basIP

USER MANUAL

CE-44

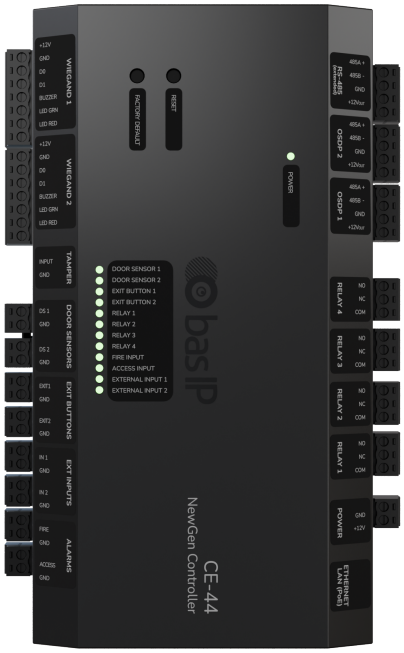


NEWGEN DOOR CONTROLLER

Main features

- **Power Supply:** 12V DC or PoE IEEE 802.3af.
- **Nominal Consumption:** 1.56–1.8W (0.13–0.15A)*.
- **Maximum Consumption:** ≤4.2W (≤0.35A)*.

* Values without connected readers, peripherals, or additional modules.



- **LAN:** Yes (8P8C, Ethernet with PoE support).
- **Wiegand Interfaces:** 2.
- **Supported Wiegand Bit Length:** 26–128; RAW (4–258 bits).
- **Supported Wiegand Keyboard:** 4; 6; 8 bit and Packet mode
- **OSDP Interfaces:** 2 (via RS485).

* Optimal card readers quantity per one OSDP line is 8 pcs.
Connection more than 8 readers per one line can lead to card reading delays in case of OSDP line damage.

- **Expansion Port:** RS485.
- **Built-in Relays:** 4 (NC, NO, COM), 10A max.
- **Signal Inputs:** 8.
- **External LED Outputs:** 12.
- **Tamper Input:** Yes.
- **Controller Dimensions:** 102 × 178 ×45 mm (without connectors).
  113 × 178 ×45 mm (with connectors).
- **Protection Class:** IP20.
- **Operating Conditions:** 0–60 °C, 20–76% RH.
- **Battery Type:** CR2032 for internal real-time clock.
- **Installation type:** TH35 DIN rail IEC/EN 60715, Din 35x7,5 mm.
- **Case material:** ABS-plastic, FR V2 fireproof level.

The specifications and appearance of the device may differ from those stated or may change without prior notice.

NEWGEN DOOR CONTROLLER

CE-44

Full User Manual
wiki.bas-ip.com

Device description

The BAS-IP NewGen Door Controller is a versatile access control device designed for maximum flexibility and integration. Equipped with built-in relays, Wiegand, and OSDP (RS-485) interfaces, it supports a wide range of locks, readers, and peripheral devices. Configurable signal inputs (for sensors, buttons, or external triggers) and multiple configurable LED outputs provide advanced control options for complex installations.

The controller features a multi-language web interface for intuitive setup and seamless integration into any access control system. Flexible configuration of each input and interface ensures full compatibility with diverse project requirements.

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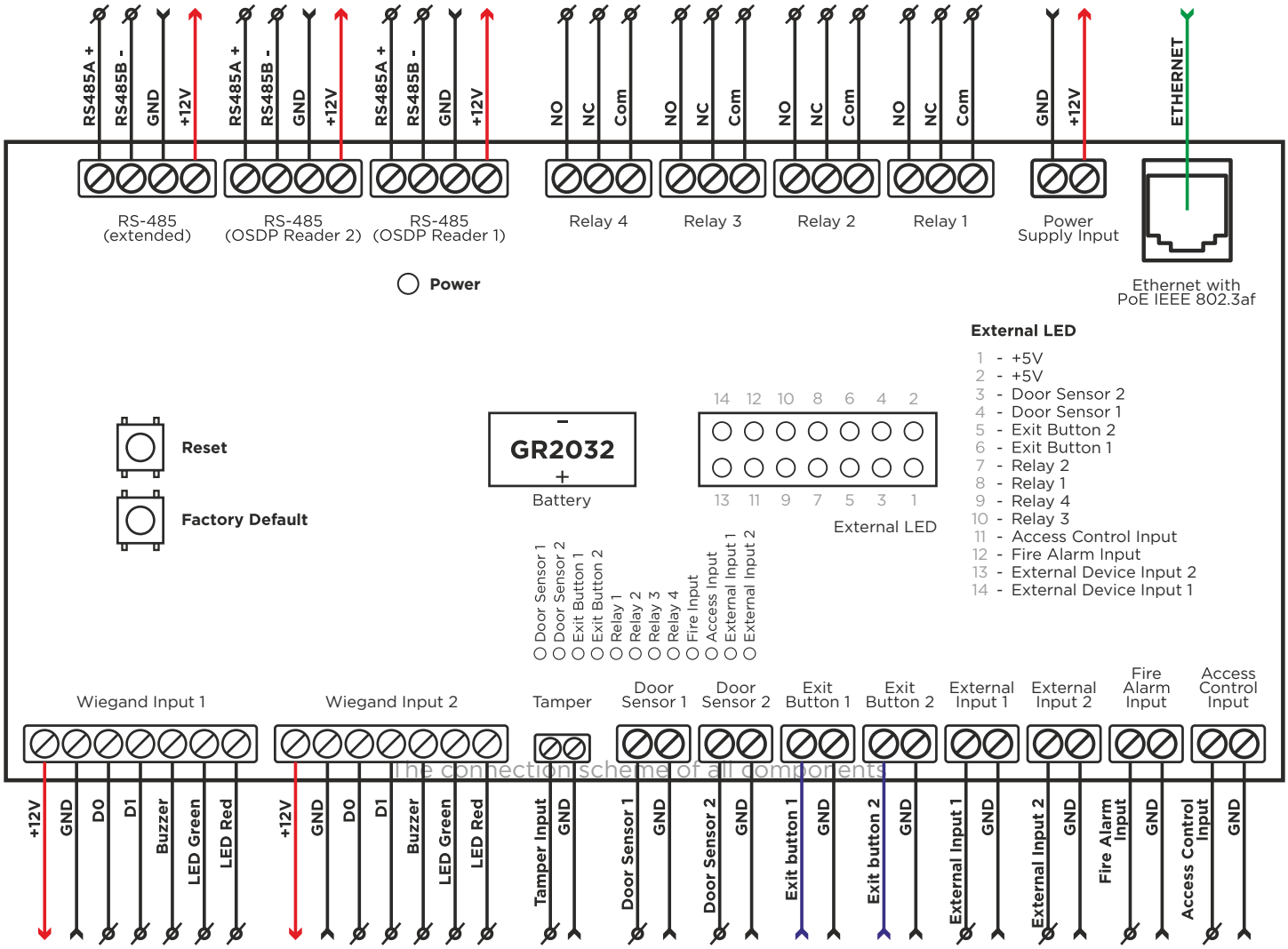
Completness check of the product

Before using the CE-44, ensure that the package is complete and all components are present.

Package Includes:

CE-44 door controller for DIN rail	1 pc
Wires with connector for external LED connection	1 pc
Wires with connector for tamper connection	1 pc
Installation manual	1 pc
Wire terminals inserted into mating connectors of the controller	18 pc

Inputs, Outputs, and Functional Description



Wiring and pin assignment on connectors

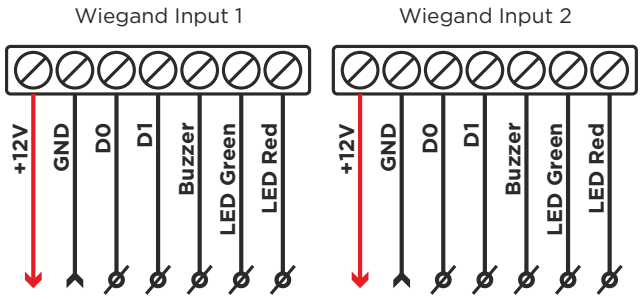
The connection scheme of all components

Inputs

Wiegand Inputs

Wiegand Input 1 and Wiegand Input 2 – designed for connecting card / fob readers, biometric terminals, QR code readers, UHF long-range readers, or any devices with Wiegand output to the physical input of the controller.

Pin	Description
+12V	12V power output for reader
GND	Ground
D0	Wiegand Data 0 input
D1	Wiegand Data 1 input
Buzzer	Negative (-) control for reader buzzer
LED Green	Negative (-) control for green LED
LED Red	Negative (-) control for red LED



Temper Inputs

Designed for connecting a tamper switch triggered during vandalism, theft, or unauthorized interference.

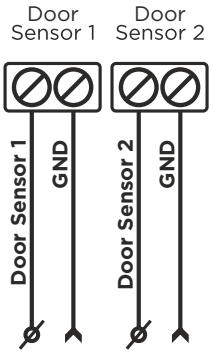
Pin	Description
Tamper Input	Negative (-) signal, activated both when signal is applied and when lost. Supports both NO and NC switches.
GND	Ground



Door Sensors

Door Sensors 1 and Door Sensors 2 – for connecting door contact sensors to monitor the corresponding controlled door's open/closed status.

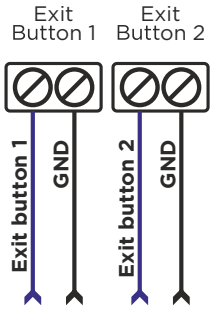
Pin	Description
Door Sensor	Negative (-) input from the door contact
GND	Ground



Exit Buttons

Exit Buttons 1 and Exit Buttons 2 – for connecting push-to-exit buttons to unlock the corresponding controlled door.

Pin	Description
Exit Button	Negative (-) input from push-to-exit buttons
GND	Ground

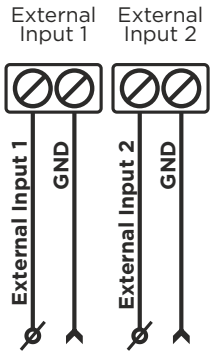


Important!
The input is configurable in the controller settings and can function as a Door Sensor input or trigger any of the controller's available relays.

External Inputs

External Inputs 1 and External Inputs 2 – for connecting external control devices: intercom panels, third-party controllers, sensors, push buttons, limit switches, or automation systems.

Pin	Description
External Input	Negative (-) signal input
GND	Ground

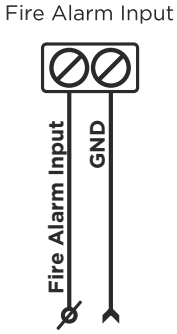


Important!
The input is configurable in the controller settings and can function as an Exit Button, Door Sensor input, or to control any of the controller's available relays.

Fire Alarm Input (Aux)

For connecting signals from fire alarm systems.
Response to fire alarm input can be configured (e.g., automatic door unlocking regardless of access rights).

Pin	Description
Fire Alarm Input	Negative (-) signal or NO/NC dry contact
GND	Ground

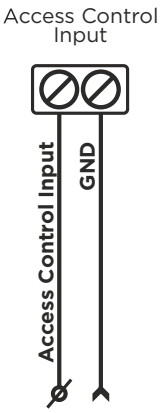


Important!
The Fire alarm input is designed to receive either a negative trigger (-) or dry contact signals (NO/NC) from a Fire Alarm Control Panel (FACP) to activate doors release. Please consult with your certified fire alarm contractor for information about your fire alarm system.

Access Control Input

For integration with third-party ACS, alarms, or monitoring systems.

Pin	Description
Access Control Input	Negative (-) signal or NO/NC dry contact
GND	Ground



Important!
The input behavior can be configured to trigger any relay for locking specific doors or zones, independently of other system settings and access rights used with readers or exit buttons.

This input supports either an incoming negative signal (–) or dry contacts (NO/NC) from security systems.

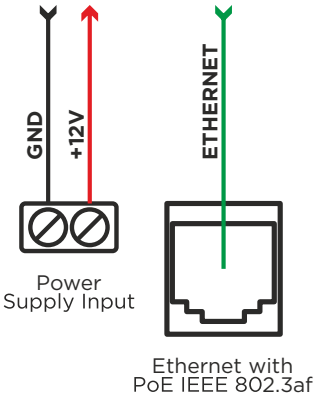
Network & Power

Power Supply Input

Ethernet with PoE (8P8C)

Ethernet with PoE (8P8C) – for connecting the controller to local or wide-area networks. Supports PoE (IEEE 802.3af) and can also serve as an alternative power source without affecting controller operation or functionality.

Pin	Description
+12V	Power supply input
GND	Ground

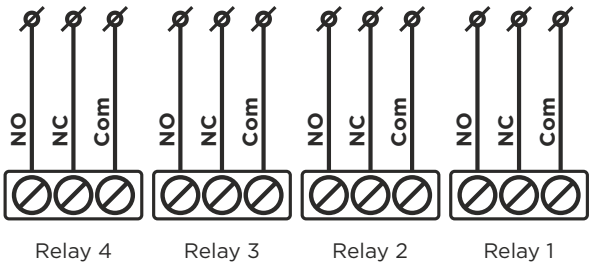


Outputs

Relay Outputs (1–4)

Each relay can control door locks, turnstiles, barriers, sirens, external devices, or trigger third-party systems (e.g., NVRs).

Pin	Description
NO	Normally Open «dry» contact
NC	Normally Closed «dry» contact
Com	Common switchable «dry» contact



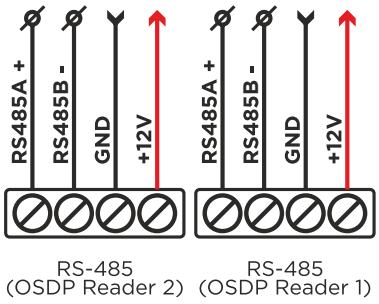
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OSDP Reader Inputs (RS485)

OSDP Reader Inputs (RS485)

For connecting readers, biometric devices, QR scanners, or UHF readers via OSDP Reader 1 and OSDP Reader 2 (OSDP protocol).

Pin	Description
RS485A+	Positive line of differential pair
RS485B-	Negative line of differential pair
GND	Ground
+12V	Power output (1 device only)

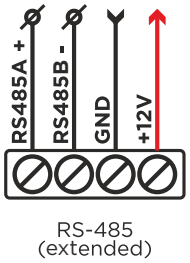


Important!
If connecting more than one device, use an external power supply. Up to 127 devices supported across both RS485 OSDP Ports.

When connecting more than one device to a single port, an external power supply is required for all additional devices except the first one connected.

RS485 (Extended)

Reserved for future expansion.



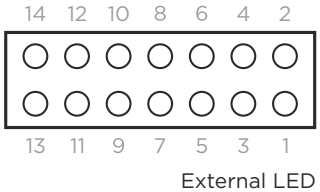
Indicators

Built-in LED Indicators

LED	Description
Power	Power status
Door Sensor 1	Door sensor 1 input status
Door Sensor 2	Door sensor 2 input status
Exit Button 1	Exit Button 1 input status
Exit Button 2	Exit Button 2 input status
Relay 1	Relay 1 activation status
Relay 2	Relay 2 activation status
Relay 3	Relay 3 activation status
Relay 4	Relay 4 activation status
Fire Input (Aux)	Fire Alarm Input status
Access Input	Access Control Input status
External Input 1	External Input 1 status
External Input 2	External Input 2 status

External LED Indicators

Designed for remote monitoring (e.g., security guard/concierge). Connected to «External LED» output.



External LED

1 - +5V
2 - +5V
3 - Door Sensor 2
4 - Door Sensor 1
5 - Exit Button 2
6 - Exit Button 1
7 - Relay 2
8 - Relay 1
9 - Relay 4
10 - Relay 3
11 - Access Control Input
12 - Fire Alarm Input
13 - External Device Input 2
14 - External Device Input 1

Important!
The package includes a wire with a connector for the External LED output.

To access the external LED output on the PCB, temporarily remove the plastic protective cover.

Buttons

Reset

Reboots the controller without disconnecting power (12V or PoE).



Reset

Factory Default

Hold while powering on to restore factory settings. Alternatively, hold this button and press Reset once.



Factory Default

Important!
To access the reset buttons on the PCB, temporarily remove the plastic protective cover.

Important Notes

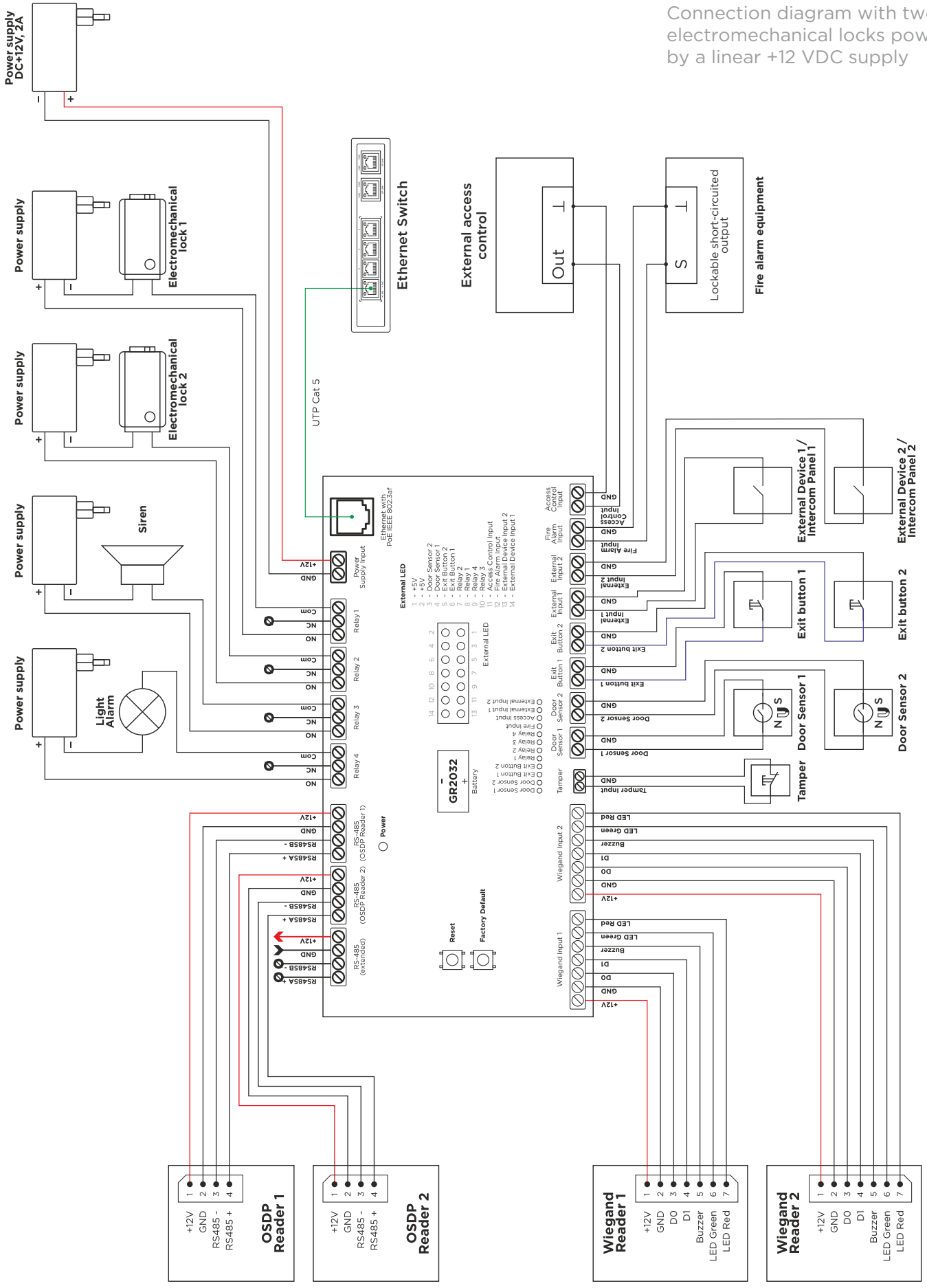
Battery installation / replacement (CR2032 for RTC) must be performed only when the controller is fully powered off. Disconnect both +12V and PoE before replacing the battery.

All wires, re-connection, connection / disconnection of readers and devices must be carried out only when the controller is completely powered off. Always disconnect +12V and PoE before handling connections.

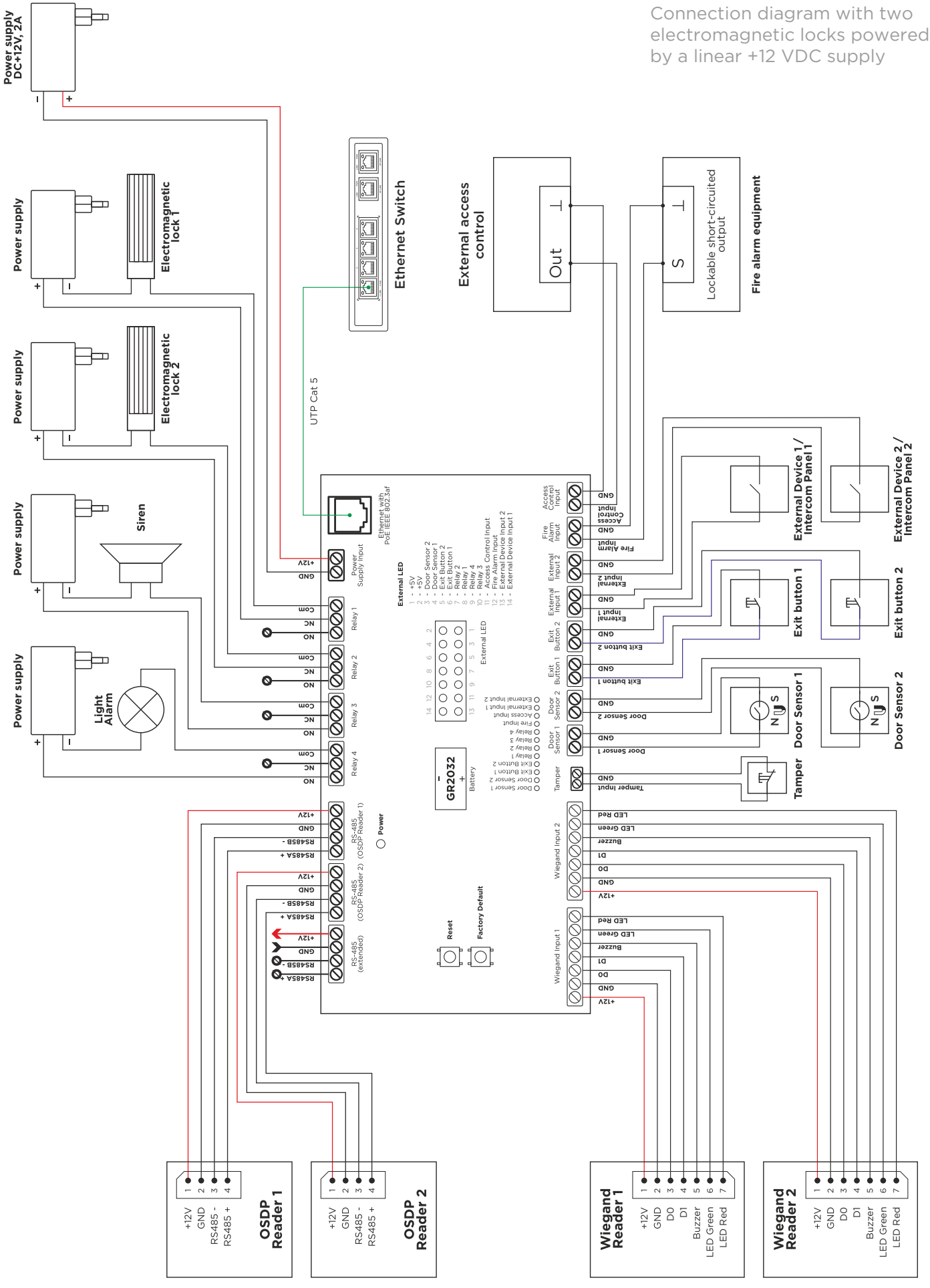
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Electrical connection

Connection diagram with two electromechanical locks powered by a linear +12 VDC supply

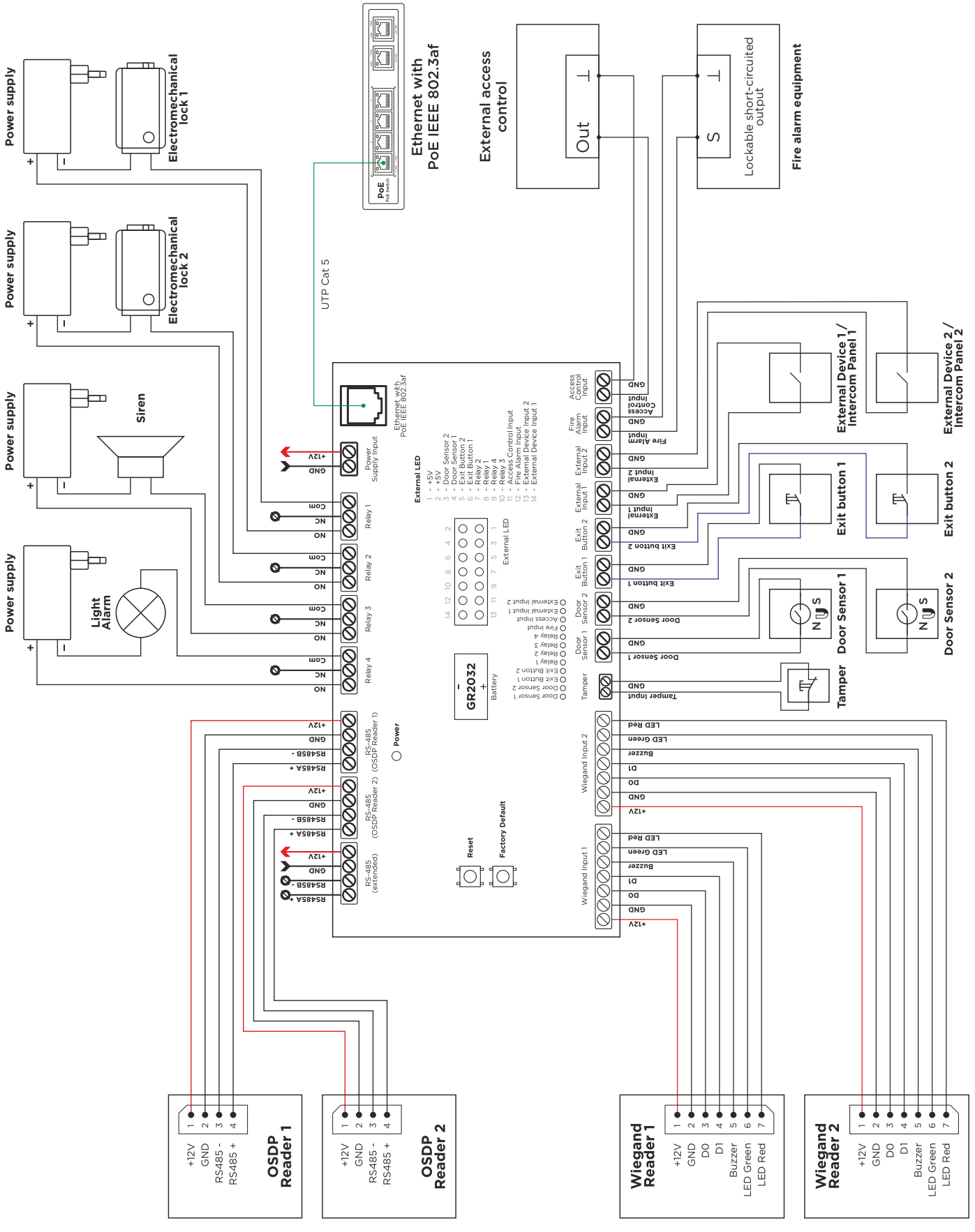


Connection diagram with two electromagnetic locks powered by a linear +12 VDC supply

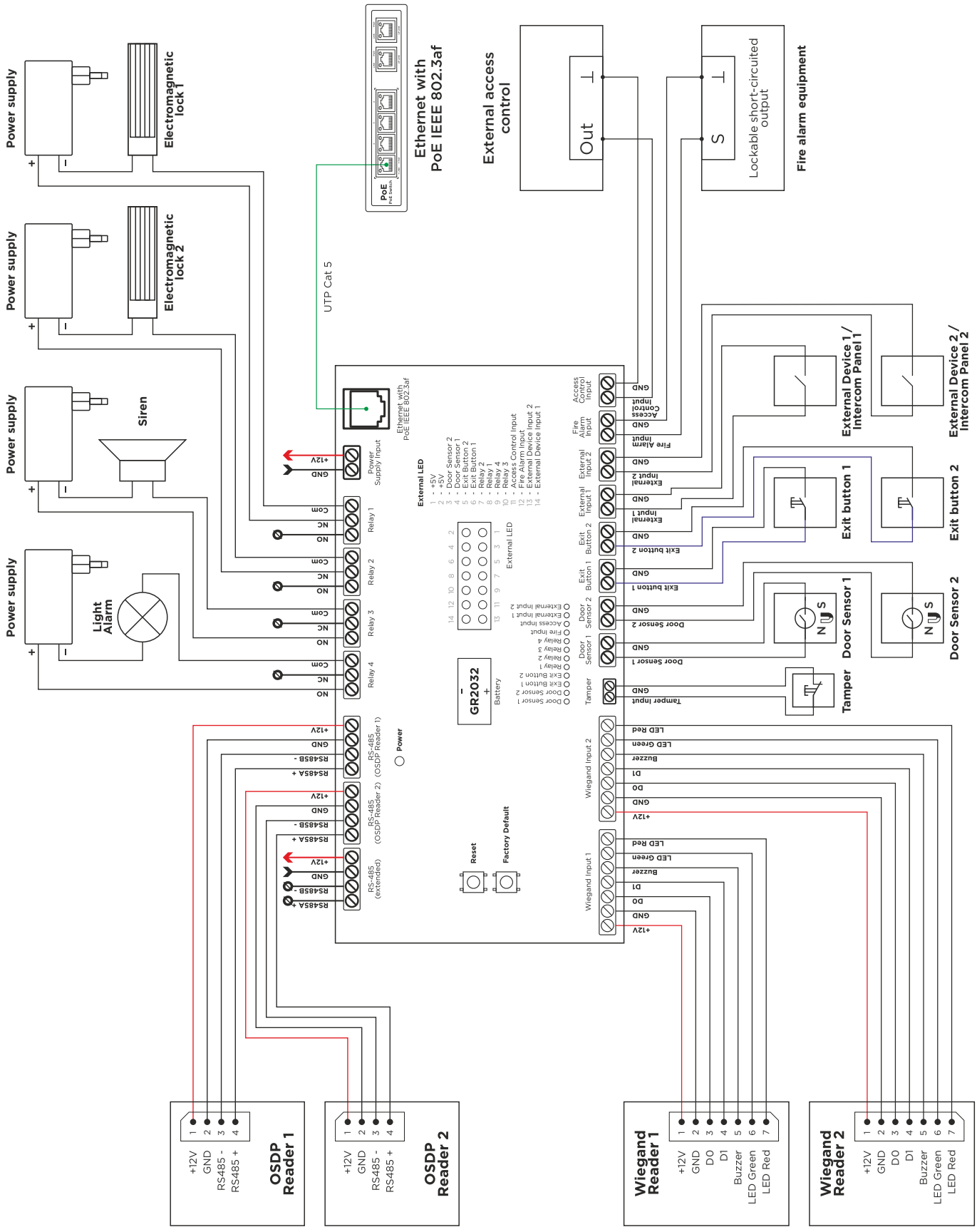


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Connection diagram with two electromechanical locks powered via PoE

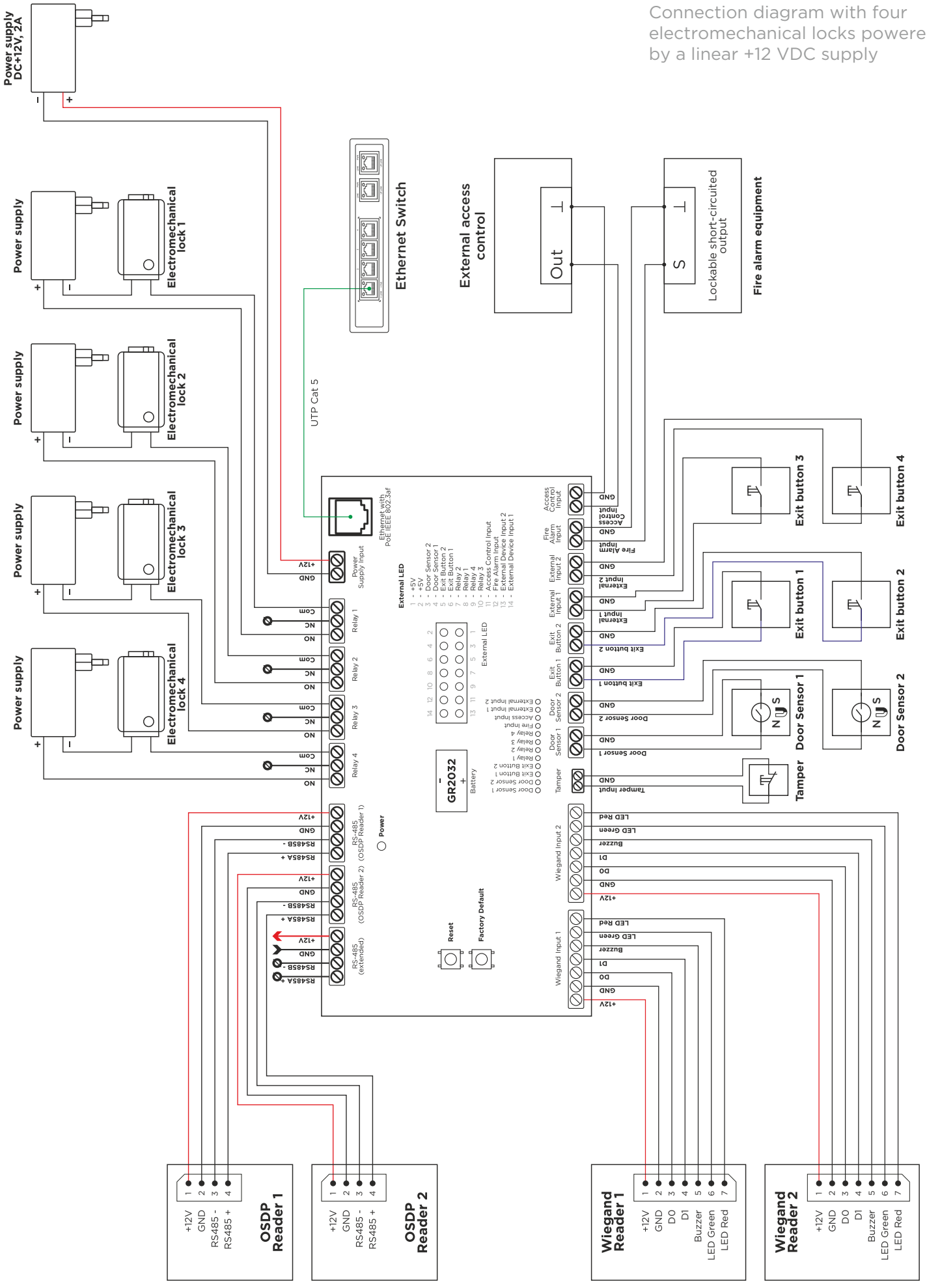


Connection diagram with two electromagnetic locks powered via PoE

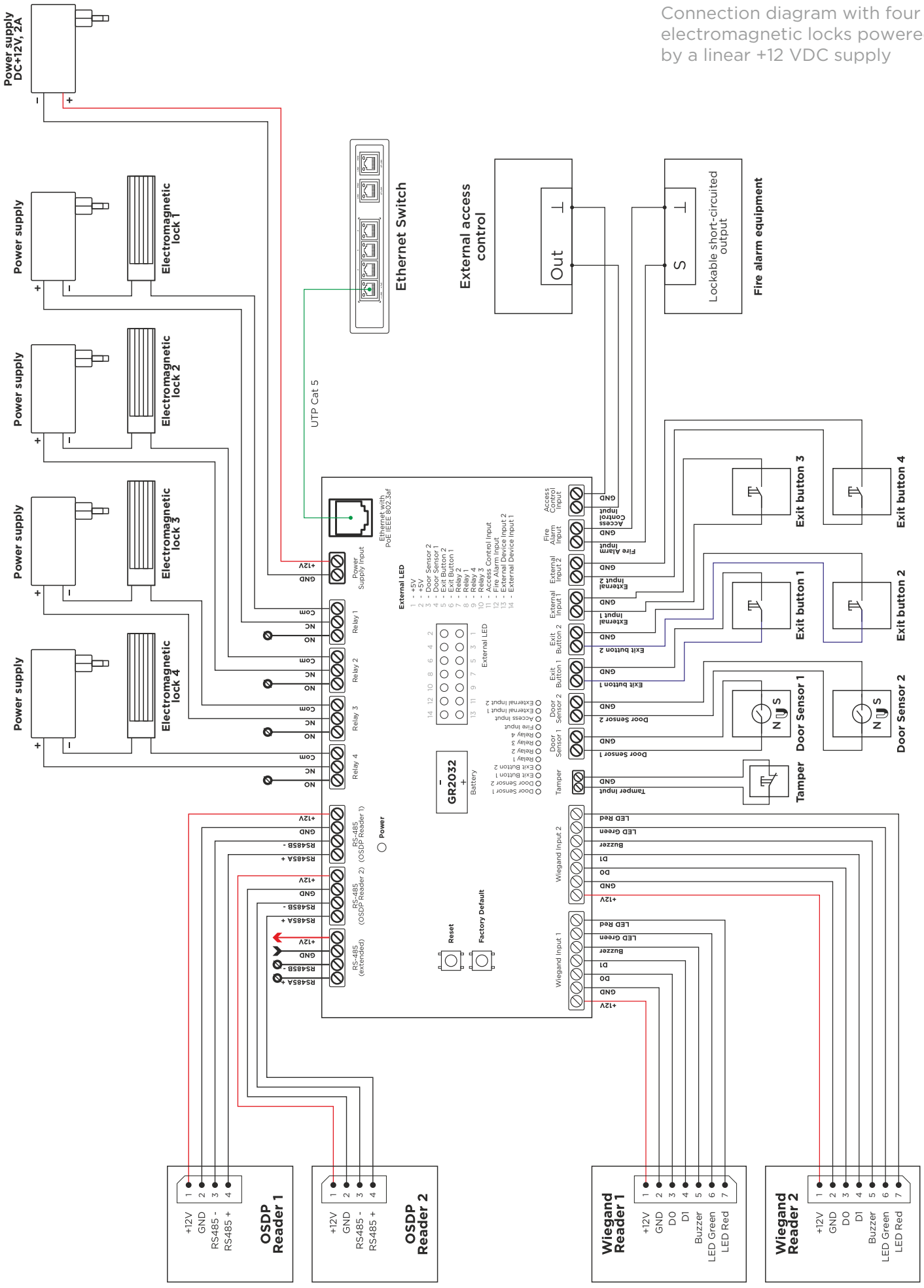


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Connection diagram with four electromechanical locks powered by a linear +12 VDC supply

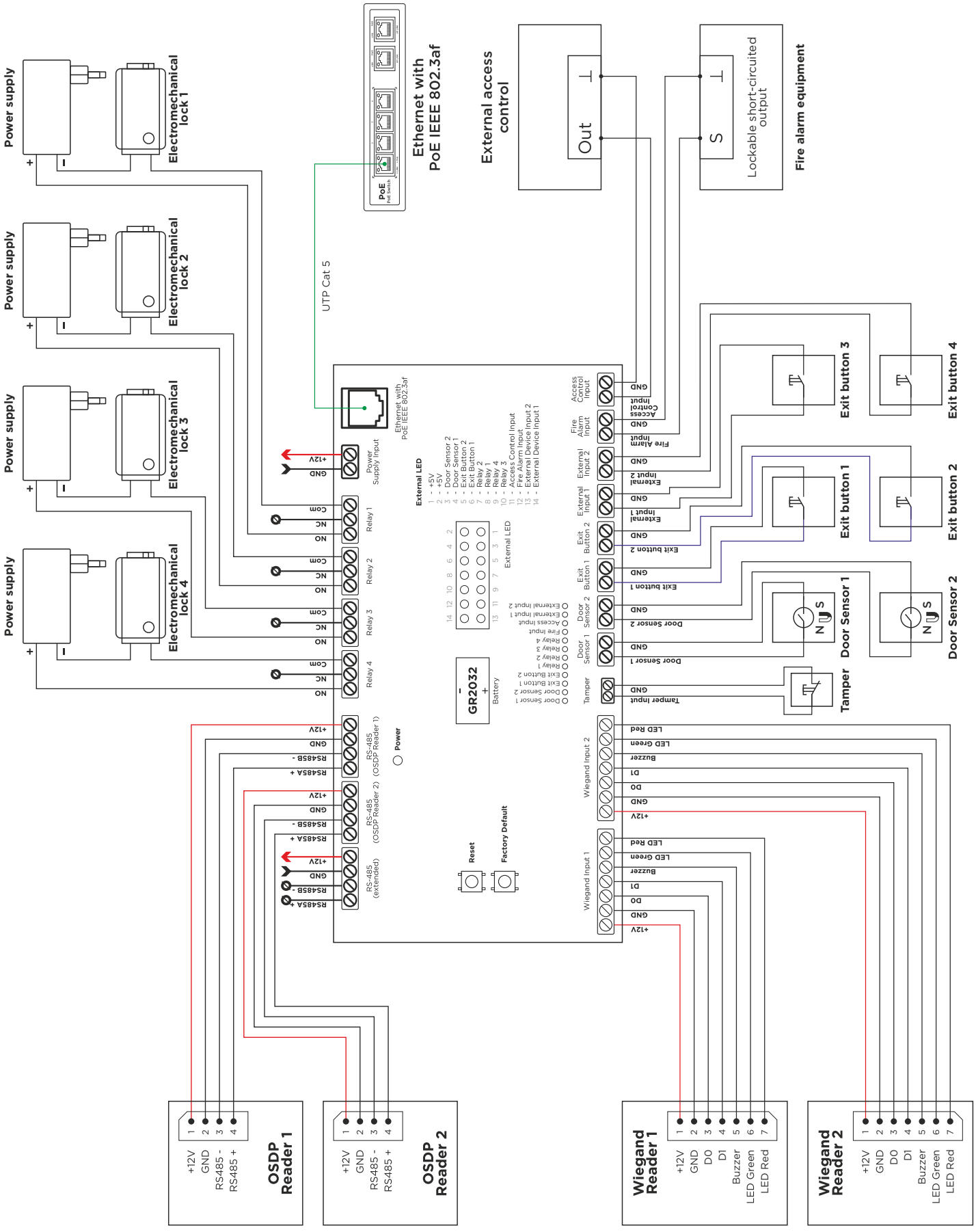


Connection diagram with four electromagnetic locks powered by a linear +12 VDC supply

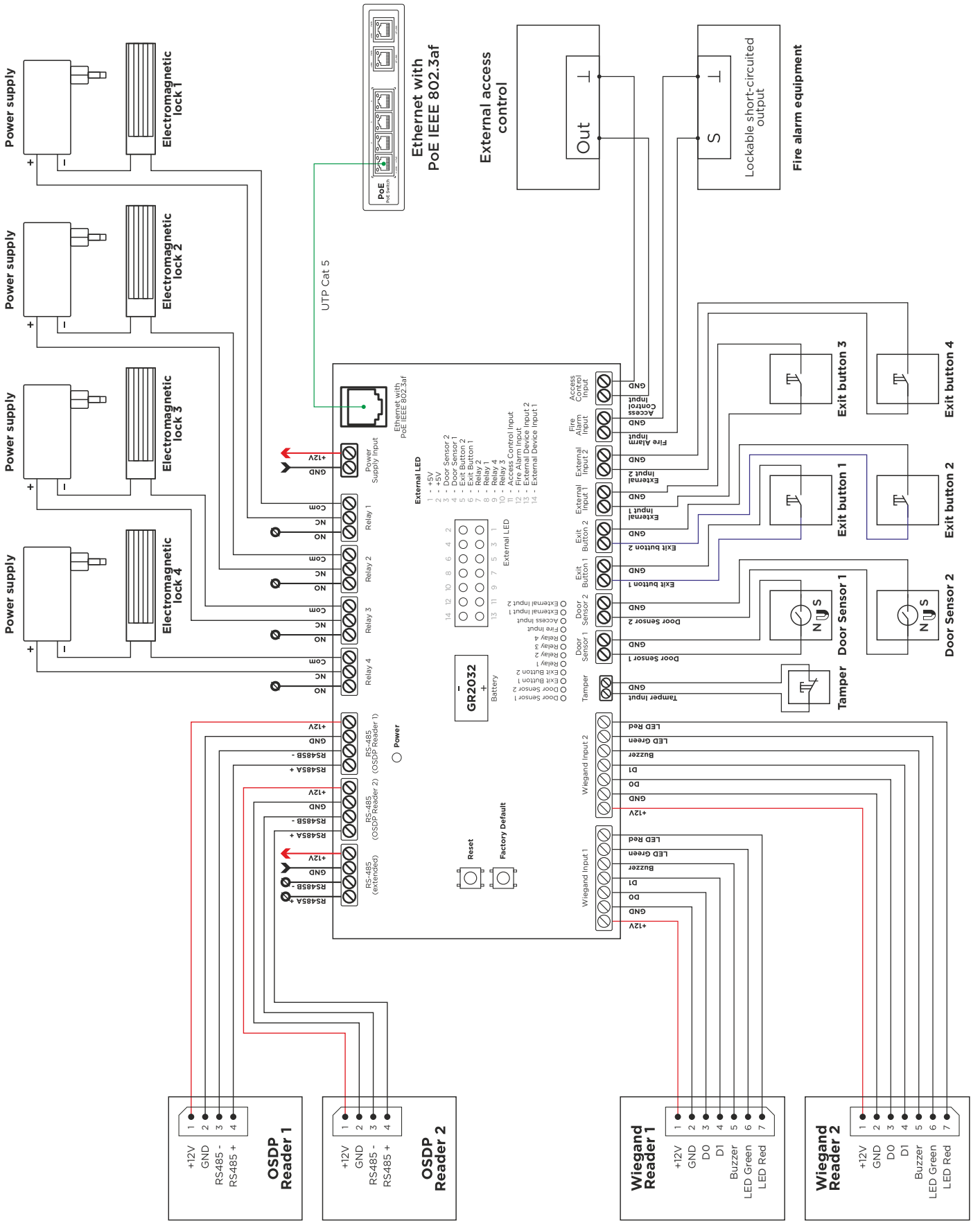


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Connection diagram with four electromechanical locks powered via PoE

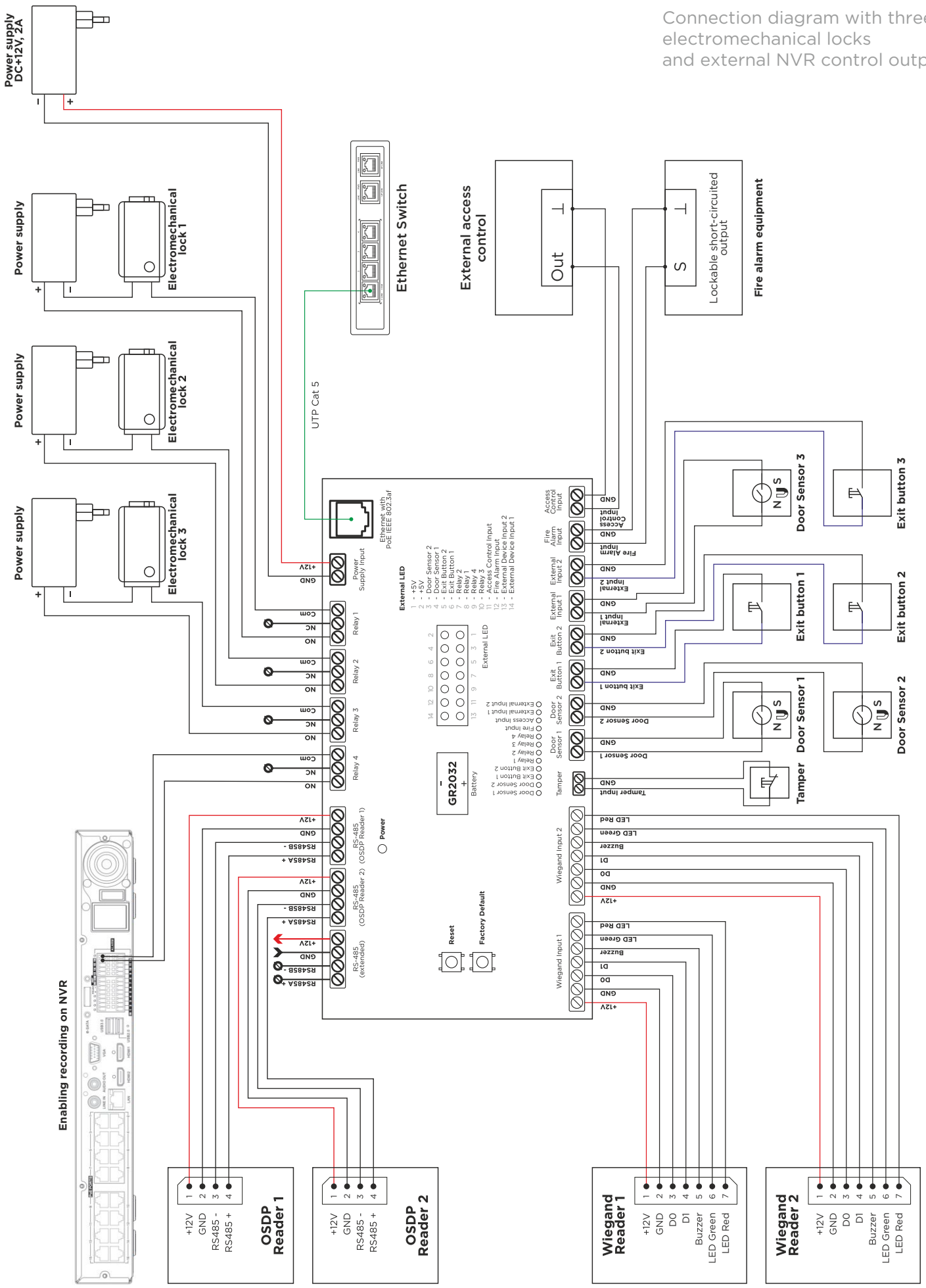


Connection diagram with four electromagnetic locks powered via PoE

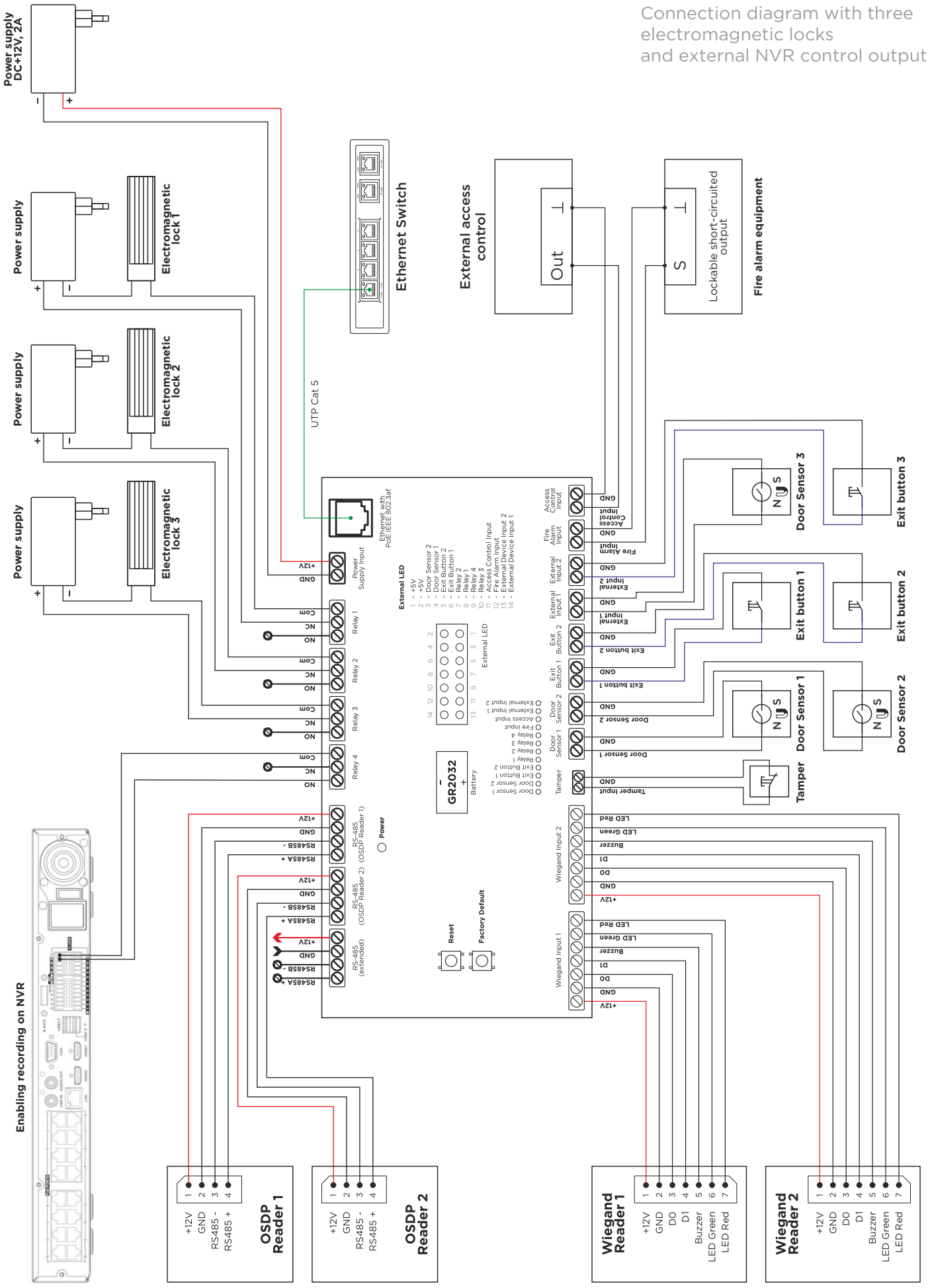


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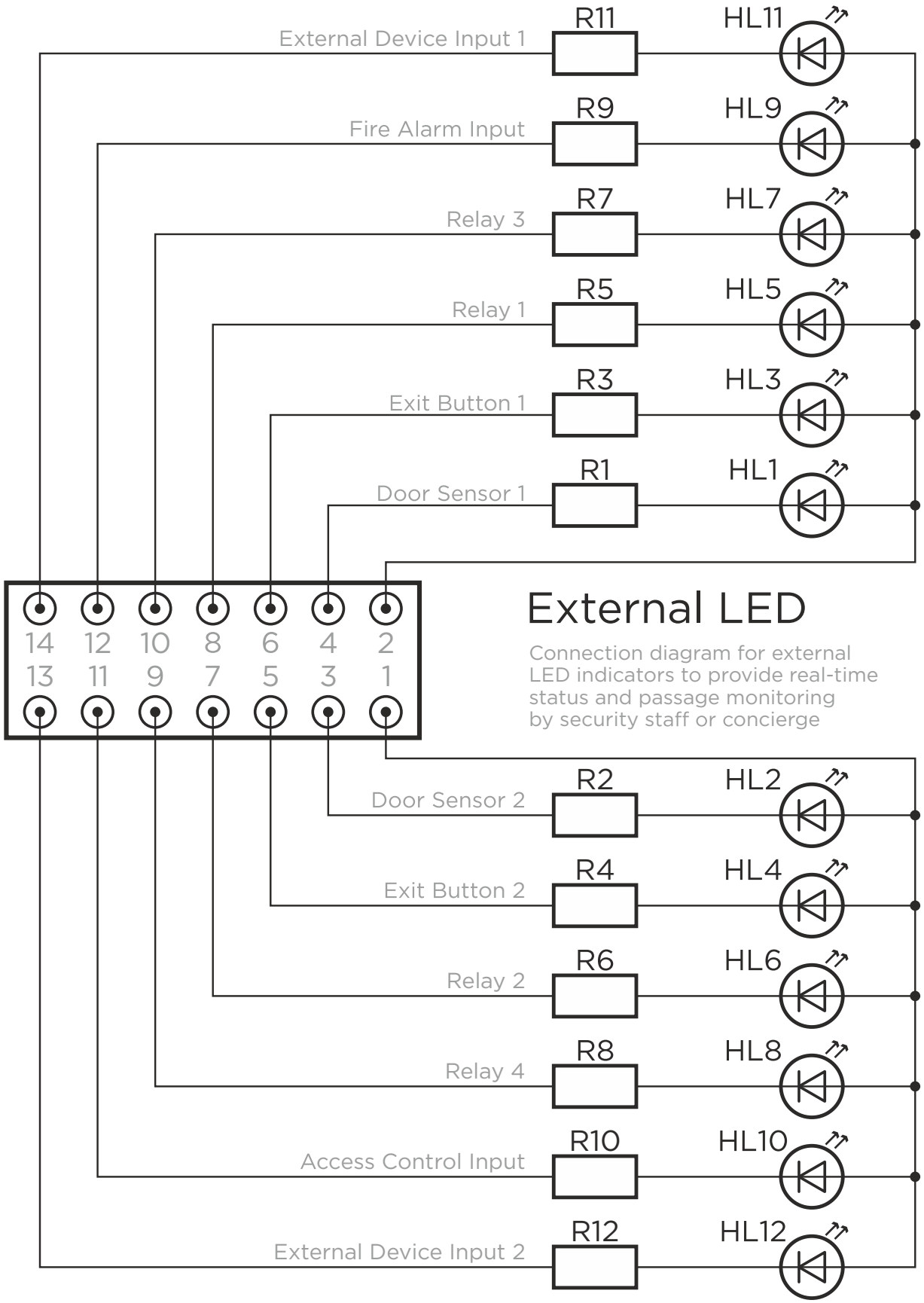
Connection diagram with three electromechanical locks and external NVR control output



Connection diagram with three
electromagnetic locks
and external NVR control output



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External LED

Connection diagram for external LED indicators to provide real-time status and passage monitoring by security staff or concierge

*External LED connector situated under front cover of the plastic case on the main board of CE-44.

R1 ÷ R12 = from 330 Ohm to 470 Ohm

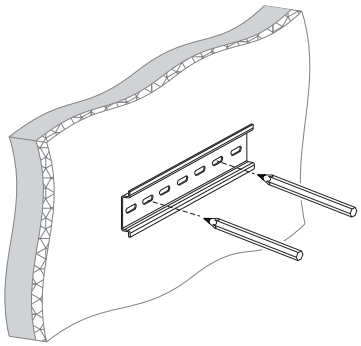
The resistance of resistors R1 - R12 depends on the length of the line to be connected, the type and cross-section of the wire used and the type of LEDs used.

If the distance from the controller to the remote LEDs is up to 5-7 metres, resistors with a rating of 470 Ohm should be used.

If the length is longer, then the resistor rating should be proportionally reduced by a value less than 470 Ohms. If the cable length is more than 50 metres, resistors with a rating of 330 Ohm should be used.

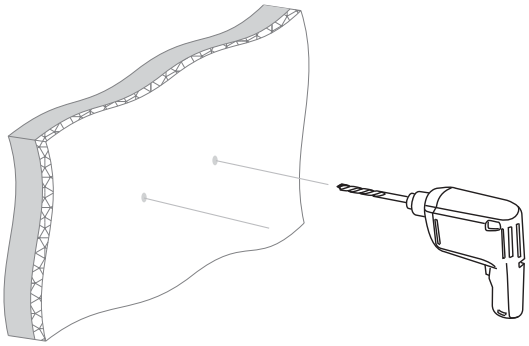
CE-44 door controller installation process.

1 Take the proper type of DIN rail and mark the mounting holes in the intended place of installation.

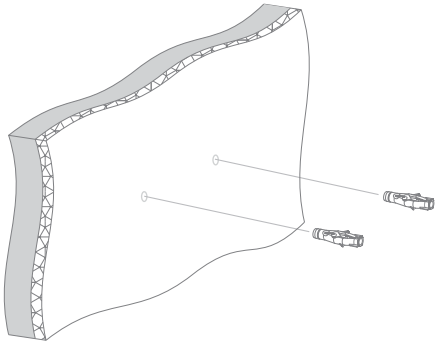


* DIN rail does not included to the device kit.

2 Drill two holes for the type of the anchors you have.

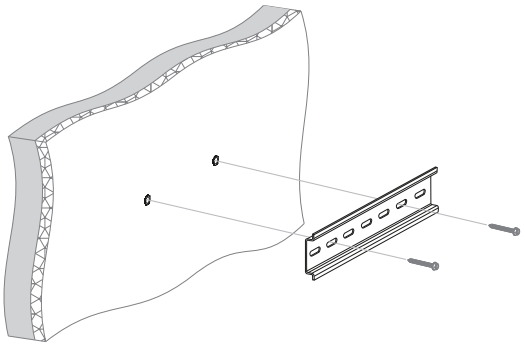


3 Install the anchors into the drilled holes.



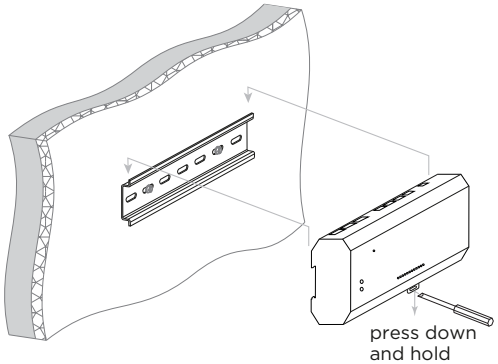
* Installation anchors does not included to the device kit.

4 Fix the DIN rail on its place using screws.

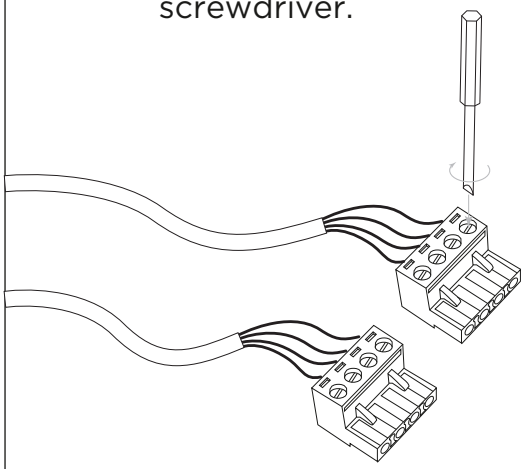


* Fixing screws does not included to the device kit.

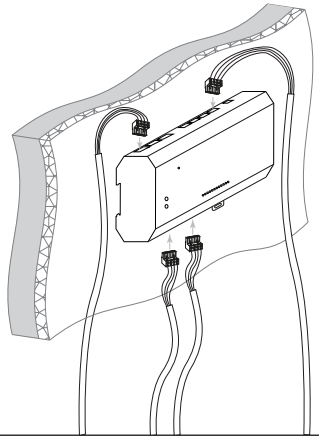
5 Install CE-44 on the DIN rail while holding fixing clip in the down position using flat screwdriver. Release fixing clip to properly fix the device on the rail.



6 Connect all the necessary cables to the connectors from the door controller kit and fix them using screwdriver.

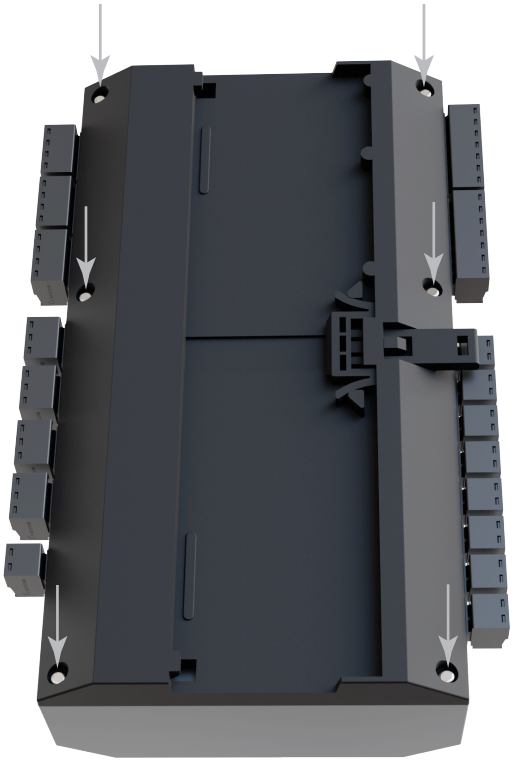


7 Join all the cables with connectors to the door controller.

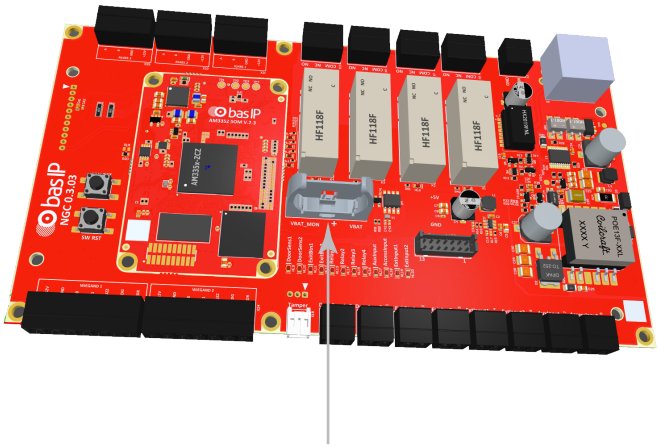


Real time clock battery installation

1 Unscrew six screws on the back of CE-44 door controller as it is shown on the scheme below. Split appart front and back parts of the plastic case to have an access to the front part of the controller motherboard.



2 Find battery slot on the motherboard and install CR2032 type battery. Then assemble the plastic case in reverse order.



CR2032
battery slot

Warranty

The warranty card number _____
Model name _____
Serial number _____
Seller name _____

With following stated terms of warranty is familiar, functional test was performed in my presence:

Customer signature _____

Warranty conditions

The warranty period of the product — 36 (thirty-six) months from the date of sale.

- Transportation of product must be in its original packaging or supplied one by the seller.
- The product is accepted in warranty repair only with a properly filled warranty card and the presence of intact stickers or labels.
- The product is accepted for examination in accordance with the cases provided by law, only in the original packaging, in a full complete set, appearance corresponding to the new equipment and presence of all relevant properly filled documents.
- This warranty is in addition to the constitutional and other consumer rights and in no way restrict them.

Terms of warranty

The warranty card must indicate the name of the model, serial number, purchase date, name of the seller, seller company stamp and the customer's signature.
Delivery to the warranty repair is carried out by the buyer himself.
Warranty repairs carried out only during the warranty period specified in the warranty card.
The service center is committed to do everything possible to carry out the repair warranty products, up to 24 working days. The period spent on the restoration of product functionality is added to the warranty period.

Regulatory Information

FCC 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.

FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Note!

The CE-44P controller complies with FCC Part 15 requirements only when a ferrite is installed on the Ethernet cable at the device end, with a single turn.

To ensure continued compliance:

- Always install a ferrite on the Ethernet cable.
- Do not modify or remove the ferrite.help.

EU Conformity Statement

This product is marked with «CE» and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the LVD Directive 2014/35/EU, the RoHS Directive 2011/65/EU.

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points.

Notes

Notes

v1.2 (2026-03)



www.bas-ip.com