HID RK40

HID RK40 iCLASS SE Smart Card Reader with Keypad User Manual

Model: RK40

1. Introduction

The HID RK40 iCLASS SE Smart Card Reader with Keypad is a versatile access control device designed for secure identification. It supports 13.56 MHz contactless smart card technology and offers dual authentication options: contactless card presentation combined with a Personal Identification Number (PIN), or single-factor authentication using either a card or a PIN. The keypad features a durable, weatherproof design with tactile response and backlit numbering, suitable for various environmental conditions.

2. Safety Information

- Read all instructions carefully before installation and operation.
- Installation should be performed by qualified personnel in accordance with local electrical codes.
- Ensure power is disconnected before performing any wiring or maintenance.
- Do not expose the device to extreme temperatures or corrosive substances beyond its specified operating conditions.
- Use only approved power supplies and cables.

3. Package Contents

Verify that all items are present in the package:

- HID RK40 iCLASS SE Smart Card Reader with Keypad
- Mounting hardware (screws, anchors)
- Installation Guide (this document)

4. Product Overview

The image below illustrates the front and rear views of the HID RK40 reader, highlighting its keypad and wiring connections.

This image displays both the front and back of the HID RK40 reader. The front features a black housing with a numeric keypad (0-9, *, #) and the HID logo. The back reveals the product label, indicating 'iCLASS SE RK40', and a multi-colored wiring harness for connection to an access control panel.

The front panel includes a 12-position keypad for PIN entry and an integrated smart card reader. The rear panel contains the wiring connections for power, data, and control signals.

5. Setup

5.1 Mounting

1. Select a suitable mounting location, ensuring it is flat and secure.
2. Use the provided mounting template (if applicable) to mark drilling points.
3. Drill pilot holes for the mounting screws.
4. Route the wiring through the wall or mounting surface.
5. Secure the reader to the mounting surface using the provided screws. Do not overtighten.

5.2 Wiring

Connect the reader to the access control panel according to the panel's specifications and the wiring diagram below. Ensure all connections are secure and insulated.

Wiring Connections

Wire Color	Function	Description
Red	Power (+)	Connect to +5VDC to +16VDC power supply.
Black	Ground (-)	Connect to power supply ground.
Green	Data 0 (Wiegand)	Wiegand Data 0 output.
White	Data 1 (Wiegand)	Wiegand Data 1 output.
Brown	LED Control	Controls the reader's LED indicator.

Wire Color	Function	Description
Orange	Beeper Control	Controls the reader's audible beeper.
Yellow	Hold	Input for holding card data.
Blue	OSDP Data (RS-485)	OSDP communication line.
Violet	OSDP Data (RS-485)	OSDP communication line.

Note: Specific wiring configurations may vary based on the access control system. Refer to your system's documentation for detailed instructions.

6. Operating Instructions

6.1 Card Presentation

To gain access using a smart card:

1. Present your iCLASS SE smart card within close proximity to the reader's front surface.
2. The reader will emit an audible beep and/or illuminate an LED to indicate a successful read.
3. If configured for card-only access, the access control system will grant or deny access based on the card's credentials.

6.2 PIN Entry (Keypad)

For systems requiring PIN entry (either standalone or combined with a card):

1. If required, present your smart card first (refer to 6.1).
2. Enter your Personal Identification Number (PIN) using the numeric keypad.
3. Press the '#' key (or as configured by your system) to confirm the PIN entry.
4. The reader will provide feedback (beep/LED) indicating acceptance or rejection of the PIN.

7. Maintenance

- **Cleaning:** Clean the reader's surface periodically with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Inspection:** Regularly inspect the reader for any signs of physical damage or loose connections.
- **Firmware:** Consult your system administrator for information on firmware updates.

8. Troubleshooting

Common Issues and Solutions

Problem	Possible Cause	Solution
Reader does not power on.	No power supply; incorrect wiring.	Check power connections and ensure correct voltage. Verify wiring according to Section 5.2.
Card not read.	Card not compatible; card damaged; incorrect presentation.	Ensure card is iCLASS SE compatible. Try another card. Present card closer to the reader.

Problem	Possible Cause	Solution
PIN entry not accepted.	Incorrect PIN; system not configured for PIN.	Verify the correct PIN. Consult your system administrator to confirm PIN configuration.
No LED or audible feedback.	LED/Beeper control wiring issue; disabled in system.	Check Brown and Orange wire connections. Consult system administrator for configuration.

If issues persist, contact technical support.

9. Specifications

- **Model:** RK40
- **Technology:** 13.56 MHz iCLASS SE Smart Card
- **Connectivity:** Wiegand, OSDP (RS-485), USB Type A (for configuration/diagnostics)
- **Dimensions:** 7.1 x 4.7 x 1.8 inches (180.34 x 119.38 x 45.72 mm)
- **Weight:** 10.7 ounces (303.34 grams)
- **Power Supply:** +5VDC to +16VDC
- **Special Feature:** Waterproof keypad
- **Environmental Certification:** RoHS, WEEE
- **Manufacturer:** HID Global Corporation

10. Warranty Information

HID Global Corporation warrants its products against defects in materials and workmanship under normal use and service for a specified period from the date of purchase. For detailed warranty terms and conditions, please refer to the official HID Global website or contact your authorized distributor. This warranty does not cover damage caused by improper installation, misuse, unauthorized modification, or acts of nature.

11. Technical Support

For technical assistance, troubleshooting, or further information regarding the HID RK40 iCLASS SE Smart Card Reader with Keypad, please contact HID Global Technical Support or your local authorized HID Global partner. Support resources, including FAQs and documentation, may also be available on the official HID Global website.