

iDProx

Thank you for purchasing the iDProx proximity card reader! Check out our online guide at:

<www.controlid.com.br/userguide/idprox-en.pdf>

# Necessary Materials

In order to install your iDProx, you will need the following items: drill, wall plugs and screws, screwdriver, 12V power supply capable of supplying at least 1A and an electronic lock.

# Installation

For the correct operation of your iDProx, the following precautions should be taken:

• Install in a place that is not exposed to direct sunlight and that is protected from rain and other natural phenomena

• Avoid metallic objects near to the rear of the equipment in order to not impair the proximity reader’s reach. In case it is not possible, use insulating spacers.

• Install iDProx 1,5m above the floor.

• Before securing the equipment in place, ensure all connecting cables are correctly routed towards the equipment.

The equipment installation process is simple and should follow the sequence below:

1. Remove the plastic lens from the iDProx with a screwdriver that is at least 3 mm wide (to avoid damaging the plastic):



2. Use the reference pattern on the back of this guide to drill the 2 holes

3. Insert the wall plugs completely into the holes made

4. Route all of the cables required for the operation and connect them to the iDProx cables

5. Secure the iDProx using two screws



6. Place the plastic lens positioning it properly and securing the top first and then the bottom

# Connection Pins

⚠ Warning: The Green, Green with White and Blue wires depend on the operating mode of the equipment (Wiegand, ABA Track II and RS232).

**Power Supply**



⚠ Connection to a +12V power supply capable of supplying at least 1A is fundamental for the correct operation of the equipment

**Led Control and Buzzer**



By connecting the LED-IN pin to ground, the internal LED turns red.

By connecting the MODE / BZ pin to the ground, the buzzer is activated.

The MODE / BZ and LED-IN pins are also used for configuring the operating mode (Wiegand, ABA Track II and RS232).

**Wiegand Output**



⚠ Warning: The Green, Green with White and Blue wires depend on the operating mode of the equipment (Wiegand, ABA Track II and RS232).

**Output ABA Track II**

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⚠ Warning: The Green, Green with White and Blue wires depend on the operating mode of the equipment (Wiegand, ABA Track II and RS232).

**RS232 Output**

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## Operating Mode Selection

The reader's operating mode can be selected as Wiegand or ABA Track II. To do this, you must perform a simple procedure:

1. Turn the iDProx off

2. Connect two wires according to the table.

3. Turn the iDProx on. The buzzer will sound and the LED will behave according to the selected configuration.

4. Turn the iDProx off and reconnect all cables normally: D0, D1, MODE / BUZZER etc.

5. Turn the iDProx on. The device will work according to the mode previously selected.

|  |  |  |  |
| --- | --- | --- | --- |
| **Connection** | **Mode** | **LED** | |
| MODE/BZ + D0 | Wiegand 26 | | Green, on |
| MODE/BZ + D1 | Wiegand 34 | | Yellow, on |
| MODE/BZ + CARDPRES | ABA | | Red, on |
| LED-IN + D0 | Wiegand 66 | | Off |
| LED-IN + D1 | RS232 | | Red, blinking |

**Communication Protocols**

In order for the iDProx to work properly, it must be connected to a controller that can communicate with the reader in one of the three supported protocols.

This controller will be represented in this guide as depicted below:



The WIN1 and WIN0 inputs are used for the Wiegand protocol; CARDP, CLK and DATA inputs are used for ABA Track II and the RX and TX inputs are used for communication via RS232.  
  
⚠ The names of the inputs may vary according to the controller.  
  
⚠ The controller inputs depend on the model and brand.

**Wiegand**

The Wiegand protocol uses 3 wires: DATA0, DATA1 and GND. When there is no data to be received, both DATA0 and DATA1 remain in logical level 1, ie. it is possible to measure 5V between the cables and GND. When a 0 bit is received, DATA0 will go to logical level 0 (which means that you can measure 0V between this cable and GND) and DATA1 will remain at logical level 1. When a bit 1 is received, DATA1 will go to logical level 0 and DATA0 will remain at logic level 1.

The necessary connections to use this protocol are presented below:



**ABA Track II**

The ABA Track II protocol uses 4 wires: CARDPRES, CLK, DATA and GND. The CARDPRES output remains at the logical level 1 while there is no card to be read. When a card is close to the reader, the CARDPRES output goes to logical level 0 and the data is read from DATA each time the CLK input goes from the logical level 1 to logical level 0. When all the data is sent, the CARDPRES output goes back to the logical level 1 and data is not read anymore.  
The wiring diagram for this case is presented below:



⚠ Warning! The Wiegand protocol is faster and the most efficient option  
  
⚠ You cannot use this protocol with the iDBox controller.  
 **RS-232**

The RS232 protocol usually uses 3 cables: RX, TX and GND.

Data is transmitted by the TX output and received by the RX input. No synchronization signal is required in this case.

The output of this protocol, through this reader, is TTL, i.e. a logical level 1 is represented by 5V and logical level 0 is represented by 0V, with no negative voltage.  
The wiring diagram is presented below:



**Technical Specifications**

**Power Supply**

External power supply 12VDC /1A (not included).

1.2W nominal consumption.

**Identification**

Proximity card: ASK, FSK, PSK or Mifare.

⚠ The type of card must be defined before purchasing.

**Range**

ASK: 15cm | FSK: 10cm | PSK: 10cm | Mifare: 6cm

**Communication**

Wiegand output, may be configured for ABA Track II.

RS232 TTL shared output.

**Interface**

Yellow, green and red LED controlled by an input.

4kHz and 70dbA Buzzer @100mm controlled by an input.

**Dimensions and weight**

**Slim Model**

20mm x 95mm x 51mm (H x W x L)

103g

**Compact Model**

22mm x 130mm x 55mm (H x W x L)

102g

**Assembly Instructions**

**iDProx Compact**

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**iDProx Slim**

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