6 A (blinds)	-	1	-	-
Changeover contact 6 A (blinds) or switch contact 6 A	-	-	4	-

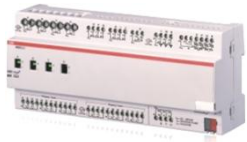
\*all inputs have the same potential



# ABB i-bus® KNX: Room Master Input functions



RM/S 1.1



RM/S 2.1



RM/S 3.1



RM/S 4.1

	RM/S 1.1	RM/S 2.1	RM/S 3.1	RM/S 4.1
<b>Function of the inputs</b>	a...h	a...r	a...l	a...h
Switch sensor	■	■	■	■
Dimming sensor	■	■	■	■
Blind sensor	■	■	■	■
Value / forced	■	■	■	■

■ Function are supported

# ABB i-bus® KNX: Room Master RM/S 1.1: Output function



RM/S 1.1

	RM/S 1.1				
Function of the outputs	A...C	D...F	D...F	G, H	I, J
<b>Time</b>					
Staircase	■		■		
On-/off delay	■		■		
Flashing			■		
<b>Scene</b>					
Assignment of output to scenes	■		■		
<b>Logic</b>					
AND / OR / XOR / Gate	■				
<b>Forced</b>					
1 Bit or 2 Bit	■		■		
<b>Blind / shutter</b>					
<b>Fan</b>		■			
<b>Valve heating</b>				■	
<b>Valve cooling</b>					■

■ Function are supported

# ABB i-bus® KNX: Room Master RM/S 2.1: Output function



RM/S 2.1

	RM/S 2.1							
Function of the outputs	A...D	E...J	K	L...N	L...N	O, P	Q, R	S...U
<b>Time</b>								
Staircase	■	■			■			■
On-/off delay	■	■			■			■
Flashing		■			■			■
<b>Scene</b>								
Assignment of output to scenes	■	■			■			■
<b>Logic</b>								
AND / OR / XOR / Gate	■							
<b>Forced</b>								
1 Bit or 2 Bit	■	■			■			■
<b>Blind / shutter</b>								
Fan								
Valve heating							■	
Valve cooling								■

■ Function are supported

# ABB i-bus® KNX: Room Master RM/S 3.1: Output function



RM/S 3.1

	RM/S 3.1		
Function of the outputs	A...D	E...L	E, G, I, K
<b>Time</b>			
Staircase	■		■
On-/off delay	■		■
Flashing			■
<b>Scene</b>			
Assignment of output to scenes	■		■
<b>Logic</b>			
AND / OR / XOR / Gate	■		■
<b>Forced</b>			
1 Bit or 2 Bit	■		■
Blind / shutter		■	
Fan			
Valve heating			
Valve cooling			

■ Function are supported

# ABB i-bus® KNX: Room Master RM/S 4.1: Output function



RM/S 4.1

	RM/S 4.1
<b>Function of the outputs</b>	A...H
<b>Time</b>	
Staircase	■
On-/off delay	■
Flashing	
<b>Scene</b>	
Assignment of output to scenes	■
<b>Logic</b>	
AND / OR / XOR / Gate	■
<b>Forced</b>	
1 Bit or 2 Bit	■
<b>Blind / shutter</b>	
<b>Fan</b>	
<b>Valve heating</b>	
<b>Valve cooling</b>	

■ Function are supported



# ABB i-bus<sup>®</sup> KNX Room Master Electrical installation in comparison

# Electrical installation

## Conventional

Conventional



### At the company

2. Packing of material

### At the construction site

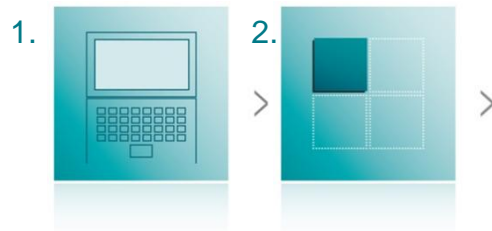
3. Installation

4. Operating tests

5. Acceptance

# Electrical installation KNX

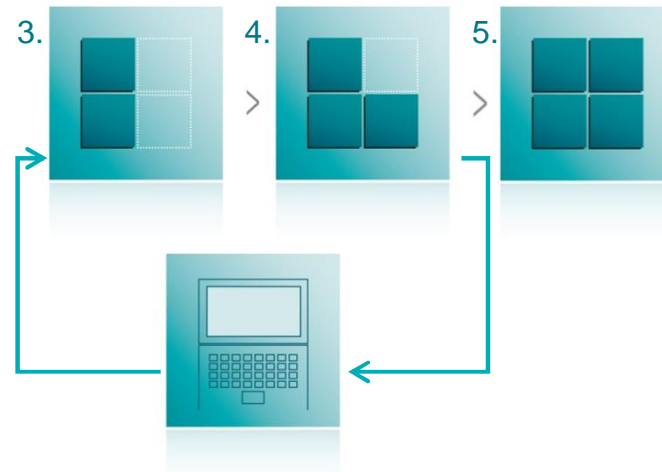
KNX



- The electrician can not test his work finally -> uncertainty
- Requirements at the site uncertain -> uncertainty

## At the company

1. Programming via ETS
2. Packing of material



## At the construction site

3. Installation
4. Operating tests
5. Acceptance

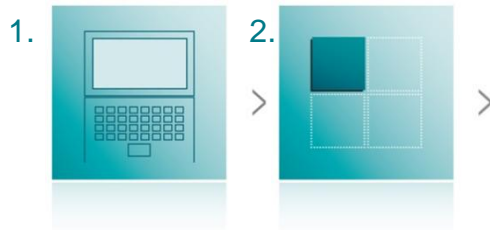


# Electrical installation Conventional / KNX

Conventional

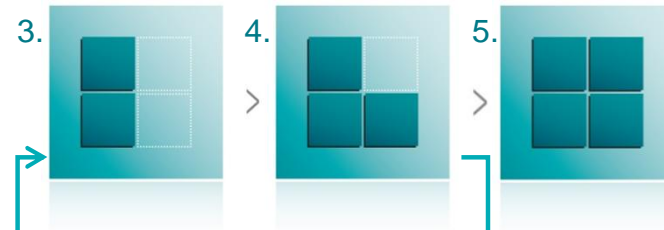
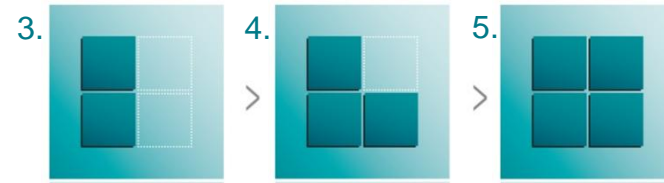


KNX



## At the company

1. Programming via ETS
2. Packing of material



## At the construction site

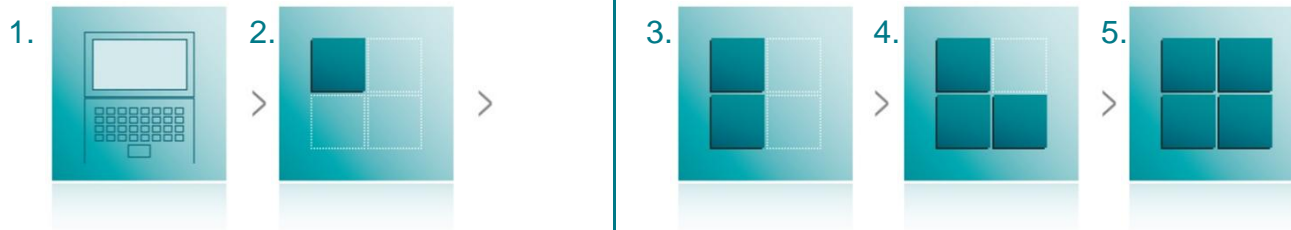
3. Installation
4. Operating tests
5. Acceptance

# Electrical installation

## With the new ABB i-bus<sup>®</sup> KNX Room Master

### Room Master

ABB supplies prefabricated and tested applications for different applications



### At the company

1. Programming via ETS
2. Packing of material

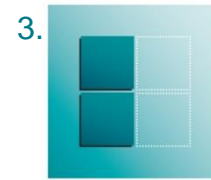
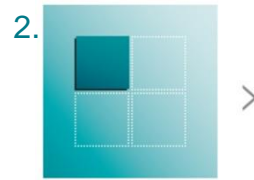
### At the construction site

3. Installation
4. Operating tests
5. Acceptance

# Electrical installation

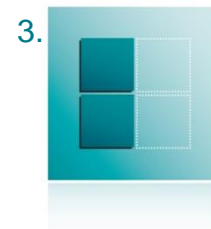
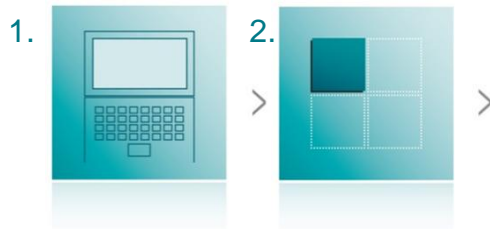
## Conventional / New ABB i-bus<sup>®</sup> KNX Room Master

Conventional



Room Master

ABB supplies prefabricated and tested applications for different applications



### At the company

1. Programming via ETS
2. Packing of material

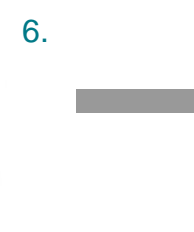
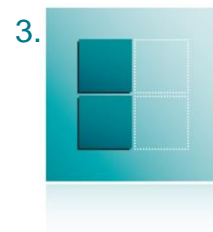
### At the construction site

3. Installation
4. Operating tests
5. Acceptance

# Electrical installation

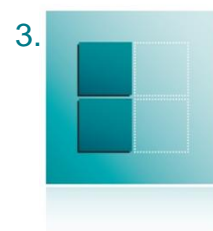
## Conventional / Intelligent building of basic KNX

Conventional



KNX

ABB supplies prefabricated and tested applications for different applications



### At the company

1. Programming via ETS
2. Packing of material

### At the construction site

- |                    |          |
|--------------------|----------|
| 3. Installation    | 6. + KNX |
| 4. Operating tests |          |
| 5. Acceptance      |          |

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