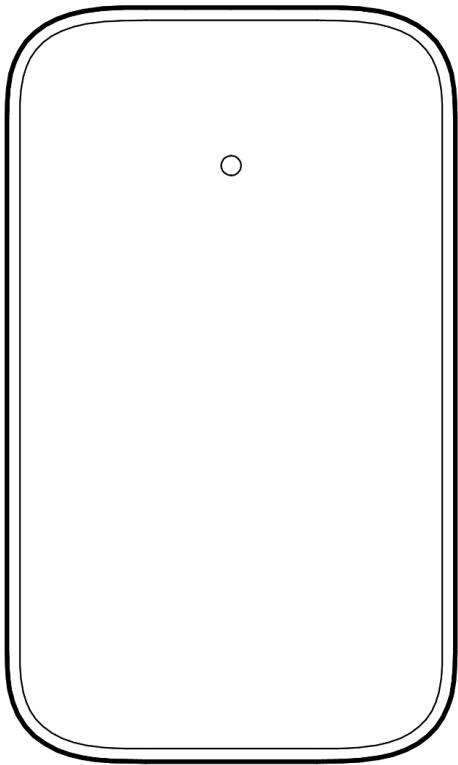


ACC-IOX-RELAY Security Relay



Document Details

Version

v1.1 (20260420)

(V1.0 published 20260417)

Firmware

Firmware version can be verified on Verkada Command
command.verkada.com.

Product Models

This install guide pertains to model ACC-IOX-RELAY.

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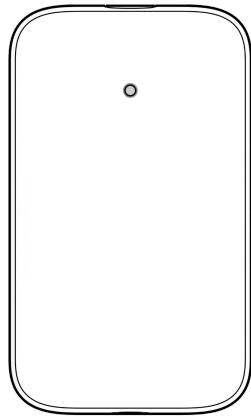
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What's in the Box



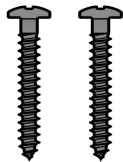
Security Relay



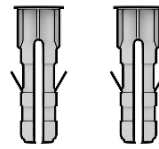
Mount Plate



**T10 Torx
Security L-Key**



**M3.5 Wood Screws
(2 pcs)**



**Wall Anchors
(2 pcs)**



**Zip Tie for
strain relief**

What you'll need

- A smartphone or laptop
- #2 Phillips head and power drill (if using mount plate)
- 1/4 inch (6.5mm) drill bit for wall anchor pilot holes (if using mount plate)
- 1/8 inch (3.2mm) drill bit for wood screw pilot holes (if using mount plate)

Placement

Place the product on a wall or in a junction box.

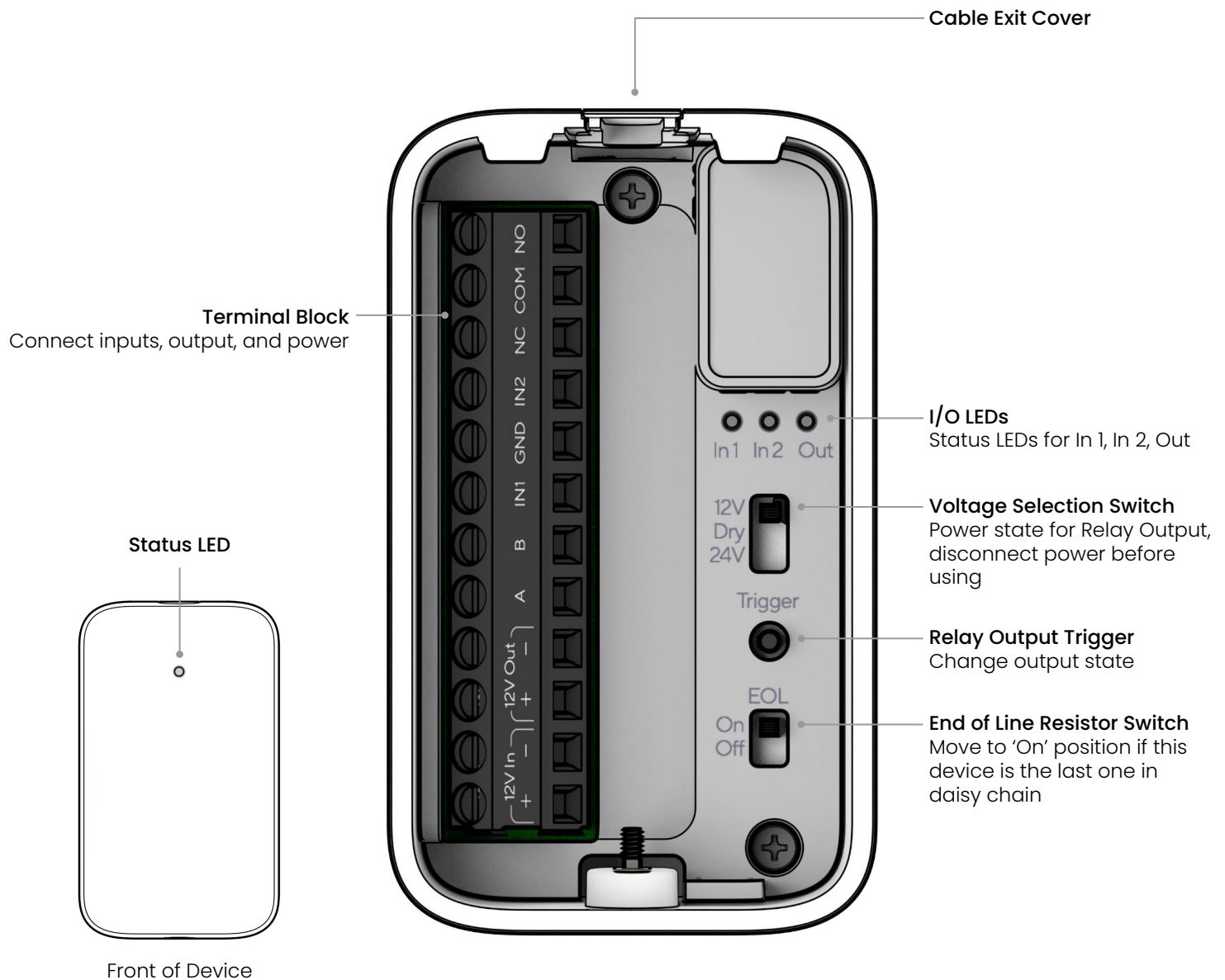
Connect

For easy registration and setup, scan the QR code on the product.

If you prefer to manually register your product, please proceed to:

verkada.com/start

Overview



Status LED Behaviors

- **Solid Blue**
On & connected RS-485
- **Flashing Blue**
On & disconnected RS-485
- **Flashing Orange**
Updating firmware

I/O LED Behaviors

- ○ ○ In 1 triggered
- ● ○ In 2 triggered
- ○ ● Relay output triggered

Wiring

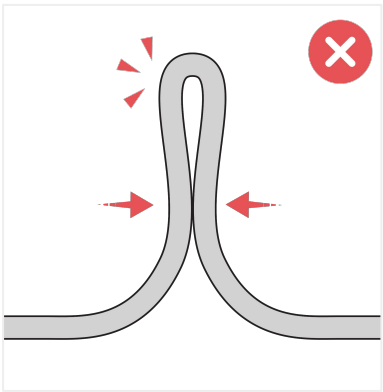
Terminal Block

12V In + -		12V Out + -		A	B	IN1	GND	IN2	NC	COM	NO
Wall Adapter		REX and External Reader Power		Intercom or Access Station		REX and DPI Contacts			Door Lock or Door Control Signal		

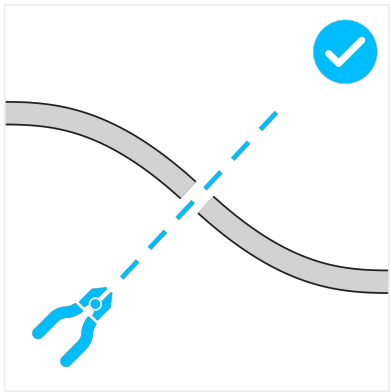
Recommended use: One twisted pair for GND and VIN (power) & one twisted pair for the data (D0/D1 or A/B). Wiring methods shall be in accordance with National Electrical Code, ANSI/NFPA 70.

Excess Wire Trimming

Avoid pinching cables during install as that may affect performance. If excess cables, trim to reduce slack.



Avoid pinching the cable



Trim excess cable



Technical Specifications

Power Input	20W maximum input
Voltage Input	12 VDC Input
IOs	2x REX/DPI Dry Inputs 1x RS-485 In/Out 1x 12V Out @ 0.5A 1x wet relay for door with switch-selectable power: • 12VDC operation @ 0.75A maximum • 24VDC operation @ 0.5A maximum • Dry operation, max pass-through current 1A @ 30VDC
Dimensions	47.4 x 79.8 x 30.9 mm (1.87 x 3.14 x 1.22 in)
Weight	84.1 g (0.19 lb)
Tamper Detection	Yes
Operating Temperature	-10 °C–50°C, 5–85% relative humidity
Compliance	FCC Part 15B Class B, ICES-003 Class B, CE, UKCA, VCCI, RCM, IK07, Indoor Use Only, to be used in controlled, protected, and/or restricted access areas. Installation and operation of the electronic access control system (EACS) shall not prevent the functionality of the emergency exit functions.
Mounting Options	Wall, ceiling, or junction box
Included Accessories	T10 security Torx hex key, mounting hardware kit, strain relief zip tie

Installation

Placement Options

Note: Install the Security Relay on the *secure side* of the door to avoid tampering and compromised security of this device.

The Security Relay can be mounted on a wall, with the Mount Plate, or placed inside a junction box.



Mounting on wall



Placing inside a junction box

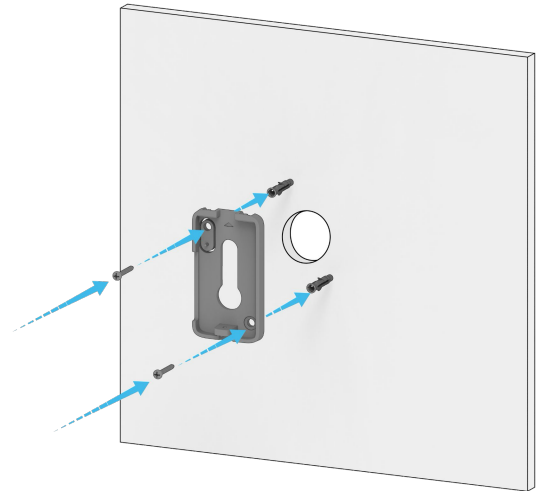
Mounting

Mounting to Wall

Cable routing options: The cable can be passed through the wall or the cable exit.

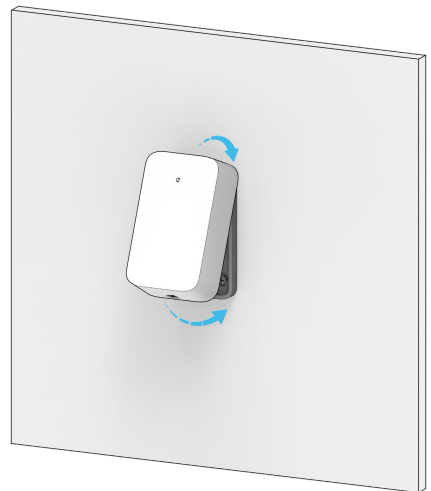
Use the Mount Plate as a template to mark holes for mounting and cable pass-through, if needed.

Secure the Mount Plate using the screws and wall anchors.

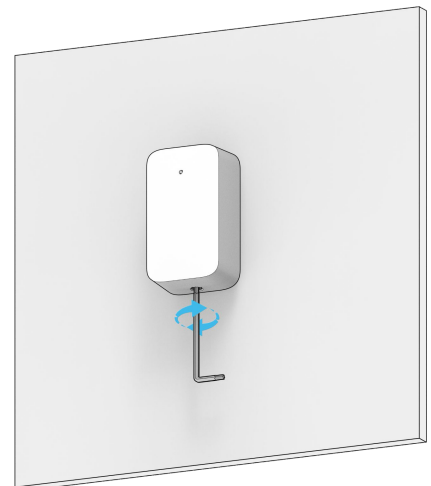


Refer to the *Wiring Instruction* section of this document.

After completing the wiring, engage the hook and swing the device toward the mount plate.



Tighten the security screw to lock the Security Relay in place.



Mounting

Placing inside a junction box

Pass the wire through the junction box conduit hole.

Refer to the *Wiring Instruction* section of this document.



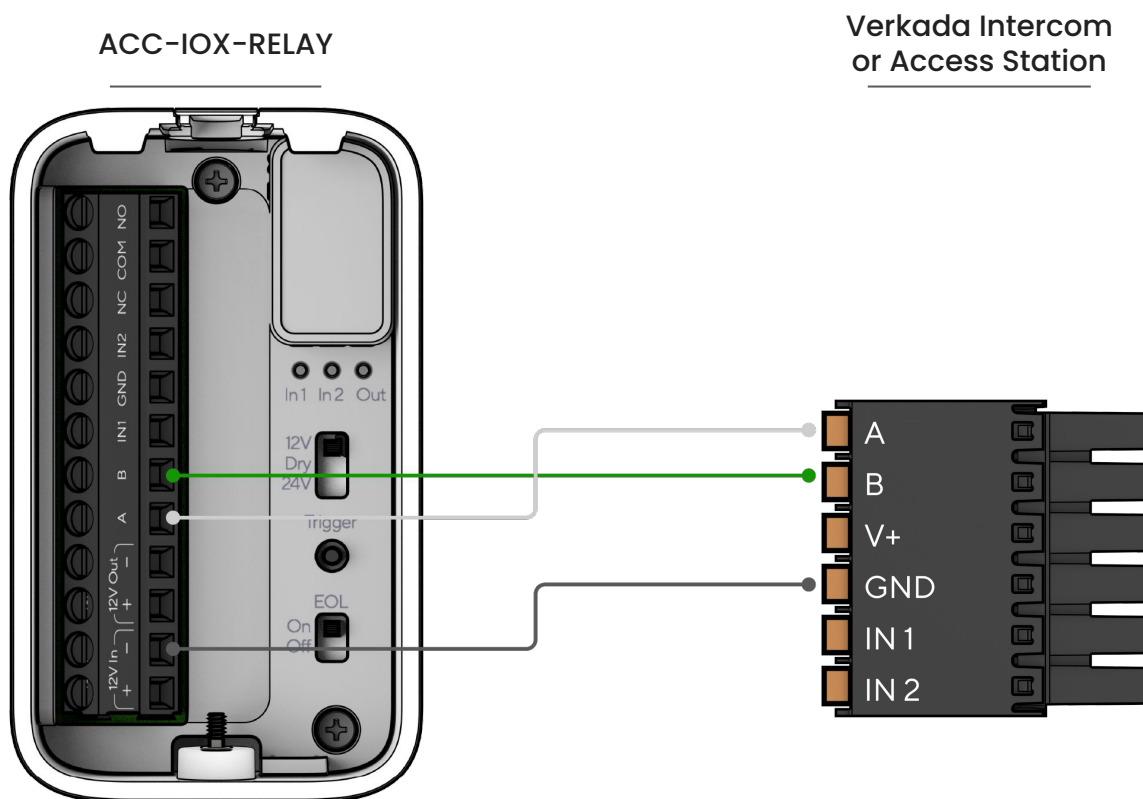
Wiring Instruction

Connect Power

Use ACC-WA-30W/12V or another 30W 12V DC power supply. For UL294 installations, you will need a UL294 Listed 12VDC external power supply.

Connect Intercom or Access Station

ACC-IOX-RELAY is designed to communicate with a Verkada Intercom or Access Station over the RS-485 connection.



Note: Cables are recommended to be shielded.

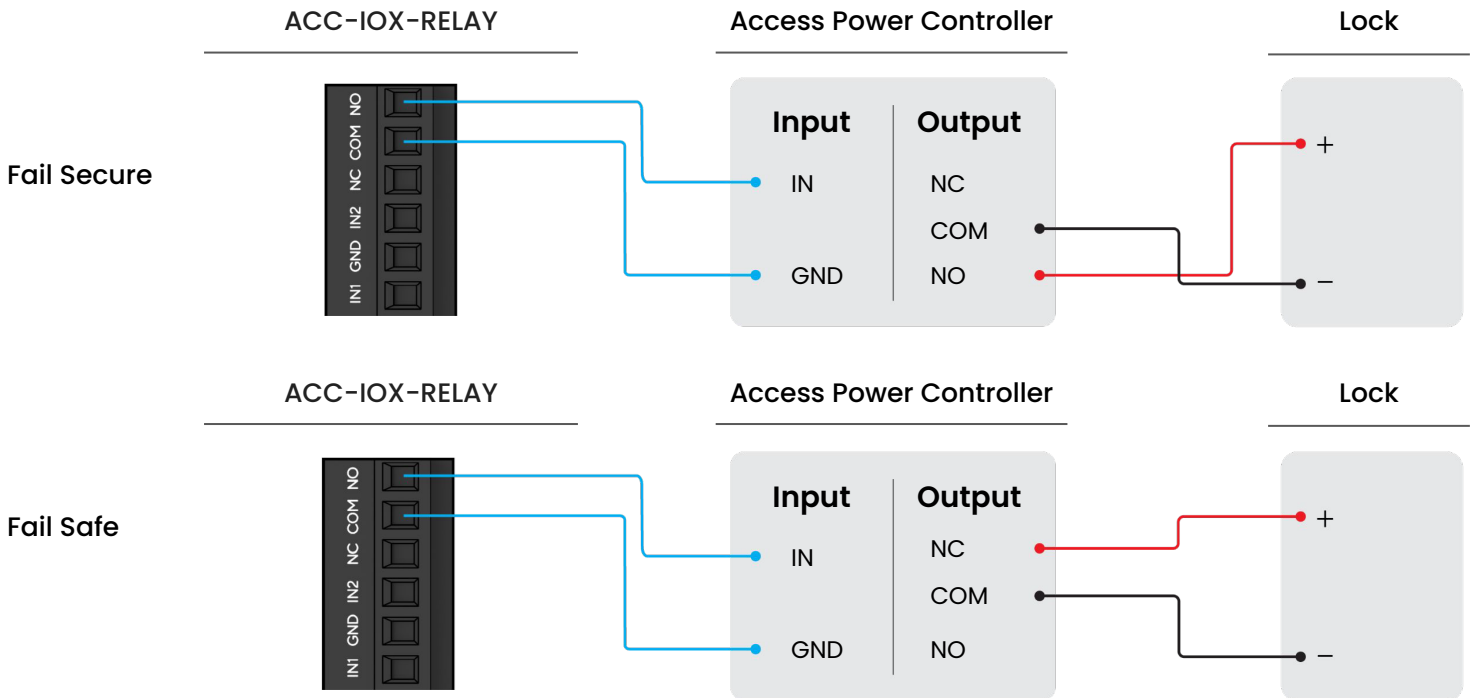
WHITE = A

GREEN = B

Wiring Instruction

Connect the Lock (Dry)

When using an external power supply which accepts a dry contact, ensure that “Dry” is selected on the door power selection switch.



Connect the Lock (Wet)

In a Wet configuration, ensure that power selection switch is set to the correct voltage as outlined by the locking hardware specifications.

- Set it to “12VDC” for 12 volt locking hardware
- Set it to “24VDC” for 24 volt locking hardware

The ACC-IOX-RELAY is rated to power:

12V locks up to 700mA and 24V locks up to 320mA.

Warning



When connecting the lock in the Wet configuration, ensure the negative of the lock goes into the COM port as shown in the diagrams below.

Fail Secure

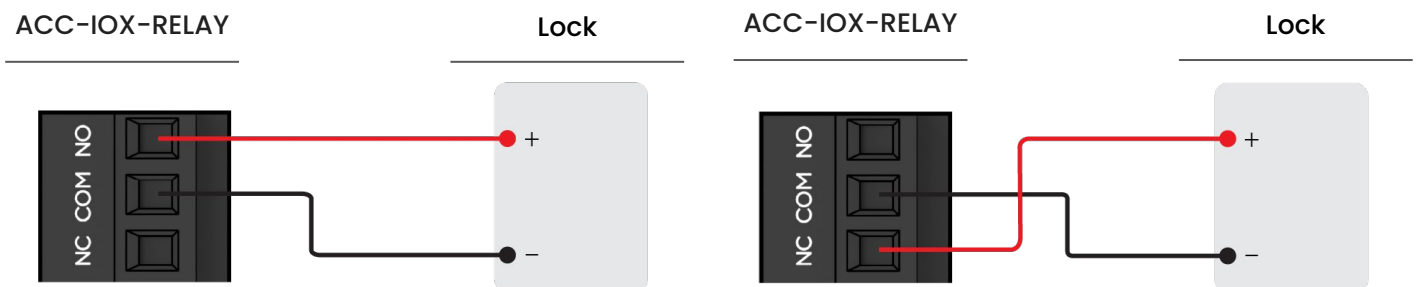
LOCK (+) positive goes into NO

LOCK (-) negative and ground wire goes into COM

Fail Safe

LOCK (+) positive goes into NC

LOCK (-) negative and ground wire goes into COM

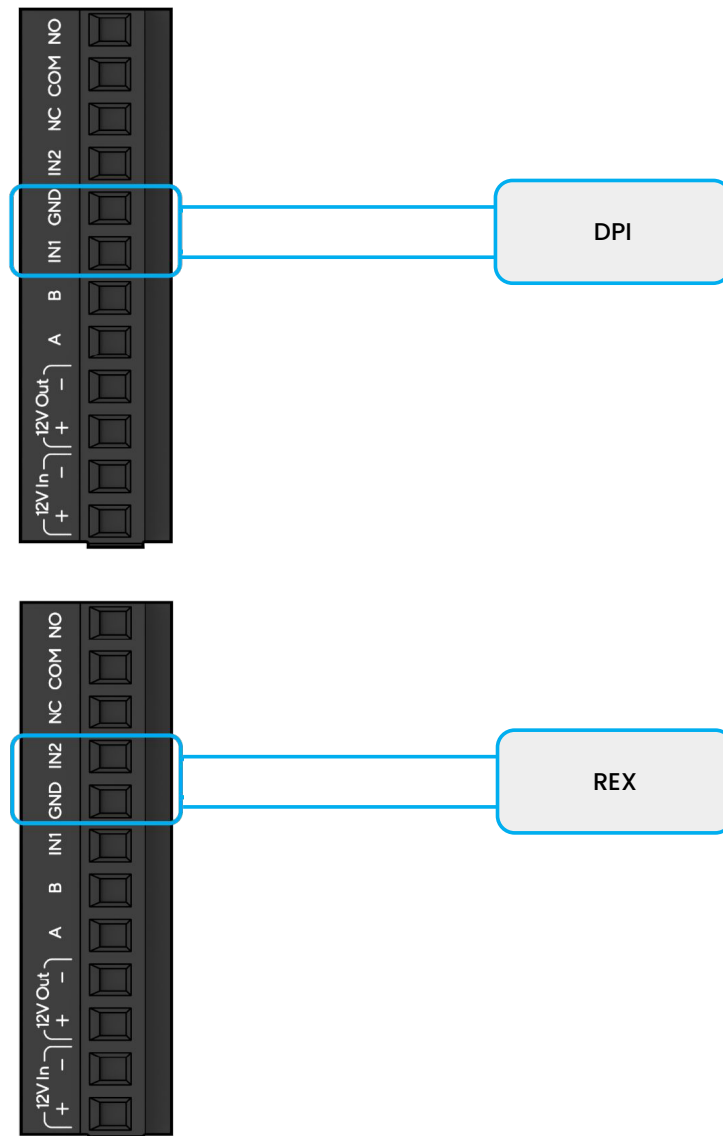


Wiring Instruction

Connect the Inputs

Both the Door Position Indicator (DPI) and the Request-to-Exit (REX) inputs are dry contacts. Installing these inputs is optional. They can be configured in Verkada Command.

ACC-IOX-RELAY



The REX can be configured in Verkada Command to release the lock; this is most commonly seen in electromagnetic locks. The REX unlock time and normal state can be configured.

Important

When configuring the Intercom or Access Station as a single door controller, the DPI should be connected to IN 1, while the REX should be connected to IN 2.

Appendix

Compliance

FCC Compliance	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. NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
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Appendix

Support

Thank you for purchasing this Verkada product. If for any reason you're experiencing issues or need assistance, please contact our 24/7 Technical Support Team immediately.

Sincerely,
The Verkada Team
verkada.com/support

