spica Sense

SMART ROOM SOLUTION

Partnered with **INTEREL**

Basic Overview

We provide hotels with online guest room controls for lights, temperature, services enabling enhanced usability, energy management and IoT technologies in hospitality.

Traditional		spica Sense
Requires big amount of electrical cable within a room		**30%** less cable within a room
Provides no ability to achieve efficient energy consumption		Up to **40%** energy savings
Lack of comfort for guests		High guest satisfaction makes guests paying more
Offline systems require up to 3 people per service department		Operational efficiency makes human intervention redundant

System Overview & Layout

A On/Off Lighting Control

All relays of the RCU are rated at 10A for resistive loads and 2A inductive loads

B Thermoregulation

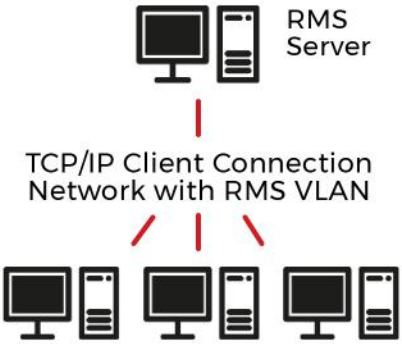
Fan Coil Unit: Control of floor heating, fan coil units, heaters, etc.
Actuator Valves: Control of on/off, floating and modulating valve actuators.
Integration with VRV/VRF systems

C Primary Field Devices

D Expansion Modules for dimming

The system is scalable and modular to meet various requirements.
Lighting Control capabilities include switching and dimming halogen and incandescent lights, LEDs, and Fluorescents. Supported dimming technologies include 0-10Vdc, leading edge dimming and trailing edge dimming.
Supported Lighting protocols include DALI and DMX.

E Operator Console and Central Monitoring Platform

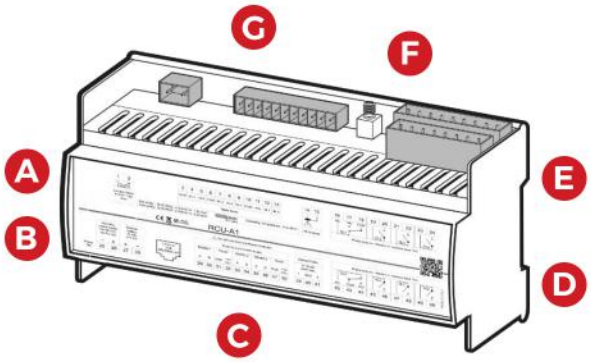


F Curtain/Sheer control

Multiple control options from 1 to 3 buttons with features like one-touch and hold/ release.

G Sensors & Switches

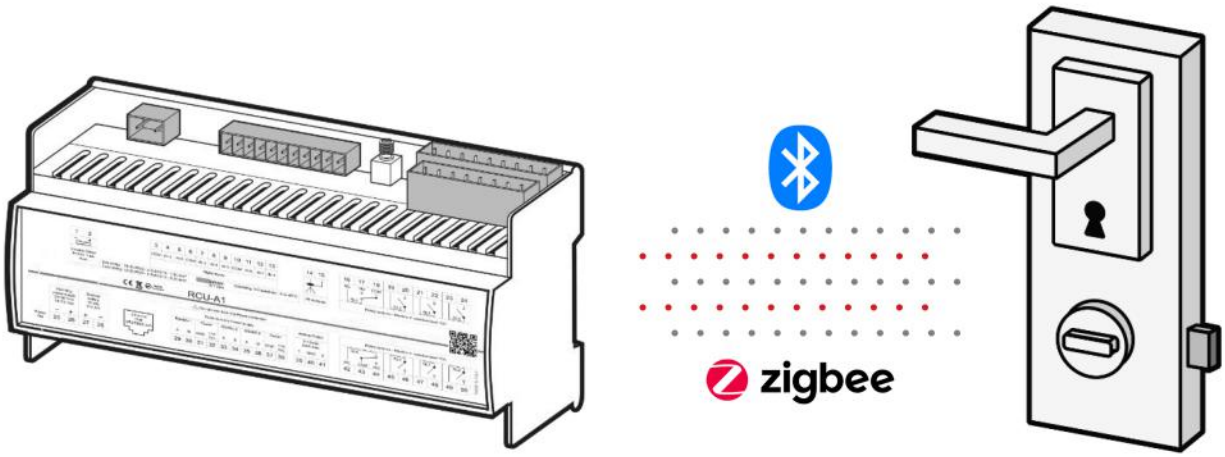
Door / Window Contacts, Pulse Switches, Motion Sensors, etc.



Wireless Communication

Door Lock Integration

- No single point of failure
- Advanced real time event exchange
- Enables mobile key technology
- No additional wiring for door lock system
- Most cost-effective way to network door locks



Can be integrated with:

dormakaba

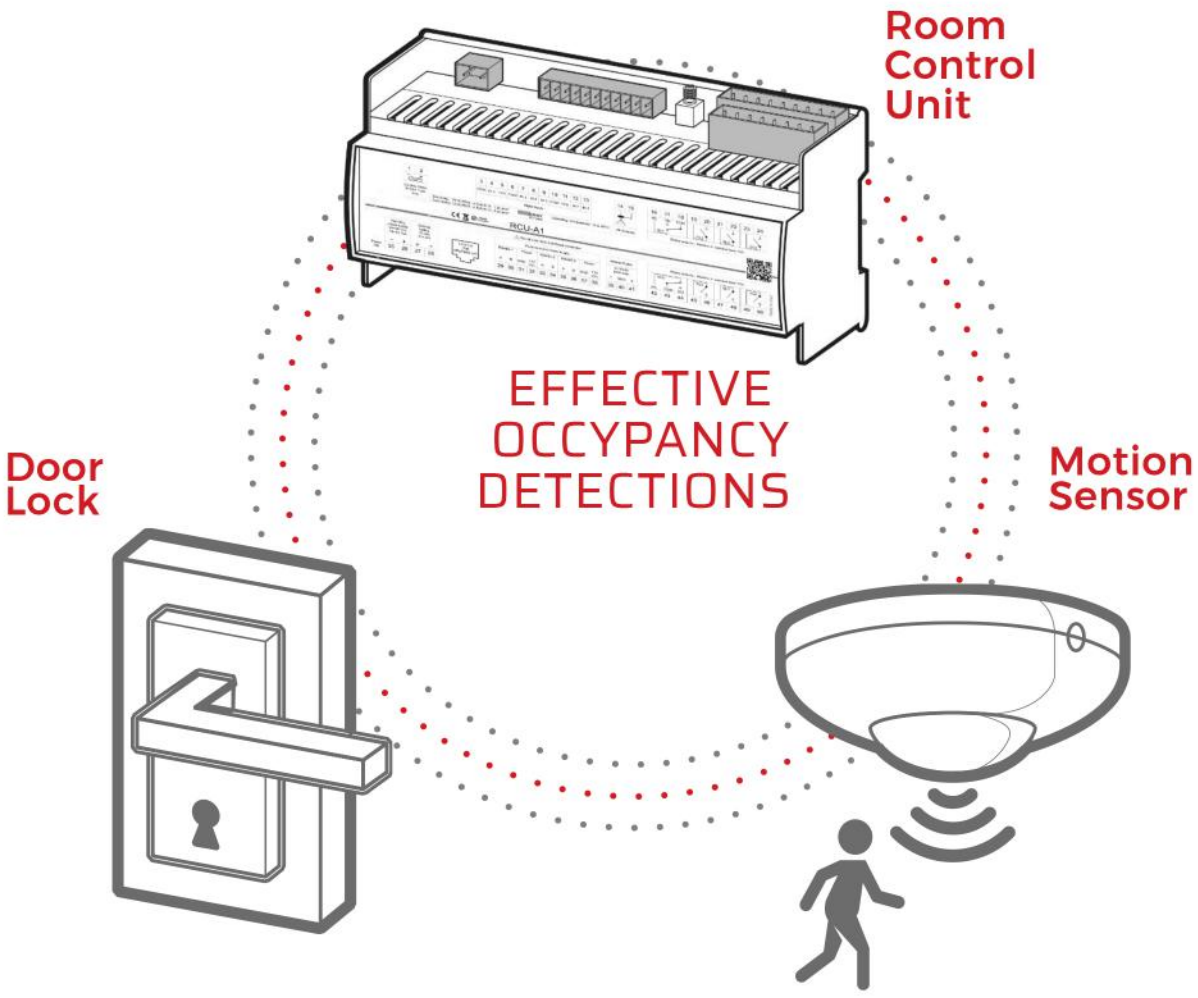
VingCard Elsafe

SALTO inspiredaccess

HÄFELE

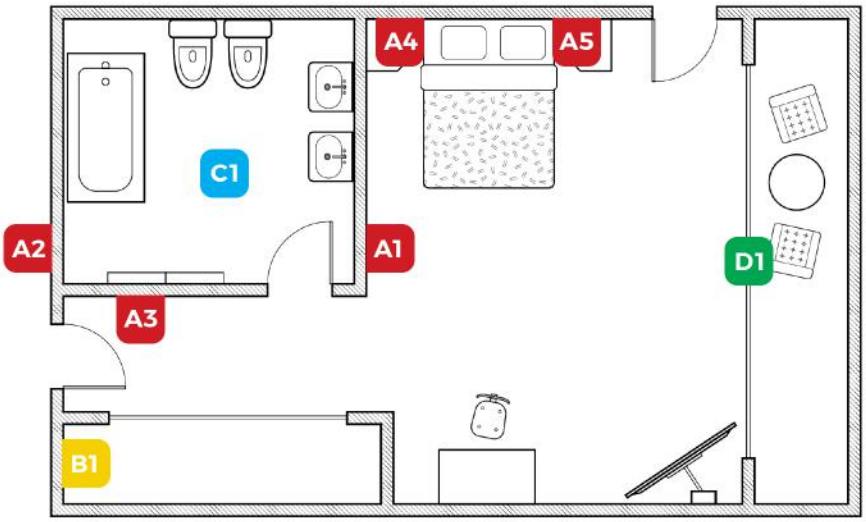
Without integration between door locks and room management means:

- A second network for the door locks is necessary and almost doubles the cost of the door lock system
- Energy Management Systems that rely only on cardholders
  - can easily be undermined (e.g. use of second card)
  - will pose a roadblock to the implementation of mobile key
  - energy efficiency becomes questionable



Features / Advantages:

- Simplified cable infrastructure
- Control panels design according to the project requirements
- Intelligent lighting control
- DND/MUR & bell button built-in
- Speaker built-in the thermostat panel and can be distributed by being built-in in the other panels
- Motion sensors built-in all panels – full coverage of the room



A1 Room Thermostat

A2

A3

A4

A5

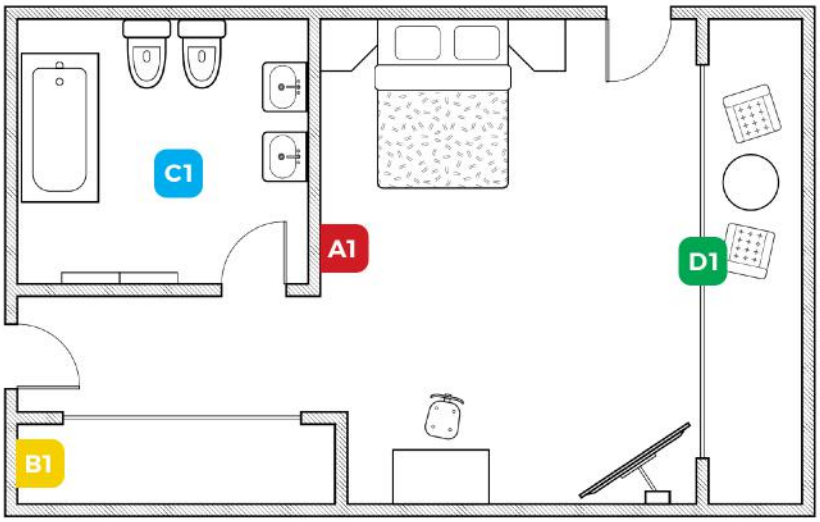
B1 Room Control Unit

C1 Celling Mounted Motion Sensor

D1 Window Contacts

Features / Advantages:

- User-friendly interface of the thermostat
- Intelligent climate control based on the access level (guest & staff different scenarios)
- Room Level integration with the lock
- Online EMS & ACS
- TCP/IP, single IT infrastructure for EMS & ACS
- Integration with PMS for maximum energy saving
- Integration with BMS, minibar – optional
- Built-in motion sensors & temperature sensor



A1 Room Thermostat

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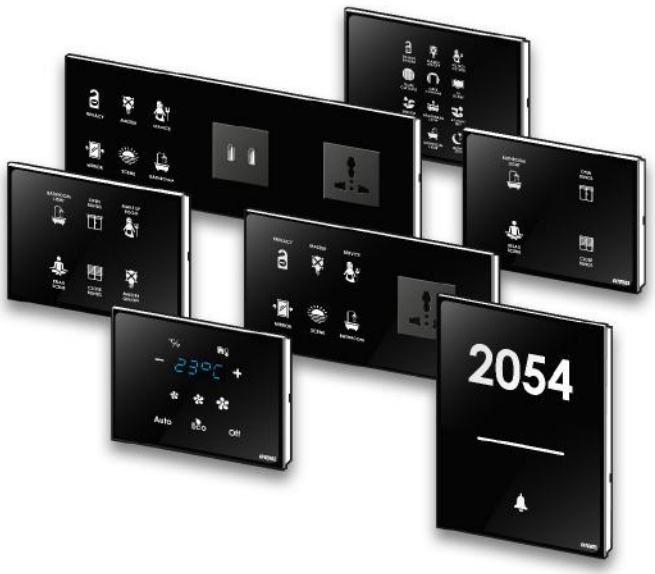
Panels

- Internationally recognized icons
- Direct selection buttons -no menus and toggle buttons
- Built-in temperature and motion sensor
- Dimmable display & buttons
- Integration with PMS for maximum energy saving
- Housekeeping staff locking
- Customized settings based on the Operator requirements

Functions are customizable

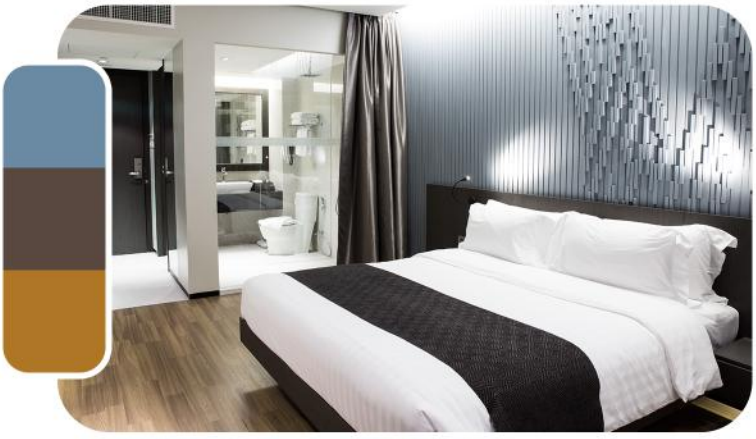
Colors are customizable

Sizes are customizable



700+RAL colors

Device color can be customized to match the interior design.



Energy Saving Case Study

- Property is 4 star, international brand
- Number of rooms: 181
- Location: Mediterranean coast

Overall Energy Consumption (in total)	KWh	3.787,969
Lighting Appliances Consumption (25% of overall amount)	KWh	946,992
AirCondition System Consumption (45% of overall amount)	KWh	1.704,586
Saving - Lighting (20%)	KWh	122,549
Saving - AirCondition (35%)	KWh	596,605
Overall System	KWh	719,154
Overall Saving Per Year (Considering kWh=0.06€)	**€**	**43,149**

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Croatia

Špica Sustavi d.o.o.
R. Cimermana 64b, Zagreb
tel.: +385 1 6593 730
fax: +385 1 6593 738
e-mail: info@spica.hr
web: spica.hr

Serbia

Špica Centar
Bulevar Mihajla Pupina 165v,
Novi Beograd
web: spica.rs

Bosnia & Herzegovina

Špica Systems
Piljačna 6, Ilidža - Sarajevo
web: spica.ba

Montenegro

Špica International
Podgorica
e-mail: mido.andjelic@spica.com

Macedonia

Špica Sistemi
III Makedonska brigada b.b. Skopje
web: spica.com.mk

Slovenia

Špica International d.o.o.
Pot k sejmišču 33, Ljubljana
web: spica.si