

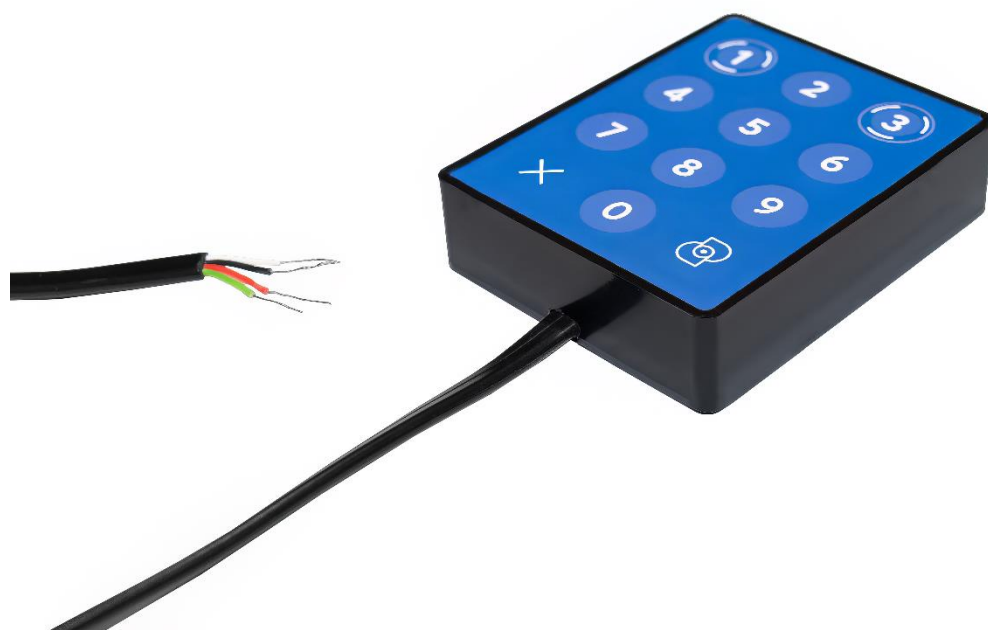


## 1W-H0-04P BZ KPD

RFID reader | 13.56 MHz | Mifare

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### Product Card



## *Before use...*



*Please do not open the reader and do not make any changes. This results in loss of warranty.*



*In case of any questions please contact with us. We certainly answer to all questions and solve possible problems.*



*Please carefully read the following information before connecting the reader.*



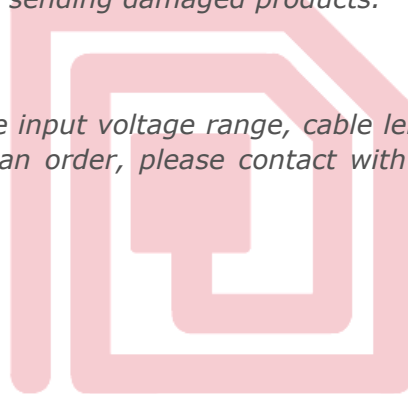
*Please keep in mind, that there are factors as metal surfaces, which can affect on radio communication and correct reader operation. It is advisable to consult the mounting conditions before use with our staff.*



*Please contact with us before sending damaged products.*



*We offer possibility to change input voltage range, cable length and terminate it with a plug. Before making an order, please contact with us to determine the details.*



## General information

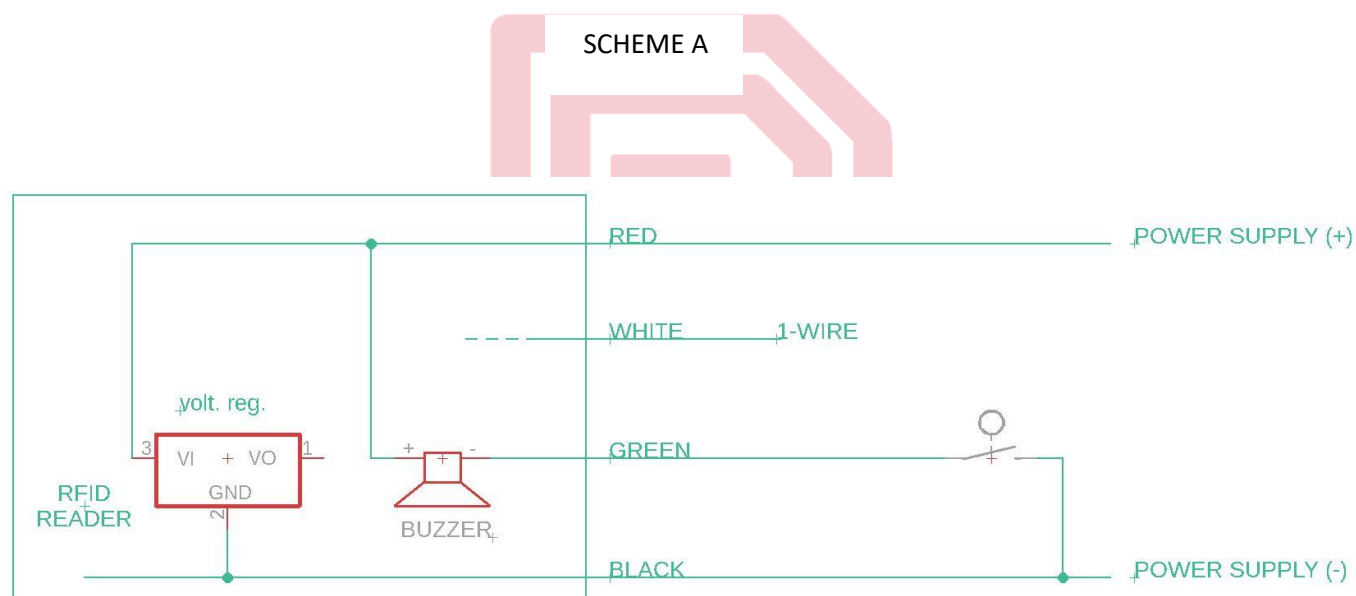
The RFID reader **1W-H0-04P BZ KPD** reads identification data (UID) wireless of passive transponders (cards, tags, etc.) compatible with ISO/IEC14443-3-A (e.g. MIFARE cards), ISO/IEC14443-3-B, ISO 15659, Felica, iClass, ISO 18092 and allows reading a code entered from the touch numeric keypad by user.

The built-in Buzzer.

BUZZER is activated when appropriate BUZZER output is connected to the minus of power supply.

<b>Black</b>	-	power supply (-)
<b>Red</b>	-	power supply (+)
<b>Green</b>	-	Buzzer
<b>White</b>	-	1-Wire

The reader should be connected according to the scheme "A".



**User manual:**

Code entry using the numeric keypad:

1. Press keys **1** and **3** (roundly marked) simultaneously - the reader enters the code entry mode from the keypad signaling this state with an intermittent acoustic signal.
2. Enter the **6-digit code** from the keyboard - each pressing of a button is signaled by a continuous acoustic signal.
3. Confirm the entered code by pressing the "**CONFIRM**" button (in the lower right corner of the keyboard with the **DREXIA logo**).

The emulation process is continued as long as the "**CONFIRM**" button is pressed.

**Note 1:** The pause between consecutive buttons presses must be at least **200ms**.

**Note 2:** The procedure of entering the code from the keyboard can be interrupted by pressing the "**CANCEL**" button (in the bottom left corner of the keyboard marked with an **X**).

**Note 3:** If the break between successive keypad presses lasts **longer than 5 seconds**, the procedure of entering the code from the keypad is interrupted - the reader returns to the waiting mode for reading the RFID card.

**Note 4:** The **6-digit code** entered from the keyboard will be sent to the **1-Wire** bus.

In the emulation process, 8 bytes are sent to the 1-Wire bus in the following order:

- **Family Code** (01),
- **6 digits of the entered code** starting with the least significant digit
- **CRC8 checksum** of the previous 7 bytes.

Each byte is sent starting with the least significant bit.

The complete code sent by the reader to the 1-Wire bus (for an example sequence "123456" is shown below):

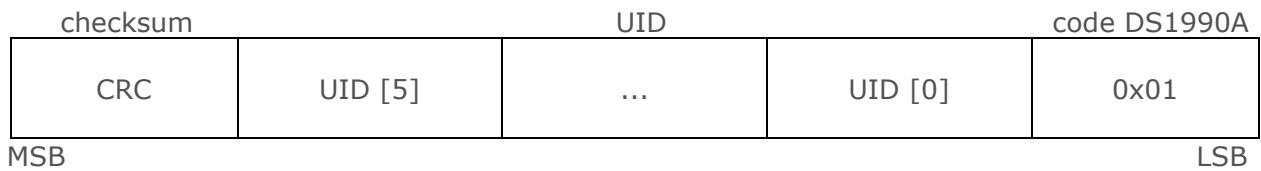
01[hex]	06[hex]	05[hex]	04[hex]	03[hex]	02[hex]	01[hex]	78[hex]
Family Code	Last digit	.....	.....	.....	.....	First digit	Checksum [CRC8]

The card identifier is sent to the 1-Wire bus as described above.

For cards with an identifier shorter than 6 bytes, the most significant bytes are filled with zeros.

For cards with an identifier longer than 6 bytes, the 6 least significant bytes of the identifier are used.

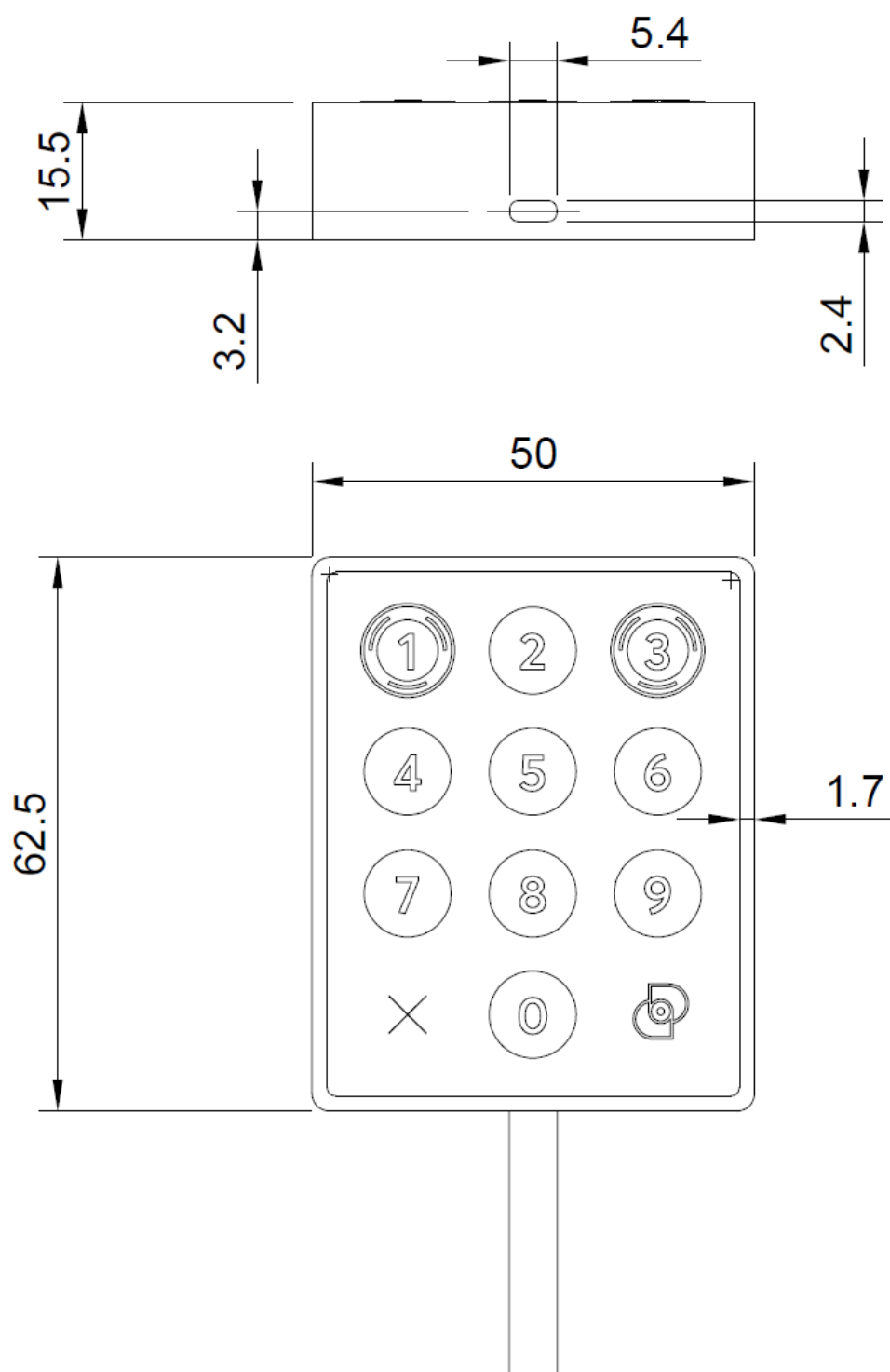
The read data are sent via 1-Wire interface, emulating the MAXIM DS1990A. For transponder UIDs of 4 bytes long, the oldest 2 bytes UIDs [4] and UID [5] are sent as 0x00 (zero) while, UIDs of 7 or 10 bytes are sent with 6 least significant UID bytes.



The reader is waiting for the proximity of the token (card) trying to read it. Each re-read attempt is made in cycles every 250ms. The identifier reading attempt time is 110 ms from the start of each cycle. After correct reading of the identifier, the Maxim DS1990A is emulated via the 1-Wire interface.



## External dimensions



## Technical Data

<b>Power supply</b>	8-16 VDC
<b>Nominal voltage</b>	12 V DC
<b>Power supply efficiency</b>	1 A
<b>Peak current</b>	105 mA
<b>Average receiver current</b>	30 mA (without LED)
<b>Peak receiver current</b>	50 mA
<b>Buzzer current</b>	25 mA
<b>Peak Buzzer current</b>	55 mA
<b>Frequency</b>	13,56 MHz
<b>Type of transponder</b>	ISO/IEC14443-3-A
<b>Surface of the antenna</b>	8,6 cm <sup>2</sup>
<b>Reading range</b>	Mifare ~3cm ; ISO 15693 ~ 7,5cm ; Felica ~3cm ; HID ~5cm
<b>Reading frequency</b>	4/s
<b>Supported 1-Wire commands</b>	0x33 (0x0F) - Read ROM 0xF0 - Search ROM
<b>Mounting method</b>	Tape, glue, etc.
<b>Cable length</b>	0,4 m (flat cable)
<b>Reader temperature</b>	-20° C +55° C
<b>ROHS</b>	YES