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## **SMART ROOM**

### **Smart Hotel Management**

- **Smart Room** is a smart card application, suitable for small and bigger hotels.
- **Smart Room** offers access control and energy saving functions.
- **Smart Room** is an autonomous and programmable system.

### **Functional Description**

- **Access control:**

Is secured using a smart card reader outside the controlled room.  
Up to 6 different user groups may be inserted into the **Smart Room** non-volatile memory with entry wrights.  
Each user group is independently inserted and programmed, in order to differentiate between clients, owners, and service personnel.

When a valid smart card is inserted, a green led shines for 5 sec, while the keypree is released, allowing the user to insert into the room.

Simultaneously, the relays are powered for 20 sec, providing the room with electricity and starting the air-conditioning unit.

- **Energy saving function.**

It is secured using a smart card reader inside the room and also using a magnetic switch to sense the opening of the window or balcony door of the room.

When a valid smart card is inserted in the internal reader, a green led shines to indicate the normal operation of the system. Then red led shines on the exterior reader to signal that the room is occupied.

The power relays of the switchboard and of the air-condition stay active as long as the valid card remains into the reader, and also for 20 sec after its removal.

If the window or the balcony door of the room opens for more than 10 sec, then the air-conditioning relay is de-activated. The restarting of the air-conditioning is done after a minimum of 2,5 min, provided that the balcony door is closed again. This delay is inserted to protect the air-conditioning compressor from frequent restarts.

Removing and inserting again the valid smart card into the internal reader, the “do not disturb” led of the external reader is activated, to inform the service personnel.

- **Technical specifications:**

The system is consisted of 3 units housed in plastic enclosures, ready to install on a DIN rail mount. One unit is the control and the other two the power relays for the main switchboard and the air-conditioning control respectively. All units are powered by 230 Volt 50 Hz and include the necessary power supplies.

The system has the following interconnections:

**Inputs:**

- RJ45 connector to connect to the external SMART CARD reader.
- RJ45 connector to connect to the internal SMART CARD reader.
- Fasteners for the window magnetic contact.
- 230 Volt to supply the system and the power relays.

**Outputs:**

- 12V for the control of the door keypre, to open the front door.
- 230 V to the local switchboard.
- 230 V to the air-conditioning unit.

- 2 leds, green and red to each SMART CARD reader for signaling the various system functions.
- 1 “do not disturb” led to each smart card reader.

- **Programming**

The system memorizes 6 user group codes and 1 master card code. Programming may be done only from the internal reader for security reasons.

**Initialization:**

Can be done using only a special card provided by our company, while simultaneously pressing a push button on the control module. It erases all previous code, even the master card code.

**Master card production:**

The first valid card inserted after an initialization, becomes a master card. This card may be not used as an access control card. It can only be used as a user programming card from the internal card reader.

**User groups programming mode:**

If the master card is inserted into the internal card reader, then the system enters the user cards programming mode.

We may then erase or modify independently the allowed user groups.

By inserting and removing the master card we chose the programming position, from the 1<sup>st</sup> to the 6<sup>th</sup>. Then the next inserted valid card becomes the allowed card for this position. If an older code was programmed at this position, it is automatically erased and replaced by the new one.

While programming, the green and red leds flash in order to indicate the programming position and state.

To end the programming mode the master card must be inserted again.