INSTALLATION GUIDE

OM-120

English
Version 1.00

Contents

Safety Instructions

Please read the following instructions carefully before using the product. This information is important for ensuring the safety of the user and for preventing damage to the user's property.

⚠ Warning

Violation of the instructions may cause serious injury or death.

Installation Instructions

Do not install the product in direct sunlight or in a location that is damp or dusty.

- This can cause a fire or electric shock.

Do not install the product near any heat source such as electric heaters.

- This can cause a fire from overheat or electric shock.

Install the product in a dry place.

- Moisture can cause product damage or electric shock.

Install the product in a place where there is no electromagnetic interference.

- This can cause product damage or electric shock.

Have qualified service professionals install or repair the product.

- Otherwise, it can cause a fire, electric shock, or injury.
- If the product is damaged due to a user's unauthorized installation or dismantling of the product, a service fee will be charged for repair.

⚠ Caution

Ignoring these instructions may result in minor injuries or damage to the product.

Installation Instructions

Protect the power cord from being walked on or pinched.

- This can cause product damage or injury.

Keep the product away from strong magnetic objects such as magnets, TVs, monitors (especially CRT monitors), or speakers.

- This can cause a failure.

Operating Instructions

Do not drop the product or subject it to shock or impact during use.
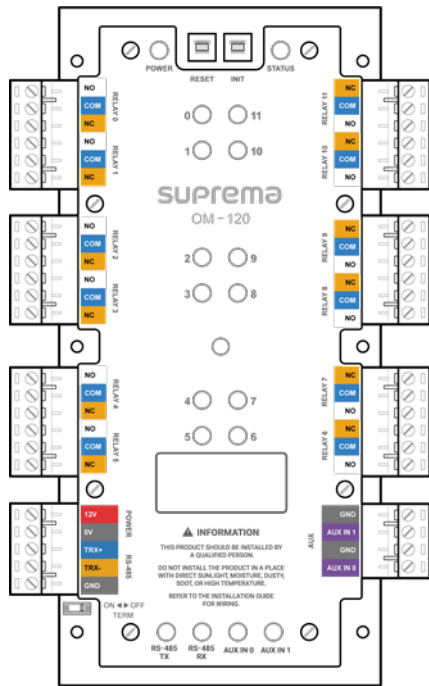
- This can cause a failure.

Do not press the buttons on the product with excessive force or with a sharp tool.
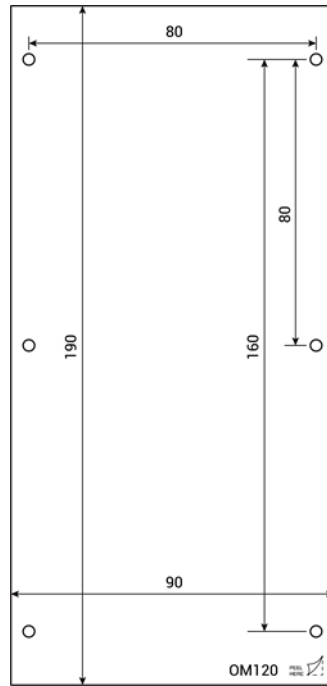
- This can cause a failure.

Clean the product with a soft, dry cloth. Do not use alcohol, benzene, or water.

- This can cause a product failure.
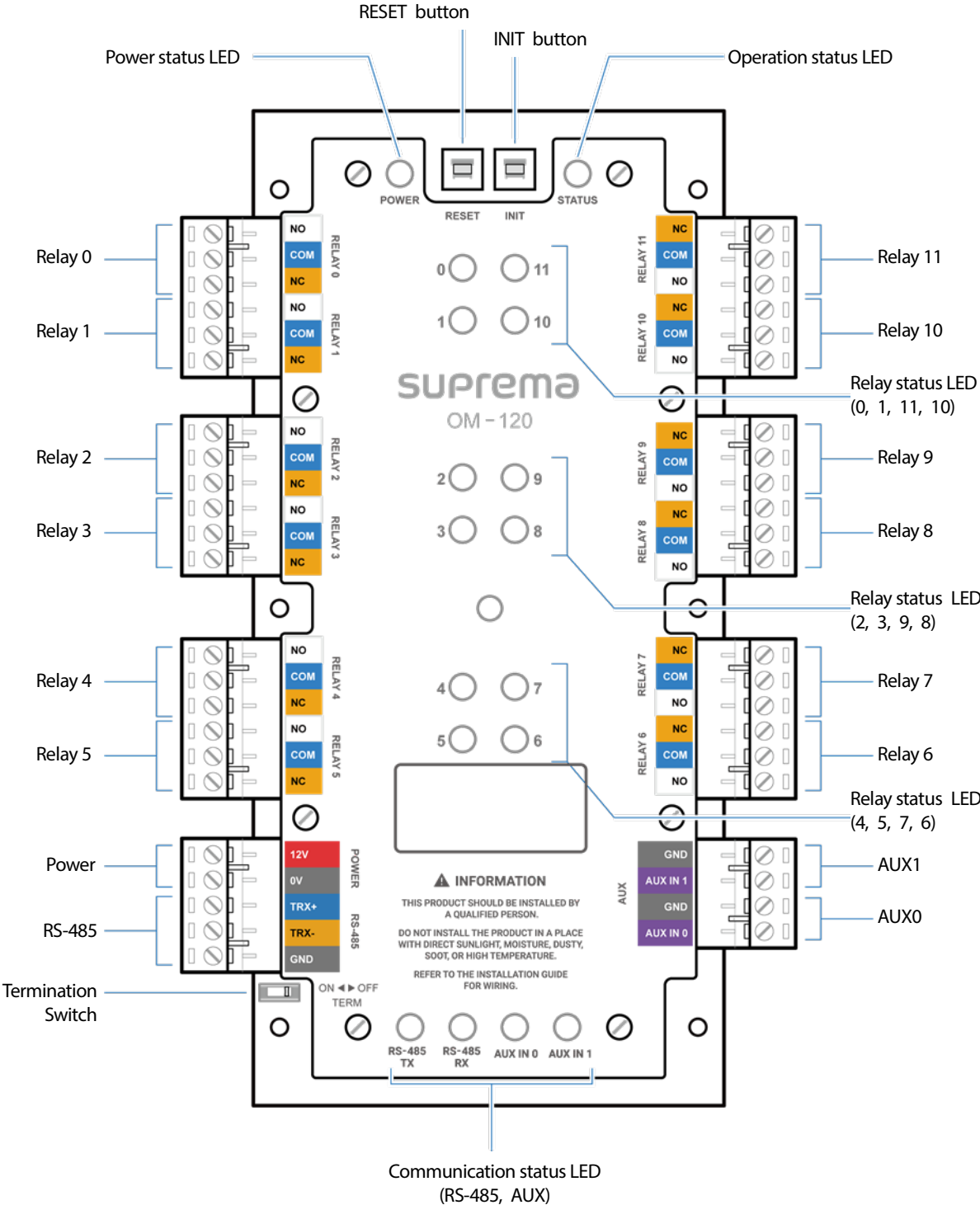
Components

OM-120

Drilling Template
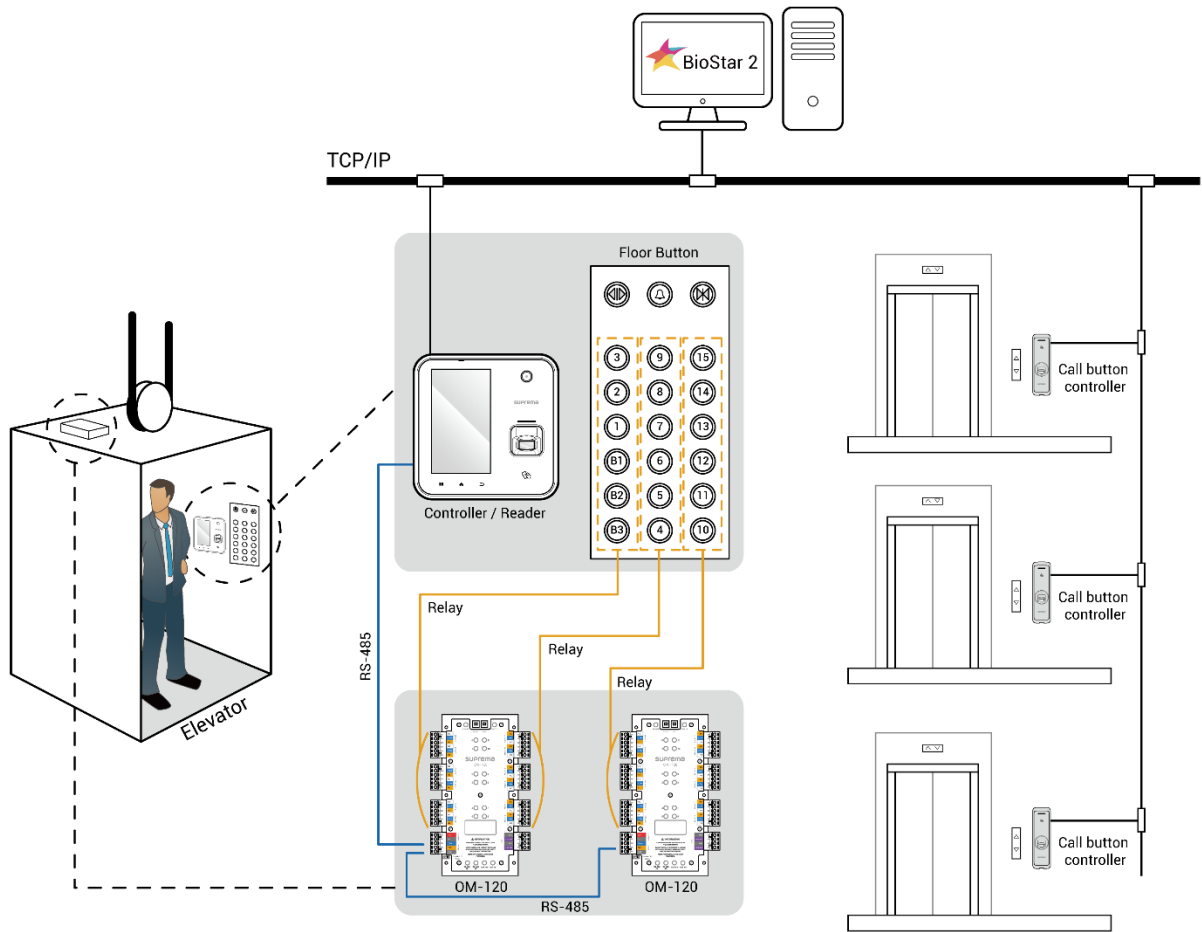

Mounting screws
(12)

Spacer
(6)

Front Side

Power status LED

RESET button

INIT button

Operation status LED

Relay 0

Relay 1

Relay 2

Relay 3

Relay 4

Relay 5

Power

RS-485

Termination Switch

Relay 11

Relay 10

Relay status LED (0, 1, 11, 10)

Relay 9

Relay 8

Relay status LED (2, 3, 9, 8)

Relay 7

Relay 6

Relay status LED (4, 5, 7, 6)

AUX1

AUX0

Communication status LED (RS-485, AUX)

> 📖 **Note**
> - Press INIT button to reset OM-120 interworking with a device and then connect to another device.
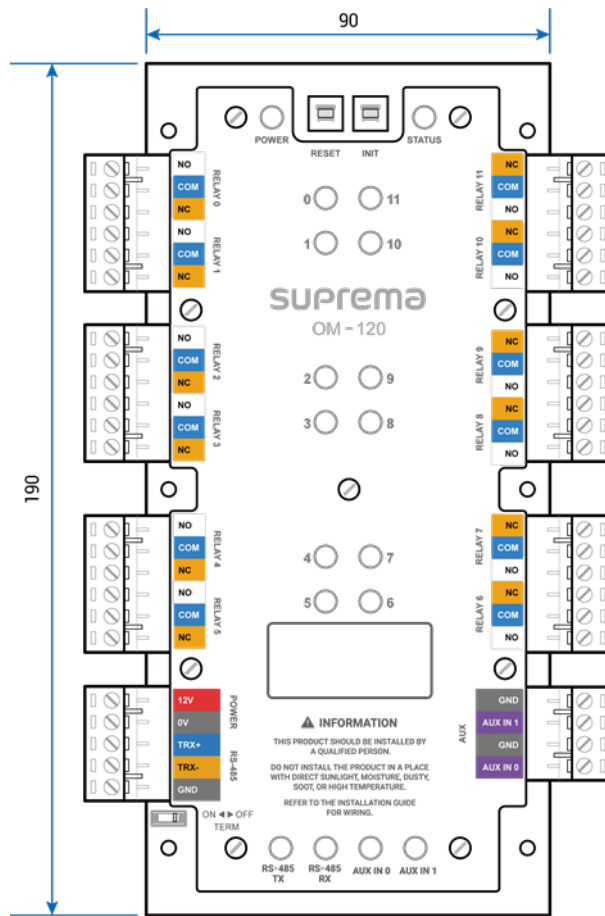
LED Status

LED	Status
POWER	Solid red: Power is on.
STATUS	Solid green: Connected with the secure session. Solid blue: Disconnected from the master device. Solid pink: Upgrading the firmware. Solid yellow: RS-485 communication error due to different encryption key or OSDP packet loss. Solid sky blue: Connected without the secure session.
RELAY (0 ~ 11)	Solid red: Relay operation.
RS-485 TX	Pulsing green: Transmitting RS-485 data
RS-485 RX	Pulsing orange: Receiving RS-485 data
AUX IN (0, 1)	Pulsing orange: Receiving AUX signal

Installation Example

OM-120 is an expansion module for floor access control. Combined with Suprema device and BioStar 2, a single module can control 12 floors. When the OM-120 is connected as daisy chain via RS-485, you can control up to 192 floors per elevator.
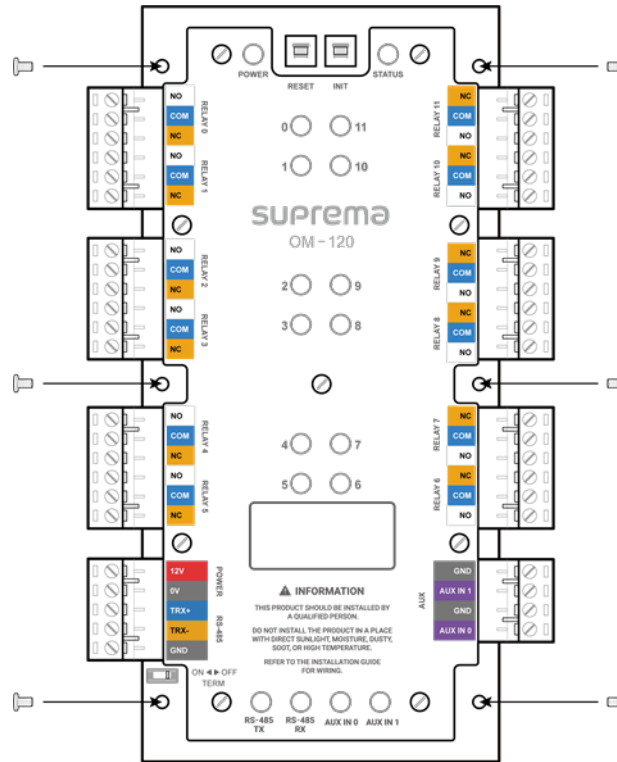
Dimensions

(Unit: mm)

Installation

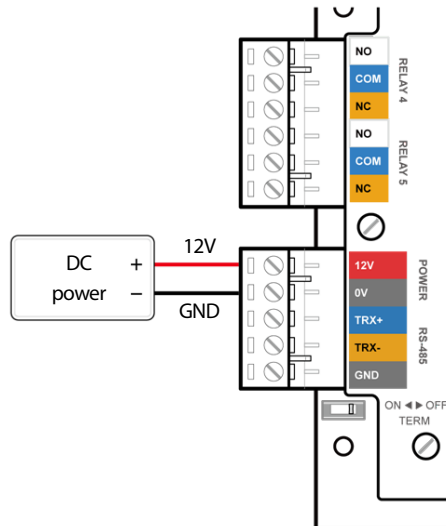OM-120 can be mounted in the cabinet or elevator control panel.

1 With the mounting screws, fix the spacer firmly onto the surface where OM-120 is to be installed.

2 With the mounting screws, mount the OM-120 firmly onto the spacer.
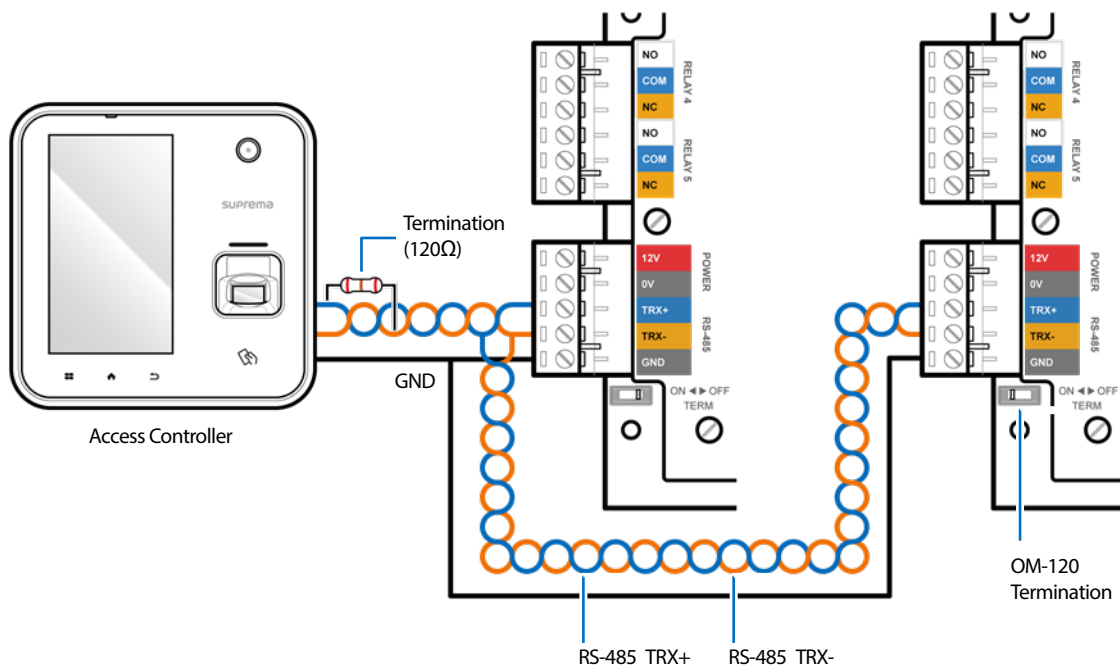
Connections

Power

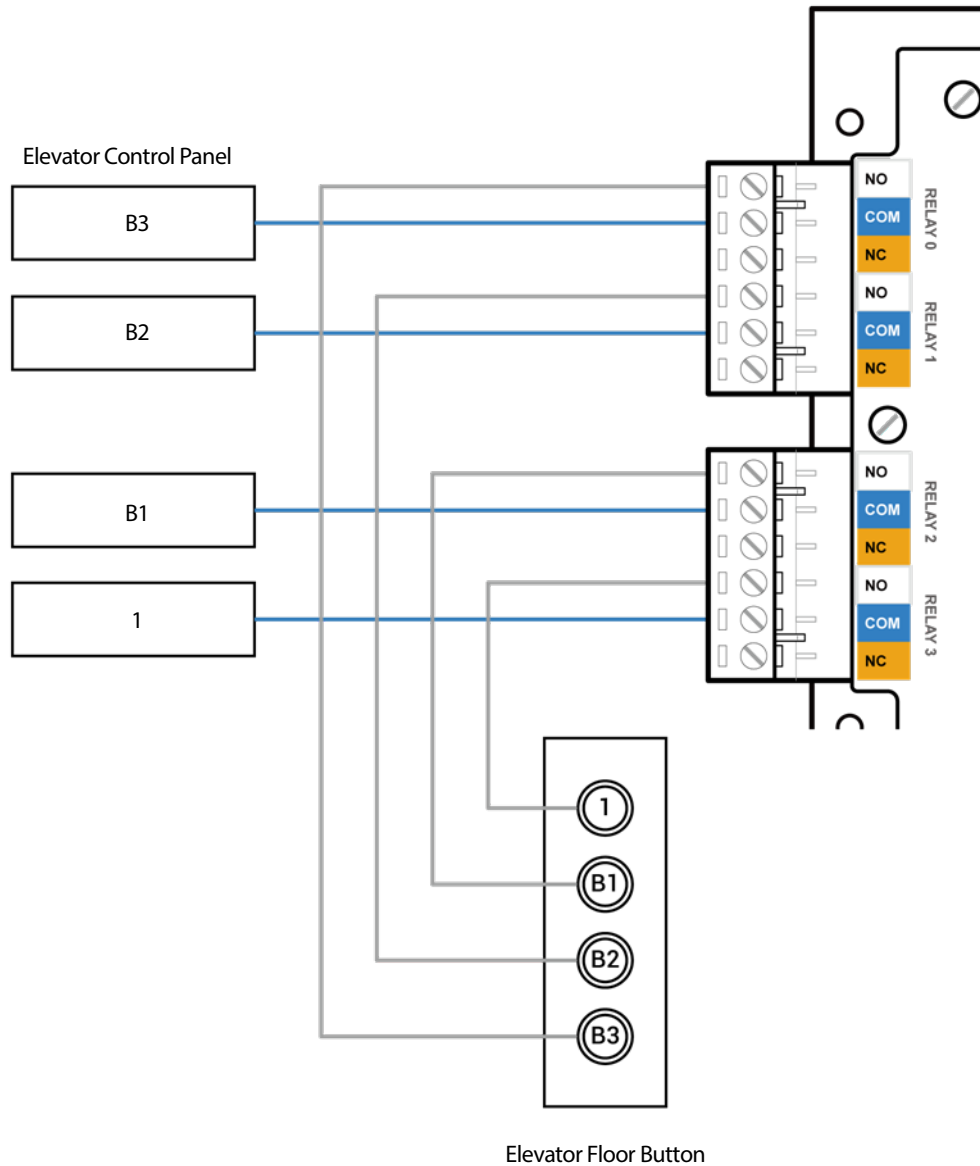- Do not share the power with the access controller.

RS-485

- RS-485 should be AWG24, twisted pair, and maximum length is 1.2 km.
- Connect a termination resistor (120Ω) to both ends of a RS-485 daisy chain connection. It should be installed at both ends of the daisy chain. If it is installed in the middle of the chain, the performance in communicating will deteriorate because it reduces the signal level.
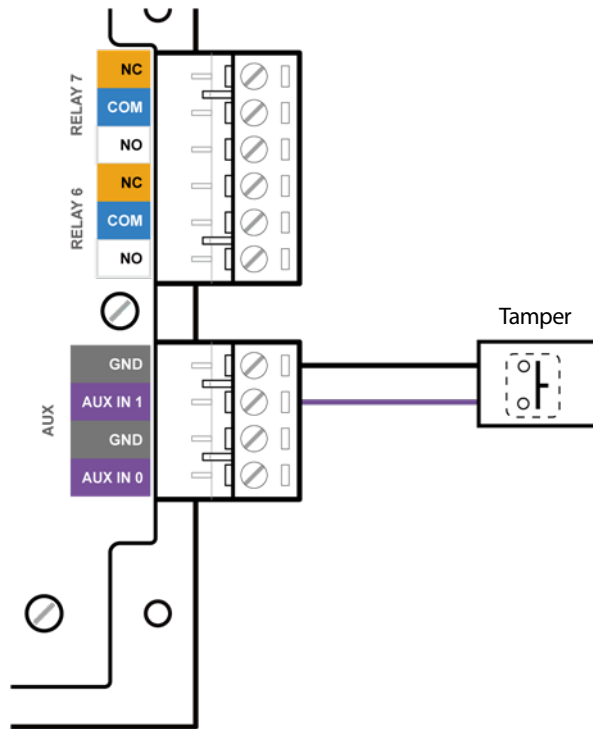- Up to 31 modules can be connected to the master device.

Relay

- Relay connection may vary depending on the elevator. Please consult your elevator installer for details.
- Each relay has to be connected to the corresponding floor.
- Use the figure below as an example.

Elevator Control Panel

Elevator Floor Button

AUX

- The dry contact output or tamper can be connected..

Product Specifications

Category	Feature	Specification
General	CPU	Cortex M3 72MHz
	Memory	Flash 128KB, SRAM 20KB
	LED	Multi-color • POWER 1 ea • RELAY 12 ea • RS-485 2 ea • AUX IN 2 ea • STATUS 1 ea
	Operating temperature	-20℃ ~ 60℃
	Storage temperature	-40℃ ~ 70℃
	Operating humidity	0% ~ 95%, non-condensing
	Storage humidity	0% ~ 95%, non-condensing
	Dimension (W x H x D)	90 mm x 190 mm x 21 mm
	Weight	300 g
	Certificates	CE, FCC, KC, RoHS, REACH, WEEE
Interface	RS-485	1ch
	AUX input	2ch Dry Contact Input
	Relay	12 relays
Electrical	Power	Voltage: 12VDC Current: Max. 1 A
	Switch input VIH	Max.: 5 V (Dry Contact)
	Relay	Voltage: Max. 30 VDC Current: Max. 5 A

FCC Compliance Information

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.

NOTE: 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.

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

Appendix

Disclaimers

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- Contact Suprema, sales representatives of Suprema, or local distributors in order to get the latest specifications before ordering products.

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