

2025-02-18
V 3.1

MANUAL

AIR-B

(V3.0 Five Wire)



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Introduction

This document provides detailed information on the structure of the device as well as the steps to install and connect it.

It also includes instructions for preventing or troubleshooting many common problems. This guide is for informational purposes only, and the actual product takes precedence in case of any discrepancies.

All instructions, software, and functionality are subject to change without prior notice. The latest version of the manual and additional documentation can be found on our website or by contacting customer support.

The user or installer is responsible for complying with local laws and privacy regulations when collecting personal data while using the product.

FCC Statement

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

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 interference 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

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Device Specifications

Voltage:

- 12 or 24 VDC operation
- 0.11A @12 VDC, 0.055A @ 24 VDC current consumption

Outputs:

- One output (open collector) 0.2A @ 12 VDC

Inputs:

- One input (dry contact type) from 0 to 5 volts

Sensor type:

- Laser

Distance:

- 4", 8", 12" or 20" (10, 20, 30, 50 cm)

Indication:

- Two color LEDs, buzzer

Open delay:

- 0.1, 3, 6 or 9 seconds

Dimensions (D x H):

- 2.36" x 0.67" (60 x 17 mm)
- 2.36" x 0.86" (60 x 22 mm) mounting ring

Mounting method:

- Wall mount

Weight:

- 1.59 oz (45 g)

Operation temperature:

- -22°F ~ 158°F (-30°C ~ 70°C)

Ingress protection rating:

- IP 65

Default Device Settings

Distance:

- 4" (10 cm)

Delay:

- 0.1 second

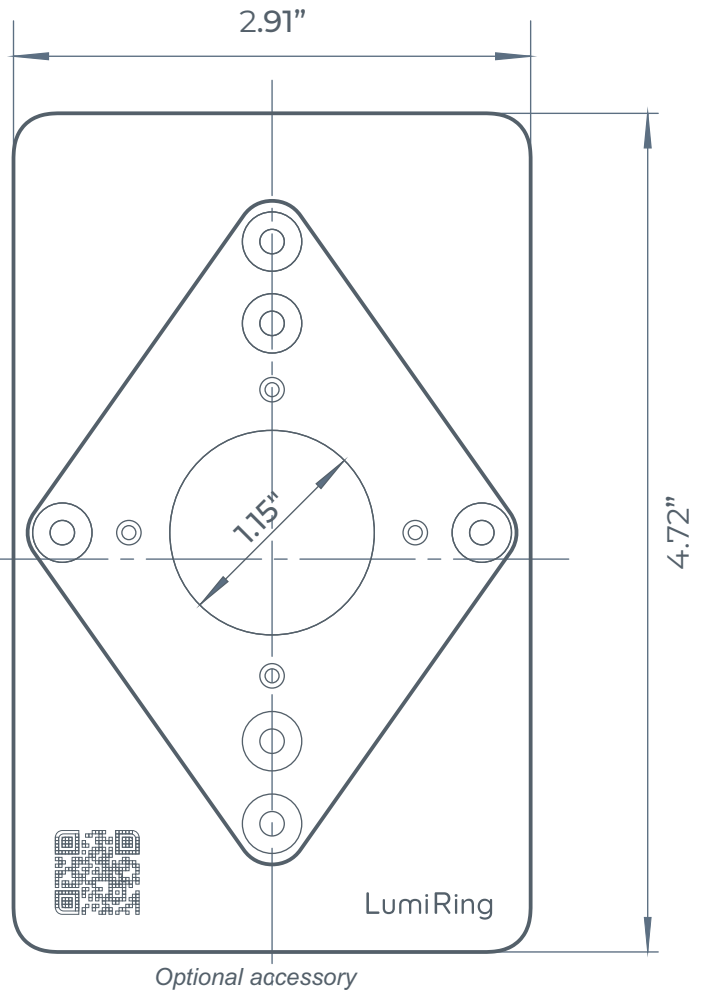
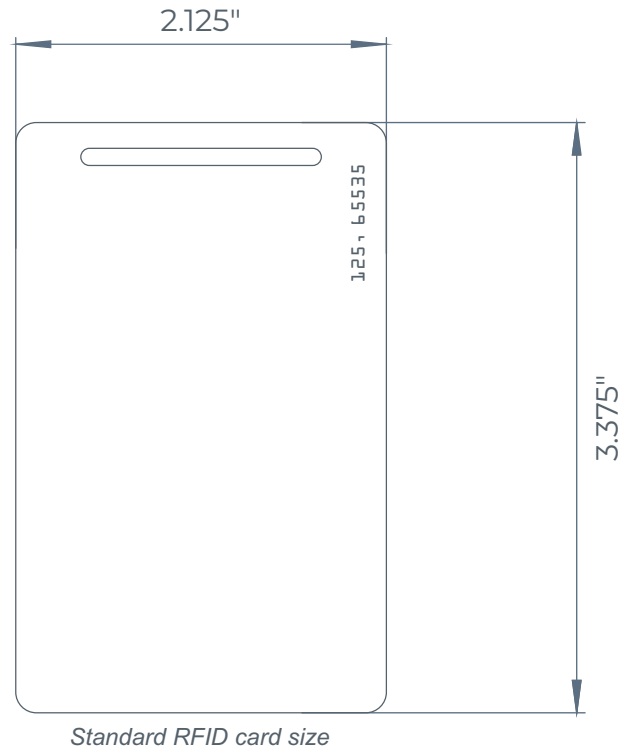
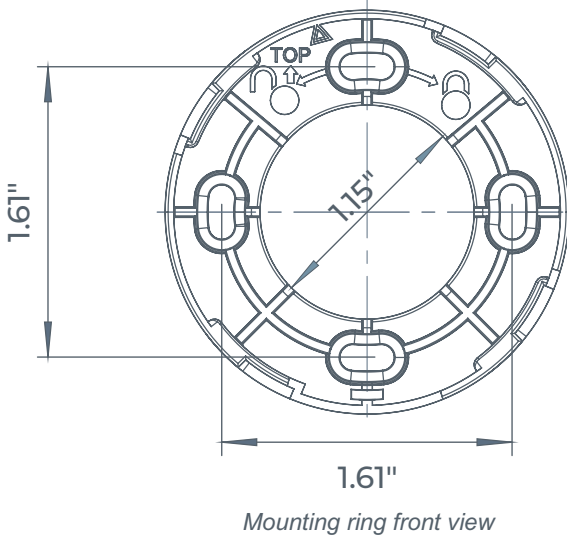
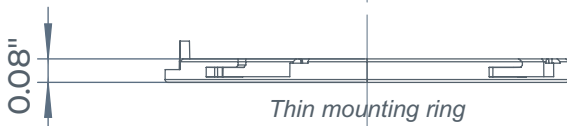
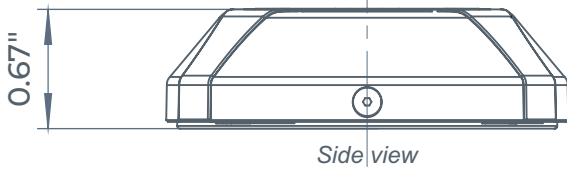
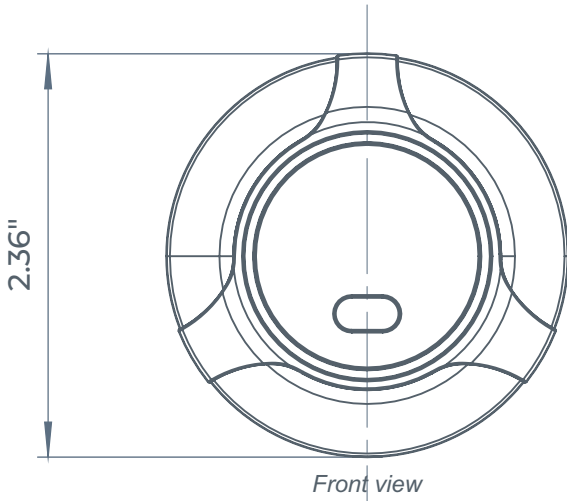
AUX GND (work mode):

- NO

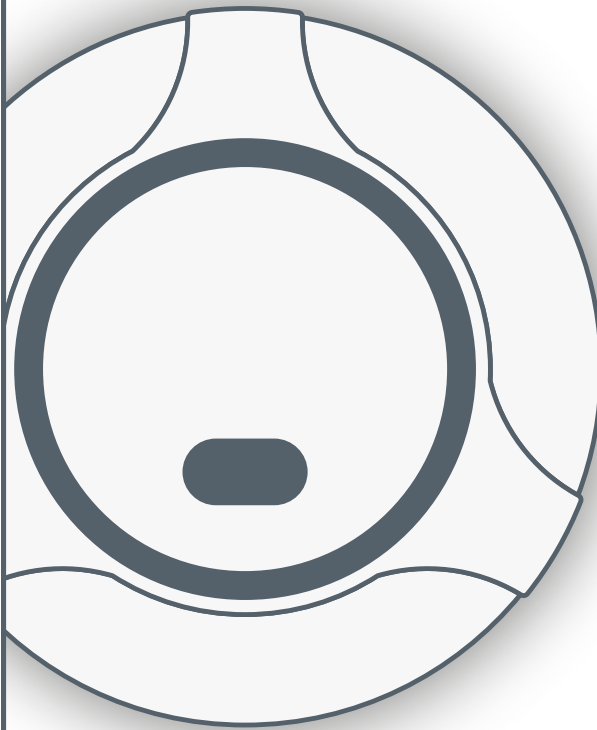
Buzzer:

- Enable

Device Dimension

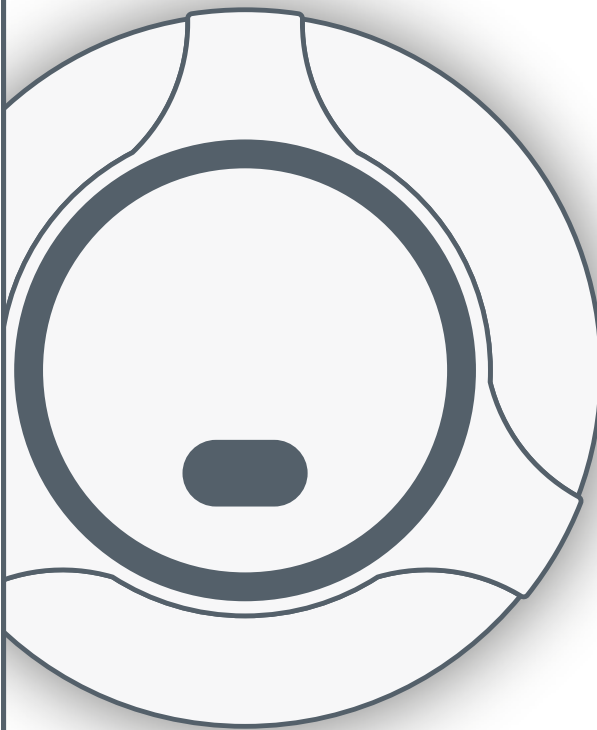


Wire Designation



Red	+VDC
Black	GND
Yellow	AUX Out
Green	Reserved
Blue	G LED

AIR-B
(V3.0 Five Wire)



Red	+VDC
Black	GND
Blue	AUX Out
Green	G LED

AIR-B
(V2.0 Four Wire)

Installation Recommendations

Placement and connection:

- Choose a location for the button that minimizes possible interference from nearby objects or surfaces.
- Do not place the button in locations where accidental actuation may occur, such as near moving objects or in high-traffic areas.
- Do not place the button in direct sunlight. Sunlight may cause false triggering.
- Ensure that the button is positioned at the optimum height for ease of use and detection sensitivity.

Wiring:

- Make all connections with the power off. If it is necessary to control devices with current consumption more than 0.2A @ 12 VDC, use a separate external relay.
- Connect the G LED wire to the reader as shown in the wiring diagrams to synchronize the reader indication with the button indication.

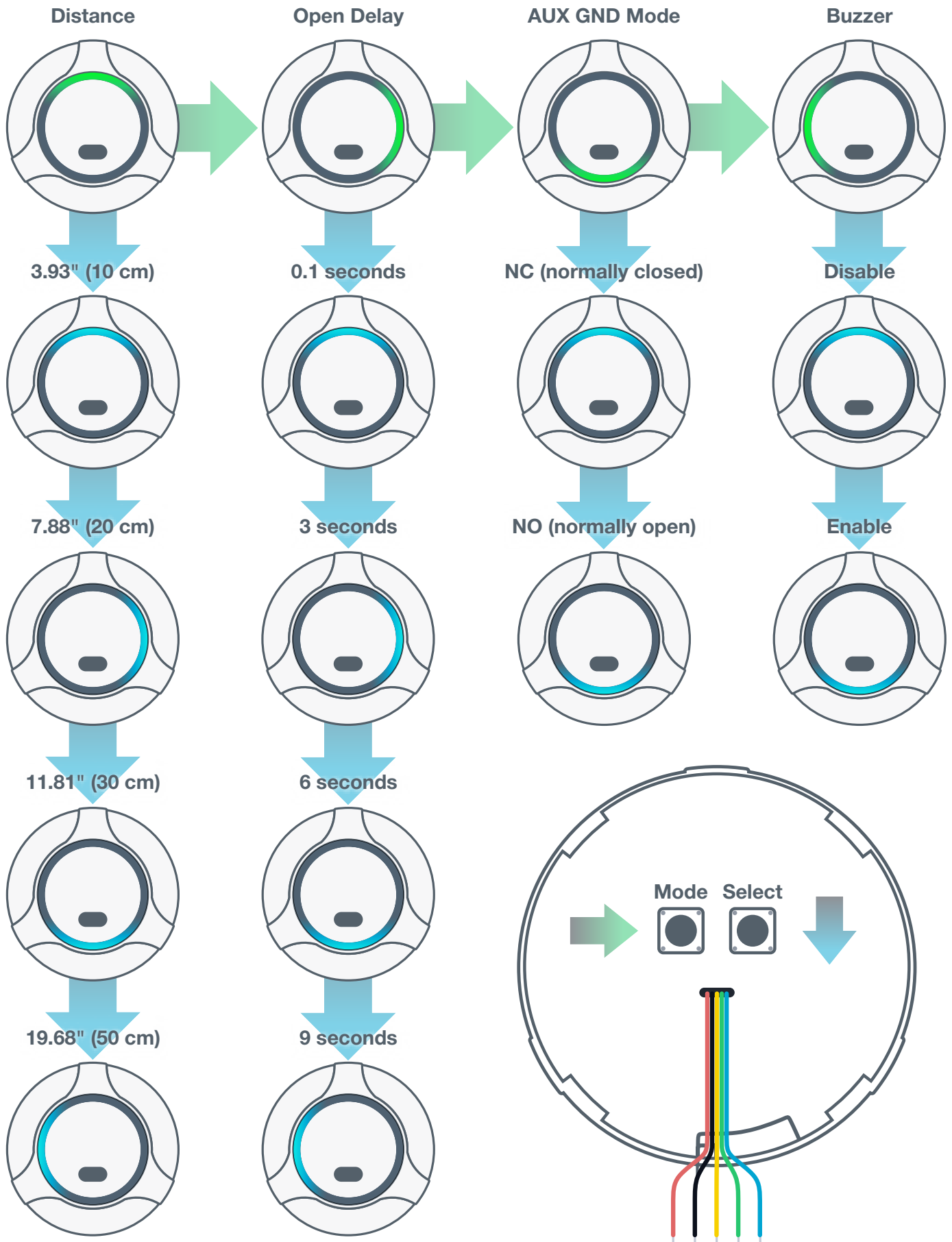
Functionality and setup:

- Before connecting the electric lock, configure parameters such as control output activity duration and initial state (NO/NC).
- When setting sensitivity, determine the balance between button sensitivity and false alarm prevention. Increasing sensitivity may increase the probability of triggering under undesirable conditions, while decreasing sensitivity may result in incomplete response to desired influences.

Precautions and maintenance:

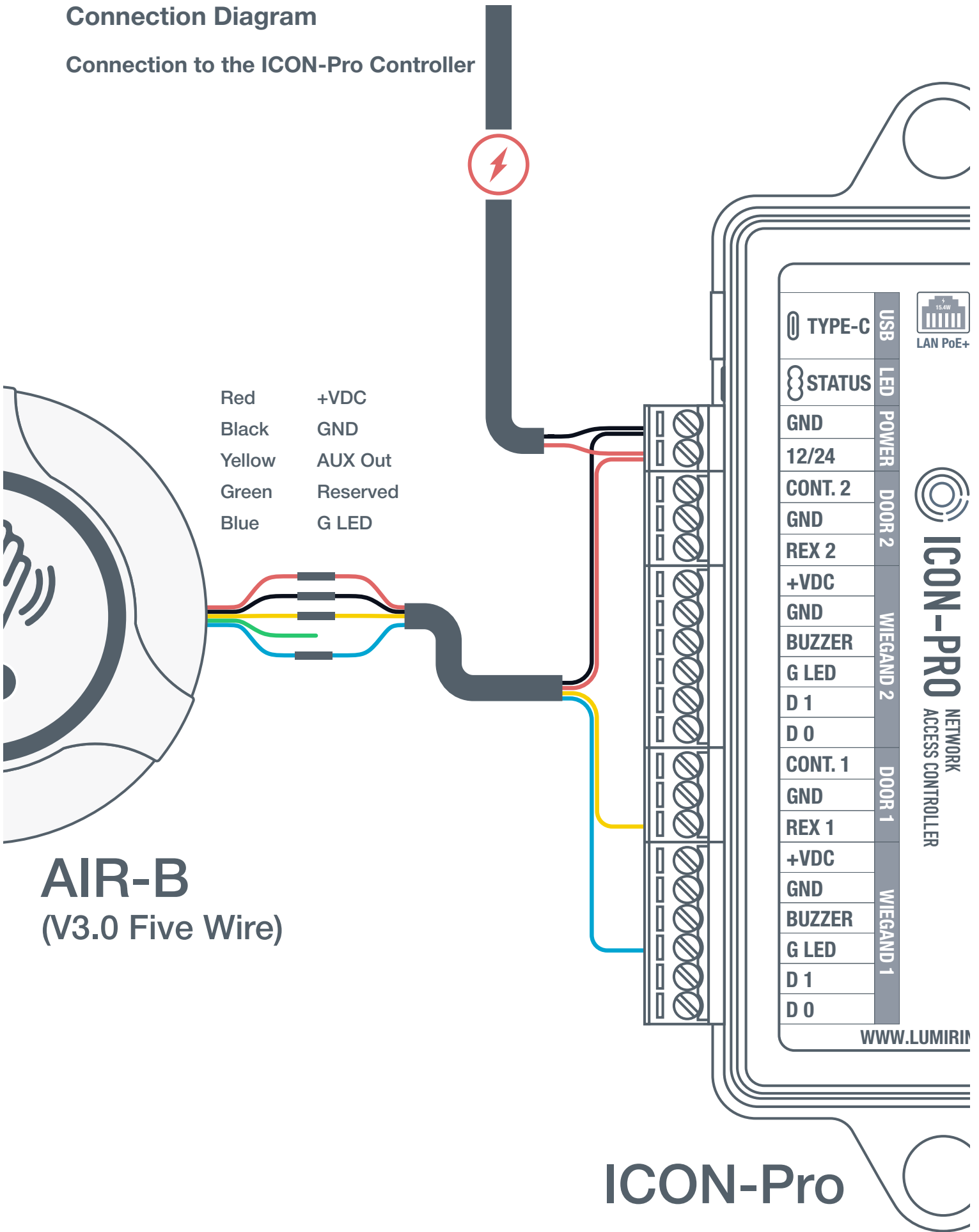
- The unit requires no special maintenance if the installation instructions are followed.
- If the laser sensor is dirty or an obstacle is detected, the unit will activate a light and sound an alarm.
- In case of contamination, gently clean the surface of the button, first with a damp cloth and then with a dry cloth.

Structure of the Setup Menu



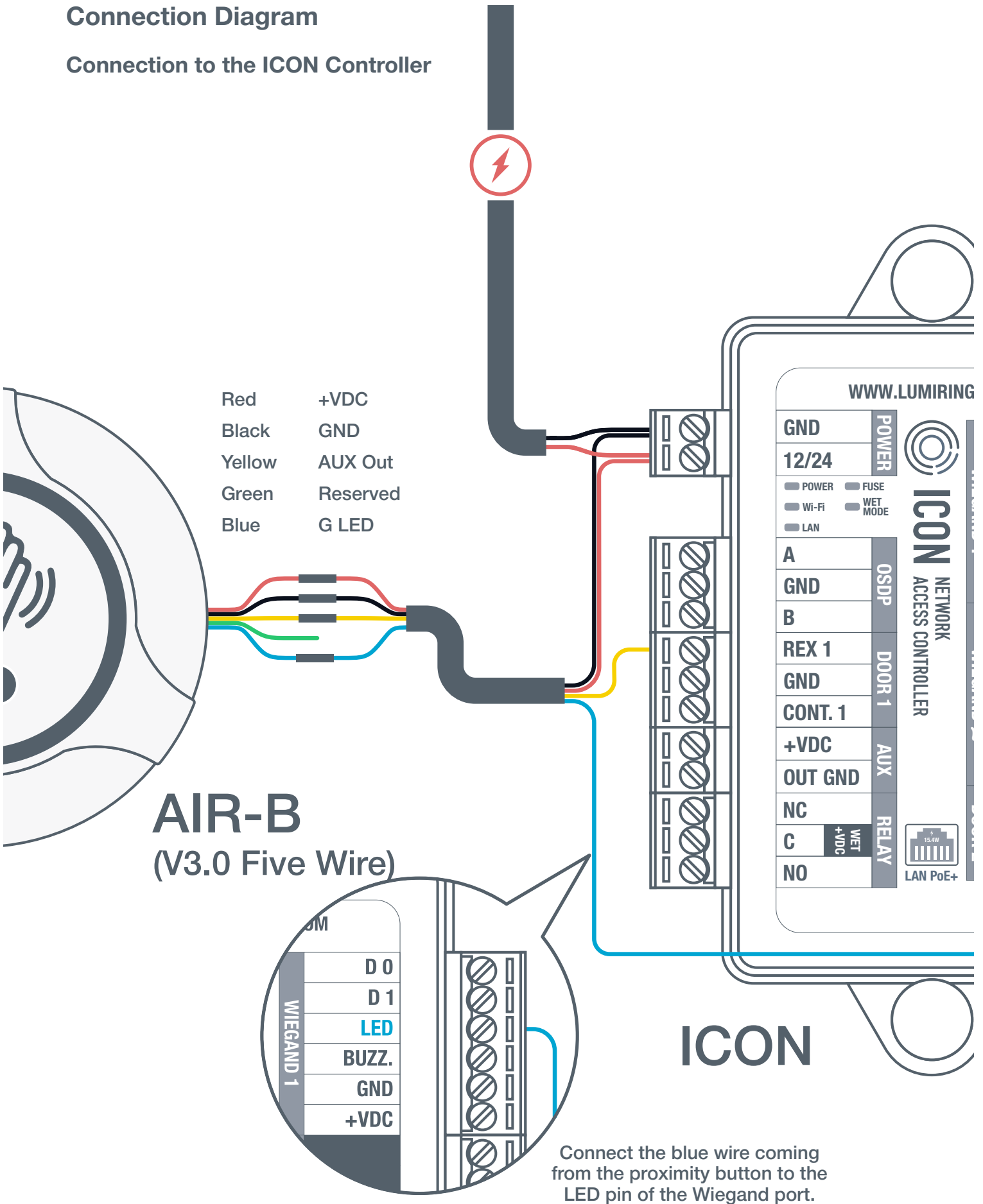
Connection Diagram

Connection to the ICON-Pro Controller



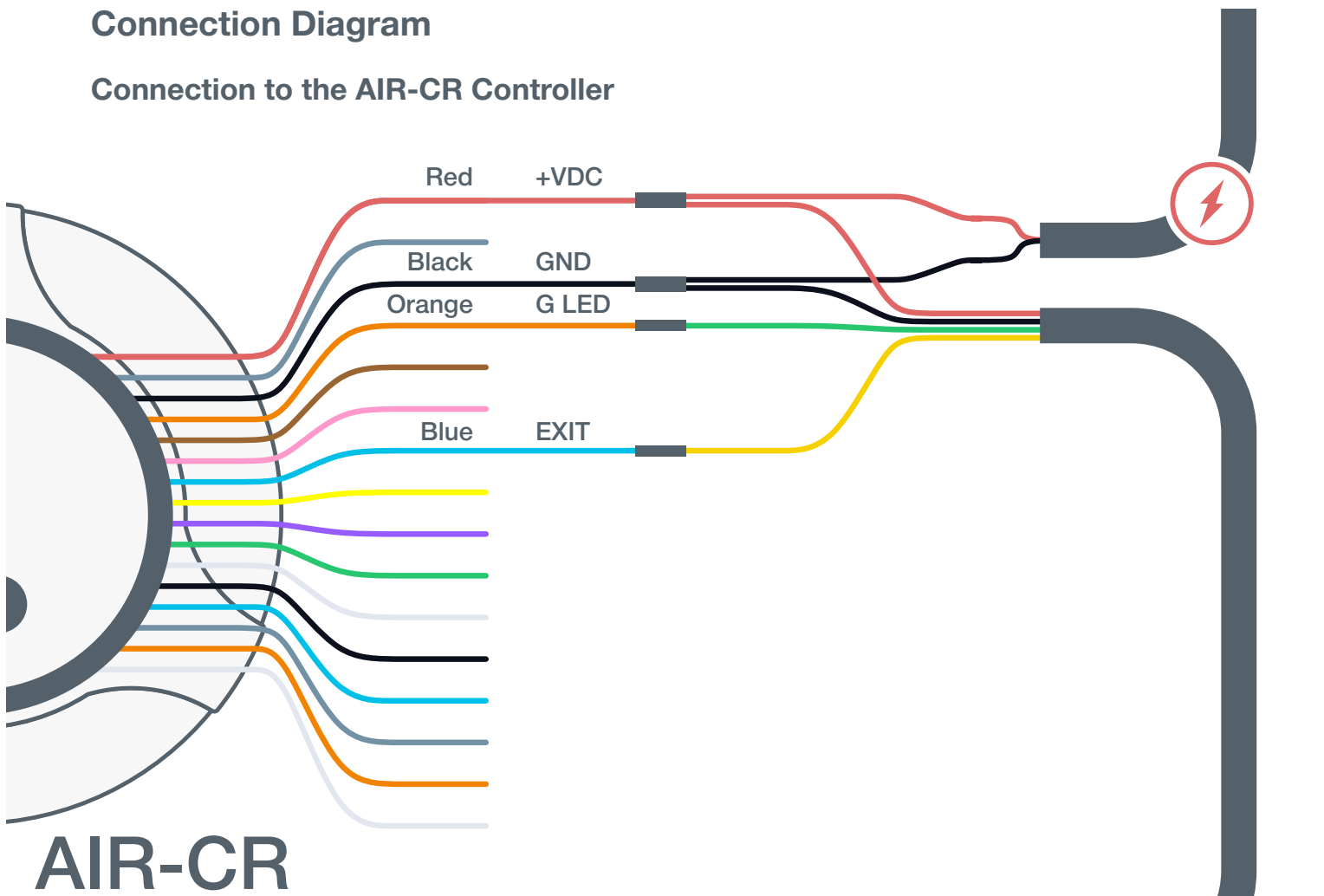
Connection Diagram

Connection to the ICON Controller

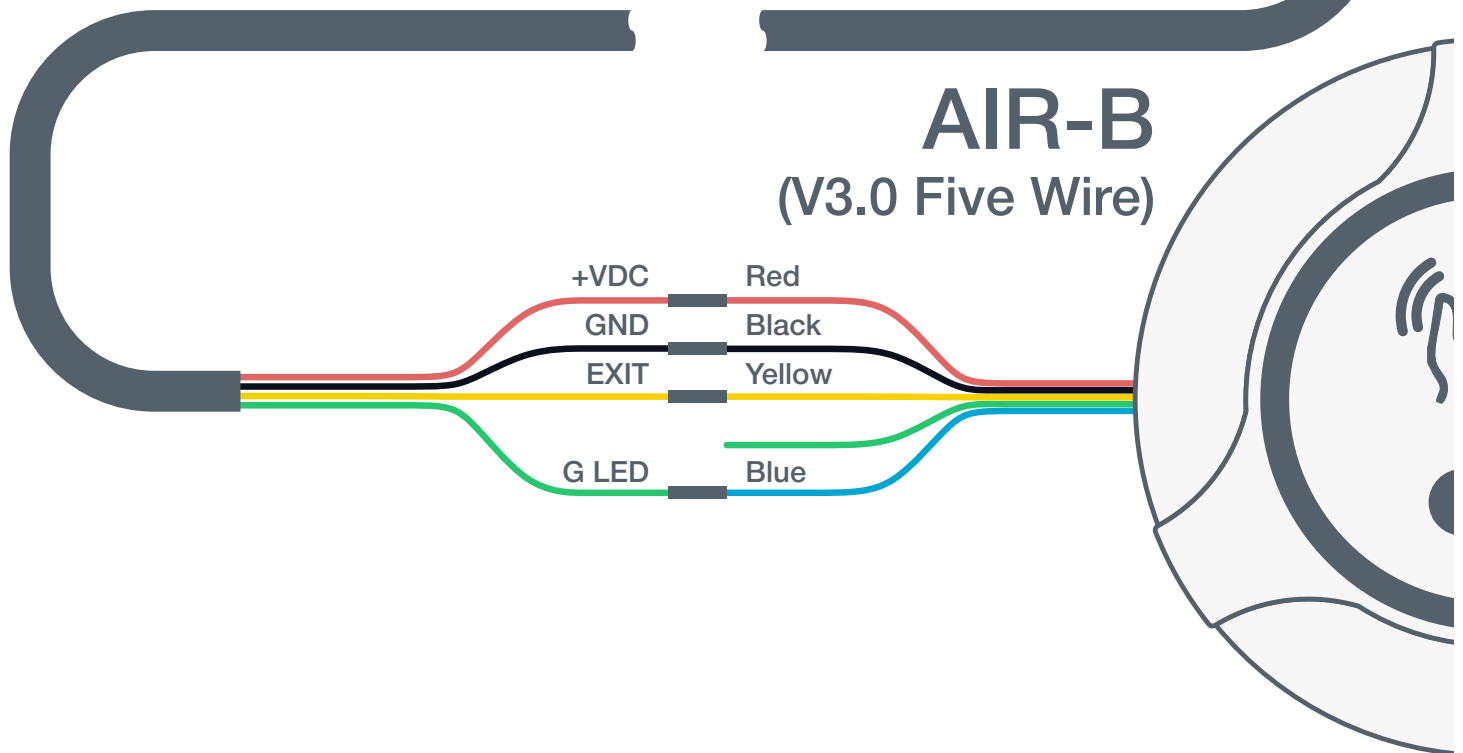


Connection Diagram

Connection to the AIR-CR Controller



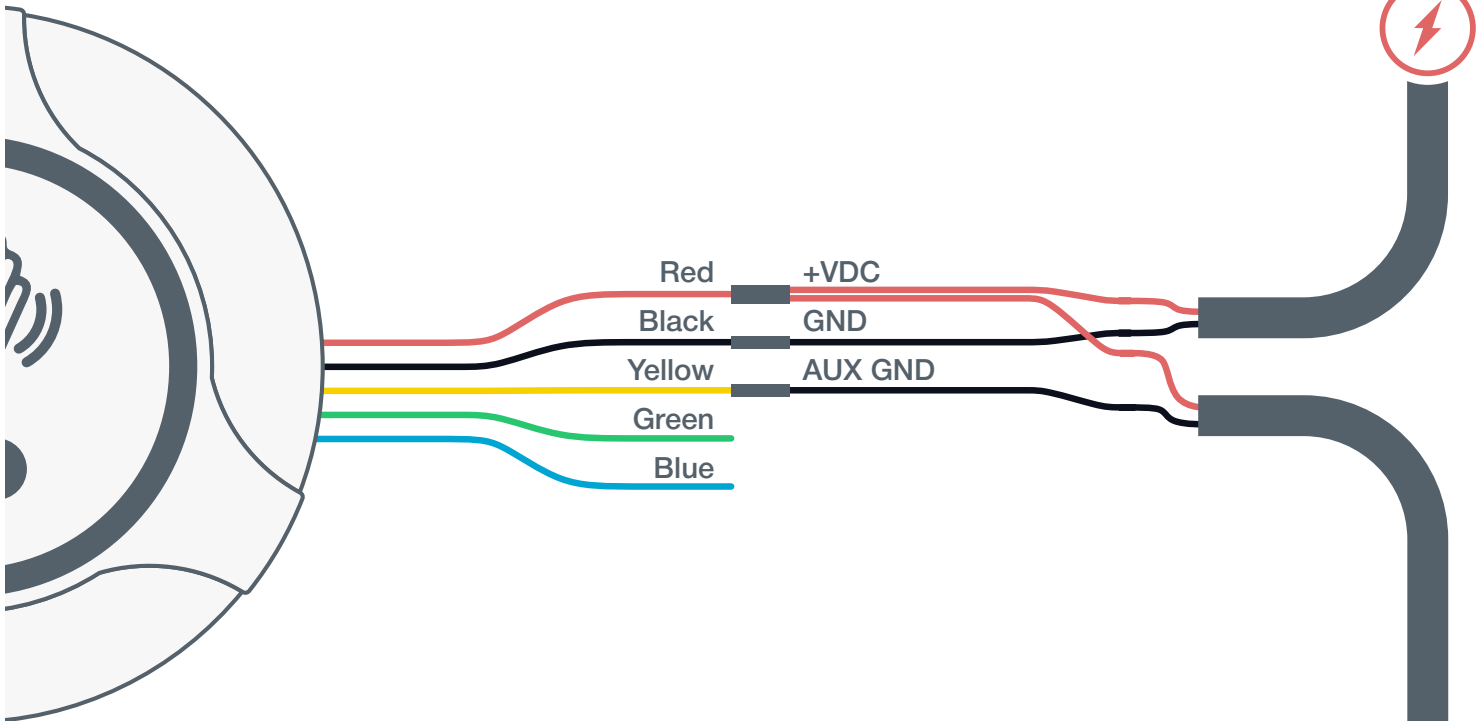
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- The wire colors of the cable connecting the controller to the proximity button may vary in reality, and are given as an example.

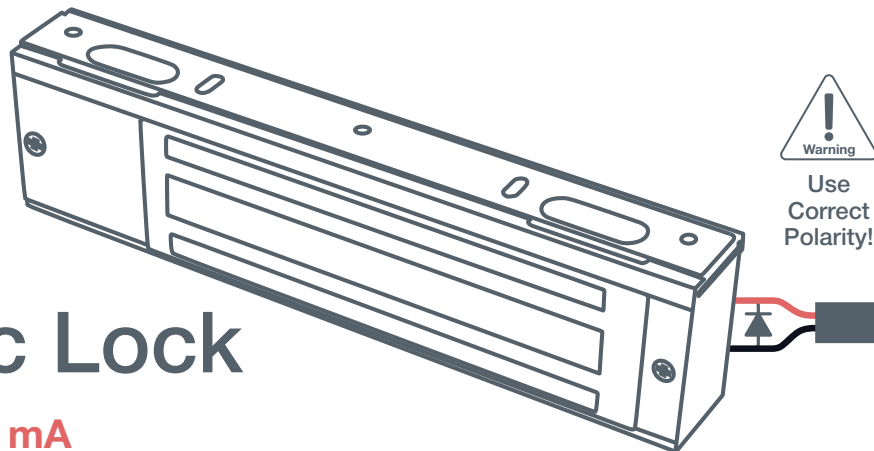
Connection Diagram

Connection to the Magnetic Lock



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- Specify the NC (normaly close) type in the AUX GND mode settings to control the magnetic lock.
- Specify the NO (normaly open) type in the AUX GND mode settings to control the electric latch.

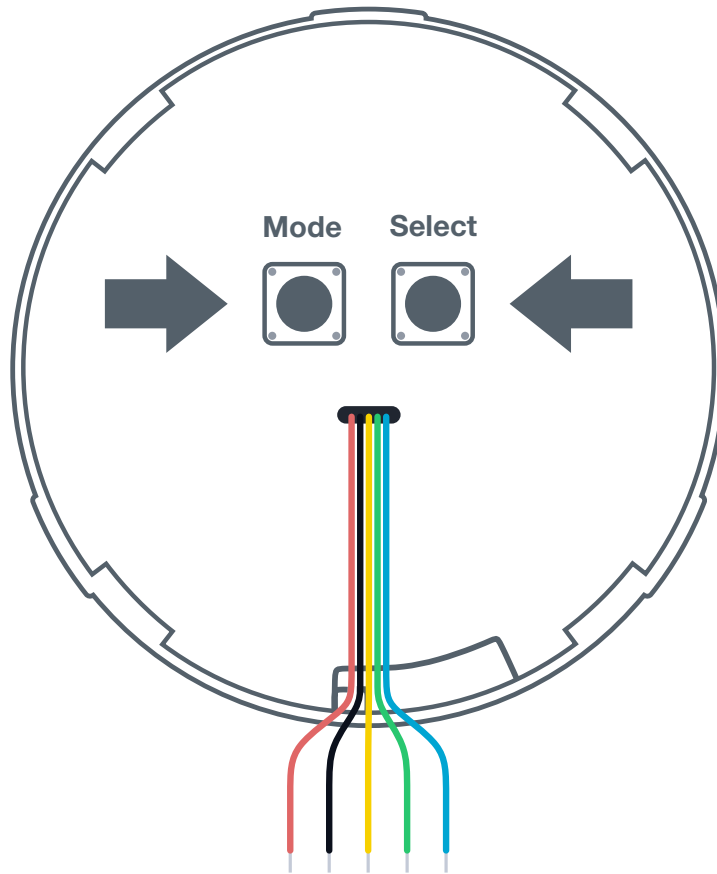


Magnetic Lock

MAX 200 mA

- A protective diode is used to protect the devcie from reverse currents when an electromagnetic or electromechanical lock is triggered.
- The protective diode is connected in parallel with the contacts of the lock.
- **THE DIODE IS CONNECTED IN REVERSE POLARITY.**
- The diode must be installed directly on the contacts of the lock. Suitable diodes include SR5100, SF18, SF56, HER307, and similar.
- Instead of diodes, varistors 5D330K, 7D330K, 10D470K, or 10D390K can be used, for which there is no need to observe polarity.

Hardware Reset



Hardware reset

1. Make sure that the device is connected to a power source.
2. Press and hold the "Mode" and "Select" buttons simultaneously.
3. Wait for the device to emit one short beep and a long beep for 5 seconds.
4. Release the buttons immediately after the beep ends.
5. Disconnect the unit from the power source and reconnect it.
6. The hardware reset is complete. The device is ready for operation.

For Notes