

RACS 5

Access Control
and Building
Automation System

RACS 5 AIR Wireless Locks

Wireless
Access Control



Access Control
to Lockers
and Deposit Boxes



Standalone
or Networked
Operation



Identification
with MIFARE®
Proximity Cards



roger®

Intelligence for Building

RACS 5 AIR Wireless Locks

The RACS 5 AIR system is a wireless extension of the RACS 5 system which includes RWL series wireless locks and RWH series communication interfaces (hubs). As part of the RWL series two door locks are offered: RWL-1 and RWL-2 as well as the RWL-3 cabinet lock. Door locks are mounted on the door leaf and are delivered in a set with escutcheon and door handles. The cabinet lock is designed for mounting on the doors of cabinets and various storage compartments.

In the RWL-1 lock the locking element (servomechanism) is placed in the mortise lock recessed in the door leaf. The lock latch is automatically released at the moment of door closure, thus guaranteeing a high degree of mechanical protection of the passage against attempts to forcefully open the door. In the RWL-2 lock, the locking element is built into the front escutcheon, which makes that the RWL-2 can be mounted along with the original mortise lock already installed in the door leaf. In both cases, the assembly requires disassembly of the original escutcheons and handles (if any). Wireless locks are battery-operated and communicate with the access controller via RWH hubs.

To operate wireless locks, the controller uses the same access control logic as wired part of the system including among others: user permissions, access groups, weekly time schedules, calendars, door modes and anti-passback function. The events that occurred on the locks are continuously transferred to the access controller and further to the software that manages the system. In the event of a radio connection failure the locks automatically switch from network mode to stand-alone mode and continue to control access based on data stored in their internal memory.

After returning of the radio communication, the locks automatically return to the network mode. In network mode access granting decisions are made in the controller with which the lock is connected wirelessly, while in stand-alone mode access is granted based on a list of proximity cards stored in the internal lock memory. Optionally, the locks can be permanently set to stand-alone mode and work independently without the presence of a controller.

In RACS 5 AIR system, user identification is carried out via contactless MIFARE® cards. Locks can be configured to read the serial number of cards (so-called CSN) or read the card code from encrypted card memory sectors (so-called SSN). The low battery condition is reported to the access control system and signalled locally on the lock. The RWH interfaces are connected to the RS485 communication bus of the access controller. Each hub connected to the controller's bus occupies one address. The communication bus of the controller can be simultaneously connected to wired and wireless devices, including one or more hubs. Thanks to the radio connection, it is possible to install the RACS 5 AIR system in the existing locations, without interfering with the construction of the door frames and with the minimum wiring needed only for connecting the system hubs.

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