AXIS A12 Network Door Controller Series

PoE+

+12V

+24V

GND
+12V
DC IN

GND
NO
COM
NC
RELAY

GND
DPS
GND
REX
DOOR IN

GND
+12V
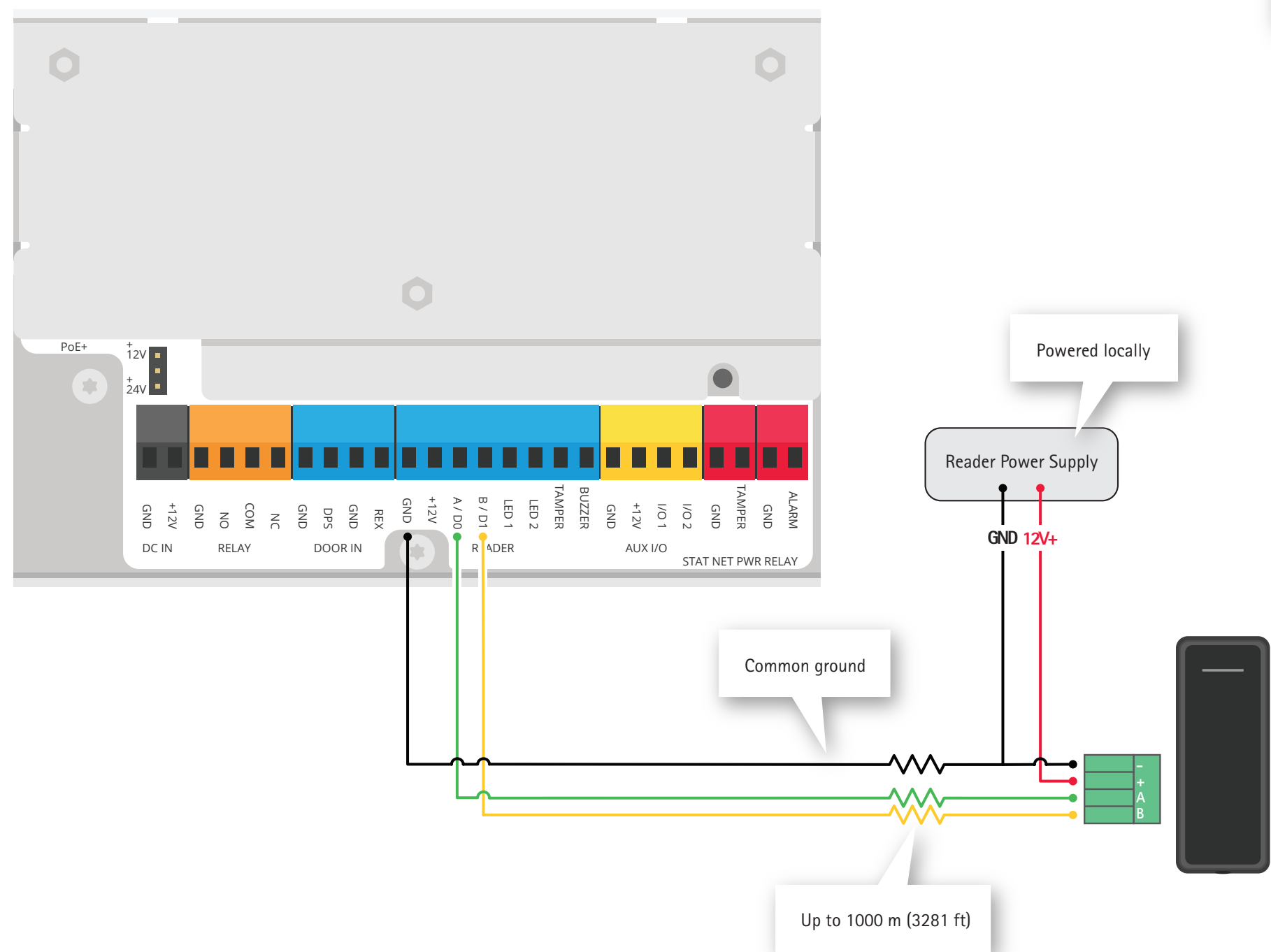A / D0
B / D1
LED 1
LED 2
TAMPER
BUZZER
READER

GND
+12V
I/O 1
I/O 2
AUX I/O

TAMPER
GND
ALARM
STAT NET PWR RELAY
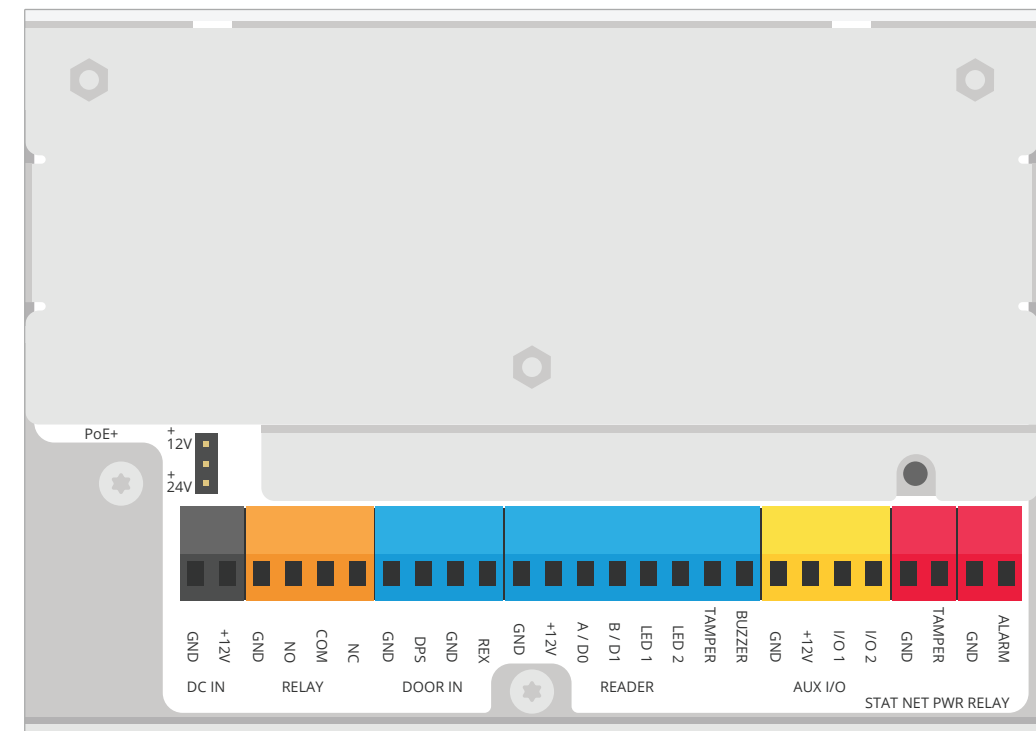
Electrical wiring drawings

Installation with long cable for OSDP reader

PoE+

+ 12V
+ 24V

GND +12V | GND NO COM NC | GND DPS GND REX GND +12V A/D0 B/D1 LED 1 LED 2 TAMPER BUZZER | GND +12V I/O 1 I/O 2 | GND TAMPER GND ALARM

DC IN | RELAY | DOOR IN | READER | AUX I/O | STAT NET PWR RELAY

Powered locally

Reader Power Supply

GND 12V+

Common ground
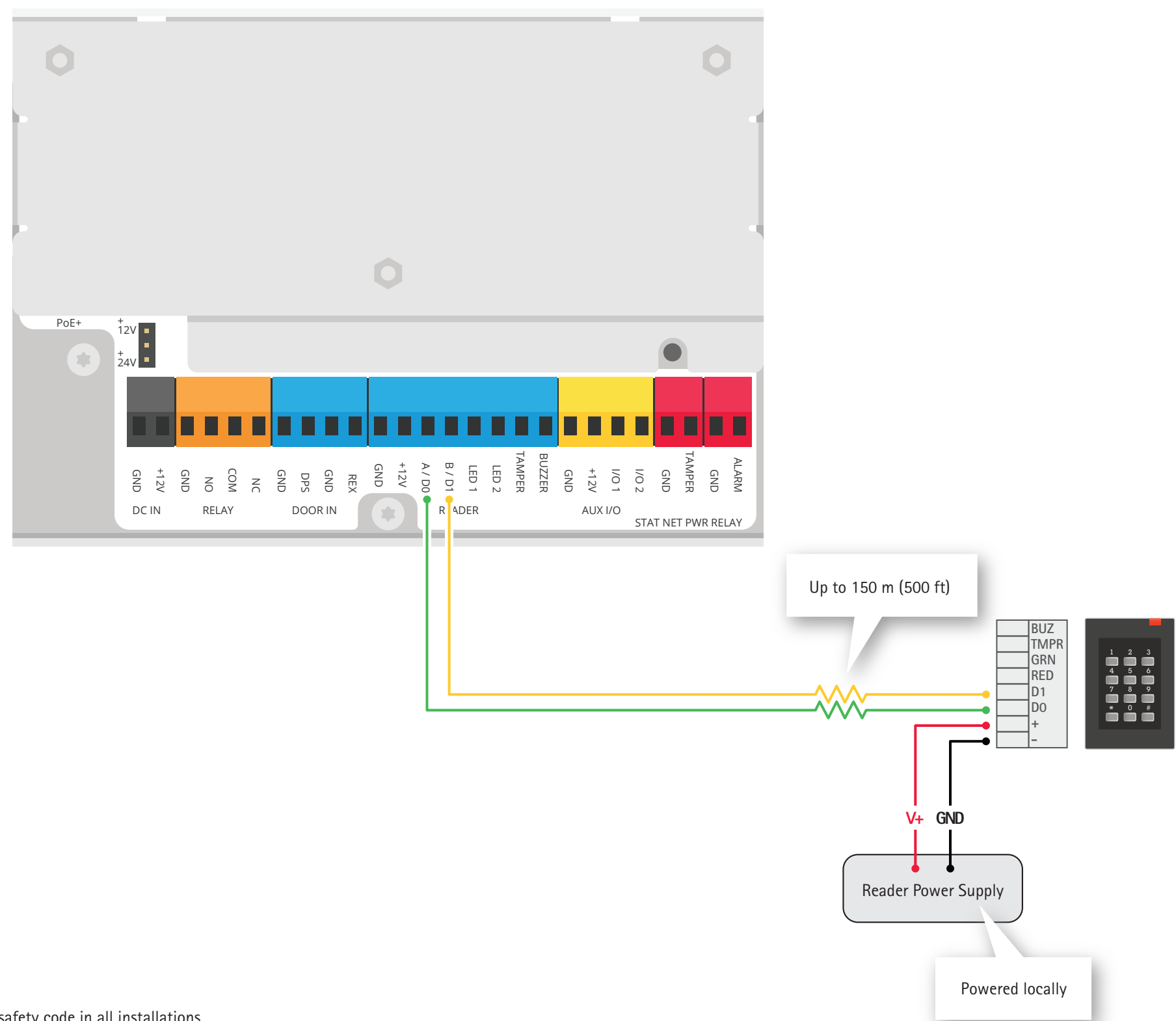
Up to 1000 m (3281 ft)

−
+
A
B

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. Always refer to the pin chart provided from AXIS Camera Station for installation.

Installation with long cable for Wiegand reader

Up to 150 m (500 ft)

Powered locally

PoE+
+12V
+24V

GND +12V | GND NO COM NC | GND DPS GND REX GND +12V A / D0 B / D1 LED 1 LED 2 TAMPER BUZZER | GND +12V I/O 1 I/O 2 | GND TAMPER | GND ALARM

DC IN | RELAY | DOOR IN | READER | AUX I/O | STAT NET PWR RELAY

BUZ
TMPR
GRN
RED
D1
D0
+
−

V+   GND

Reader Power Supply

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This is just an example. Always refer to the pin chart provided from AXIS Camera Station for installation.
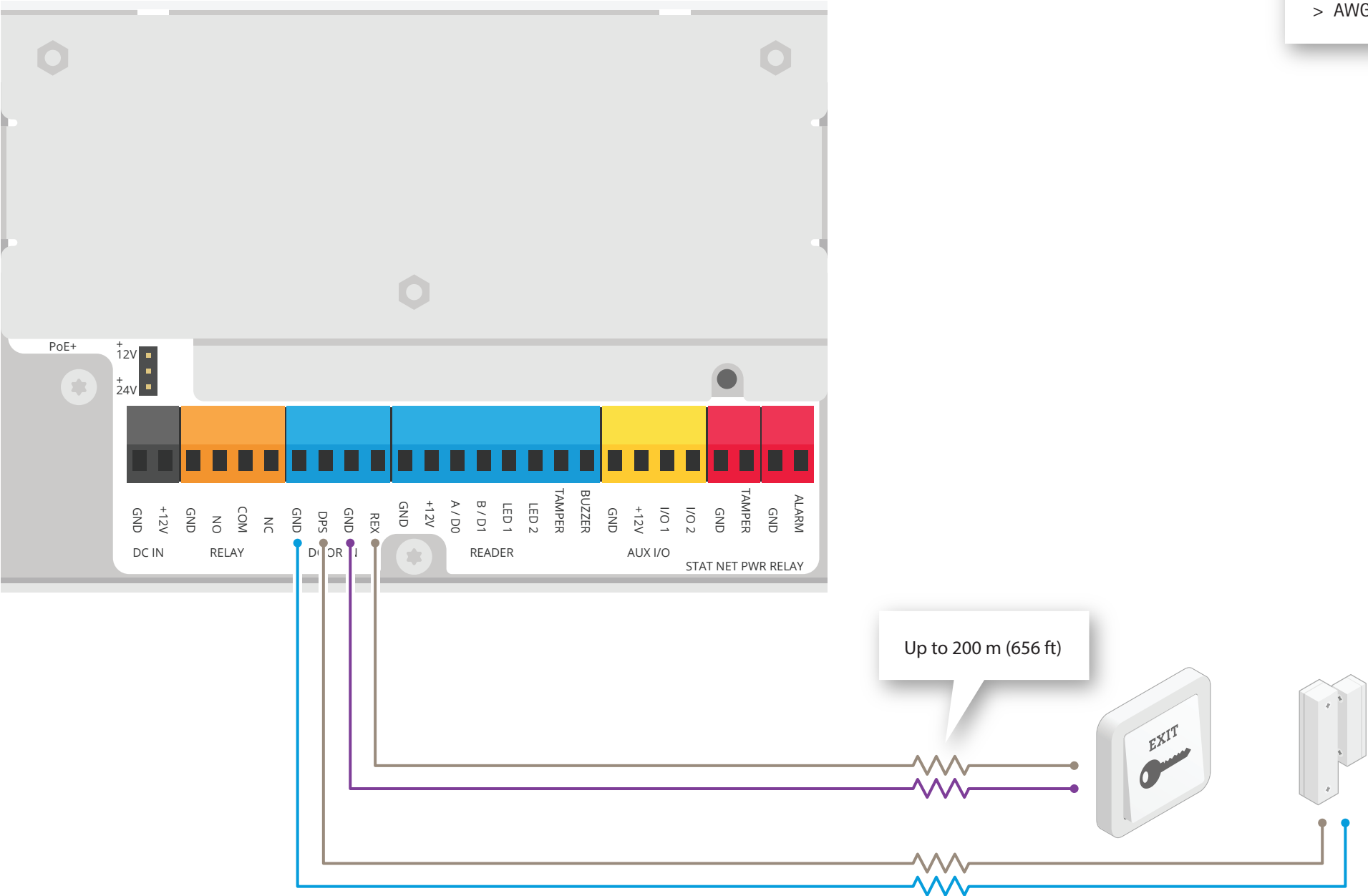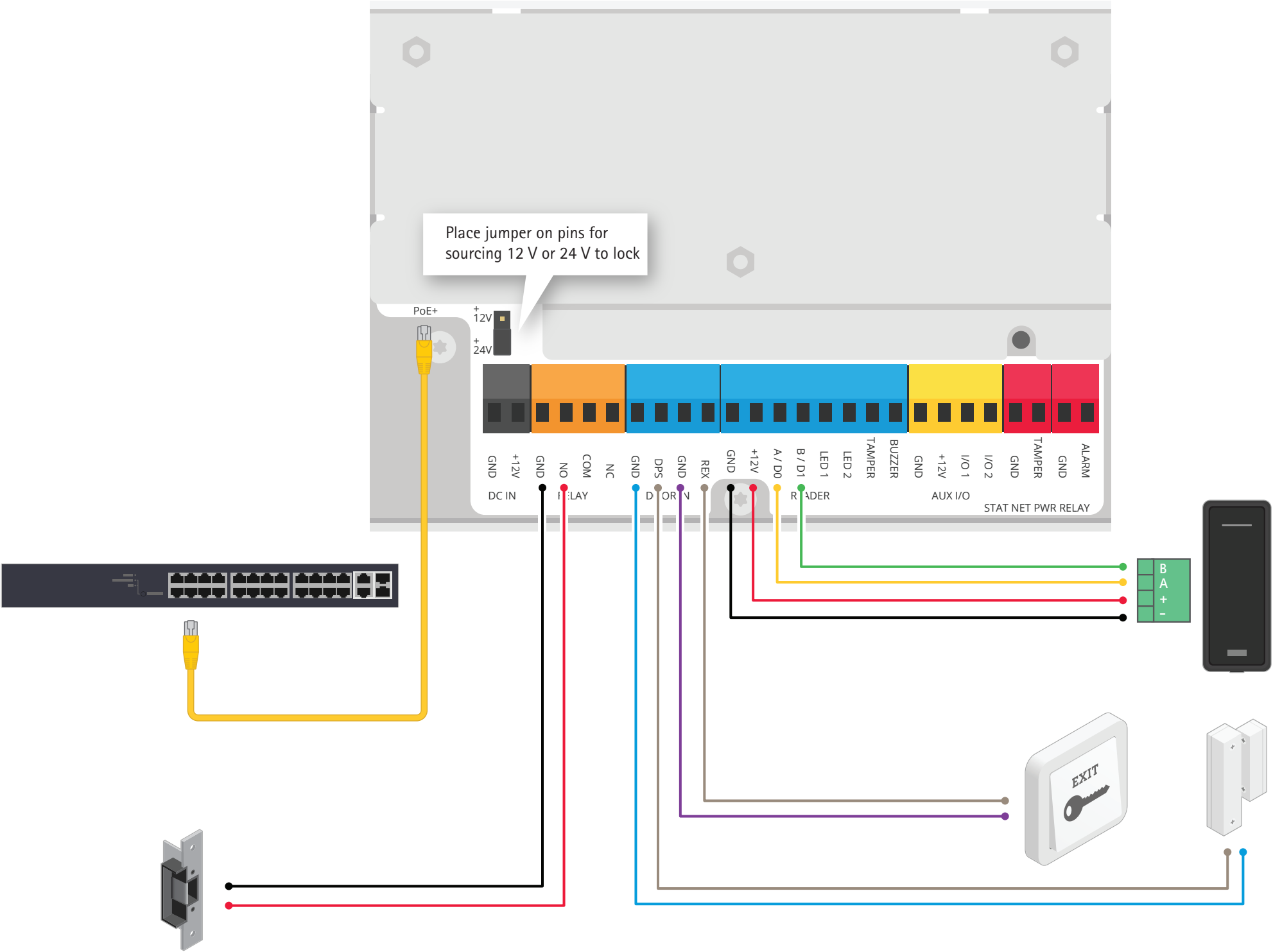
Installation with long cable for door inputs

PoE+

+ 12V
+ 24V

GND | +12V | GND | NO | COM | NC | GND | DPS | GND | REX | GND | +12V | A / D0 | B / D1 | LED 1 | LED 2 | TAMPER | BUZZER | GND | +12V | I/O 1 | I/O 2 | GND | TAMPER | GND | ALARM

DC IN | RELAY | DOOR I | READER | AUX I/O | STAT NET PWR RELAY

Up to 200 m (656 ft)

EXIT

Standard installation

Place jumper on pins for sourcing 12 V or 24 V to lock

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Illustration does not depict battery backup and UPS.
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Application

Standard one-door installation with configuration in AXIS Camera Station

Considerations

> 12 V 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 1 ▼ | Not connected ▼ |

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

   Door monitor ∧

   ◉ DPS
   ○ REX

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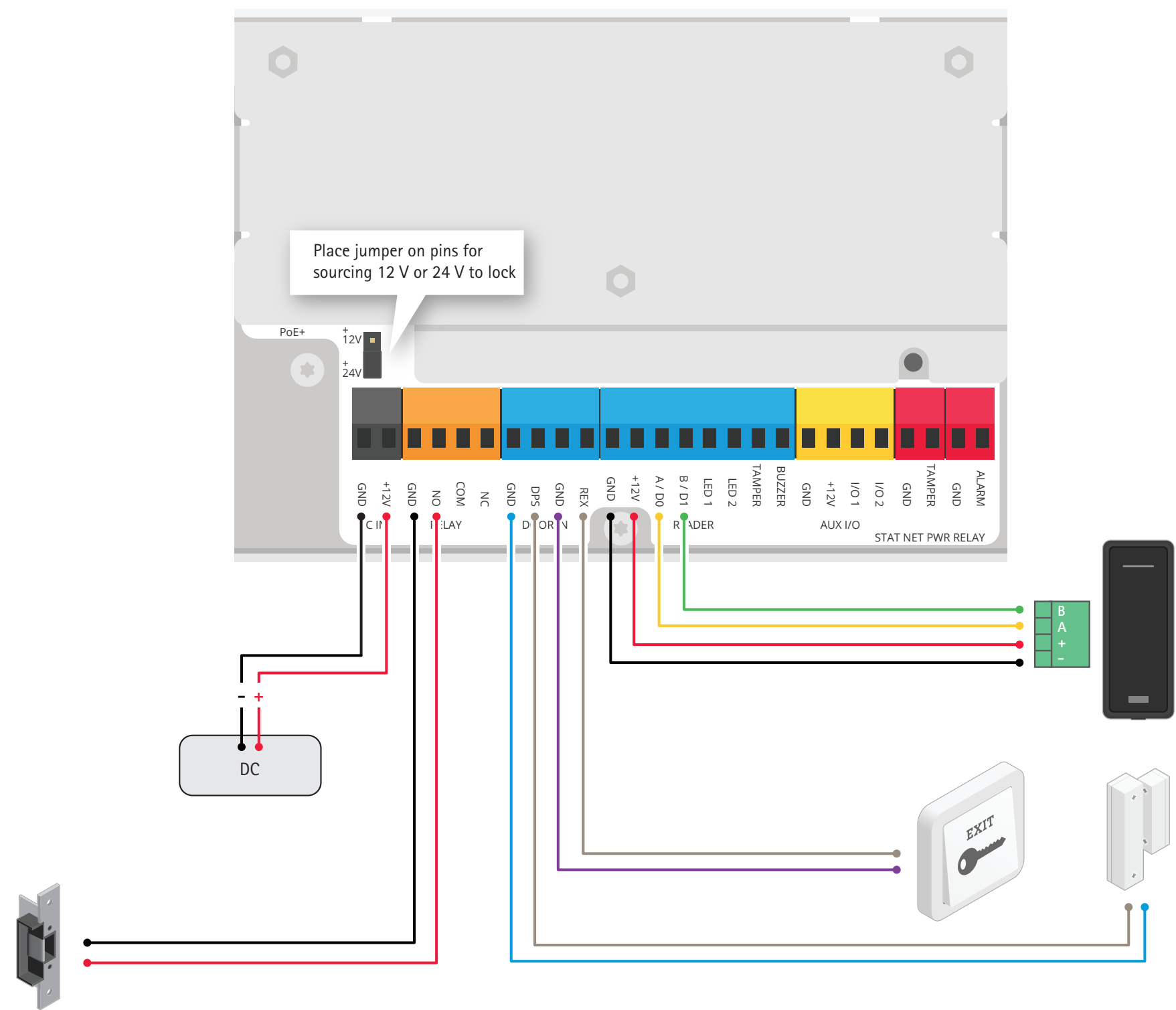
   Reader ∧

   General   Advanced

   ◉ Reader port 1 on device card
   ○ Reader port 2 on device card

   ◉ OSDP RS485

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

   REX device ∧

   ○ DPS
   ◉ REX

Standard installation powered by DC

Place jumper on pins for sourcing 12 V or 24 V to lock

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Illustration does not depict door monitors, REX devices, locks, battery backup and UPS.
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Application

2100 mA at 12 V if powered by DC
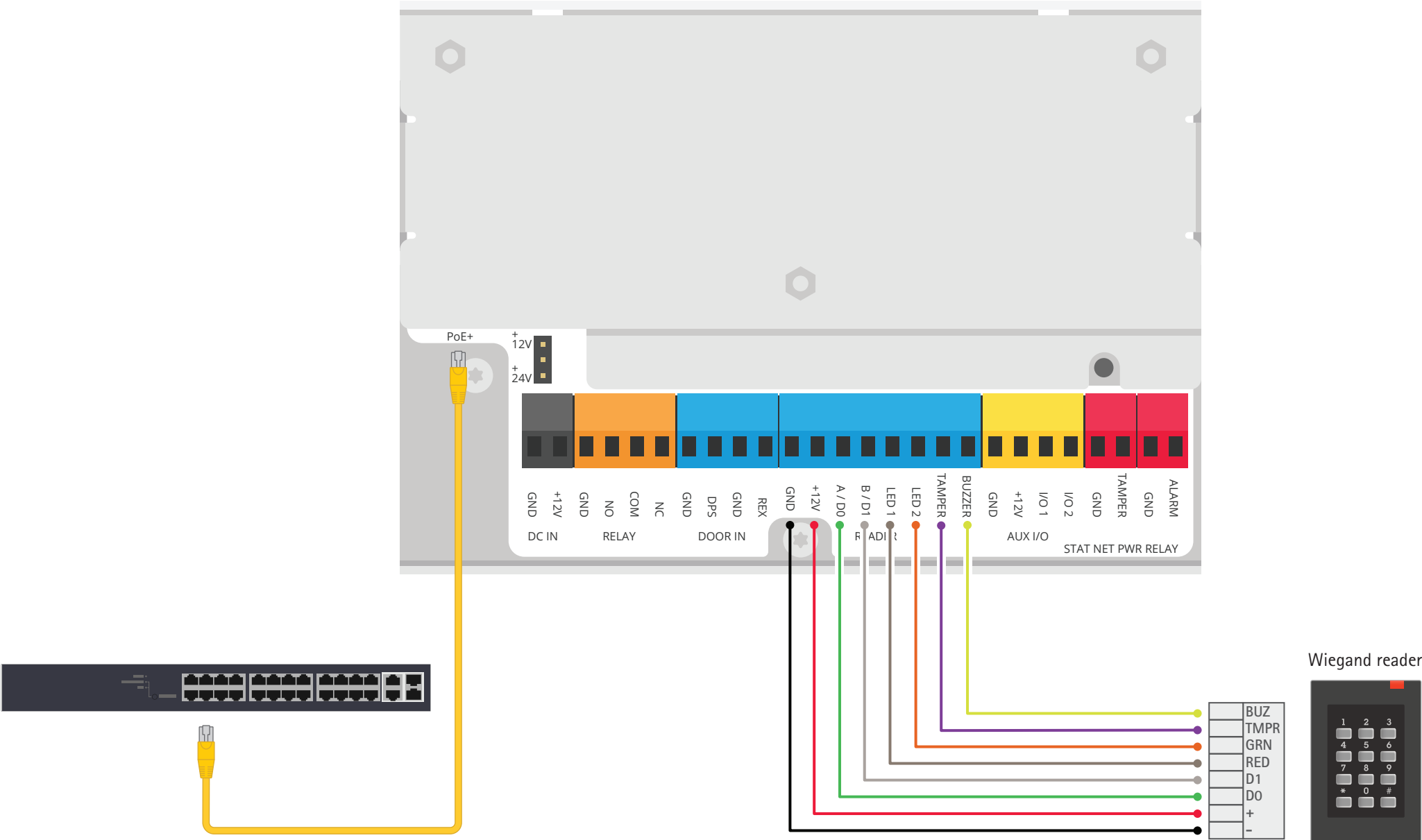1400 mA at 12 V if powered by PoE Class 4

Considerations

> 12 V 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 1 ▾ | Not connected ▾ |

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

   Door monitor ⌃

   ◉ DPS
   ○ REX

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

   Reader ⌃

   General | Advanced

   ◉ Reader port 1 on device card
   ○ Reader port 2 on device card

   ◉ OSDP RS485

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

   REX device ⌃

   ○ DPS
   ◉ REX

Possible reader options

One Wiegand reader 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 a Wiegand reader with Dual wire LED control on door side A and assign it to Reader port 1

Reader ^

General | Advanced

Reader type

Card reader ▼

○ OSDP RS485

⦿ Wiegand

○ IP reader ⓘ

⦿ Reader port 1

LED control
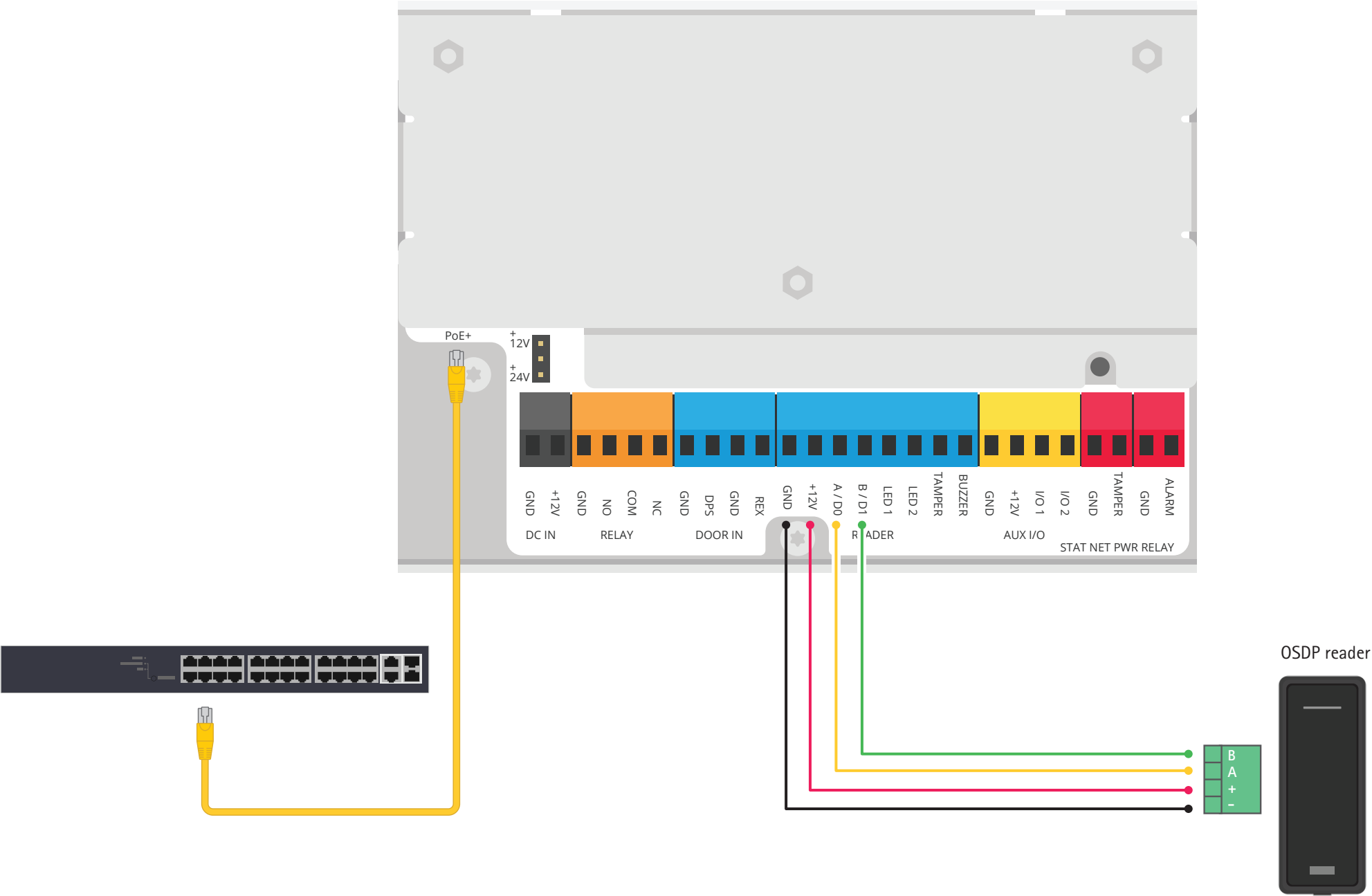
Single wire ▼

○ Tamper = Open circuit

⦿ Tamper = Closed circuit

Tamper debounce time (ms) ⓘ

0

Supervised input ◯

Wiegand reader

BUZ
TMPR
GRN
RED
D1
D0
+
−

PoE+

+12V
+24V

GND +12V GND NO COM NC | GND DPS GND REX | GND +12V A / D0 B / D1 LED 1 LED 2 TAMPER BUZZER | GND +12V I/O 1 I/O 2 | GND TAMPER GND ALARM

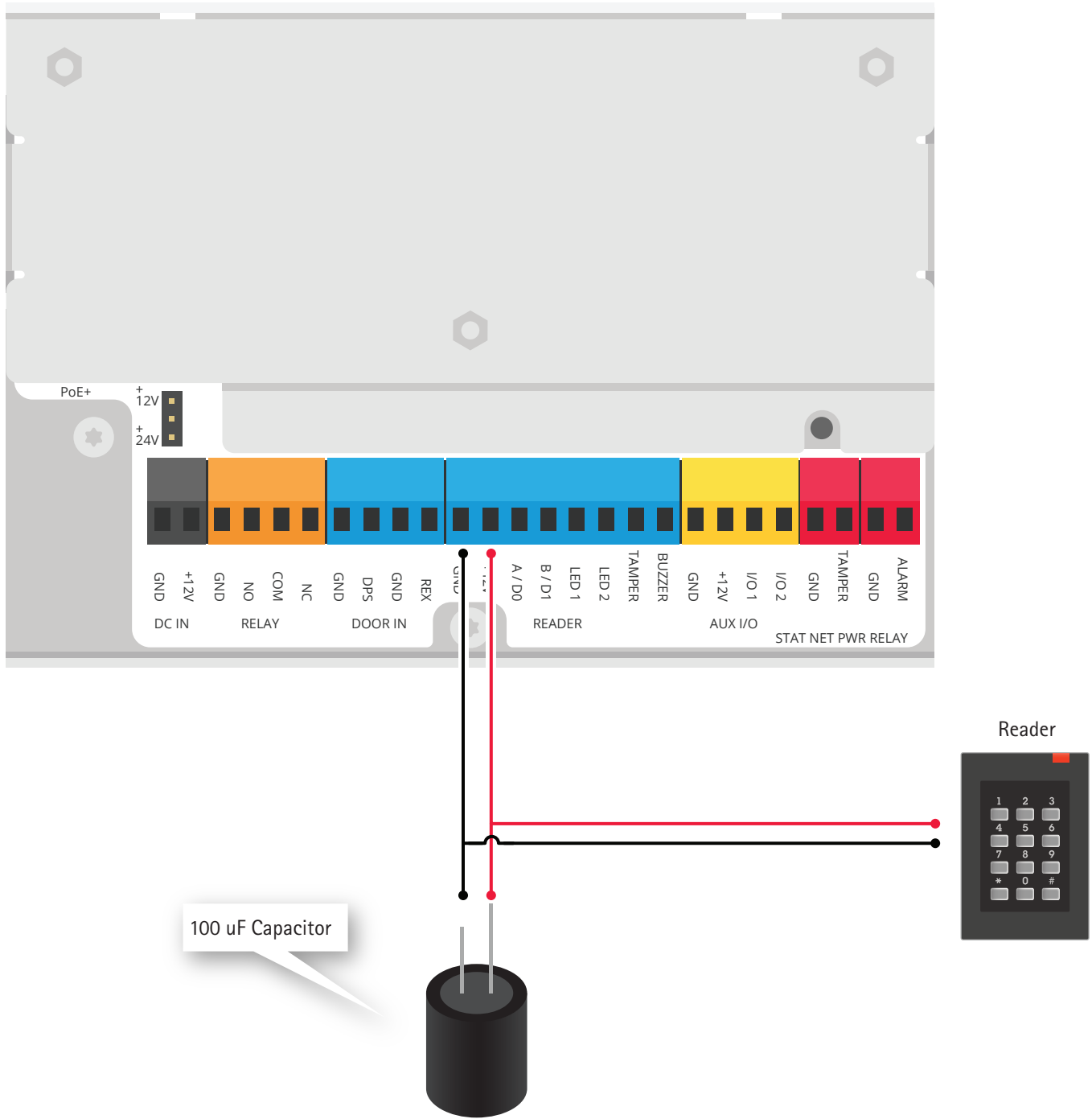DC IN | RELAY | DOOR IN | READER | AUX I/O | STAT NET PWR RELAY

Adhere to local life safety code in all installations.
Illustration does not depict door monitors, REX devices, locks, battery 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 for installation.

Possible reader options

Application

One OSDP 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

Possible reader options

Application

> Reader powered by controller

> When the reader's inrush current exceeds the recommended 500mA, add the 100uF capacitor to the reader port

Capacitor requirements

> Capacitance: 100 uF

> Voltage: min 16 V

> Lifetime: min 2000 hours in max temperature

Reader

100 uF Capacitor

PoE+
+ 12V
+ 24V

DC IN	RELAY	DOOR IN	READER	AUX I/O	STAT NET PWR RELAY

GND +12V | GND NO COM NC | GND DPS GND REX | GND A/D0 B/D1 LED 1 LED 2 TAMPER BUZZER | GND +12V I/O 1 I/O 2 | GND TAMPER GND ALARM

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Possible reader options
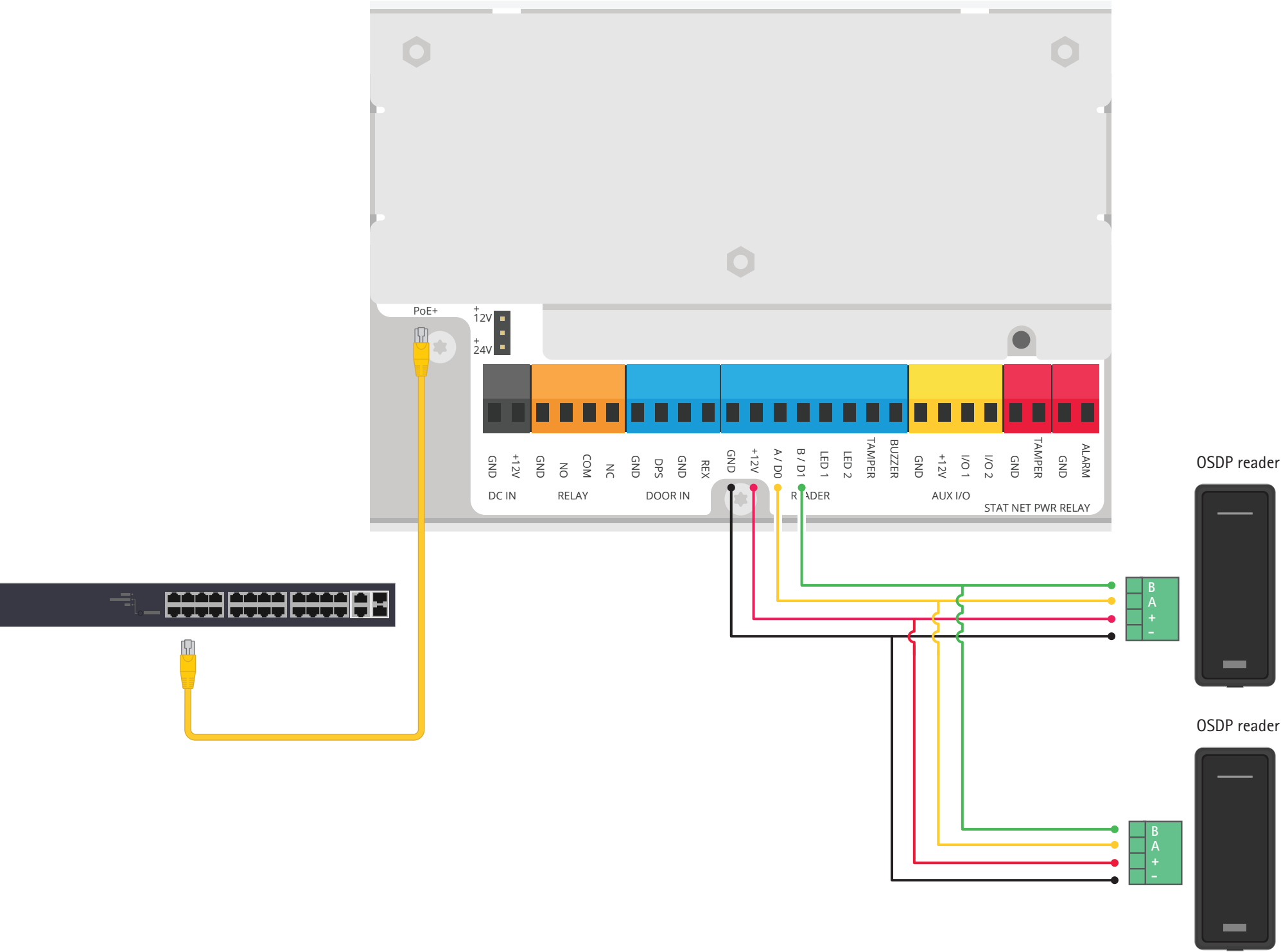
Application

Two OSDP readers (multi-drop) 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

Reader

General   Advanced

Reader type

Card reader

○ OSDP RS485
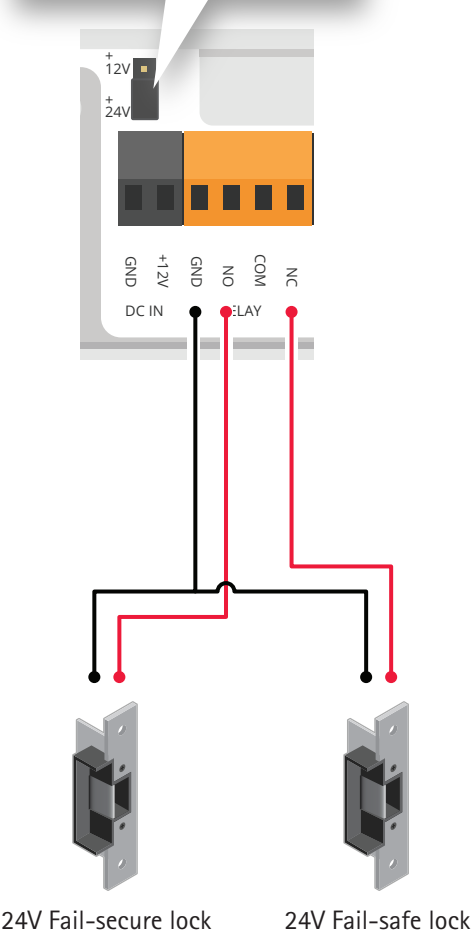
○ Wiegand

○ IP reader ⓘ

● Reader port 1

Reader address

0

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

OSDP reader

OSDP reader

DC IN: GND +12V
RELAY: GND NO COM NC
DOOR IN: GND DPS GND REX
READER: GND +12V A / D0 B / D1 LED 1 LED 2 TAMPER BUZZER
AUX I/O: GND +12V I/O 1 I/O 2
STAT NET PWR RELAY: GND TAMPER GND ALARM

PoE+
+12V
+24V
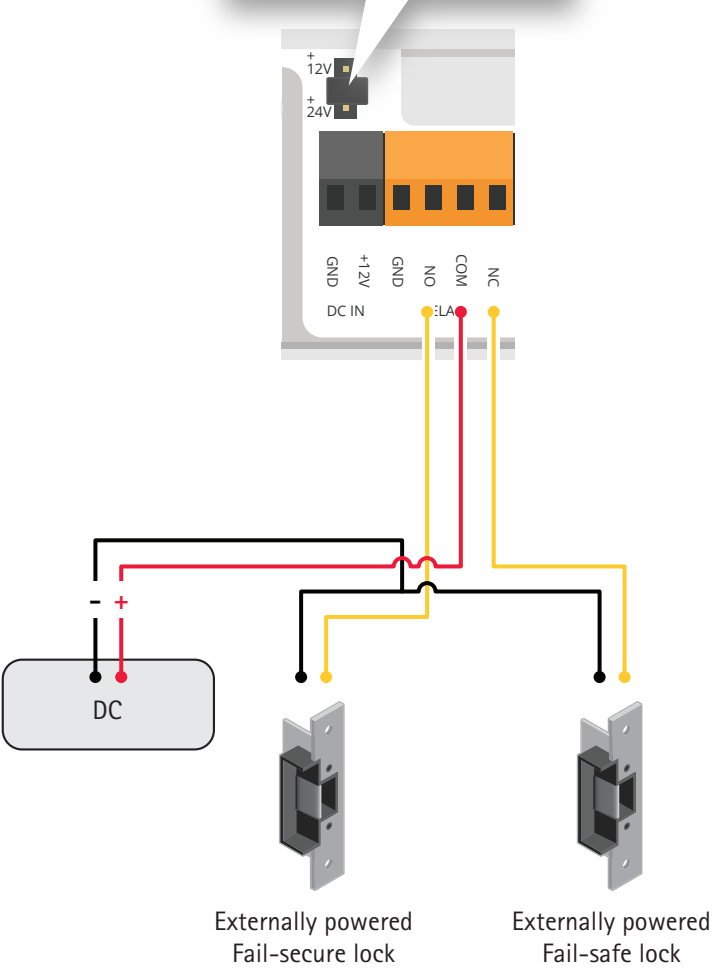
B
A
+
−

Door relay

Place jumper on pins for sourcing 24 V to lock

Place jumper on pins for sourcing 12 V to lock
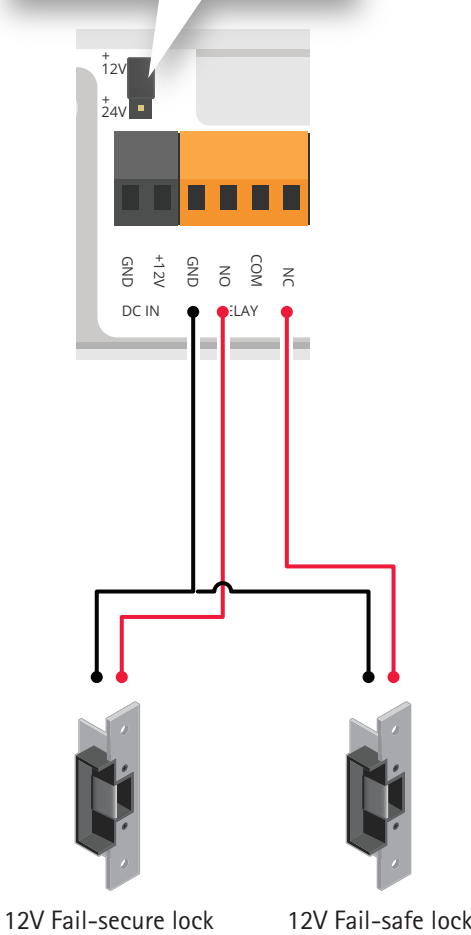
Place jumper on COM pin for dry contact

+12V
+24V

GND +12V GND NO COM NC

DC IN RELAY

24V Fail-secure lock

24V Fail-safe lock

12V Fail-secure lock

12V Fail-safe lock

DC

Externally powered Fail-secure lock

Externally powered Fail-safe lock

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External tamper and emergency input connections
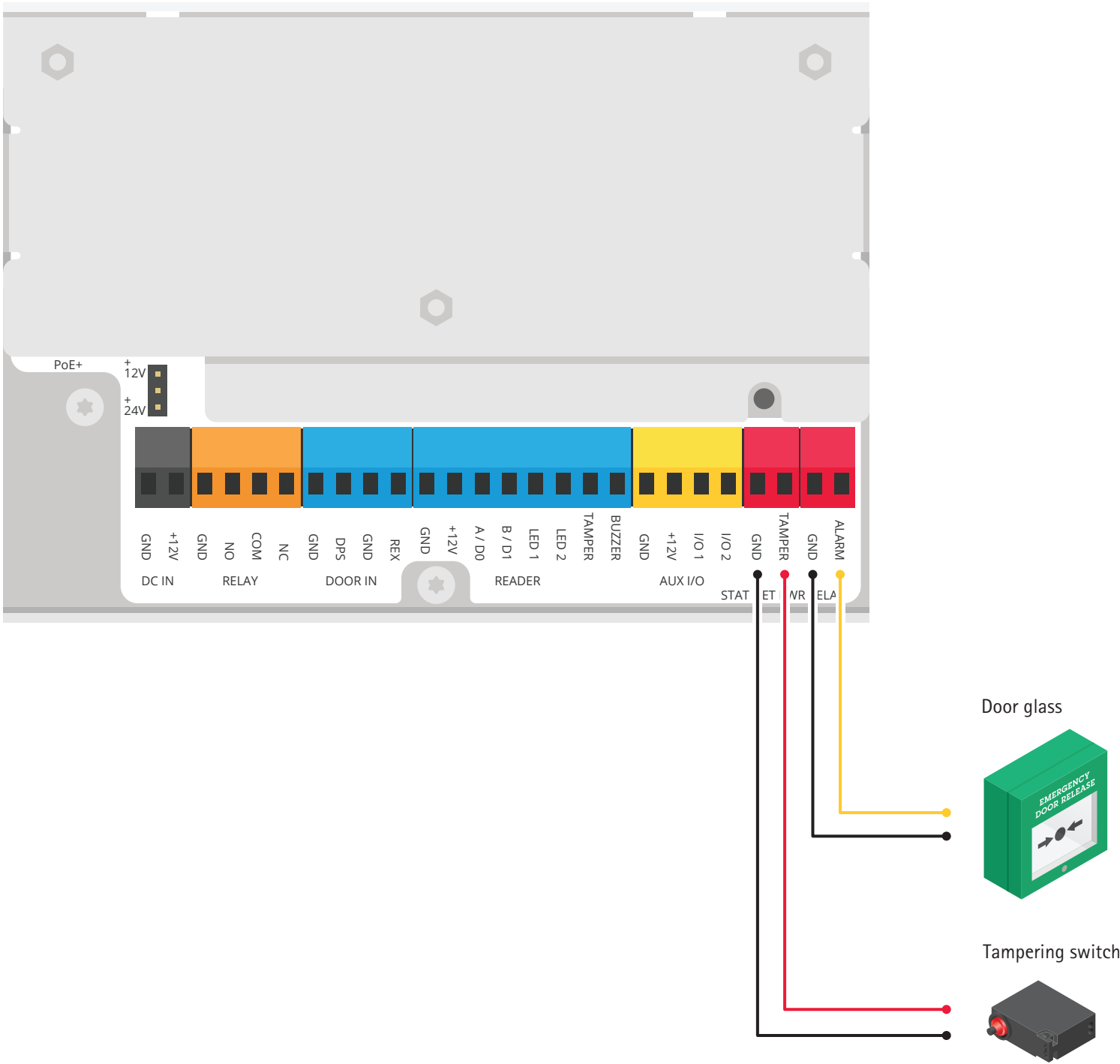
AXIS Camera Station configuration

1. Add a door
2. Connect to a door controller
3. Add Emergency input and choose configuration

Emergency input ⌃

○ Emergency state = Open circuit

◉ Emergency state = Closed circuit

Debounce time (ms) ⓘ
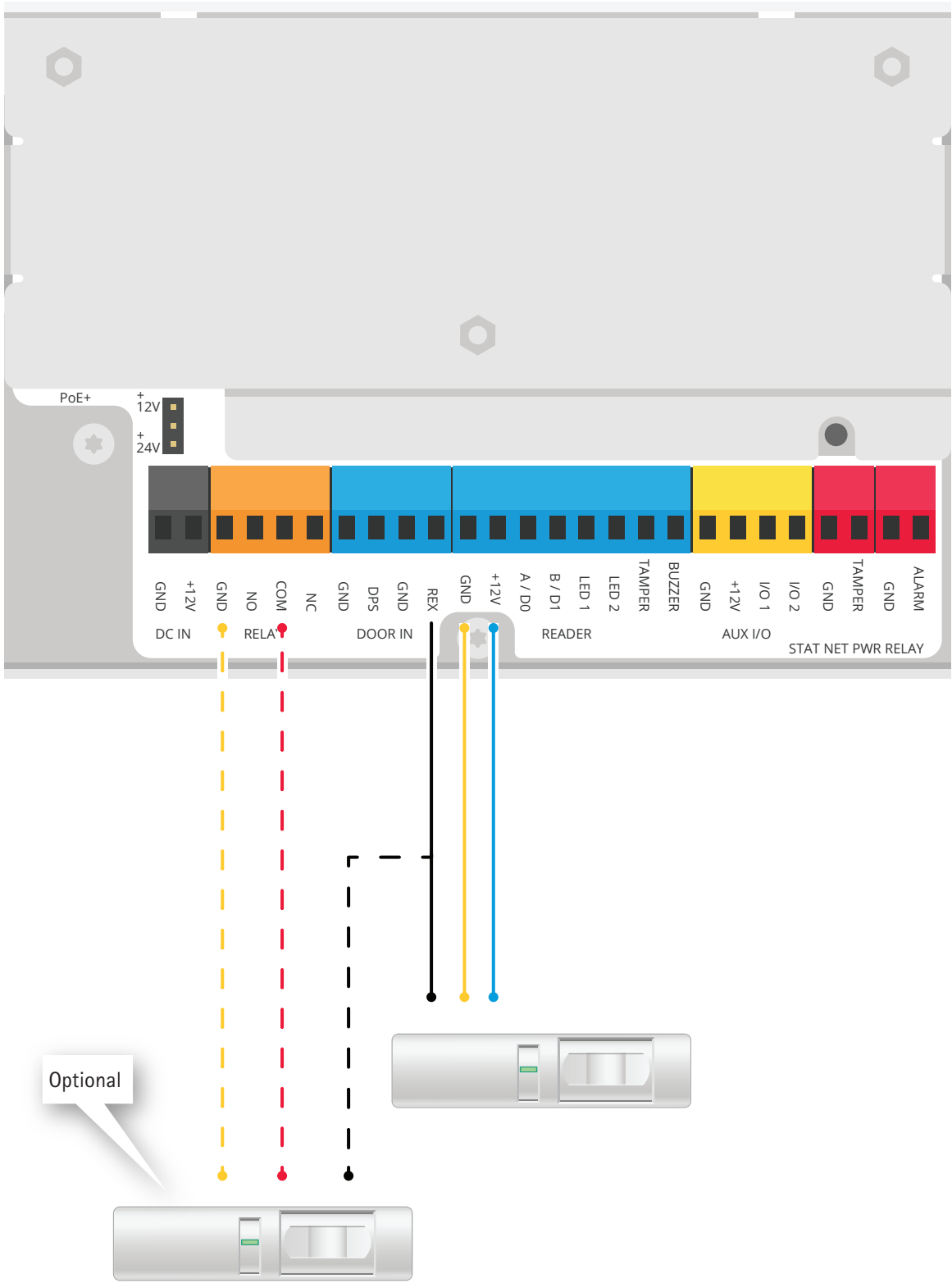
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0
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◉ Emergency action = Unlock door

○ Emergency action = Lock door

PoE+

+12V
+24V

DC IN: GND, +12V
RELAY: GND, NO, COM, NC
DOOR IN: GND, DPS, GND, REX, GND
READER: +12V, A / D0, B / D1, LED 1, LED 2, TAMPER, BUZZER
AUX I/O: GND, +12V, I/O 1, I/O 2
STAT: GND
ET: TAMPER
WR: GND
ELA: ALARM

Door glass

EMERGENCY DOOR RELEASE

Tampering switch

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Door input REX sensor

PoE+

+12V
+24V

GND +12V | GND NO COM NC | GND DPS GND REX GND +12V | A / D0 B / D1 LED 1 LED 2 TAMPER BUZZER | GND +12V I/O 1 I/O 2 | GND TAMPER GND ALARM

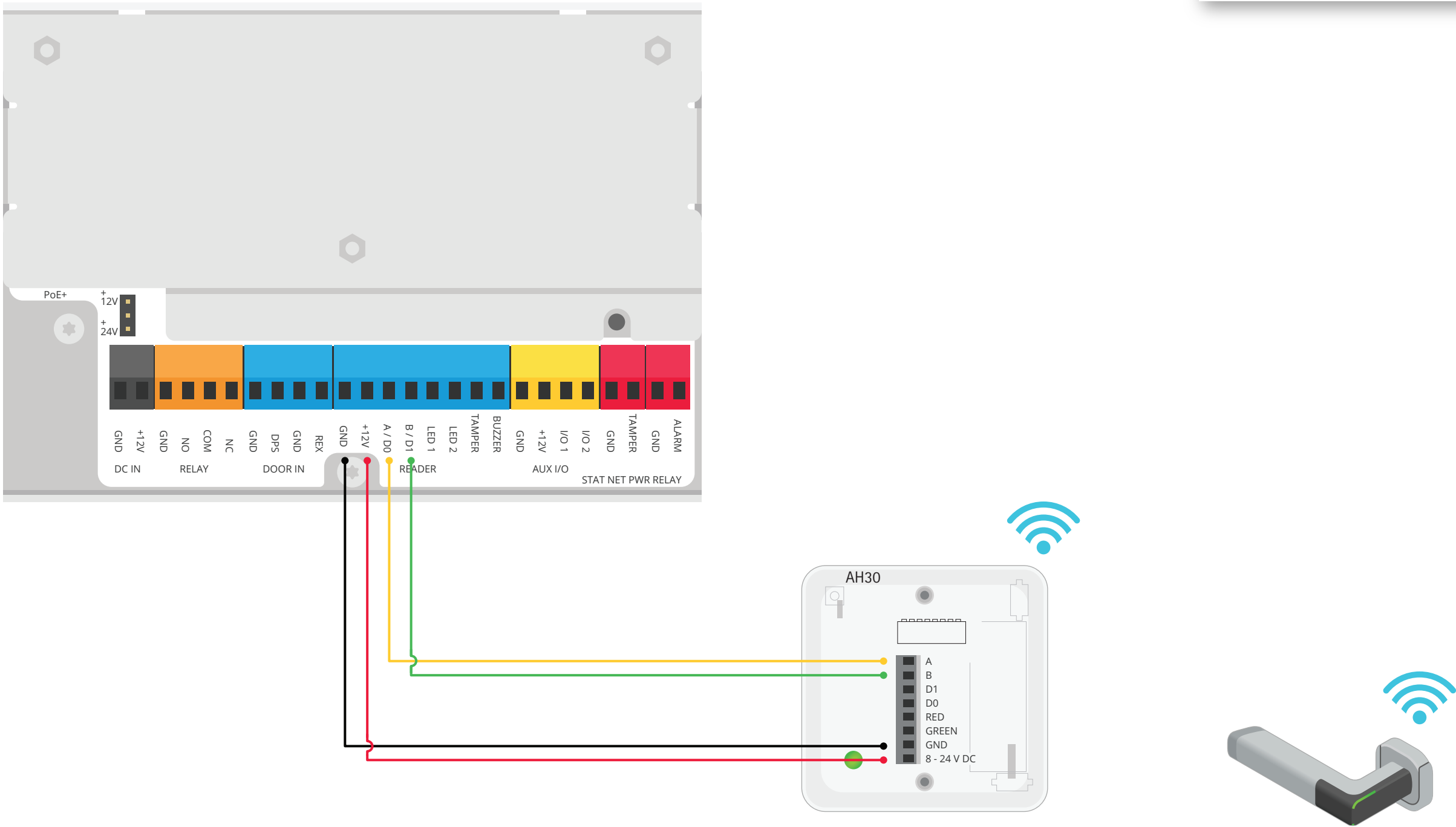DC IN | RELAY | DOOR IN | READER | AUX I/O | STAT NET PWR RELAY

Optional

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Wireless lock

PoE+

+12V

+24V

DC IN	RELAY	DOOR IN	READER	AUX I/O	STAT NET PWR RELAY

GND +12V | GND NO COM NC | GND DPS GND REX GND | +12V A / D0 B / D1 LED 1 LED 2 TAMPER BUZZER | GND +12V I/O 1 I/O 2 | GND TAMPER GND ALARM

AH30

A
B
D1
D0
RED
GREEN
GND
8 - 24 V DC

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