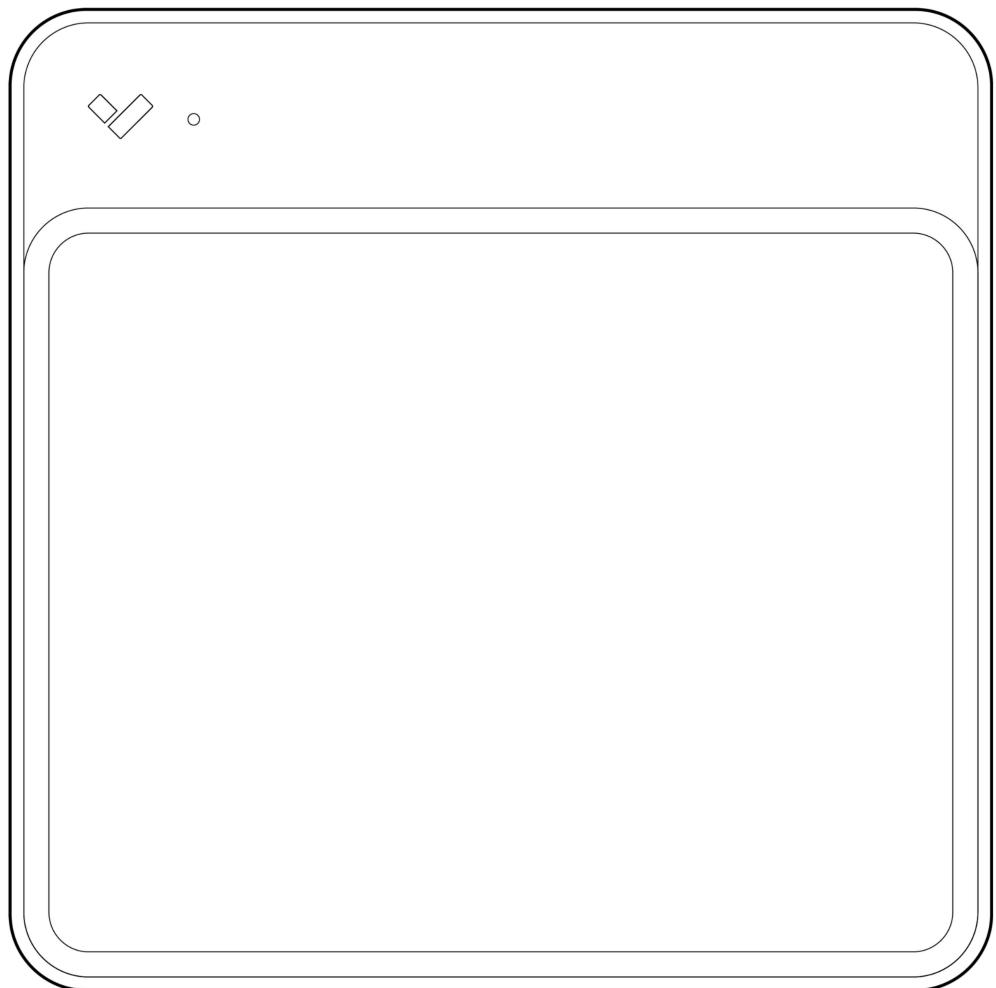


BE32 8-Zone Alarm Expander



Document Details

Version

V1.0 [EDIT]
(V1.0 published [EDIT])

Firmware

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

Product Models

This install guide pertains to model BE32-HW

Caution



Installation and/or maintenance of this product shall be performed by trained professionals only.

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Introduction

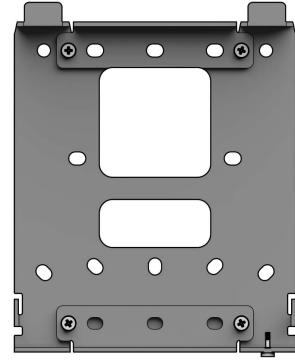
What's in the box



Top Cover



Alarm Expander



Mount Plate



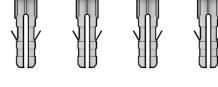
#6-32 Machine Screws (4 pcs)

Length: 25.4mm Drive: #2 Phillips



M4 Wall Screws (4 pcs)

Length: 25mm Drive: #2 Phillips

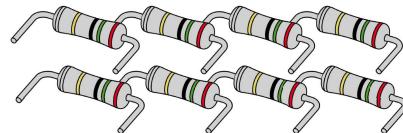


Wall Anchors (4 pcs)

Length: 25mm Drive: NO



T10 Security Torx Screwdriver



1k Ω EOL Resistors (8 pcs)

What you'll need

- A working internet connection
- A smartphone or laptop
- A #2 Phillips screwdriver or power drill with a #2 Phillips driver bit
- 1/4 inch (6.5mm) drill bit for wall anchors
- 1/8 inch (3mm) drill bit for pilot holes
- Flathead screwdriver

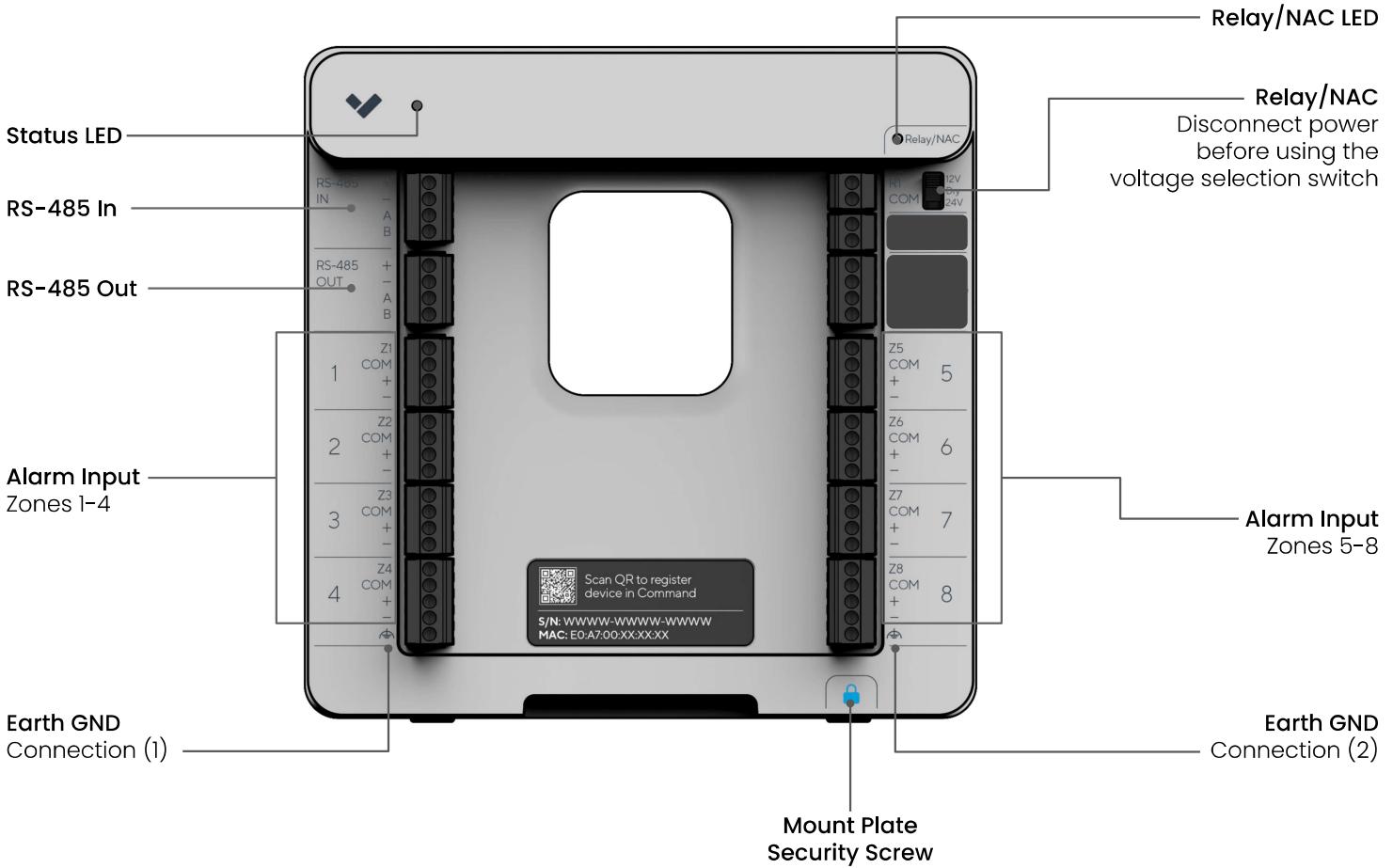
Connect

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

Introduction

Overview 1/2



Status LED Behavior

Solid Orange

- Expander is on and booting up.

Flashing Orange

- Expander is updating firmware.

Solid Blue

- Expander is running and online.

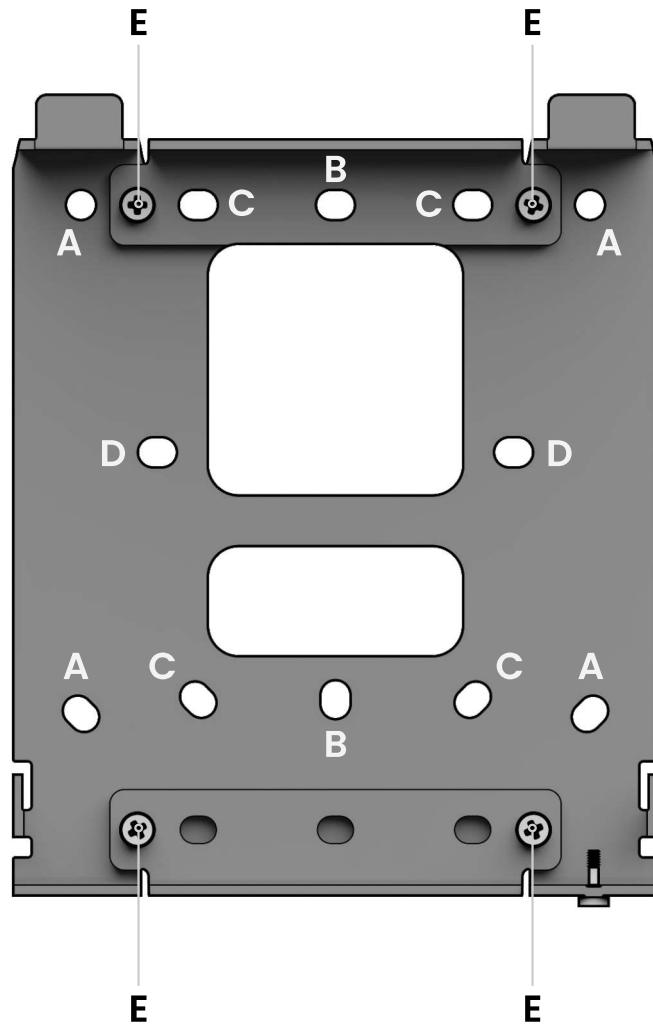
Flashing Blue

- Expander is running and offline.

Relay/NAC LED Behavior

Solid White

- Relay in triggered state



Mount plate details

A Wall/Square Junction Box (4 inches / 101.6 mm)

B Single Gang Junction Box

C Double Gang Junction Box

D European Junction Box

E Cable exit cover screws

Introduction

Technical Specifications

Power	45W maximum input 35W maximum output Note: See Output Specifications Table for load limits.
Input Voltage	10 – 36VDC Input
Alarm Inputs & Aux Power	8x alarm inputs with 8x 12VDC power connections. Compatible with variable EOL resistors (1kΩ – 4.7kΩ),
Relay Output	1x relay for siren/strobe with switch-selectable voltage & optional dry config: <ul style="list-style-type: none">• 12VDC operation (wet operation)• 24VDC operation (wet operation)• Dry operation, max pass-through current 1A @ 24VDC
RS485 Output	1x RS485 output with 1x 36VDC connection. Up to 1 Mbaud.
Connectivity	1x RS485 input. VLink sub-GHz transceiver with internal Antenna: FCC: 915~915.7MHz, ISED: 915~915.7MHz, CE: 865.5~867.5MHz, AU: 916.8~918.2MHz
Tamper Detection	Yes
Dimensions	153.3mm (L) x 153.3mm (W) x 50.33mm (H) / 6.04in (L) x 6.04in (W) x 1.98in (H)
Weight	734g / 1.62lb
Operating Temp. & Humidity	0°C-50°C / 32°F-122°, 0-90% RH non-condensing
Included Accessories	T10 Security Torx screwdriver, mounting hardware kit
Mounting Options	Wall Mount Bracket
Compliance	FCC Part 15B Class A, ICES-003 Class A, CE, UKCA, RCM, UL/IEC 62368-1, CSA NO22.2 62368-1

Introduction

Output Specifications (12V Source Voltage)

Max Loading per Output Rail with 12V Source Voltage

- 12V (Aux + 12V Relay) = 1A
- 24V (Relay) = 750mA
- 36V (RS485) = 600mA

Max Output Power vs. Wire Run Length (to BE32) with 12V Source Voltage

Wire Run to BE32	22AWG	18AWG	16AWG
2m	7W	18W	21W
10m	7W	17W	21W
20m	6W	16W	21W
30m		10W	17W
40m		7W	12W
50m		6W	10W
60m			8W
70m			7W
80m			6W

Introduction

Output Specifications (24V Source Voltage)

Max Loading per Output Rail with 24V Source Voltage

- 12V (Aux + 12V Relay) = 1A
- 24V (Relay) = 1A
- 36V (RS485) = 1A

Max Output Power vs. Wire Run Length (to BE32) with 24V Source Voltage

Wire Run to BE32	22AWG	18AWG	16AWG
2m	17W	38W	38W
50m	14W	37W	38W
100m	8W	21W	34W
150m		14W	22W
200m		10W	17W
250m		8W	13W
300m		6W	11W
350m			9W
400m			8W
450m			7W

Introduction

Output Specifications (36V Source Voltage)

Max Loading per Output Rail with 36V Source Voltage

- 12V (Aux + 12V Relay) = 1A
- 24V (Relay) = 1A
- 36V (RS485) = 1A

Max Output Power vs. Wire Run Length (to BE32) with 36V Source Voltage

Wire Run to BE32	22AWG	18AWG	16AWG
2m	27W	38W	38W
50m	23W	38W	38W
100m	20W	38W	38W
150m	16W	38W	38W
200m	12W	32W	38W
250m	10W	25W	38W
300m	8W	21W	34W
400m		16W	25W
500m		12W	20W
600m		10W	17W
700m		9W	14W
800m		7W	12W
900m		6W	11W
1000m			10W

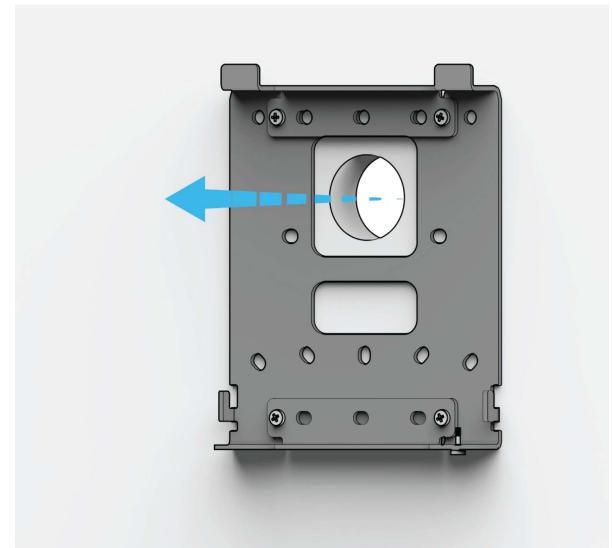
Installation

Cable Routing

Reference the mount plate details in the Overview section to mark the appropriate hole pattern on the mounting surface.

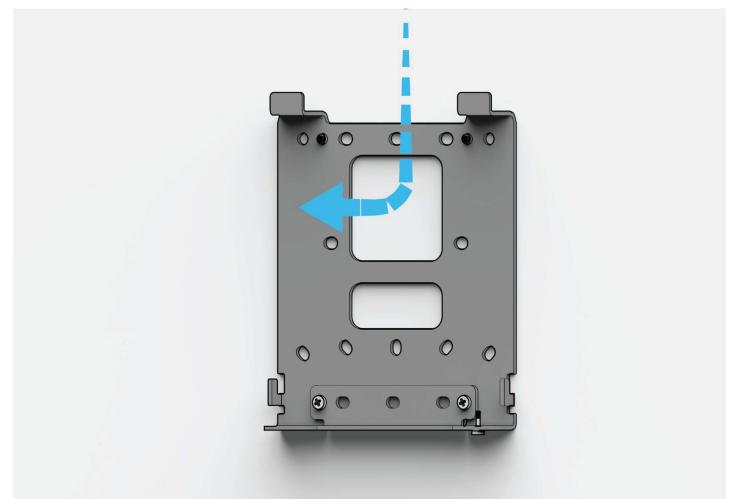
Use the wall anchors and screws to attach the mount plate onto the desired surface.

Cables can be routed through the surface, or along the surface. For routing along the surface, remove the corresponding cable exit cover(s) from the mount plate assembly.

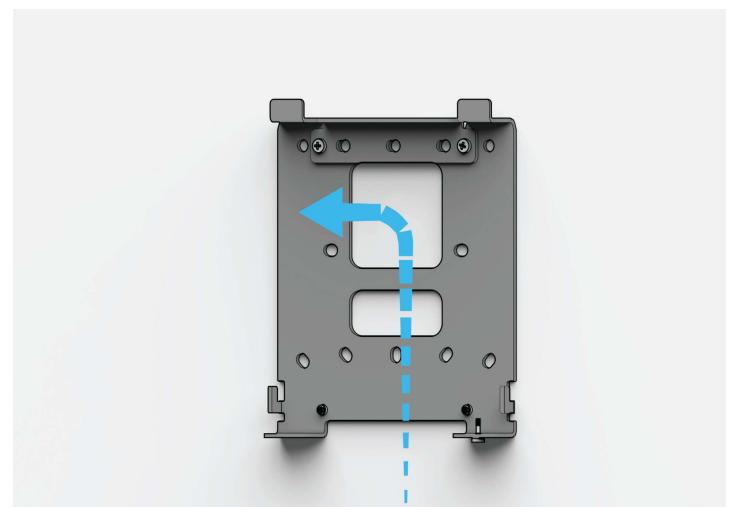


Cable routing through the surface.

Cable routing along surface



Remove the cable exit cover from the mount plate assembly to route the cable.

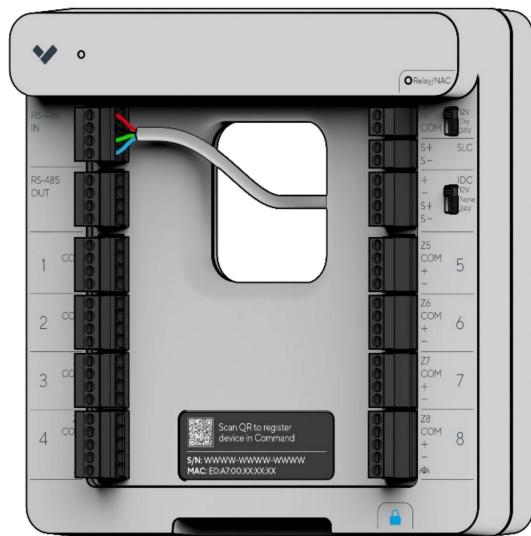


Installation

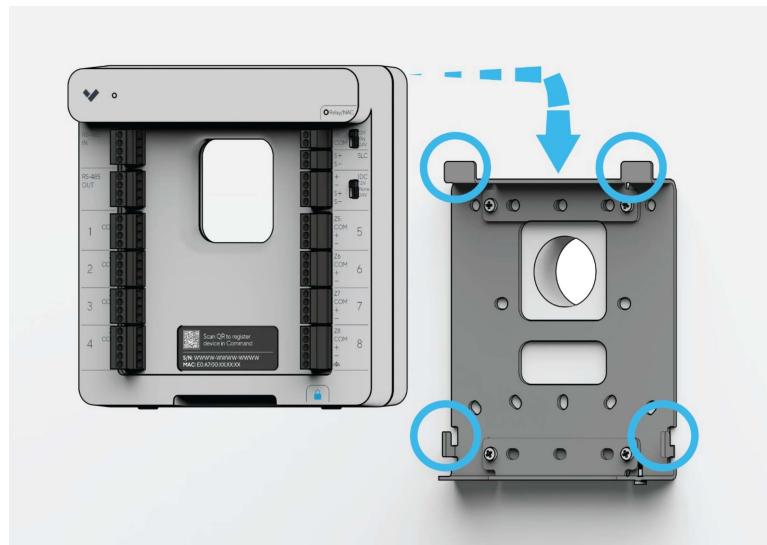
Mounting

Connect the power cable, and any other cables relevant to your installation, to the Alarm Expander.

Note: Only connect the power cable after all other setup and servicing is complete.



Engage the four hook features on the mount plate and slide the Alarm Expander down.



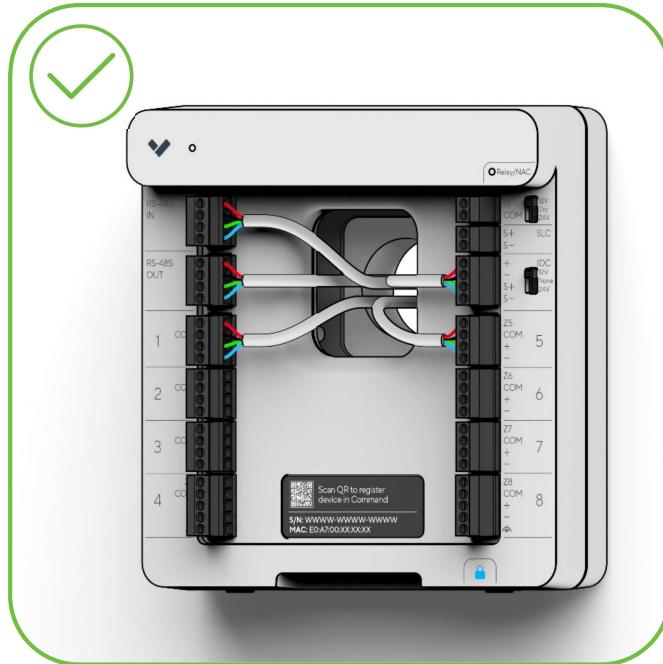
To secure, tighten the security screw using the provided T10 Security Torx screwdriver.



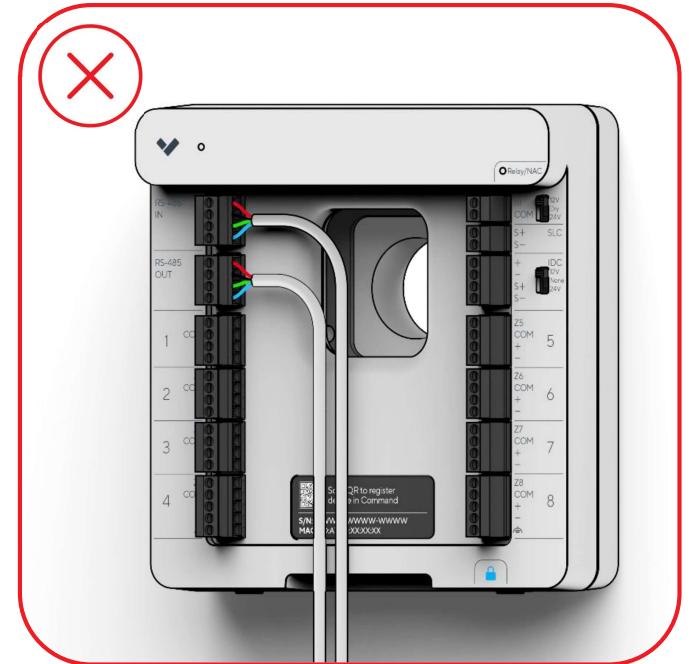
Installation

Wiring

Ensure that the wires are routed through the center opening to allow cover to attach.

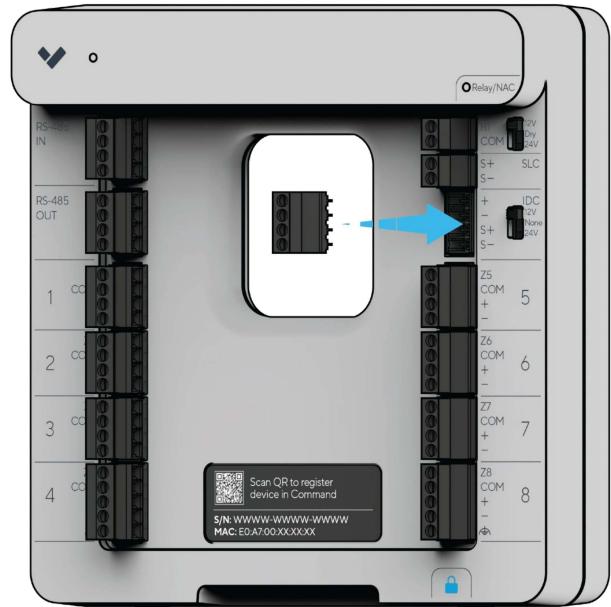


The cover will not be able to attach wires are routed on top of the Alarm Expander.



Detachable terminal blocks

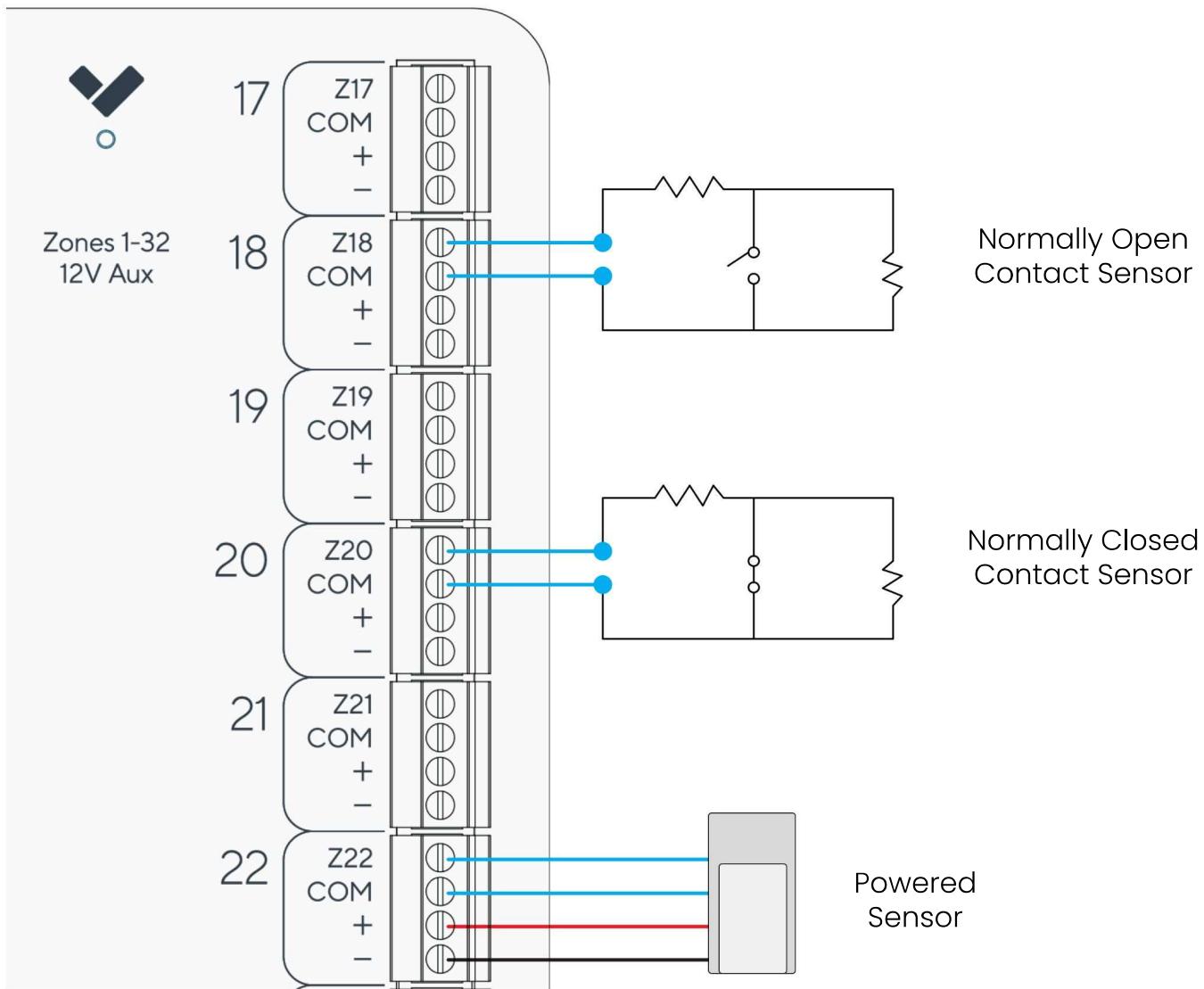
When wiring, terminal blocks can be detached from the device for ease of installation.



Wiring Diagram

Alarm Inputs (Zones 1- 8)

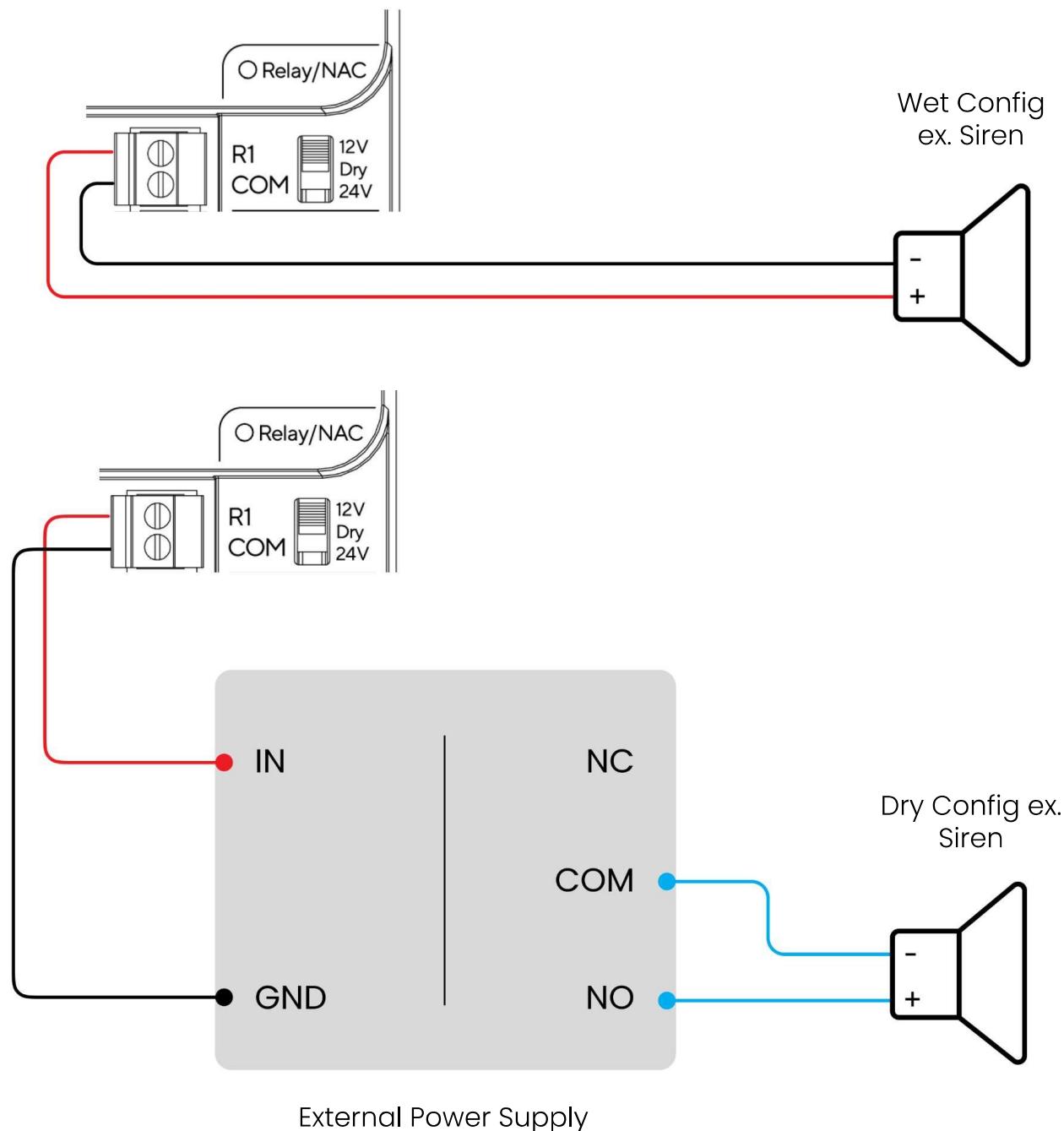
- Wire Gauge Range: 16 – 22 AWG
- Max Line Impedance: 100Ω (excluding EOL resistance)
- Supervision: Configurable via $1k\Omega$ – $4.7k\Omega$ EOL resistors
- Max Current Draw: See Output Specifications section
- Notes:
 - All Inputs can be configured in Command



Wiring Diagram

Relay Output

- Wire Gauge Range: 16 – 22 AWG wires
- Max current: See Output Specifications section
- Supervision with EOL resistors (1k Ω – 4.7k Ω)
- Notes:
 - Relay output can be configured in Command to trigger during a triggering event



Appendix

Compliance

FCC Statement

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Radiation Exposure Statement:

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.

IC Statement

This device complies with ISED's licence-exempt RSSs. 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.

Radiation Exposure Statement:

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

Le présent appareil est conforme aux CNR d' ISED applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes :

(1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Déclaration

d'exposition

aux

radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à plus de 20cm entre le radiateur et votre corps.

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