

1. INTRODUCTION

The RDK-4 is a proximity reader with keypad, compatible with the AXS-100 access control system.

The system is designed to limit access to restricted areas, while permitting authorized people to enter. The RDK-4 can be programmed by the installer to offer one of three security levels for opening the door:

1. Valid tag only.
2. Valid tag and user PIN (Personal Identification Number) code.
3. Password only.

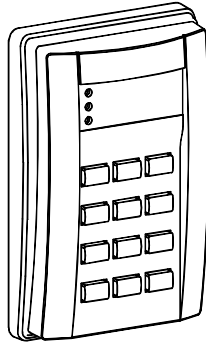


Figure 1 - RDK-4

It is recommended to install the RDK-4 on a wall outside the protected area, and the AXS-100 control unit inside the protected area.

Proximity access cards or tags are used as keys to open doors. When presented to an RDK-4, the access card or tag emit a coded RF signal that is read by the proximity reader. The reader prompts the user for a 4-digit PIN code (applicable to security level 2). When the correct PIN code is typed, the control unit verifies that the card is valid and makes the decision as to whether it should energize an output relay that releases the lock. All activity involving the proximity readers is recorded and logged by the AXS-100.

For information about the AXS-100 system, refer to the AXS-100 user's guide and installation instructions.

2. SPECIFICATIONS

Power input: 12-16V DC From the AXS-100

Buttons: 12 (numeric keypad)

Frequency: 125 kHz

Tag reading range: 50 - 100 mm (2 - 4 in.)

Tag codes possibilities: 10¹² possible combinations.

Cable (to AXS-100 control unit) maximum length: 100 m (320 ft)

Minimum distance between readers: 60 cm (2 ft)

Weight: 170 g (6 oz)

Color: Metallic brown

Dimensions (L x W x D): 122 x 82 x 31 mm
(4 - 13/16 x 3 - 1/2 x 1 - 1/4 in.)

Operating temperature: -20°C to 50°C (-4°F to 122°F)

3. MOUNTING

Mount the proximity reader outside the door on the wall or door frame. The RDK-4 comes with a 1m (3 ft) cable.

Note: When installing more than one RDK-4, the distance between the readers should be at least 60 cm (2 ft.), to ensure proper operation.

To mount the proximity reader:

- A. Remove the case closure screw.
- B. Separate the base from the keypad assembly.
- C. Place the base on the installation surface, mark points, drill the holes and insert plastic anchors, if necessary.
- D. Fit the base into the rubber gasket and use the 2 mounting screws to attach the base and gasket to the selected surface.

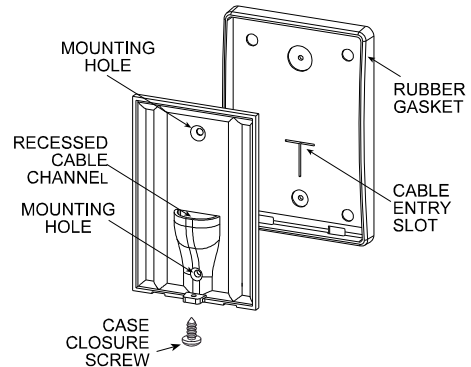


Figure 2 - Base and Gasket

4. WIRING

Each RDK-4 reader is connected to the control unit via a four-wire cable. The standard cable is color-coded. Use a cable with the same colors to avoid mistakes in connection. Connect each proximity reader to the reader sections on the AXS-100 connector blocks. See diagram for color-coding.

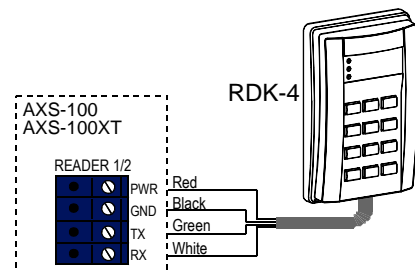


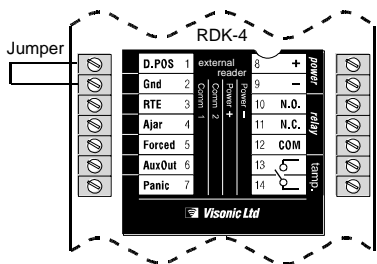
Figure 3 - Connection to AXS-100

5. SECURITY LEVEL SELECTION

The RDK-4 can be programmed by the installer to offer one of three security levels, as shown in the next table.

No.	Security level description	Security level selection
1	The door is unlocked by presentation of a valid tag/card only .	No jumper is not installed .
2	Door is unlocked by presentation of a valid tag/card followed by user PIN code keying.	Select this security level by either of the following actions: A. Install jumper in the RDK-4. B. Connect shorting wire between D.POS & GND terminals in the RDK-4 (see fig. 4). C. Set To/From time in minutes, in AXS-100 registers 8 & 9 (for Reader 1) or registers 10 & 11 (for Reader 2), to determine the period during which the RDK-4 will switch from security level 1 (tag only) to security level 2 (tag + PIN). For example, if you want that the security level 2 will be valid from 12 o'clock (720 min.) to 13 o'clock (780 min.), set AXS-100 register 8 to 720 and register 9 to 780. For details, refer to AXS-100 User Guide par. 3.2.7.
3	Door is unlocked by Password keying followed by pressing the # key	Set AXS-100 password as described in the AXS-100 User Guide par. 3.3.3.

Figure 4
Selecting Security Level 2 by Using a Jumper



6. USING THE RDK 4

To enroll an access card refer to the AXS-100 User Manual section 3.3.1 Add Keys. The PIN code of each card is automatically defined by the AXS-100. In order to receive the PIN codes for access cards, please refer to the AXS-100 User Manual section 5.2.1 Setup Flags.

To enter a door, present a valid tag to the RDK-4. If your RDK-4 is programmed to operate by tag and user's PIN code, present the tag and then enter the PIN code within 5 seconds.

When presented to an RDK-4, the access card or tag emits a coded RF signal that is read by the proximity reader. The reader prompts the user for a 4-digit PIN code by blinking the yellow light. If no PIN code is typed within 10 seconds, or a wrong PIN code is typed, the red LED will light up.

A delay of more than 5 seconds, between presenting a tag and starting to key user PIN code, or between any two digits, cancels the operation.

The normal functions of the LEDs are summarized in the following table.

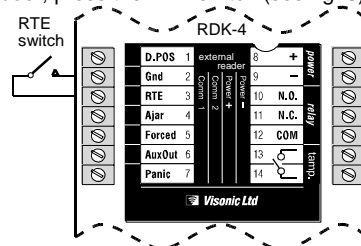
LED	Function
Green	Indicates that a valid tag was presented and the output relay was activated.
Red	Indicates that an invalid tag was presented or an invalid PIN was entered.
Yellow	Remains lit to indicate that power is on. In security level 2, blinks after the tag is accepted, to prompt the user for PIN.

Job Control

There is an option that when a valid exit occurs, the exit will be reported (Time & Attendance exit), if the reader is defined in EXIT mode (see AXS-100 user guide, section 4). To implement this option, there are 2 possibilities:

1. Before opening the door, press the "*" key in the RDK-4.
2. Before opening the door, press the RTE switch (see fig. 5).

Figure 5
RTE switch



7. REGULATORY

7.1 EU Declaration of Conformity

This equipment is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

7.2 Compliance FCC Compliance

This device (FCC #:O4X3-63210) complies with FCC Rules Part 15.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, or that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interface in a residential installation. This equipment generates; uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to this equipment not expressly approved by the party responsible for compliance (Elpas Solutions Ltd.) could void the user's authority to operate the equipment.

7.3 Company Contact

Elpas, Inc.
Westford, Massachusetts (USA) -Tel: 1-800-223-0020

8. PRODUCT WARRANTY

Elpas Solutions Ltd. (Elpas or the Company), and its affiliates, warrants its products (hereinafter referred to as "the Product") to be free of defects in materials and workmanship under normal operating conditions and use for a period of one year from the date of shipment by Elpas. The Company's obligations shall be limited within the warranty period, at its option, to repair or to replace the defective Product or any defective component or part thereof. To exercise this warranty, the product must be returned to the manufacturer freight prepaid and insured.

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The purchaser or user should follow the Product installation and operation instructions and test the Product and the entire system at least once each week. For various reasons, including but not limited to changes in environmental conditions, electric, electronic, or electromagnetic disruptions, and tampering, the Product may not perform as expected. The purchaser and user are advised to take all necessary precautions for the protection and safety of persons and property.

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Elpas does not authorize any single individual to act on its behalf to modify or vary this statement.

Any questions about this statement should be directed to Elpas.



W.E.E.E. Product Recycling Declaration

For information regarding the recycling of this product, you must contact the company from which you originally purchased it. If you are discarding this product and not returning it for repair then you must ensure that it is returned as identified by your supplier. This product is not to be thrown away with everyday waste - Directive 2002/96/EC Waste Electrical and Electronic Equipment.