

# ABB i-bus<sup>®</sup> KNX Room Controller Product Information

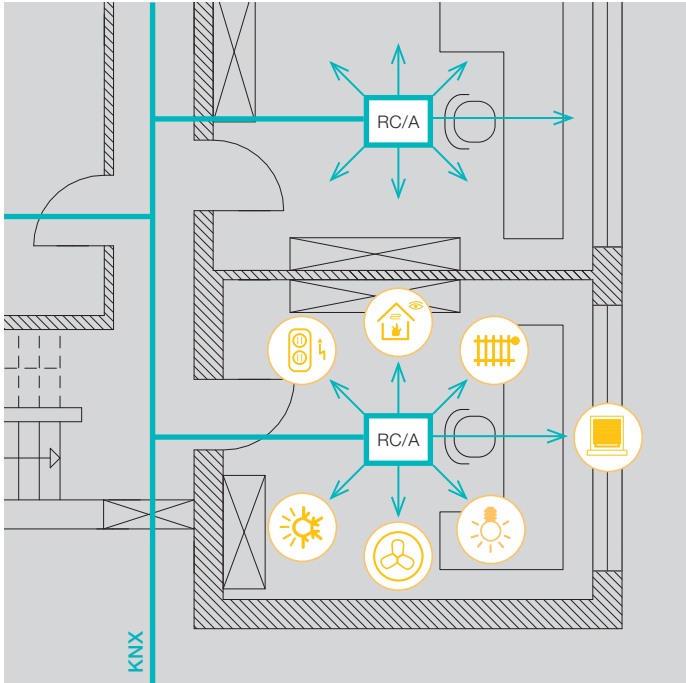
# More security through flexibility during planning, commissioning and operation

Planning of electrical installations is subject to uncertainties particularly in functional buildings. It is often the case that the room functions are not fully defined during the planning phase or new demands must be considered at short notice. These difficulties arise both with new building construction as well as during renovation/modernisation of buildings.

The planner is often confronted with the challenge of developing comprehensive and tailored solutions for applications that are not yet defined.

The solution to this dilemma: A control for each individual room in which all future functions for this room are integrated.





### The fundamental principle: One device per room

A single Room Controller controls all the room functions. This “one device per room” principle economically and flexibly provides KNX functionality: With 4 or 8 modules, which are simply inserted into the basis device, all loads in this room (lights, blinds, heating, etc.) can be controlled.

### Economic security from the outset

The installation concept of the Room Controller, particularly the simple plug-in module concept provides security and reliability.

#### – When planning the infrastructure of a building:

It can be undertaken without exact knowledge of the subsequent user demands.

#### – During commissioning:

When user demands have been determined, they are implemented by simple insertion of modules.

#### – In operation in a building:

Modifications to the room utilisation are easy to implement. The changes to the cable routing are limited to the room concerned.

### Improved fire protection included

The significant reduction in the wiring also considerably reduces the fire load and thus improves safety for persons and assets.



# Ideal for new and refurbished buildings

## Cost-optimised solutions for planners, specialist companies and developers

The ABB Room Controller offers considerable cost and time advantages in planning, installation and commissioning. The shift of the functionality into the room in the immediate vicinity of end devices automatically leads to fewer installation faults; the structured wiring simplifies the overview and allows considerably faster work.

### Reduced fire loads and possible “insular operation”

Responsible planners are primarily concerned for safety of life and limb. The considerable reduction in cable lengths in the escape route areas due to the Room Controller is particularly significant: It greatly reduces the fire load and is an important contribution to more efficient precautionary planning.

The Room Controller also functions without KNX bus availability. An invaluable advantage when refurbishing a building on a room by room basis: With an “insular solution” of this type, the KNX functions spanning multiple rooms – if required – can be implemented later.

Underfloor installation of an ABB Room Controller



### Reduced costs – especially during refurbishment

The developers are particularly concerned with one issue: by their costs and their budget. In this respect, a positive signal is sent by the modular concept of the Room Controller: the device function adapts to the room function and not the other way round. Only so does a precise, cost-benefit oriented functionality become possible. The Room Controller can be used universally during refurbishments due to its compact dimensions.

### Exemplary energy efficiency

Constant lighting control stands for perfect economic and ecological viability of modern building engineering. The Room Controller controls the lighting intensity in the room by reducing the artificial lighting required to achieve the defined constant brightness.



Bezau secondary school in Vorarlberg, Austria:

Through the use of ABB i-bus® KNX technology and the renovation of the building shell, the annual energy consumption of 160 kWh per square metre was reduced to 25 kWh per square metre.



MVV Energie AG in Mannheim, Germany:

The renovation of the MVV building was undertaken on a floor-by-floor basis during ongoing use. The Room Controller takes over constant lighting control, control of shading, lighting with presence detection, and many more features.



MVV press photo

# The Room Controller modules

## A solution for each application

The feed-in and the supply of the Room Controller are implemented via a single cable. The modules are automatically connected to the feed-in when they are plugged in.

Manual operation for a test of the installation is possible without bus voltage. A functional test can be undertaken immediately after installation and every time during operation.

Room Controller comparison table

	RC/A 4.2:	RC/A 8.1:	RC/A 8.2:
Number of module slots	4	8	8
Number of phases	1-phase:	3-phase:	3-phase:
Module incoming supply	L1, N, PE	L1, L2, L3, N and PE	L1, L2, L3, N and PE
Room Controller voltage supply	from L1	from any phase L1 / L2 / L3	from L1
Manual operation	yes yes yes		
Dimensions in (H x W x D)	200 x 275 x 50	270 x 316 x 50	270 x 316 x 50

### Binary Input Module, 4-fold

Each with 4 inputs. Available are types for connection of 230 V, 12/24 V and floating contacts.



### Switch Actuator Module, 2-fold

With two high-performance relays for switching higher currents. Two types available for 6 AX and 16 A.



### Shutter Actuator Module, 2-fold

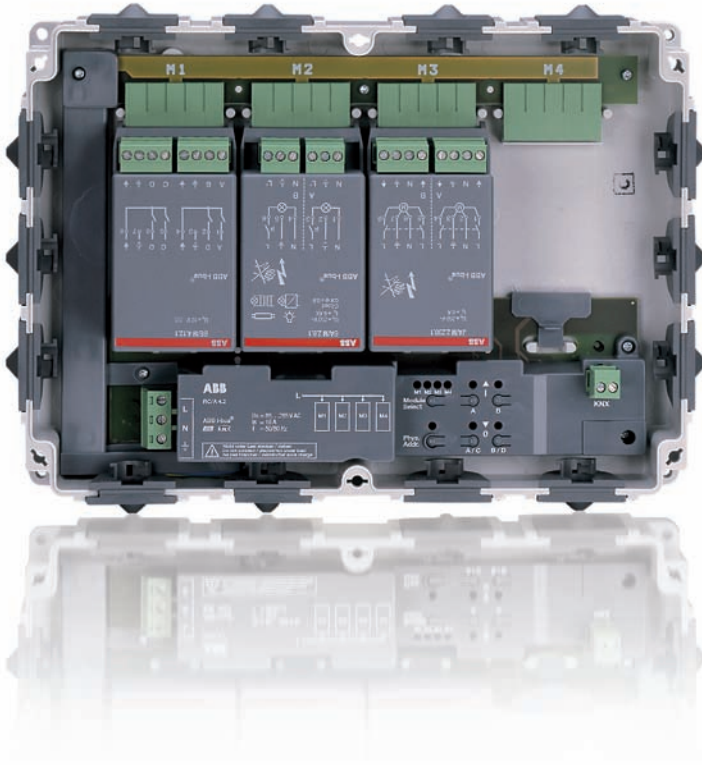
For control of two independent blind or roller shutter drives. Two types available for voltages of 230 V AC and 24 V DC.



### Switch/Dim Actuator Module, 2-fold

For switching and dimming of two lighting groups in conjunction with electronic ballasts via 1...10 V control voltage.





### Save on energy and not on comfort

Each room is used differently. The different module assignments of the Room Controller can be configured accordingly. Just three examples of special building functions that can be implemented with the device:

#### In the lighting sector

Constant lighting control is not the only conceivable solution. A high level of comfort can be assured by the control of different light scenes.

#### Blinds and roller shutters

Not only do they provide pleasant shading, they also assist in responsible use of energy. Intelligent facade controls move the blinds to suit the position of the sun.

#### Heating/Ventilation/Air conditioning

The control of electrothermal valves on radiators is no problem for the "Electronic Switch Actuator Module" module of the Room Controller. The ventilation can also be integrated into this automatic control.

#### Light Controller Module, 1-fold

Switches and dims a lighting group via 1...10 V control voltage.

The device can be used for constant lighting control in connection with Light Sensor LF/U 2.1.



#### Universal Dim Actuator Module, 1-fold

Dims incandescent lamps, 230 V or low-voltage halogen lamps with up to 300 W/VA. Suitable for a wide range of load types (automatic load detection).



#### Electronic Switch Actuator Module, 2-fold

With two overload-protected and silent outputs. They control heating systems and cooling ceilings via electrothermal valve drives. Available for voltages of 230 V and 24 V.



# Contact

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