KR802-EP 3 In 1 Reader

ZKTECO KR802-EP 3 In 1 Reader Instruction Manual

Contents

ZKTECO KR802-EP 3 In 1 Reader

Product Information

Specifications:

- **Product name:** 3-in-1 reader
- **Product model:** KR802-EP
- **Date:** 2023.11.07
- **Number of samples:** 4 PCS

Basic Characteristics and Application Areas

- **Basic Characteristics:** KR802-EP ID/IC/SFZ 3-in-1 Reader
- **Application fields:** Widely used in RFID applications such as access control, time and attendance, toll collection, anti-theft, patrol, etc.

Model List:

Model No.	P/N	Material code
7754 X02101196	KR802-T	

Technical Parameters:

Basic technical parameters:

- **Size:** 90mm x 90mm x 16mm
- **Working frequency:** 125KHz & 13.56MHz
- **Communication:** Wiegand/RS485

Wiring Function Description:

Red	Black	White	Green	Purple	Grey	Yellow	Blue	Orange
VCC	GND	Wiegand D1	Wiegand D0	Beeper	LED GND	To WG26	RS485+	RS485-

Product Usage Instructions:

FAQ:

Q: What is the working frequency of the 3-in-1 reader?
A: The working frequency of the reader is 125KHz & 13.56MHz.

Specification

- **Product name:** 3-in-1 reader
- **Product model:** KR802-EP
- **Original Model:** KR802-EP
- **P/N:** ID/IC/SFZ Reader (Wiegand34/Wiegand26/RS485
- **Specification:**
    - 90mm*90mm*16mm Cable length 220mm±15mm
    - With touch keypad black panel ZKTeco logo
- **Sample date:** 2023.11.07
- **Number of samples:** 4 PCS

Supplier Confirmation	Compilation	Audit	Ratify
Customer Confirmation	Approval	Audit	Ratify

Basic Characteristics and Application Areas

1. **Basic Characteristics**
   KR802-T reader is a 125KHz/13.56MHz contactless RFID/IC/ID card 3-in-1 reader, which is a contactless smart card serial number reader developed based on the international standard protocols of ISO/EM4001 and ISO/IEC14443A/B. It is designed with high-performance RF reader circuitry, which is integrated and stable in size and performance. It adopts a high-performance RF card reading circuit design, featuring high integration, strong anti-interference ability, small size, stable performance, and high-cost performance. It provides Wergen 26/34 and RS485 communication interfaces. The read head comes with a card reading antenna, and fully enclosed potting, waterproof, and moisture-proof.
2. **Application fields**
   Widely used in a variety of RFID applications such as access control, time and attendance, toll collection, anti-theft, patrol, and so on.

Model list

Model No.	P/N	Material code	Specification
7754	X02101196	KR802-T	ID/IC/SFZ reader (Wiegand34/Wiegand26/RS485 90mm*90mm*16mm cable length 220mm±15mm With touch keypad black panel ZKTeco logo)

Picture of product

Technical Parameters

Basic technical parameters

Specification	ID/IC/SFZ Reader(Wiegand34/Wiegand26/RS485 90mm*90mm*16mm Cable length 220mm±15mm With touch keypad black panel ZKTeco logo
Size	90*90*16mm ±3mm
Electrical parameters	Working Voltage DC 12V ±5% Standby current less than 80mA; swipe current less than 200mA
Environmental requirements	Temperature and humidity -20℃—60℃ 20%-80%(+ 25℃) Storage Temperature & Humidity -20℃—80℃ 20%-80%(+ 25℃)
Product Process	Surface Process Front shell:ABS+PC/ Sliver(HG698002)/ Print ZKTeco Two Color Logo Cold Gray 11 C+Green 368C) Back shell:Black etching Acrylic Panel: Black ZKteco logo: Silkscreen
Protection level	IP65
Working frequency	125KHz & 13.56MHz
Protocol	ISO/EM4001 ISO/IEC 14443A/B
Card support	ID thick card / ID thin card / S50/S70 card / SFZ
Communication	Wiegand / RS485
Communication format	WG26/WG34/RS485
Firmware	KR801KR802EM(HC)-WG-RS_20200731_V1.05
Hardware PCB)	KR801KR802EM_V1.01_20200609
Static parameters	Contact 4kv, Air 8kv

Test parameters

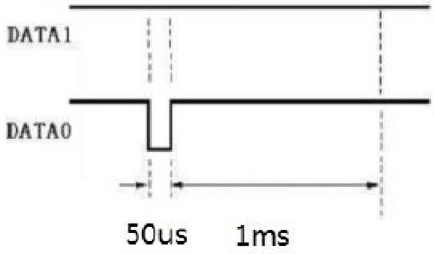
Swipe card distance	ID thick card 0~50mm / ID thin card 0~50mm / S50 card 0~50mm/ S70 card 0~50mm / SFZ card 0~35mm Note: 0~L (L≥Lmm) (actual distance is related to the card used and the application environment)
Status test	Power on: the green light is on for a while, then the red light is on for a while, and finally turns to the breathing light; Standby: Breathing light on – off – on and so on.
External Control Cables	Buzzer beeps long when the purple wire is grounded; green light long when the gray wire is grounded
Beeping time	Power-up: 400mS Swipe: 200mS Push button: 100mS Alarm: 80mS, 50mS interval 485: Upload data within 8S without receiving a reply, ring 4 times, each sound 80mS, 50mS intervals
Duration of light	Power on light up 400mS green light, swipe card light up green light 200ms. The button light is always on if it is controlled by a microcontroller, the length of the button is 100mS. 485: upload data within 8S did not receive a reply, flash 4 times, each time light 80mS, dark 50mS

Wiring Function Description

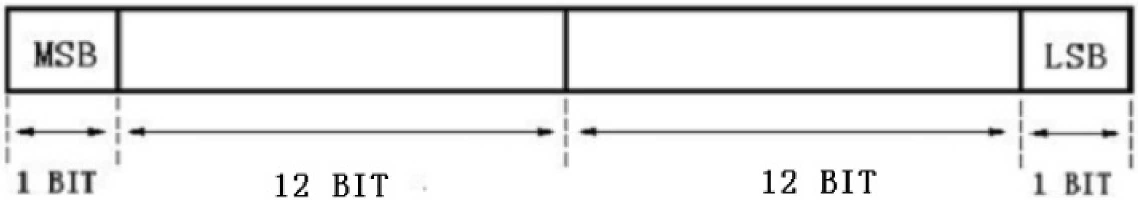
- **Red:** VCC
- **Black:** GND
- **White:** Wiegand D1
- **Green:** Wiegand D0
- **Purple:** Beeper
- **Grey:** LED
- **Yellow:** GND To WG26
- **Blue:** RS485+
- **Orange:** RS485-

Description of the Wigan code format

W26 Chronology diagram

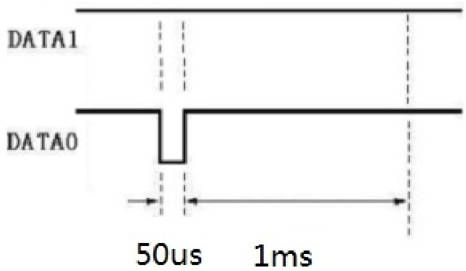


W26 Data format

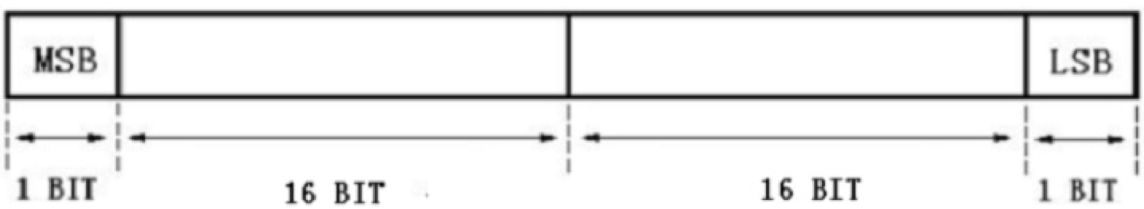


- 24 BITS SERIAL NUMBER = 3BYTE (HEX)
- **Description:** MSB is sent first; MSB is the even parity bit of the high 12 BIT; LSB is the odd parity bit of the low 12 BIT;
- **Even parity definition:** when the number of I's in 12 BIT is even, MSB is 0; when the number of I's in 12 BIT is odd, MSB is 1;
- **Odd-check definition:** LSB is 1 when the number of 1's in 12 BIT is even; LSB is 0 when the number of 1's in 12 BIT is odd

W34 chronology diagram



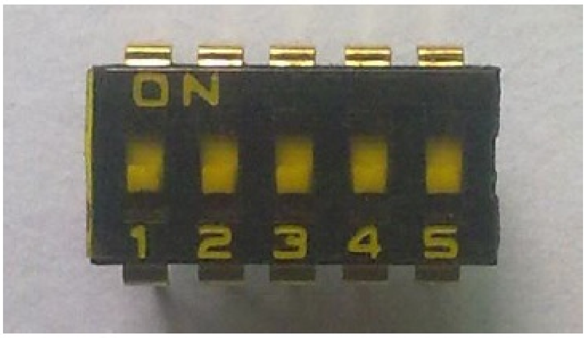
W34 Data format



- 32 BITS SERIAL NUMBER = 4BYTE (HEX)
- **Description:** MSB is sent first; MSB is the even parity bit of the high 16 BIT; LSB is the odd parity bit of the low 16 BIT;
- **Even parity definition:** MSB is 0 when the number of I's in 16 BIT is even; MSB is 1 when the number of I's in 16 BIT is odd;
- **Odd parity definition:** when the number of 1's in 16 BIT is even, LSB is 1; when the number of 1's in 16 BIT is

odd, LSB is 0.

DIP Switch Description



Description:

- This dip switch is a 5-position dip switch, the default is fully closed, dialed to the ON position on behalf of the key has been connected.
- **Key 1-4:** address control bit; key 4 3 2 1 represents 8421 address code respectively (Example: key 1 dialed to ON position represents address 1, key 3 dialed to ON position represents address 4, and key 1 and 4 dialed to ON position represents address 9).
- **Key 5:** control baud rate, the default is 115200, dial to ON position for 9600.
- **Note:** Address 1, 2, 3, and 4 are valid addresses.

Product factory packing information

Type	**Size**	**Weight(Including package) (±10 g)**	**Contained material**
Packing box	155*110*45MM 51g (Contained material)	186g	Reader 1PCS Lining 1PCS Screws 2PCS Backshell Screws 1PCS Expansion tube 2PCS Certificate of conformity 1PCS Blue round sealing sticker (F4+) 1PCS ZKTECO address labels 1PCS
Outer box	570*330*255MM 700g	700+186*50= 10000g	50PCS/box

Note:
The outer box is based on the number of orders to choose to use a different carton, so there may be some difference with the physical delivery, the most commonly used for the outer box is 570 * 330 * 255MM.

Declaration of Environmental Conformity

This enterprise makes the following solemn declaration on the products provided:

1. This product complies with GB/T 26572-2011 “Limited Requirements for Restricted Substances in Electrical and Electronic Products” and the exceptions of restricted substances stipulated by the state.
2. This product complies with GB/T 26125-2011 “Testing Methods for Six Restricted Substances in Electrical and Electronic Products”.
3. This product complies with SJ/T 11364-2014 “Requirements for Labeling of Restricted Use of Hazardous Substances in Electrical and Electronic Products”.
4. **Product Description:**

Item No.	P/N	Model No.	Remark
1		KR802-EP	

FCC WARNING

This device complies with part 15 of the FCC Rules. 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, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

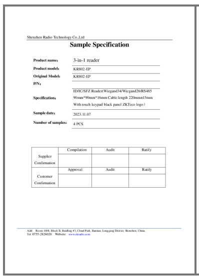
NOTE:
This equipment has been tested and found to comply with the limits for a Class B digital device, under Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used under 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 the receiver.
- Connect the equipment to 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.

To maintain compliance with FCC’s RF Exposure guidelines, This equipment should be installed and operated with a minimum 20cm distance between the radiator and your body: Use only the supplied antenna.

- **Add:** Room 1004, Block B, Building #3, Cloud Park, Bantian, Longgang District, Shenzhen, China.
- **Tel:** 0755-2826020
- **Website:** www.zkradio.com.

Documents / Resources

 Sample Specification	[ZKTECO KR802-EP 3 In 1 Reader](#) [pdf] Instruction Manual KR802-EP, KR802-EP 3 In 1 Reader, 3 In 1 Reader, Reader

References

- [User Manual](#)