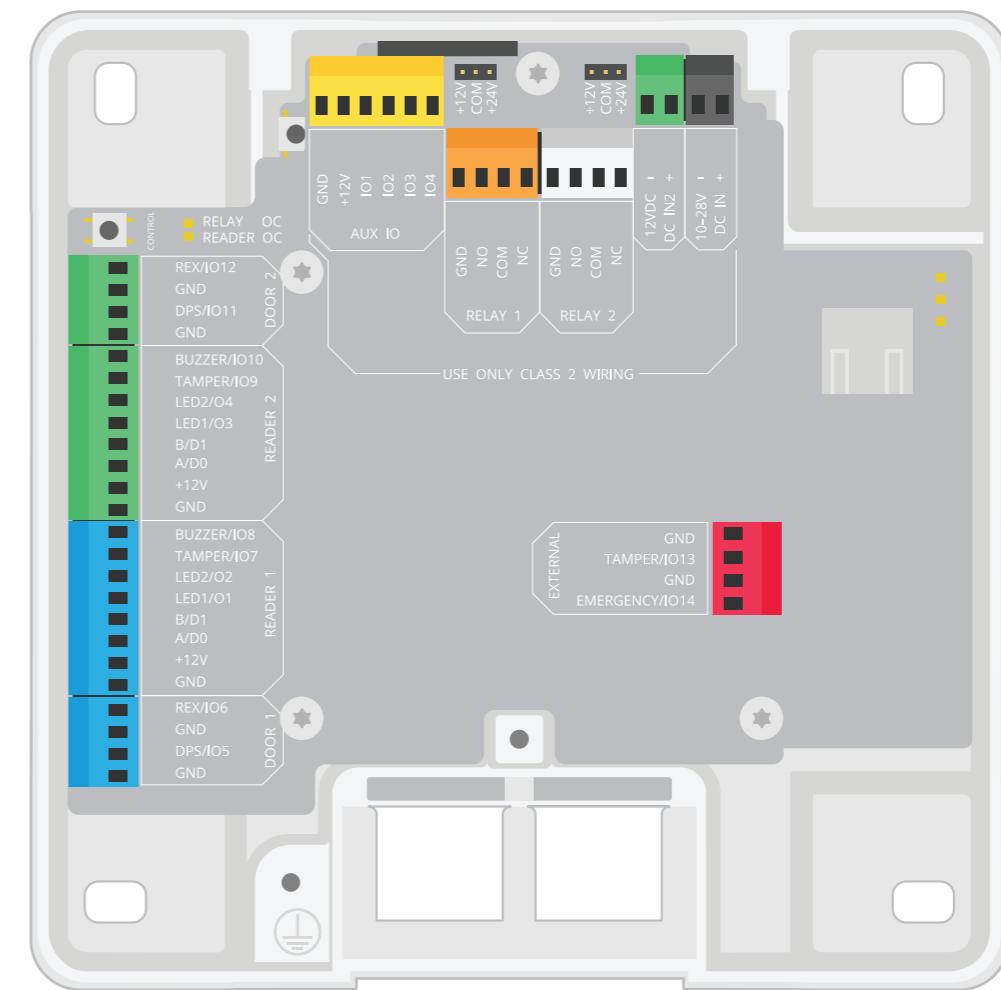


AXIS A16 Network Door Controller Series



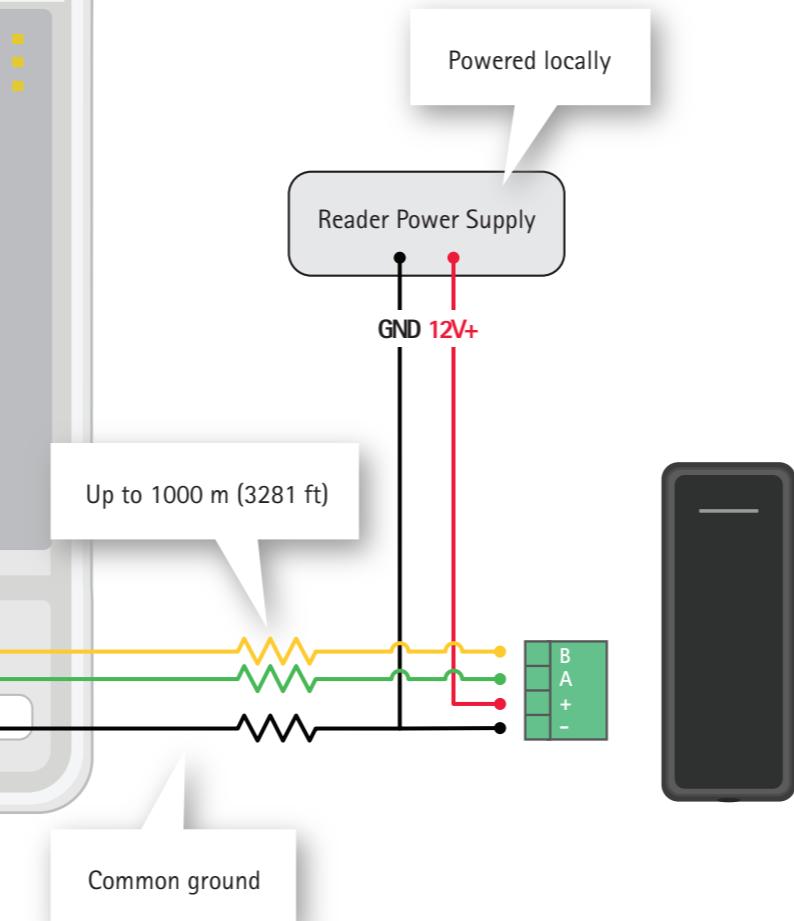
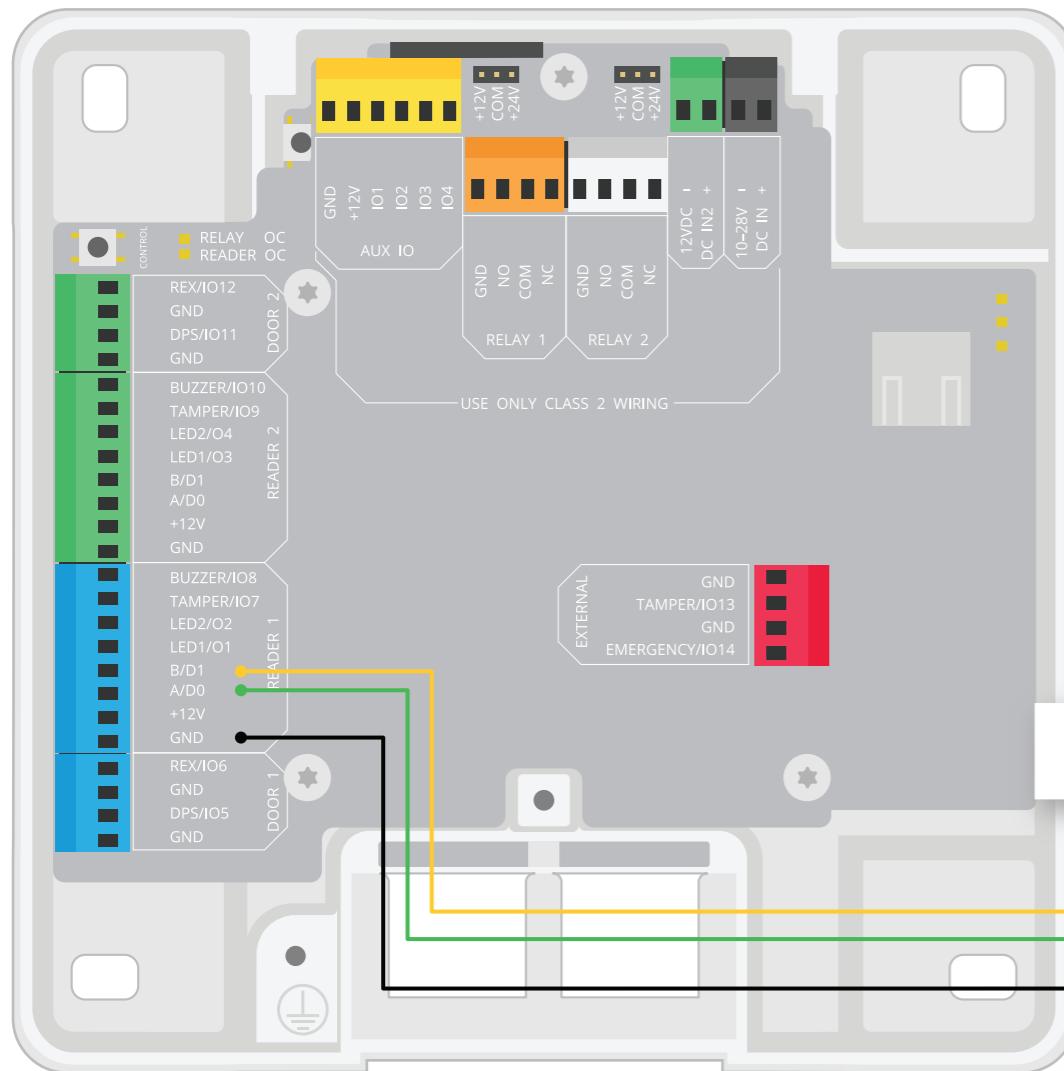
Electrical wiring drawings

Electrical wiring drawings
 AXIS A16 Network Door Controller Series
 © Axis Communications AB, 2021-2026
 Date: January 2026

Installation with long cable for OSDP reader

Application

Reader cable is longer than recommended 1000 m (3281 ft)



Requirements

- > Reader powered locally, not by controller
- > Reader data wiring
 - > RS485 cable, only RS485 communication in cable
 - > Twisted pair with shield
 - > AWG 28-16
 - > 120 ohm impedance

Adhere to local life safety code in all installations.

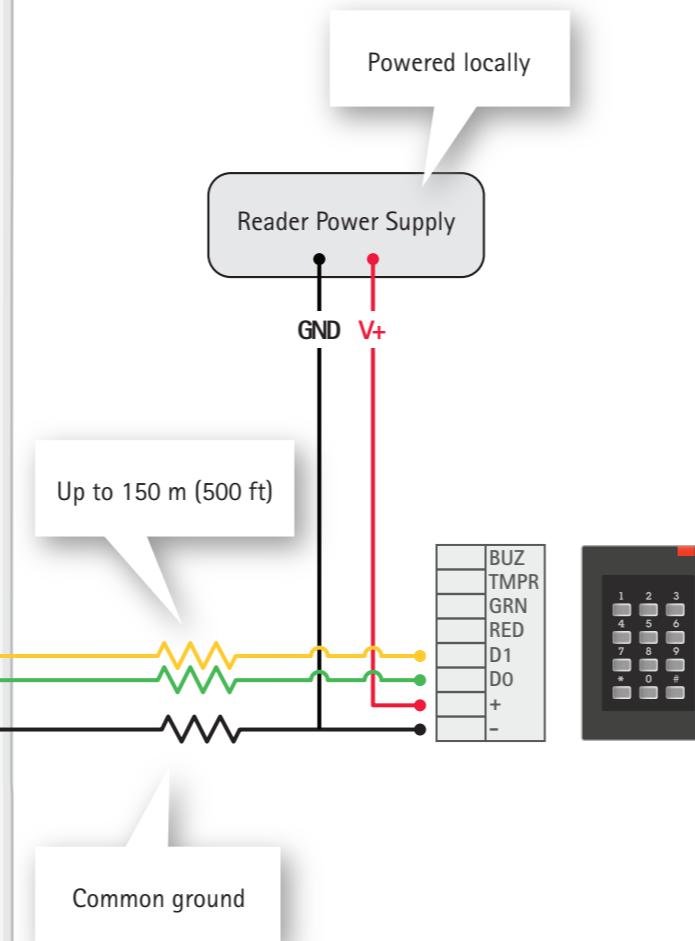
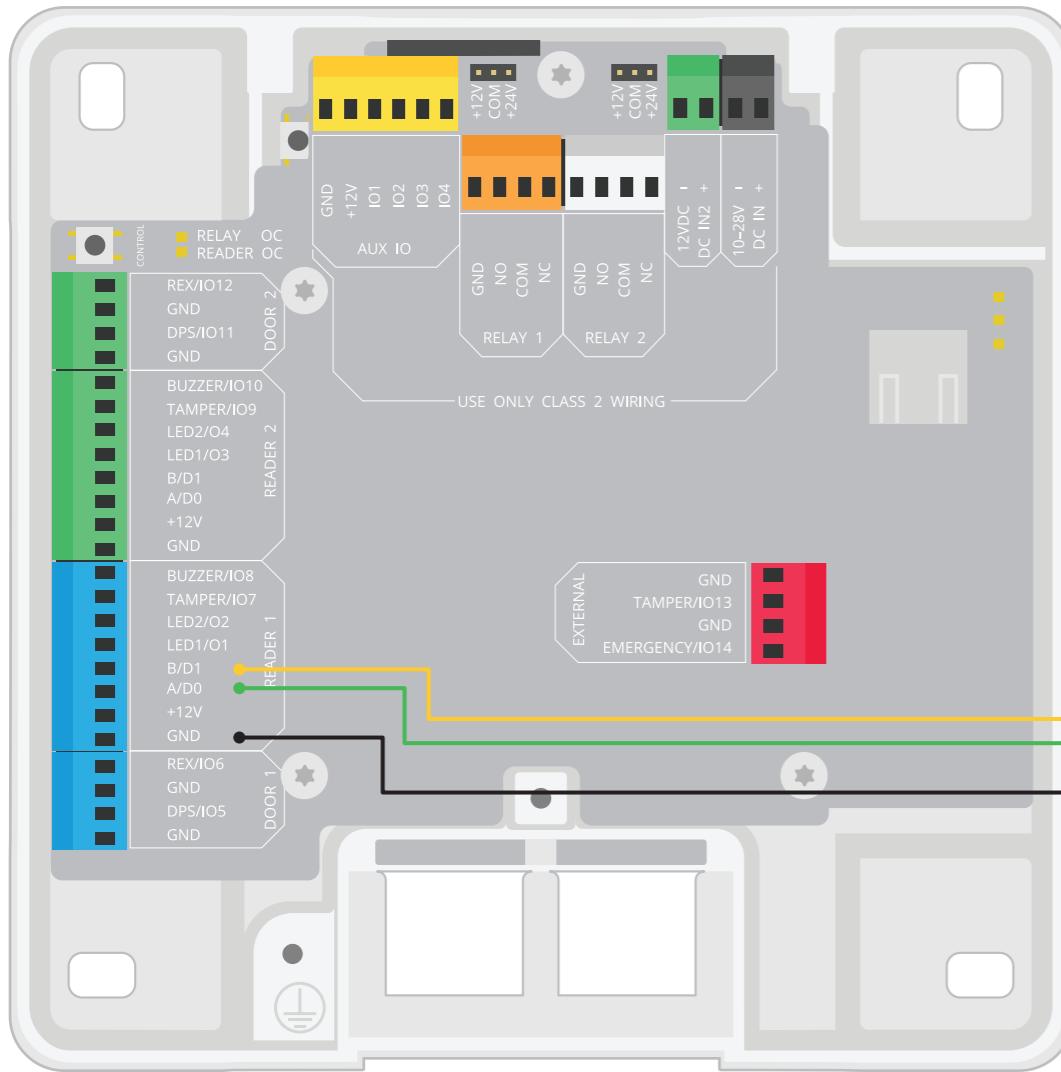
Illustration does not depict door monitors, REX devices, locks, controller power supply, network switch, DC power backup and UPS.

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

This is just an example. Always refer to the pin chart provided from AXIS Camera Station or 3rd party access control management system for installation.

Electrical wiring drawings / AXIS A16 Network Door Controller Series / © Axis Communications AB, 2021-20246 / January 2026

Installation with long cable for Wiegand reader



Application

Reader cable is longer than recommended 150 m (500 ft)

Requirements

- > Reader powered locally, not by controller
- > Reader data wiring
 - > See reader specification for cable requirements

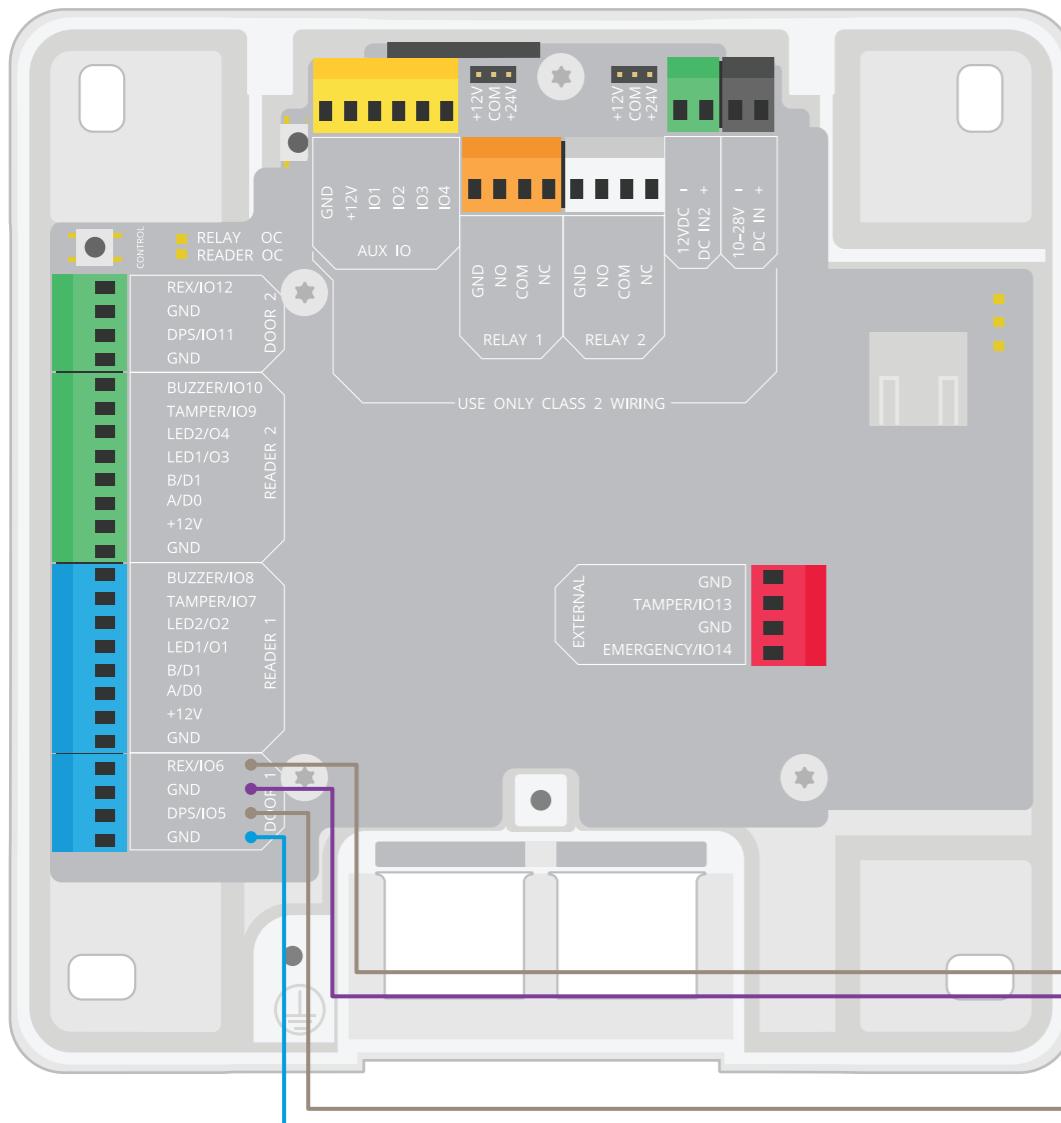
Adhere to local life safety code in all installations.

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

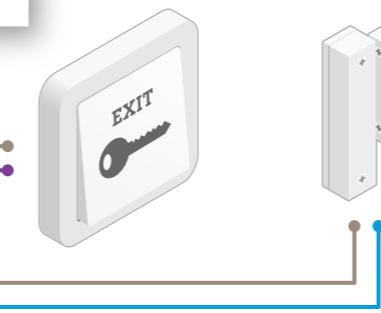
Ensure that your power supplies and relays are rated for the intended purposes.

This is just an example. Always refer to the pin chart provided from AXIS Camera Station or 3rd party access control management system for installation.

Installation with long cable for door inputs



Up to 200 m (656 ft)



Application

Input cable is longer than recommended 200 m (656 ft)

Requirements

> AWG 28-16

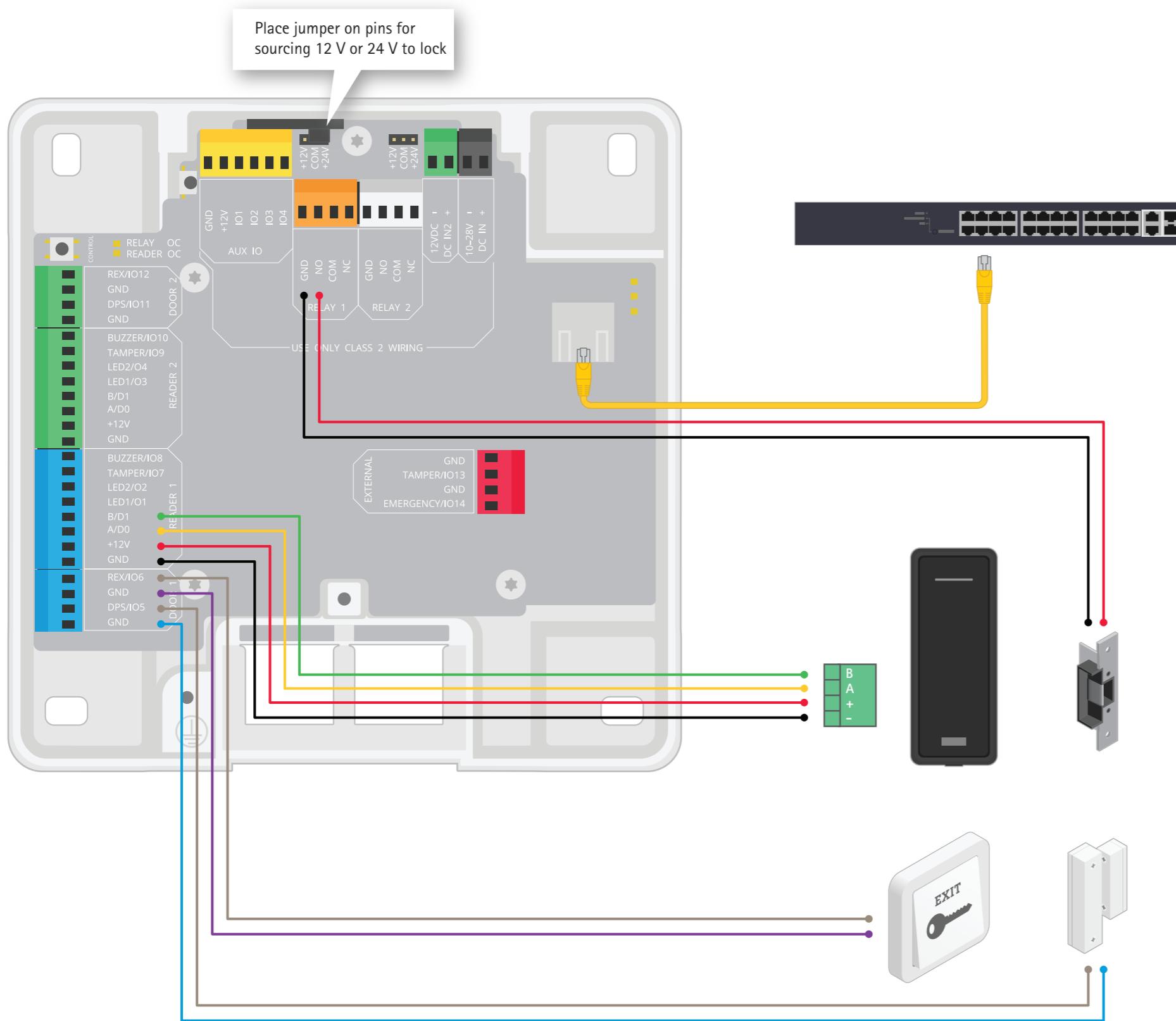
Adhere to local life safety code in all installations.

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

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

This is just an example. Always refer to the pin chart provided from AXIS Camera Station or 3rd party access control management system for installation.

Installation with one door



Adhere to local life safety code in all installations.

Illustration does not depict DC power backup and UPS.

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

This is just an example. Always refer to the pin chart provided from AXIS Camera Station or 3rd party access control management system for installation.

Application

Standard one-door installation with configuration in AXIS Camera Station

Considerations

- > 12 or 24 V fail-secure lock
- > PoE Class 4 switch
- > All peripheral consumption within the controller's power budget

AXIS Camera Station configuration

1. Add a door
2. Connect to a door controller
3. Select Relay 1 for the first lock

Locks

Relay port

Not connected

4. Add a door monitor and assign it to I/O 5

Door monitor

Page 10

5. Add an OSDP reader on door side A and assign it to Reader port 1

Reader

Page 10

JOURNAL OF CLIMATE

Header part 1 on device card

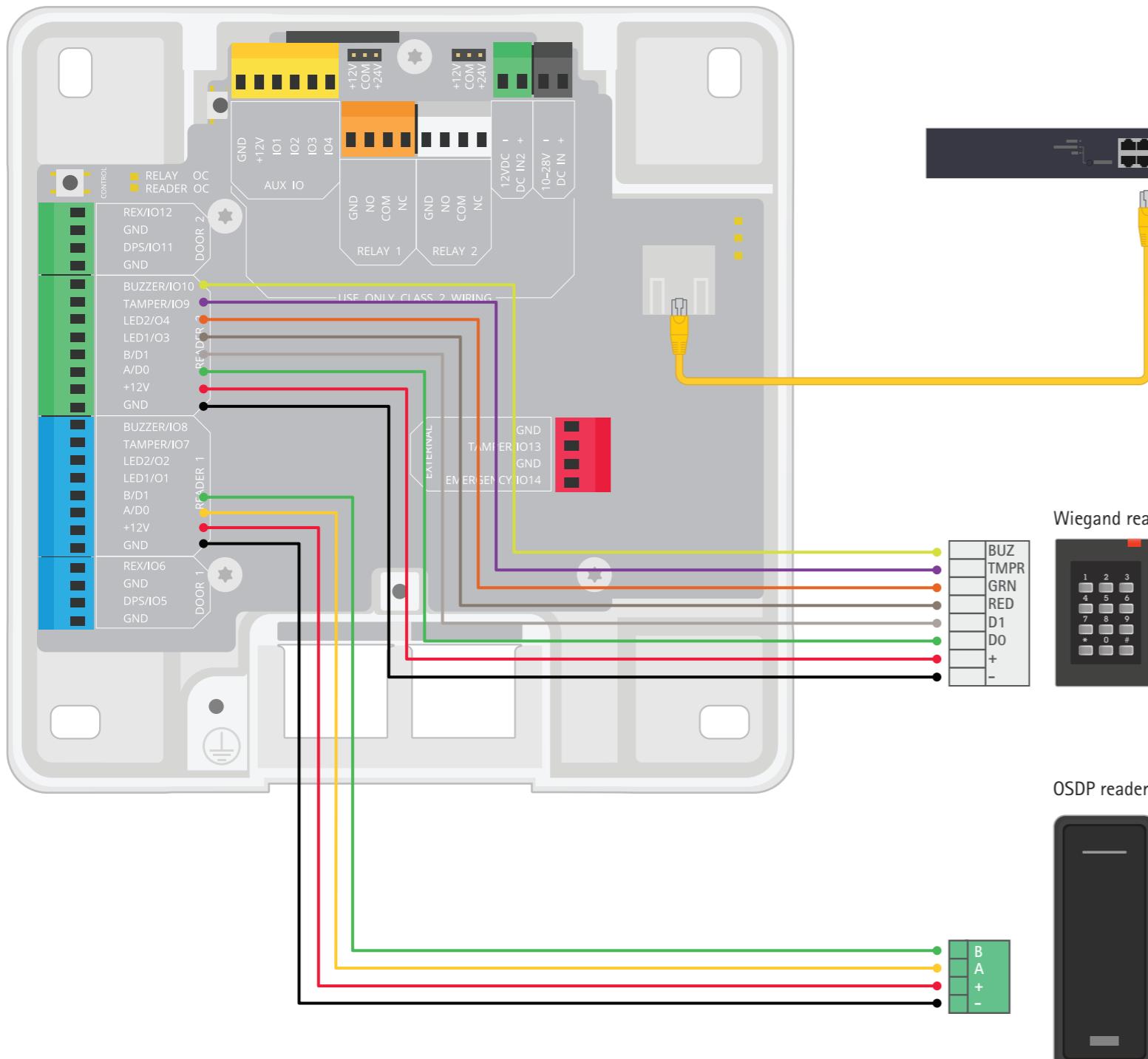
QEDB BE48E

6. Add a REX device on door side B and assign it to I/O 6

RFX device

5

Possible reader options



Adhere to local life safety code in all installations.

Illustration does not depict door monitors, REX devices, locks, DC power backup and UPS.

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

This is just an example. Always refer to the pin chart provided from AXIS Camera Station or 3rd party access control management system for installation.

Application

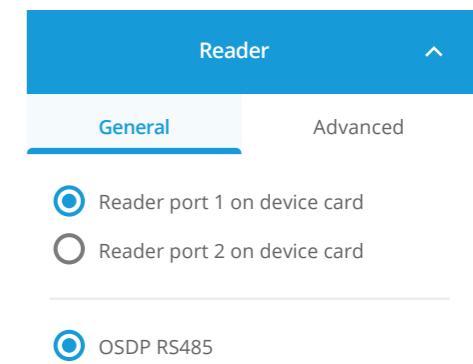
Two wiring options (OSDP and Wiegand) for the controller with configuration in AXIS Camera Station

Considerations

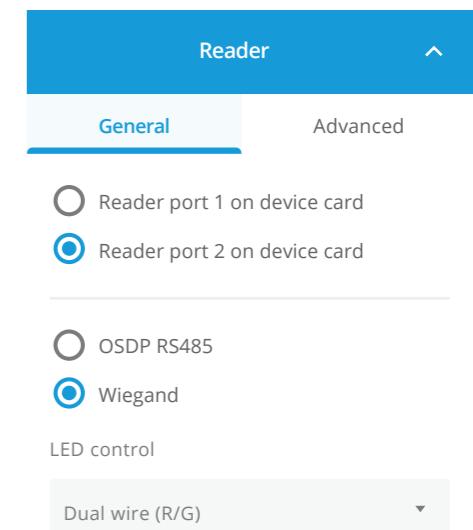
- > PoE Class 4 switch
- > All peripheral consumption within the controller's power budget

AXIS Camera Station configuration

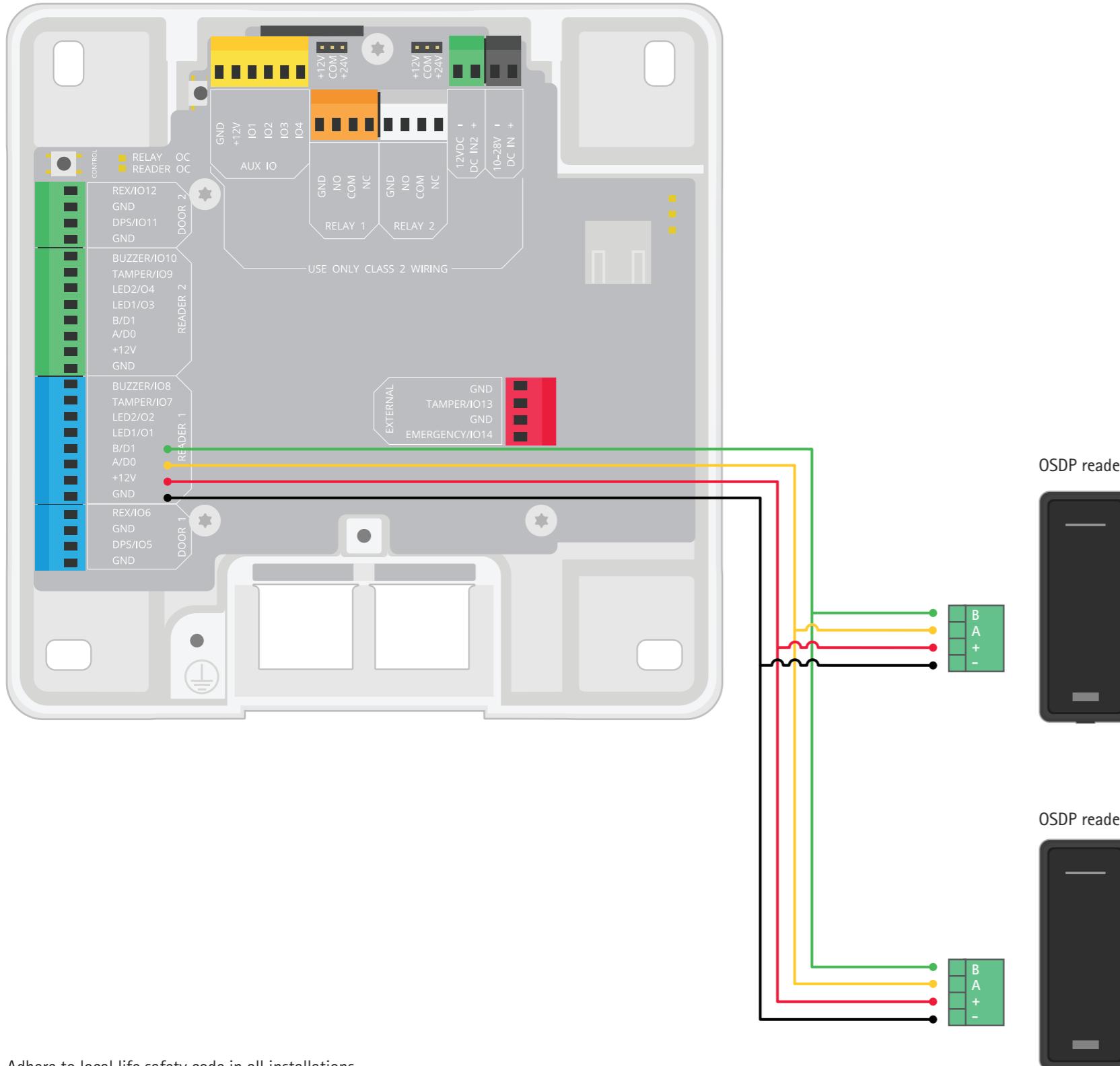
1. Add a door
2. Connect to a door controller
3. Add an OSDP reader on door side A and assign it to Reader port 1



4. Add a Wiegand reader with Dual wire LED control on door side B and assign it to Reader port 2



Possible reader options



Adhere to local life safety code in all installations.

Illustration does not depict door monitors, REX devices, locks, DC power backup and UPS.

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

This is just an example. Always refer to the pin chart provided from AXIS Camera Station or 3rd party access control management system for installation.

Application

Two OSDP readers (multi-drop) for the controller with configuration in AXIS Camera Station

Note!
Multi-drop not available on A1601

Considerations

- > PoE Class 4 switch
- > All peripheral consumption within the controller's power budget

AXIS Camera Station configuration

1. Add a door
2. Connect to a door controller
3. Add an OSDP reader on door side A or side B and assign it to Reader port 1, address 1.
4. Add the second OSDP reader on the same side and assign to reader port 1, address 2.
5. Ensure the readers are physically configured to the correct reader address.

Reader

General Advanced

Reader type

Card reader

OSDP RS485

Wiegand

IP reader (i)

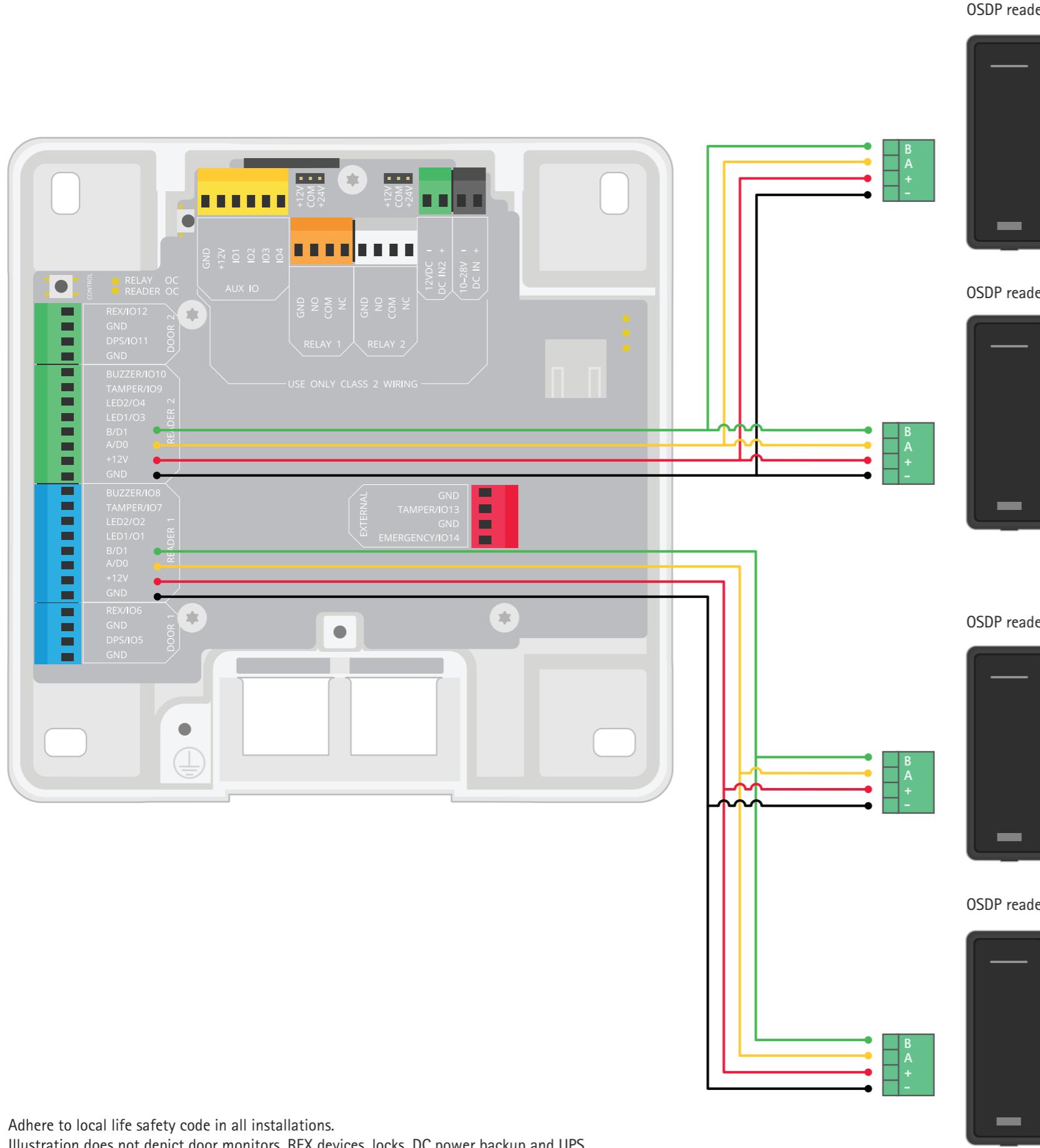
Reader port 1

Reader address

0

OSDP termination must be set on the last reader in the chain.

Possible reader options



Adhere to local life safety code in all installations.

Illustration does not depict door monitors, REX devices, locks, DC power backup and UPS.

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

This is just an example. Always refer to the pin chart provided from AXIS Camera Station or 3rd party access control management system for installation.

Application

Four OSDP readers (multi-drop) for the controller with configuration in AXIS Camera Station

Note!
Multi-drop not available on A1601

Considerations

- > PoE Class 4 switch
- > All peripheral consumption within the controller's power budget

AXIS Camera Station configuration

1. Add a door
2. Connect to a door controller
3. Add an OSDP reader either on side A or side B and assign to Reader port 1, address 1.
4. Add the second OSDP reader on the same side and assign to Reader port 1, address 2.
5. Ensure the readers are physically configured to the correct reader address.
6. Repeat on the other door side on Reader port 2.

Reader

General Advanced

Reader type

Card reader

OSDP RS485

Wiegand

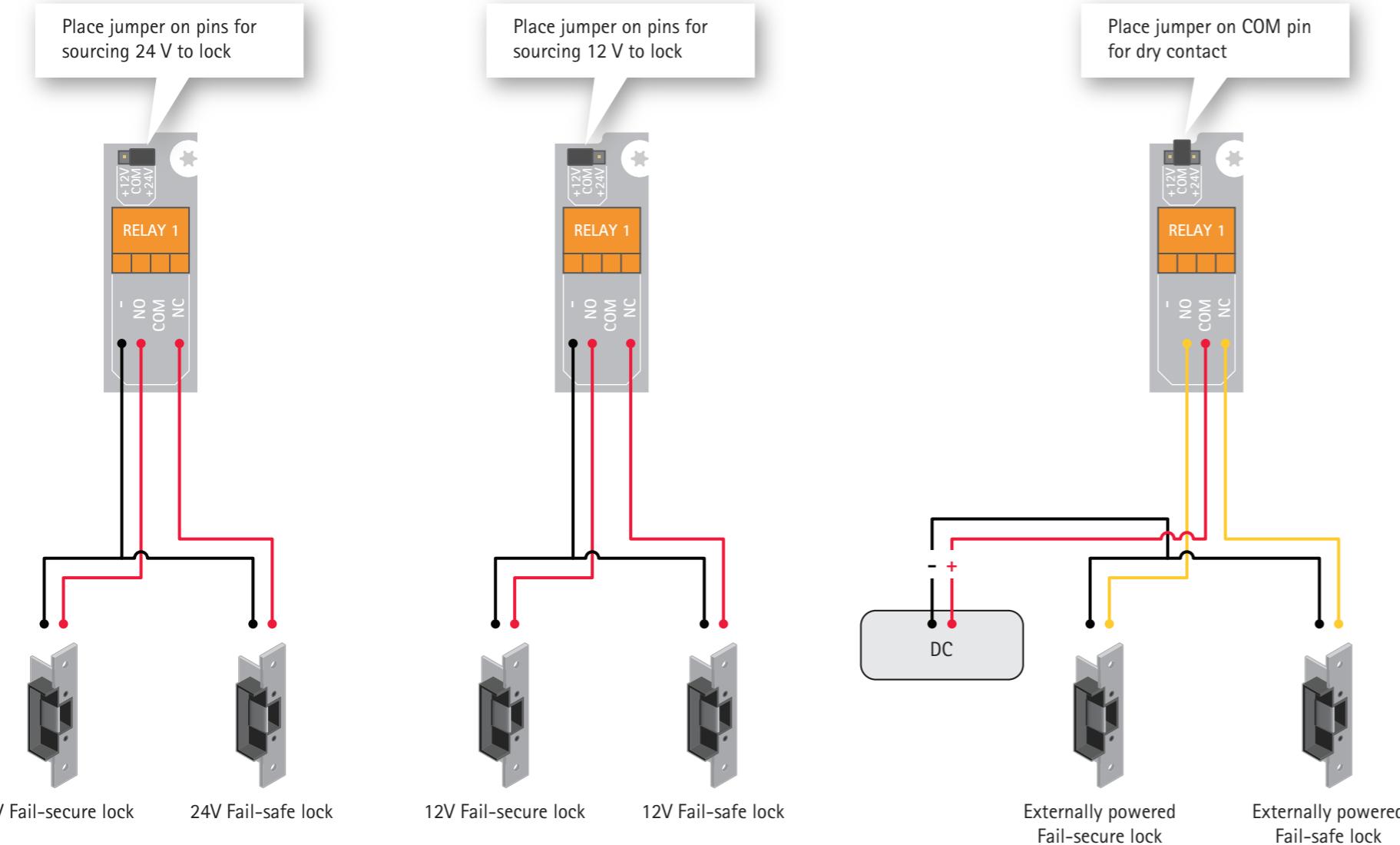
IP reader i

Reader port 1

Reader address

OSDP termination must be set on the last reader in the chain.

Possible relay options for A-line products



Application

Configuration of A-line relays with jumpers

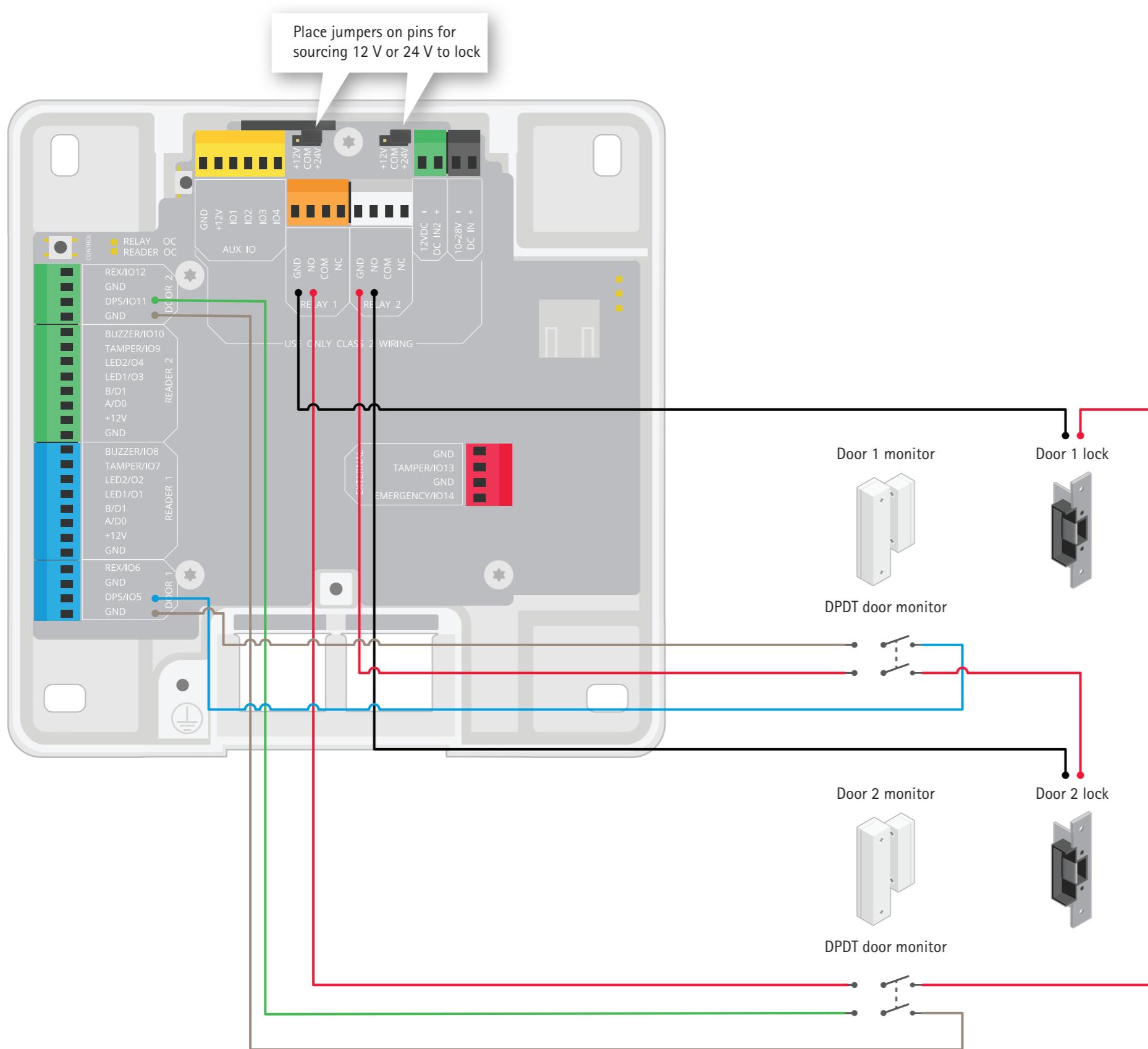
Applicable for:

- Axis door controllers
- Axis I/O relay modules

For product-specific voltage and specification for the relay, see the product datasheet.

OSDP termination must be set on the last reader in the chain.

Installation with two-door interlock



Adhere to local life safety code in all installations.

Illustration does not depict readers, REX devices, controller power supply, network switch, DC power backup and UPS.

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

This is just an example. Always refer to the pin chart provided from AXIS Camera Station or 3rd party access control management system for installation.

Application

Two-door interlock installation with configuration in AXIS Camera Station
(One door can only open when the other has closed)

- > two doors connected to one controller
- > two doors connected to two controllers

Considerations

- > Door monitors with max current rating from lock
- > Double Pole Double Throw (DPDT) door monitors
- > 12 or 24 V fail-secure locks

Setup

1. Configure one DPDT door monitor
 - a. Connect one pole as input for door 1 monitor
 - b. Connect the other pole in serial to door 2 lock
2. Configure the other DPDT door monitor
 - a. Connect one pole as input for door 2 monitor
 - b. Connect the other pole in serial to door 1 lock

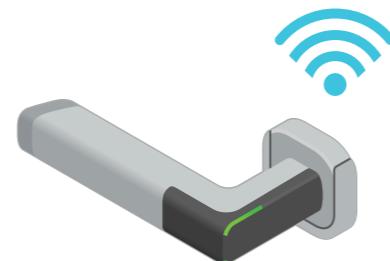
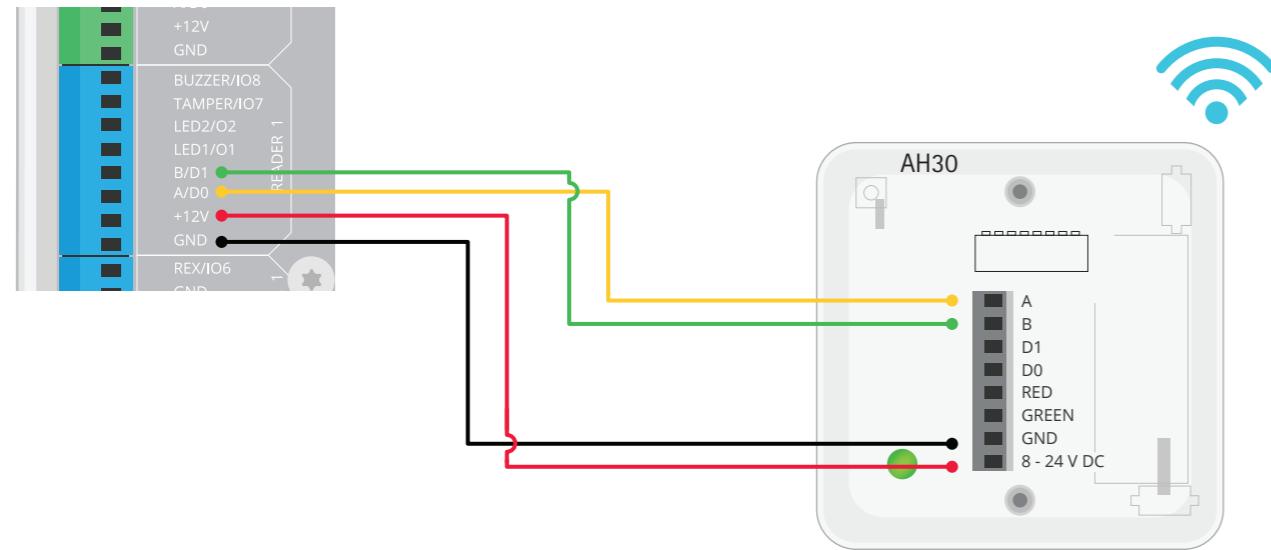
AXIS Camera Station configuration

1. Create door 1 and door 2 that connect to the same controller
2. Assign door lock to Relay 1 for door 1
3. Assign door monitor to I/O 5 for door 1
4. Assign door lock to Relay 2 for door 2
5. Assign door monitor to I/O 11 for door 2

Wireless lock

Application

Connecting Aperio Hub AH30 to the controller. AXIS door controller extension license required



Adhere to local life safety code in all installations.

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This is just an example. Always refer to the pin chart provided from AXIS Camera Station or 3rd party access control management system for installation.

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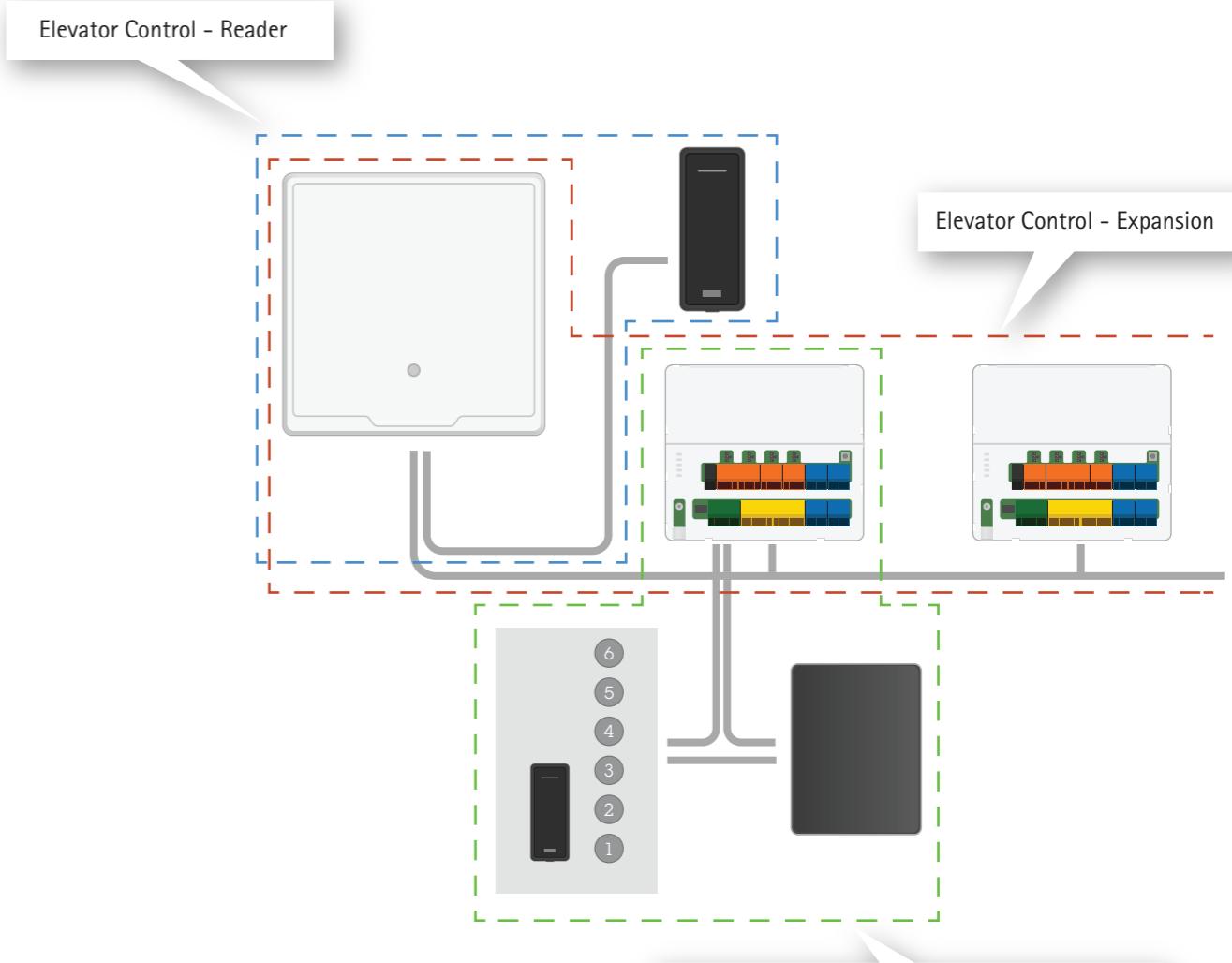
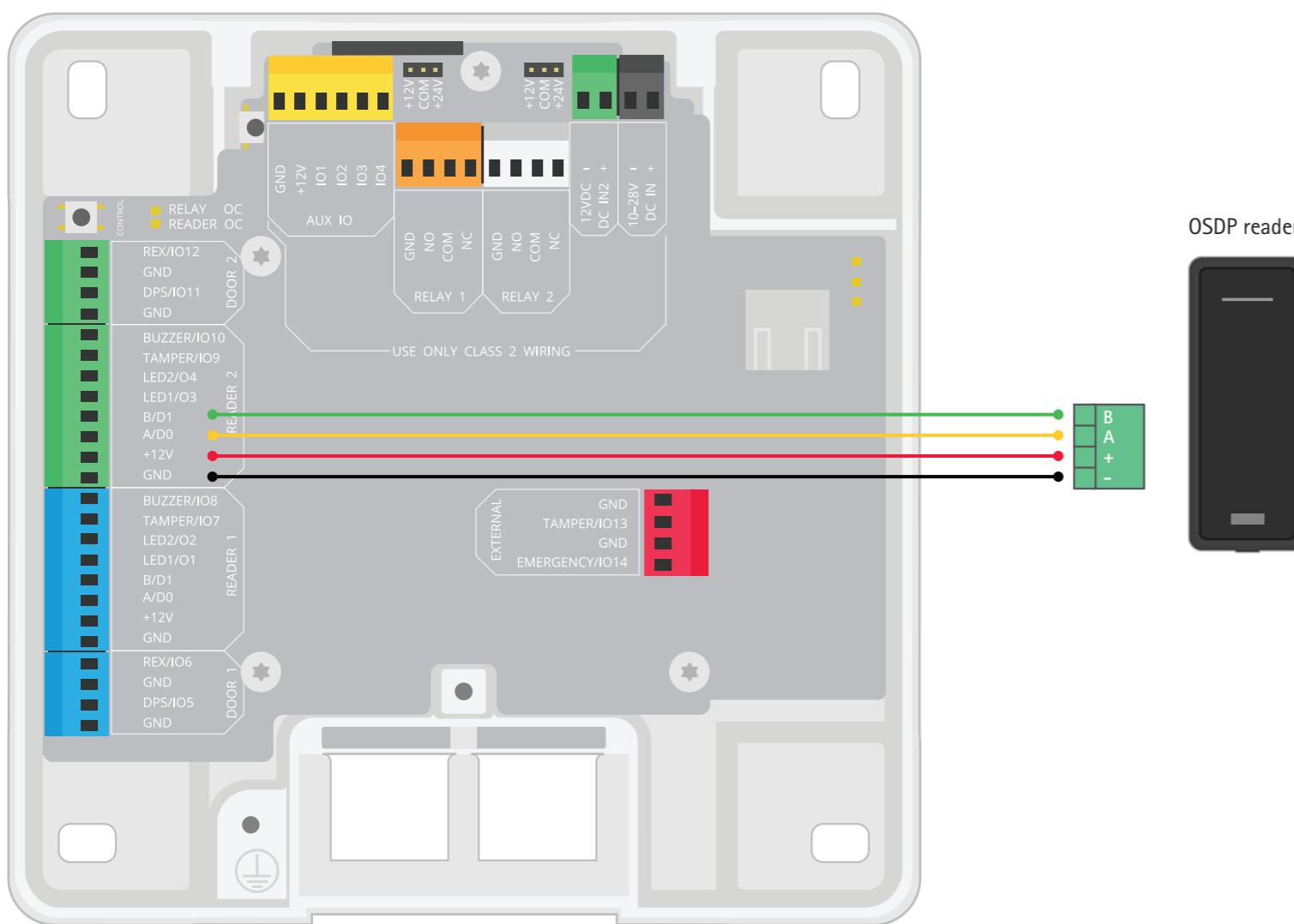
Elevator Control - Reader

Application

Elevator control Reader connection

Requirements

- > Only OSDP reader
- > Reader port 1 or 2
- > Not possible to multidrop with A9910
- > Reader Cable length:
 - 200m Powered by the controller
 - 1000m When powered externally



Adhere to local life safety code in all installations.

Illustration does not depict readers, REX devices, controller power supply, network switch, DC power backup and UPS.

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

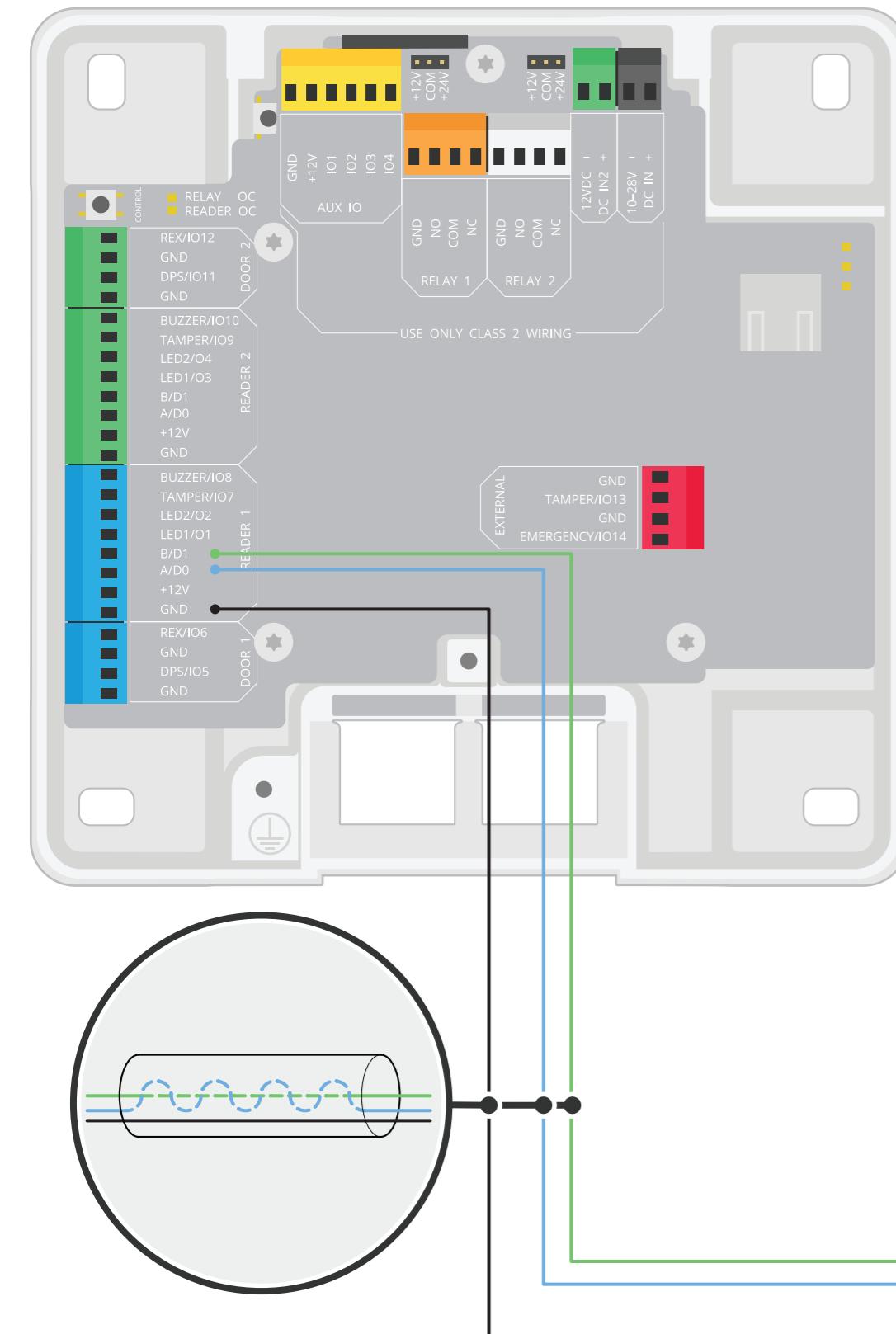
This is just an example. Always refer to the pin chart provided from AXIS Camera Station or 3rd party access control management system for installation.

Electrical wiring drawings / AXIS A16 Network Door Controller Series / © Axis Communications AB, 2021–2026 / January 2026

Elevator Control - Expansion

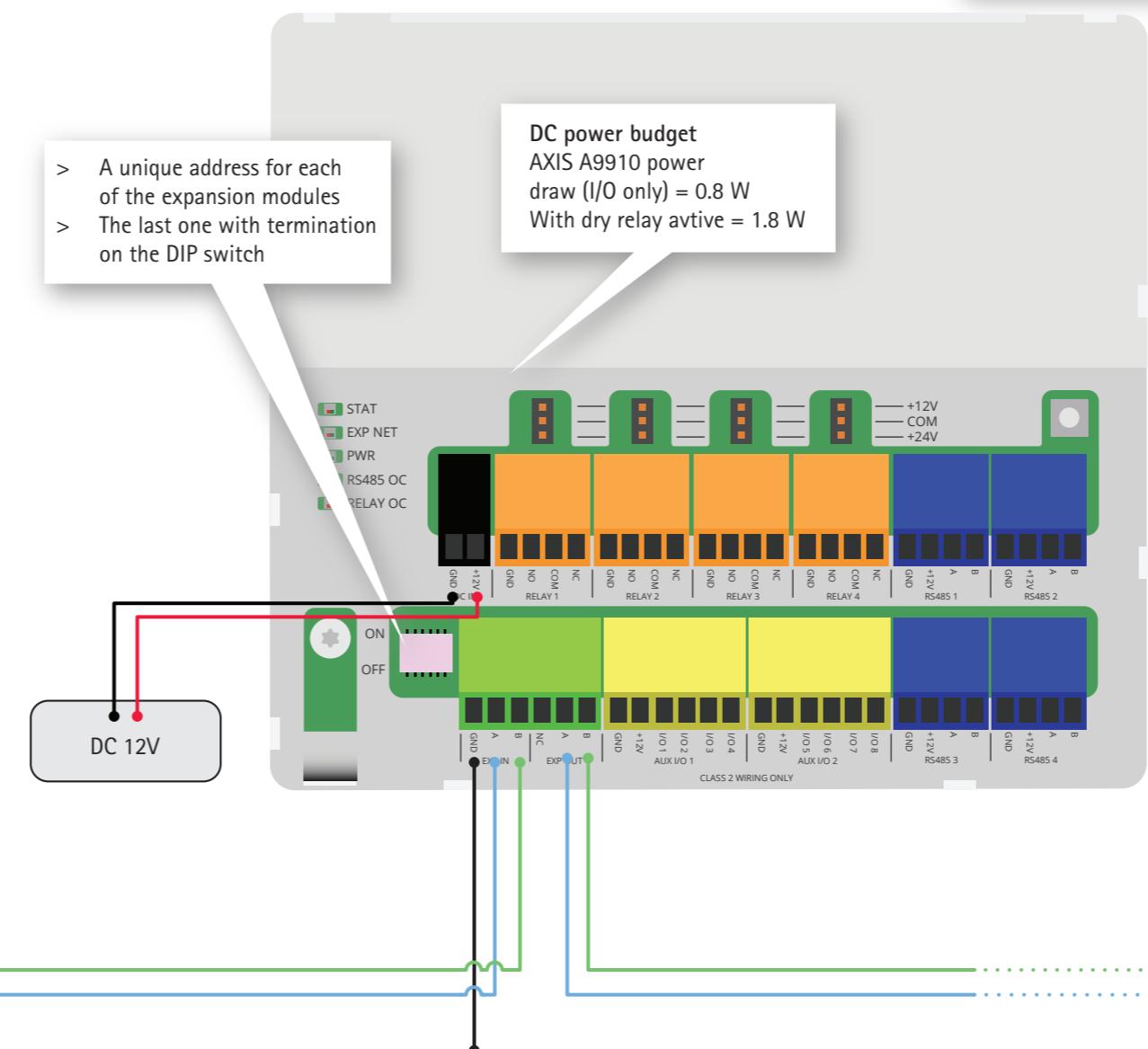
Application

Connecting expansion modules to the door controller for Elevator control



Requirements

- > Door controller FW 12.6.102.1 and above
- > A9910 FW version 1.4.6 and later
- > A9910 needs externally powered
- > Connect to Reader port 1 or reader port 2
- > Cannot connect Reader and Expansion module to same port



Adhere to local life safety code in all installations.

Illustration does not depict readers, REX devices, controller power supply, network switch, DC power backup and UPS.

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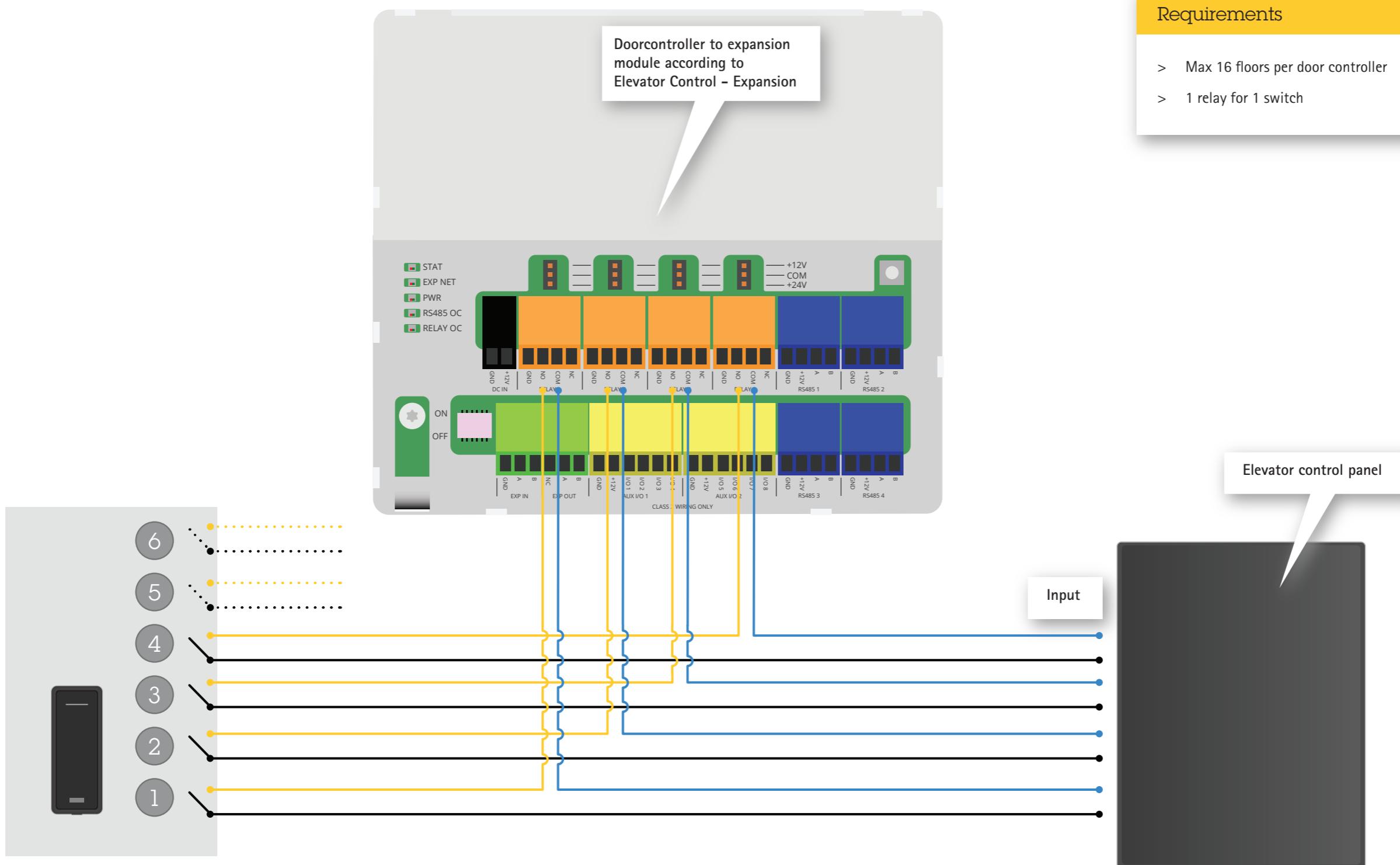
Elevator Control - Floor switch and Control panel

Application

Expansion unit connection to the floor switch and elevator control panel

Requirements

- > Max 16 floors per door controller
- > 1 relay for 1 switch



Adhere to local life safety code in all installations.

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