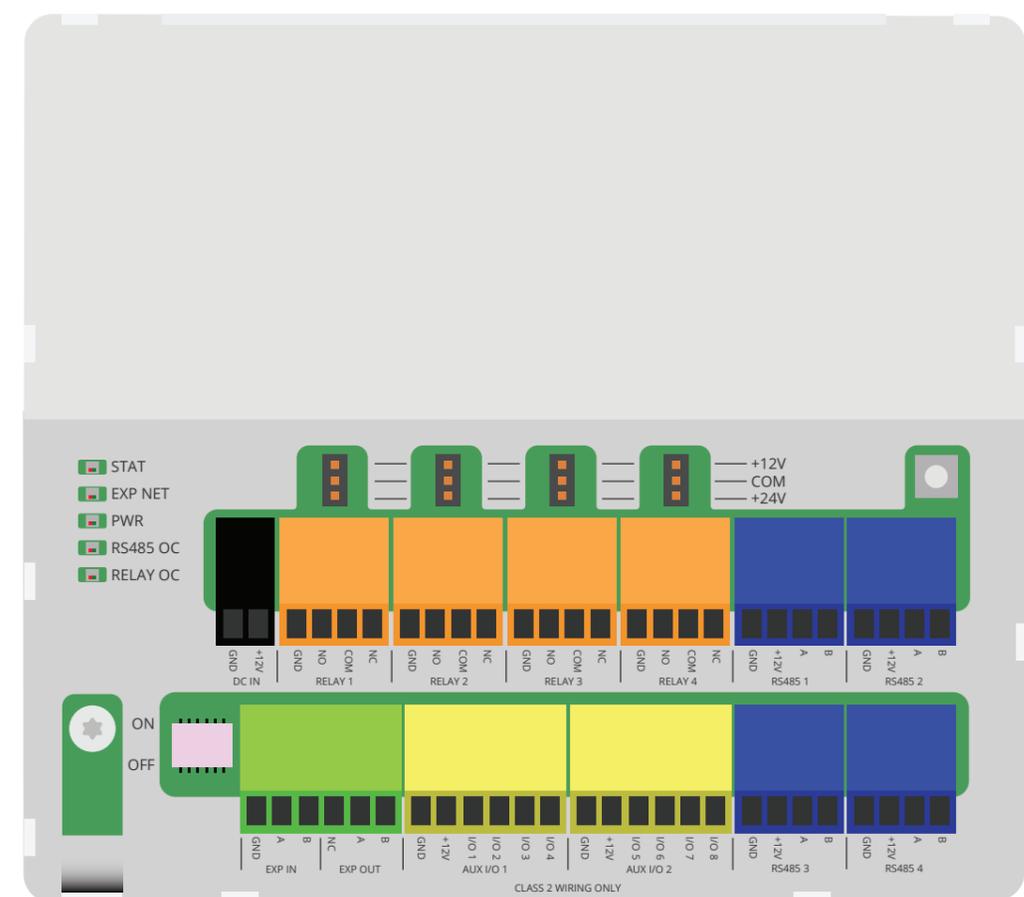
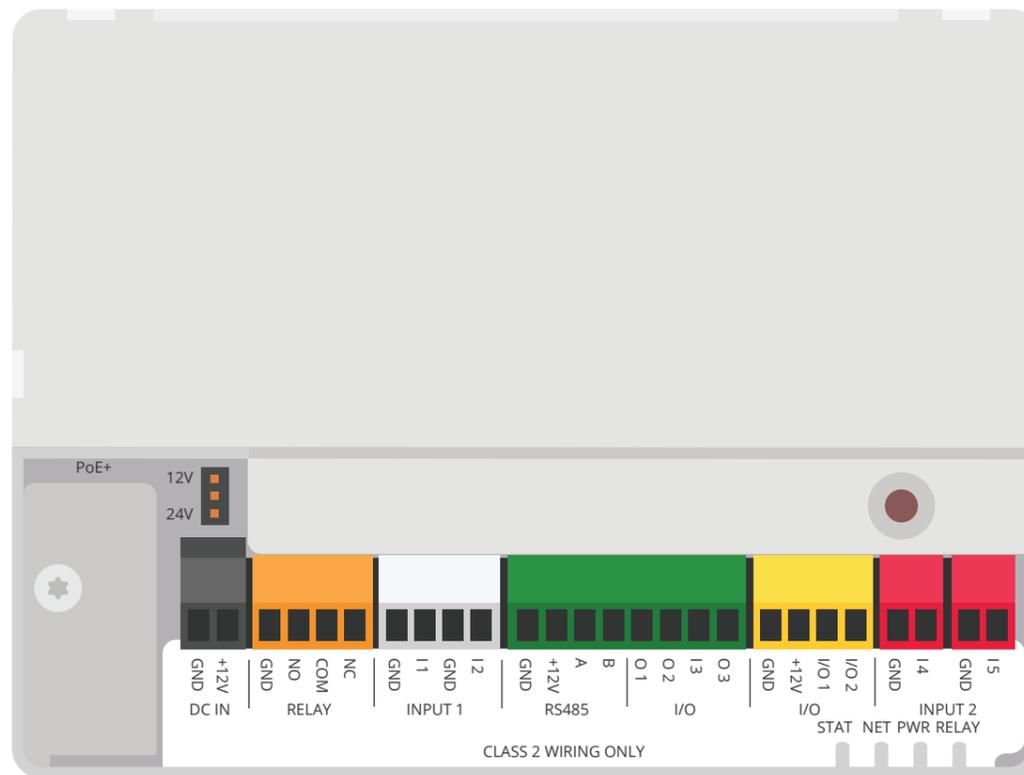
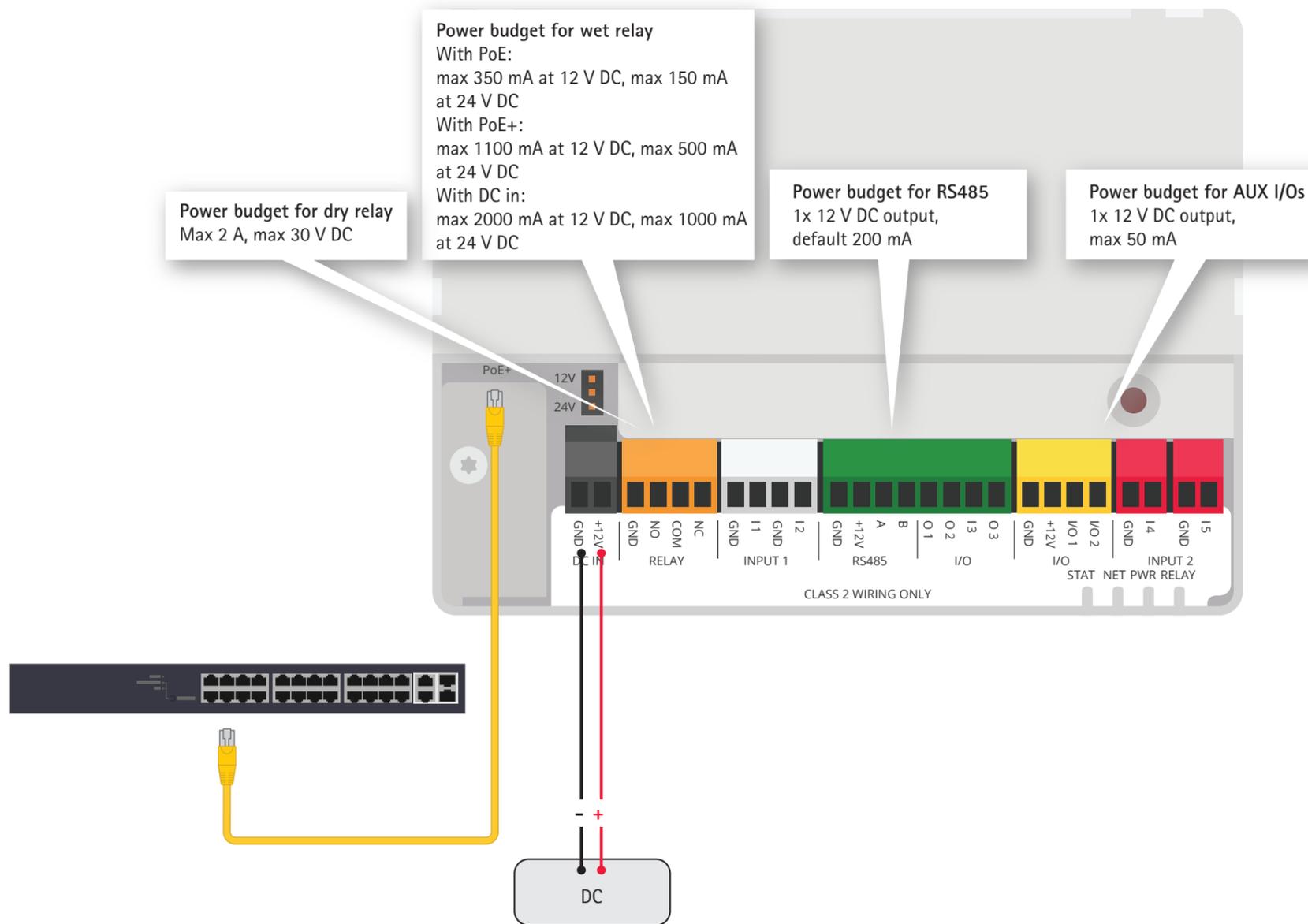


# AXIS A9210 Network I/O Relay Module AXIS A9910 I/O Relay Expansion Module



## Electrical wiring drawings

# Power input and budget



## Application

Please refer to product datasheet for details and the device's web interface for power states

## Requirements

- > Wire size for connectors:
  - > CSA: AWG 28-16, CUL/UL: AWG 30-14
- > DC power:
  - > AWG 18-16, qualified for up to 3 m (10 ft)
- > Relay:
  - > AWG 18-16, qualified for up to 30 m (98 ft)
- > Ethernet and PoE:
  - > STP CAT 5e or higher, qualified for up to 100 m (328 ft)

## Power priority

- > When PoE and DC are both connected before the device is powered, PoE is used for powering.
- > PoE and DC are both connected and PoE is currently powering. When PoE is lost, the device uses DC for powering without restart.
- > PoE and DC are both connected and DC is currently powering. When DC is lost, the device restarts and uses PoE for powering.
- > When DC is used during startup and PoE is connected after the device has started, DC is used for powering.
- > When PoE is used during startup and DC is connected after the device has started, PoE is used for powering.

Adhere to local life safety code in all installations.

Illustration does not depict door monitors, REX devices, locks, controller power supply, network switch, battery backup and UPS.

Ensure that your power supplies and relays are rated for the intended purposes.

This is just an example.

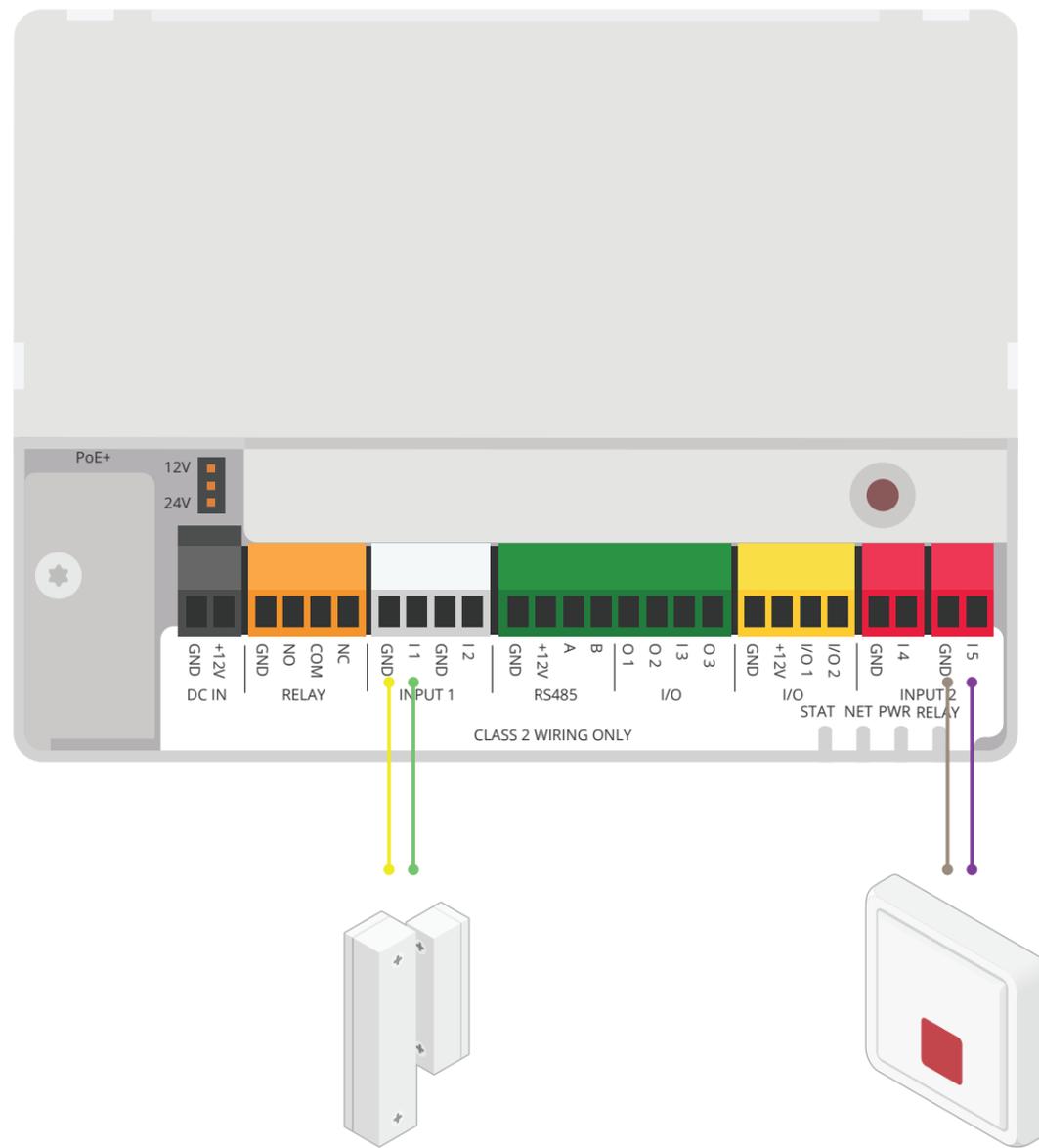
# Input 1 and 2

## Application

Please refer to product datasheet for details and the device's web interface for power states

## Requirements

I/Os as inputs: AWG 24, qualified for up to 200 m (656 ft)



## Configuration in the device's web interface

- Go to Device > I/Os and relays



- Configure input port for door position sensor

AXIS A9210    AXIS A9910

I/O's

- I1 (I1)

Input

I1

Name

Door Position Sensor

Direction



Normal state



Current state: Circuit open

Supervised

- Configure input port for alarm button

- Alarm Button (I5)

Input

I5

Name

Alarm Button

Direction



Normal state

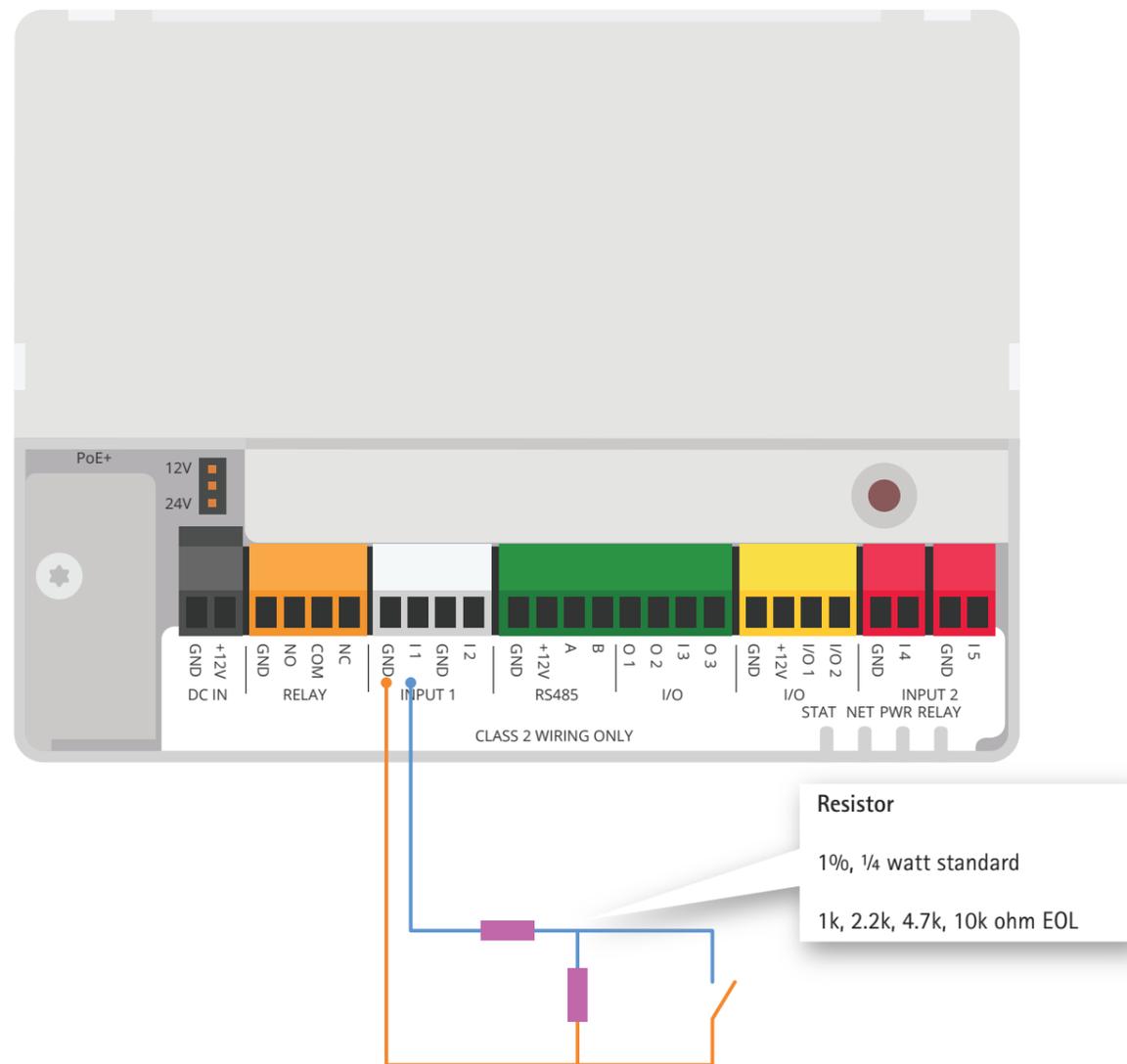


Current state: Circuit open

Supervised

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# Supervised input



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## Application

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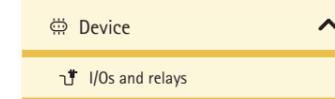
## Requirements

I/Os as inputs (applied to all inputs; IN 1-5, AUX I01 and I02):  
AWG 24, qualified for up to 200 m (656 ft)

NOTE: The EOL resistors are installed at the end of the circuit, as close to the sensor as possible

## Configuration in the device's web interface

- Go to Device > I/Os and relays



- Configure input port for supervised input

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### I/O's

- Door Position Sensor  
Supervised Input

I1

Name

Door Position Sensor

Direction



Normal state



Current state: Circuit cut

Supervised

*i* In API's, supervised input ports work differently from supervised I/O ports. For more information, see "Supervised I/O in VAPIX® Library."

Parallel-first connection with a 22kΩ parallel resistor and a 4.7kΩ serial resistor

Serial first connection

# Configurable Aux I/O

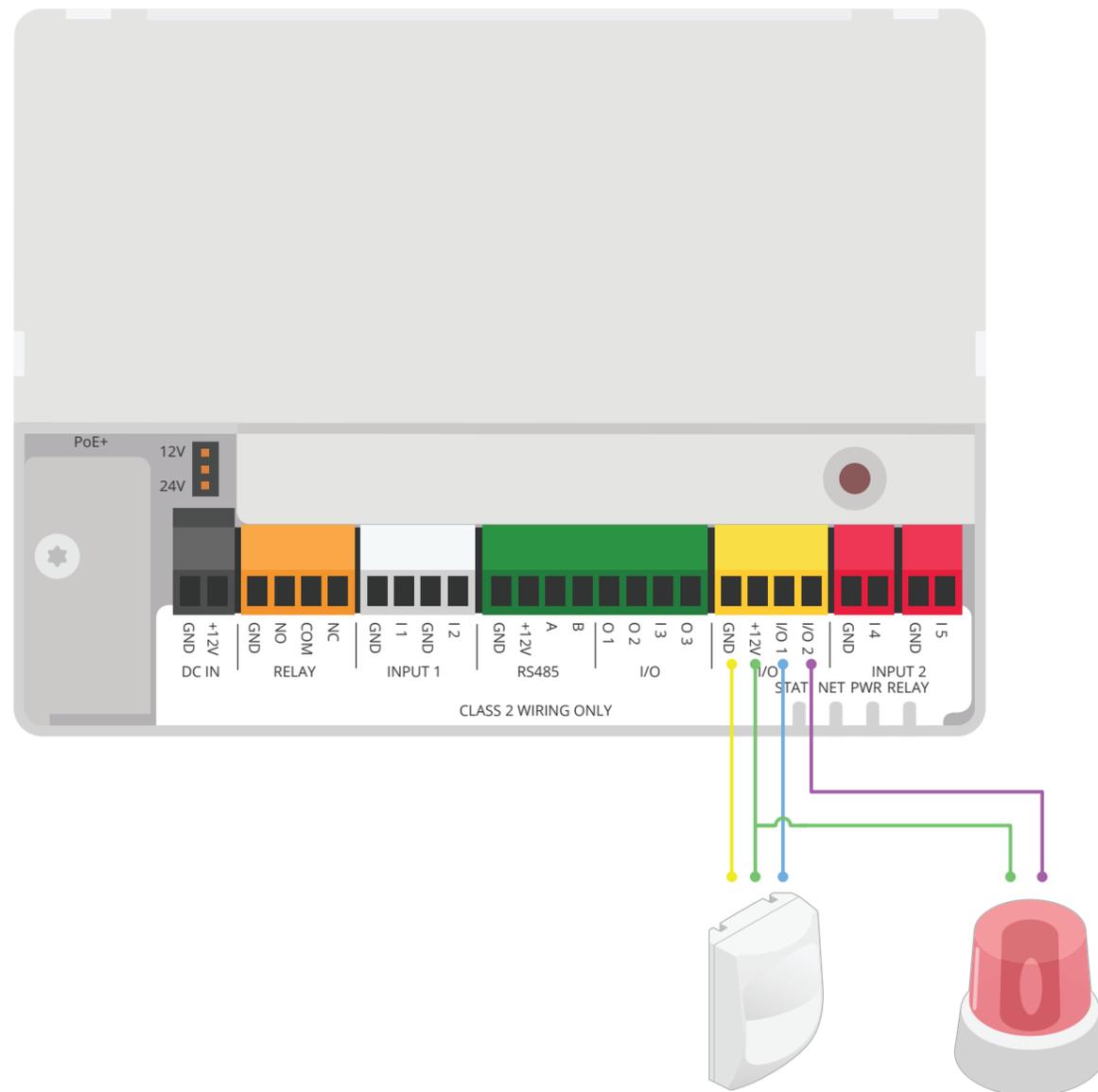
## Application

Please refer to product datasheet for details and the device's web interface for power states

## Requirements

I/Os as inputs: AWG 24, qualified for up to 200 m (656 ft)

Power out I/O: 1x 12 V DC output, max 50 mA



## Configuration in the device's web interface

- Go to Device > I/Os and relays



- Configure I/O for PIR/REX

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### I/O's

- PIR / REX (I/O 1) Input

Name

PIR / REX

Direction



Normal state



Current state: Circuit open

Supervised

- Configure I/O for alarm button

- Alarm Button (I/O 2) Output

Alarm

Name

Alarm

Direction

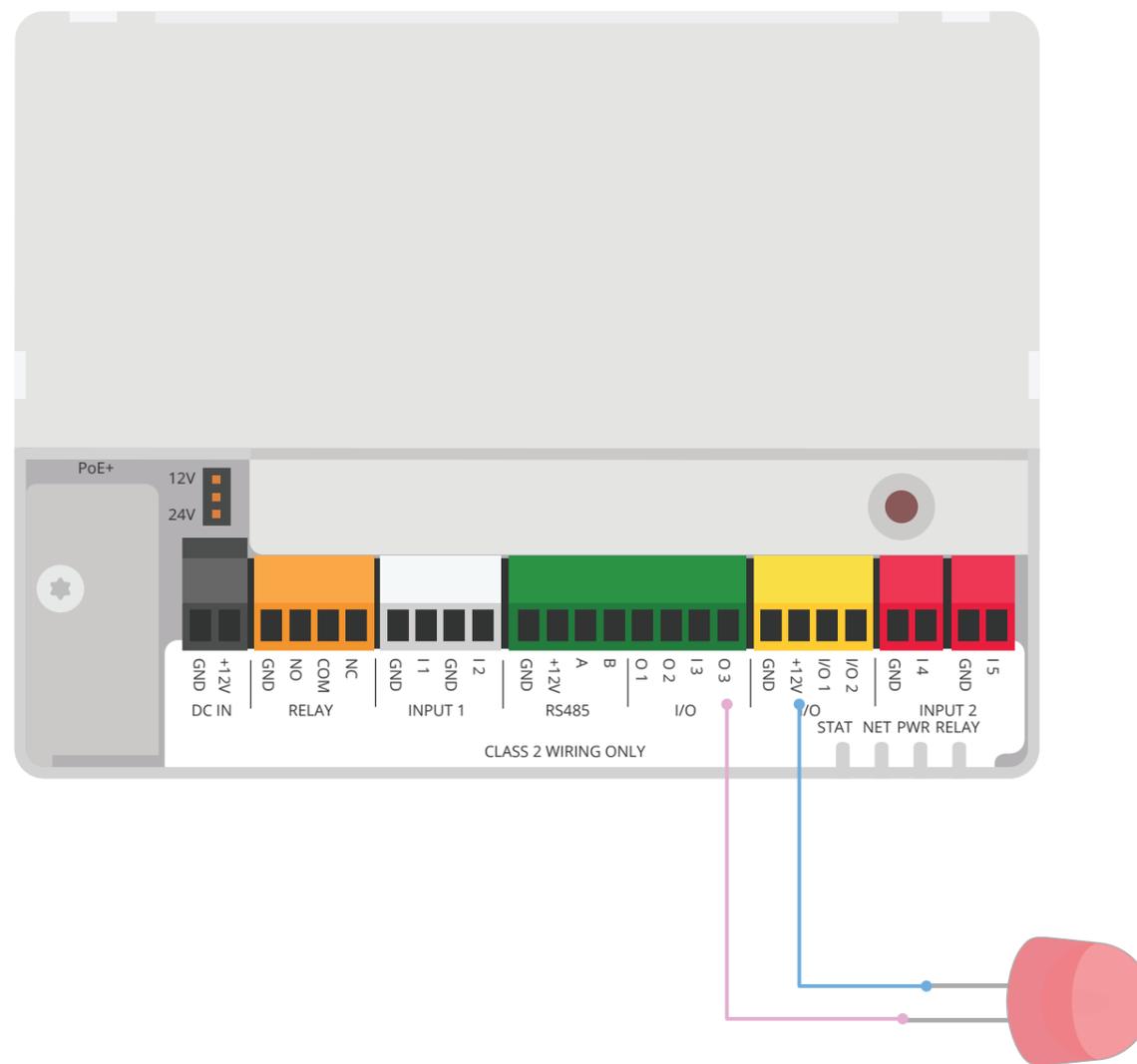


Normal state



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# Output wiring



## Application

Please refer to product datasheet for details and the device's web interface for power states

## Requirements

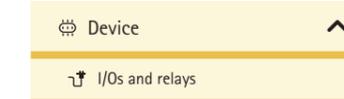
I/Os as output: AWG 24

Cable length varies depending on the specification of connected peripheral

Power out I/O: 1x 12 V DC output, max 50 mA

## Configuration in the device's web interface

- Go to Device > I/Os and relays



- Configure output for LED

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### I/O's

LED (0 3)

Output

LED

Name

LED

Direction

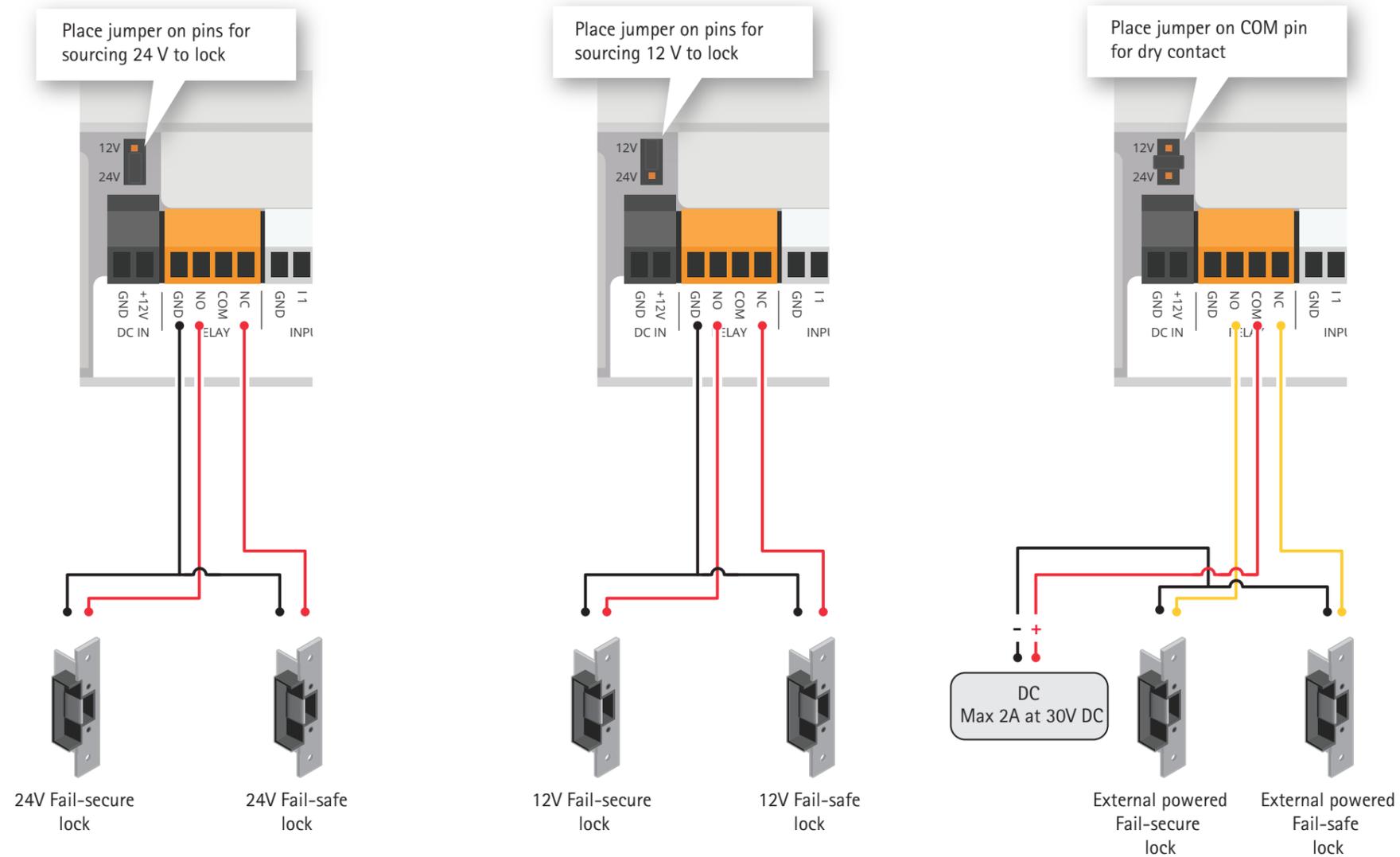


Normal state



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# Relay wiring



## Application

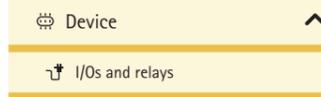
Please refer to product datasheet for details and the device's web interface for power states

## Requirements

Relay: AWG 18-16, qualified for up to 30 m (98 ft)

## Configuration in the device's web interface

- Go to Device > I/Os and relays



- Configure relays

### Relays

Lock (Relay)

Relay 0

Name

Lock

Direction



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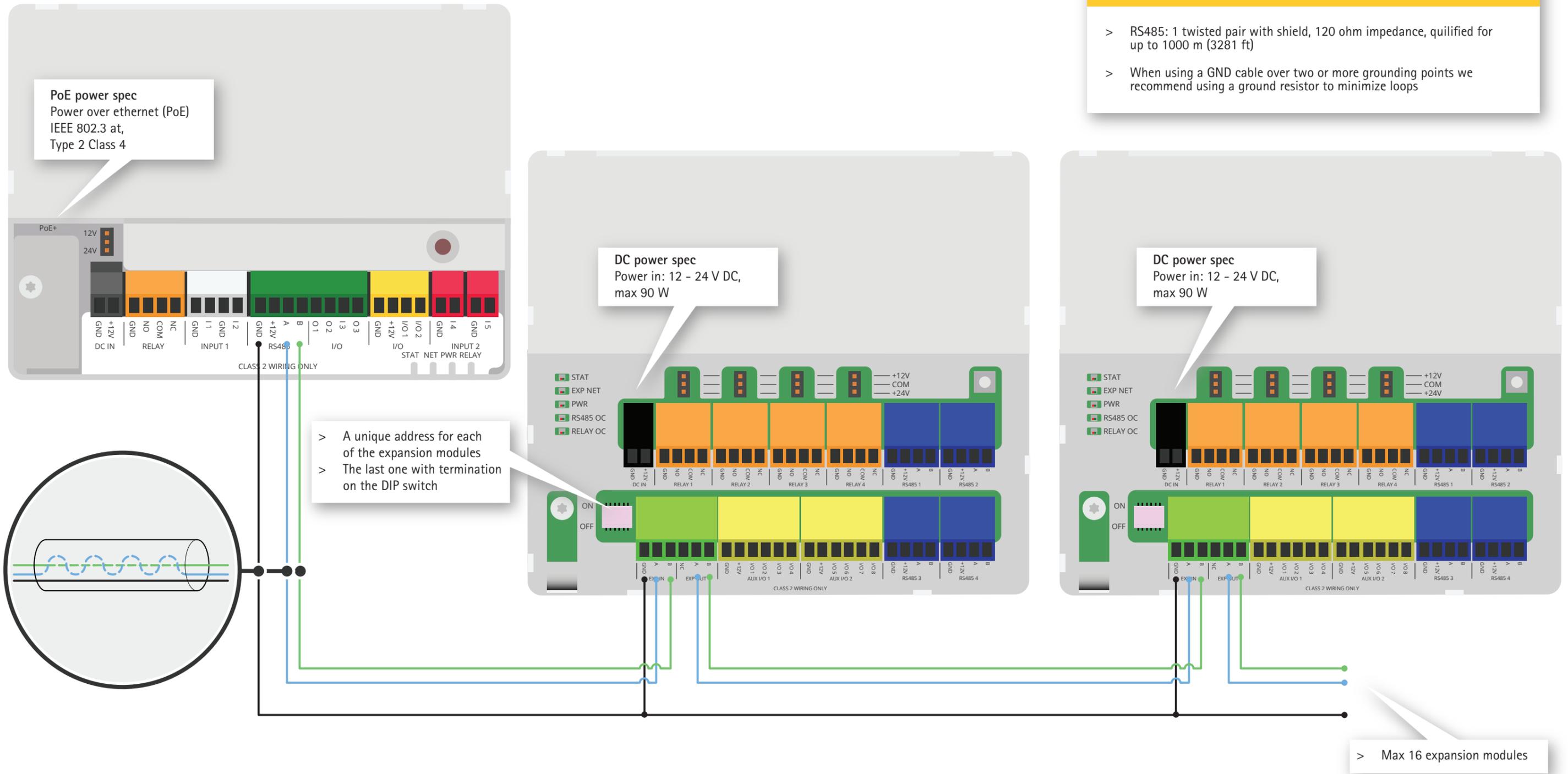
# Expansion connection 1 - seperated power

## Application

Please refer to product datasheet for details and the device's web interface for power states

## Requirements

- > RS485: 1 twisted pair with shield, 120 ohm impedance, quillified for up to 1000 m (3281 ft)
- > When using a GND cable over two or more grounding points we recommend using a ground resistor to minimize loops



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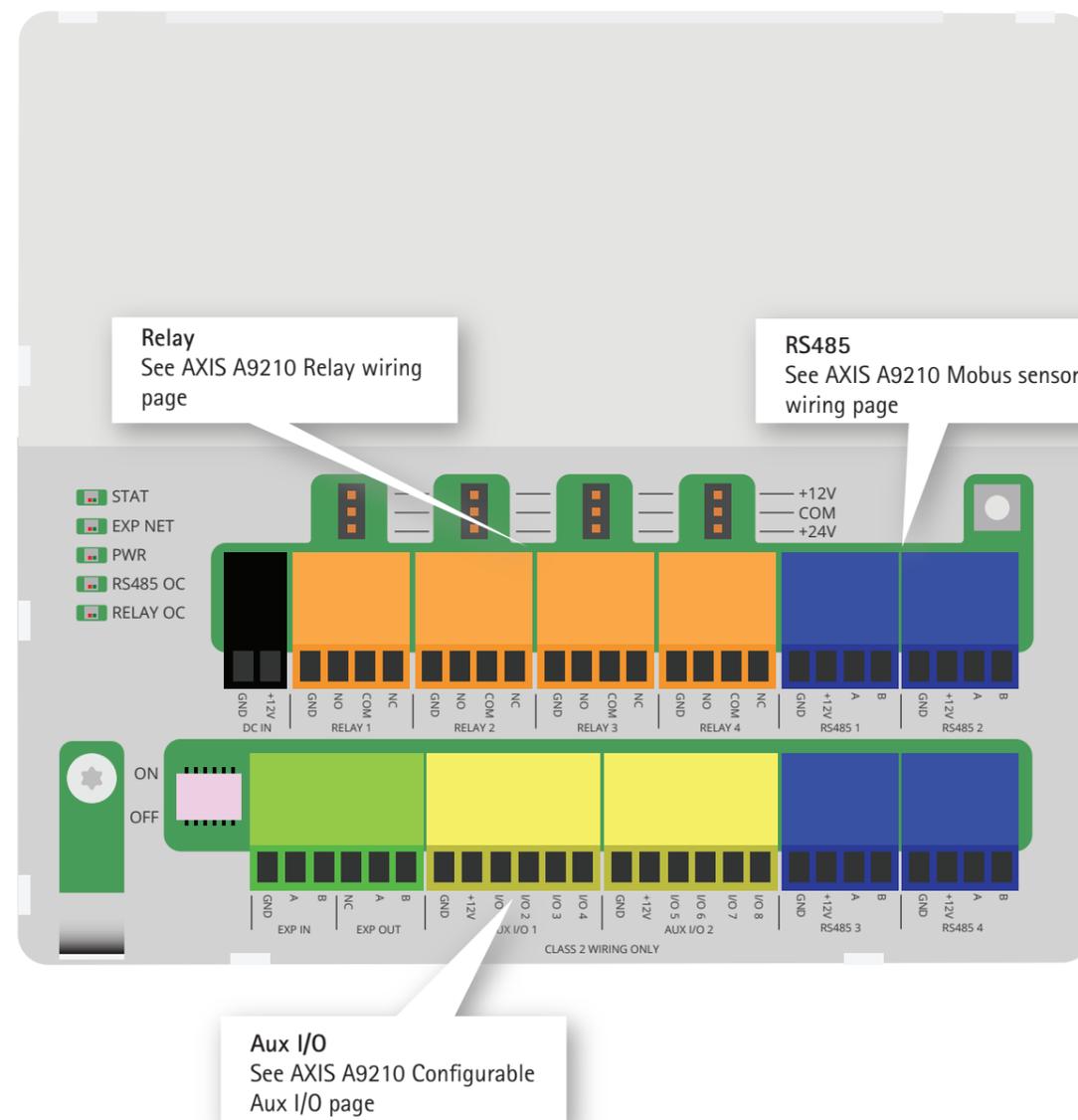
# Expansion module - AXIS A9910

## Application

Please refer to product datasheet for details and the device's web interface for power states

## Requirements

- > Wire size for connectors:
  - > CSA: AWG 28 - 16
  - > CUL/UL: AWG 30 - 14
- > DC power: AWG 18 - 16, qualified for up to 3 m (10 ft)
- > Relay: AWG 18 - 16, qualified for up to 30 m (98 ft)
- > Ethernet and PoE: STP CAT 5e or higher, qualified for up to 100 m (328 ft)
- > I/Os as input: AWG 24, qualified for up to 200 m (656 ft)
- > RS485: 1 twisted pair with shield, 120 ohm impedance, qualified for up to 1000 m (3281 ft)



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 This is just an example.