Lift I/O

Elevator Control and I/O Expansion

Installation Guide

EN 101.00.LIO V1.20

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1 General Information

1-1 Introduction

Lift I/O is an elevator access control I/O module catered for installations that desire restrictive access to certain floors. All that is required is a Suprema reader, BioStar SE and a Lift I/O.

Each module can control the access of up to 12 different floors and uses an RS-485 port to provide secure communication with the readers. Furthermore, each reader can connect via daisy chain with up to 10 Lift I/Os. This allows for the potential control of a staggering 120 floors.

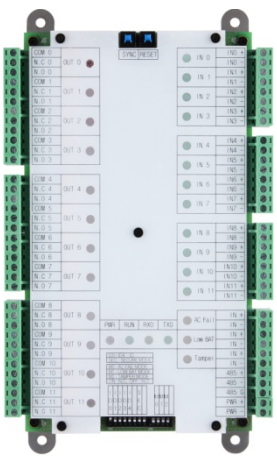
Access to each floor is also highly customizable. Using the BioStar SE software each Lift I/O can be configured to control the access to specific floors as well as assign the access rights to each floor by user or group.

Key Features

- Control 12 Floors per I/O Module
- Daisy Chain up to 10 I/O Modules per Reader (up to 120 Floors)
- Easy Mounting & Setup
- RS-485 Secure Communication
- Highly Customizable User Access

1-2 Package Contents

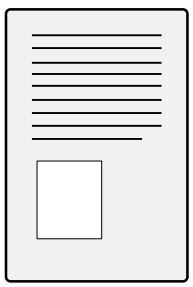
Please check if the following contents are within the package. If any component is missing contact your nearest Suprema dealer.



Lift I/O

Wall mounting screws

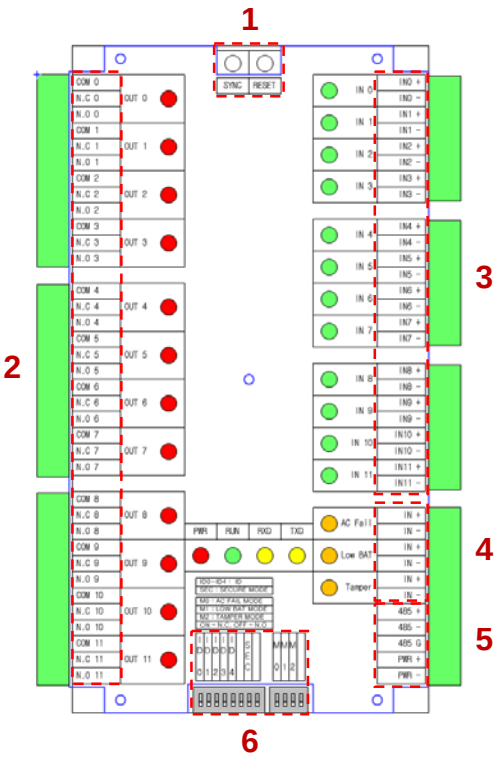
120 Ohm Resistor



Lift I/O Quick Guide

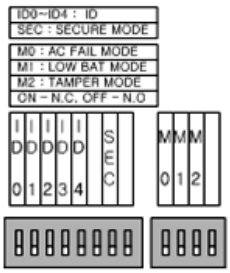
1-2 Product Description

Main Device



#	Item	Description
1	Reset & Sync Buttons	RESET: Resets Lift I/O SYNC: Synchronizes Lift I/O with host device
2	Output Ports	12ch: Form C Relay
3	Input Ports	12ch: Input (Currently Disabled)
4	Aux Input Port	3 Ports: AC Fail, Low Battery, Tamper
5	RS-485 & Power Ports	RS-485: Communication with host device Power: 12VDC, 1A
6	Dip Switches	ID: Lift I/O RS-485 ID SEC: Secure Mode Toggle M: Aux Input Port Modes [N.O. / N.C.]

Dip Switch Settings



Lift I/O ID	ID 0 State	ID 1 State	ID 2 State	ID 3 State	ID 4 State
0	OFF	OFF	OFF	OFF	OFF
1	**ON**	OFF	OFF	OFF	OFF
2	OFF	**ON**	OFF	OFF	OFF
3	**ON**	**ON**	OFF	OFF	OFF
4	OFF	OFF	**ON**	OFF	OFF
5	**ON**	OFF	**ON**	OFF	OFF
…					
31	**ON**	**ON**	**ON**	**ON**	**ON**

ID Setting [Sets the RS-485 ID for the Lift I/O, Range: 0 ~ 31]
- Binary Counting *(See Table Above)*

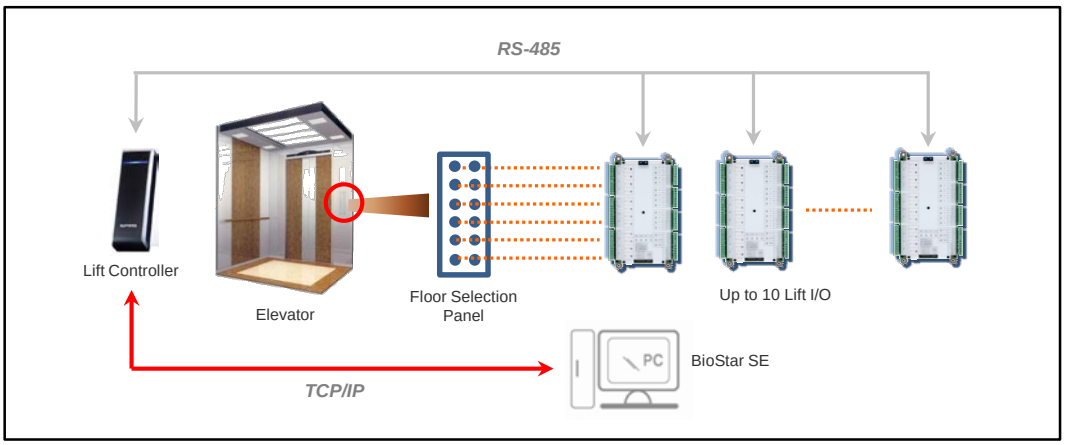
SEC Setting [Enables Secure Mode Communication *(Must RESET Lift I/O)*]
- ON: Secure Mode Enabled, OFF: Secure Mode Disabled

Aux Mode Settings [M0 – AC Fail, M1 – Low BAT, M2 - Tamper]
- ON: Normal Open, OFF: Normal Closed

2 Installation

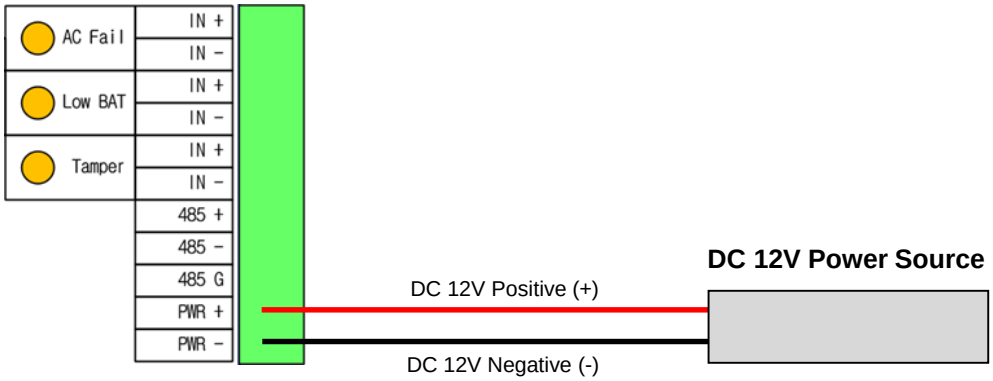
2-1 System Configuration

Select Suprema devices can use the Lift I/O expansion module to control access to specific floors. All settings are programmed using the BioStar SE software and then independently controlled by the master device.
(See the BioStar Manual for more details)



2-2 Power Connection

Use the following diagram to aid in powering the Lift I/O.

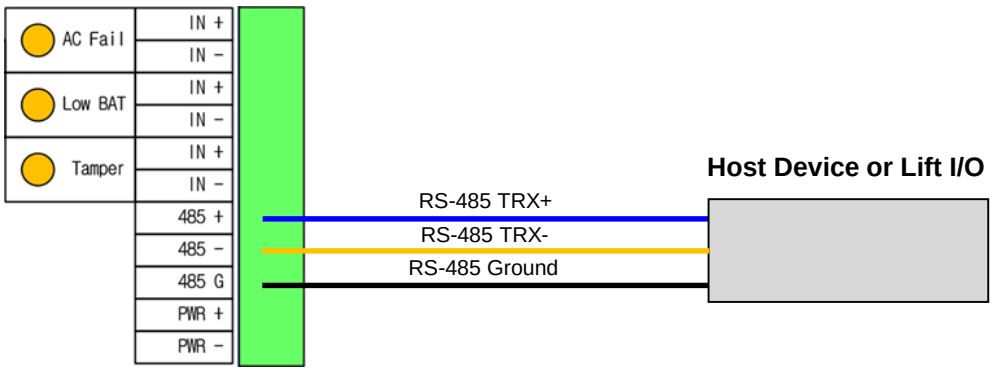


Recommended Power Supply:

- 12V ± 10%, greater than 500mA per Lift I/O.
- Compliance with standard IEC/EN 60950-1
- When sharing power with other devices, use a power supply the correct cumulative current rating.

2-3 RS-485 Connection

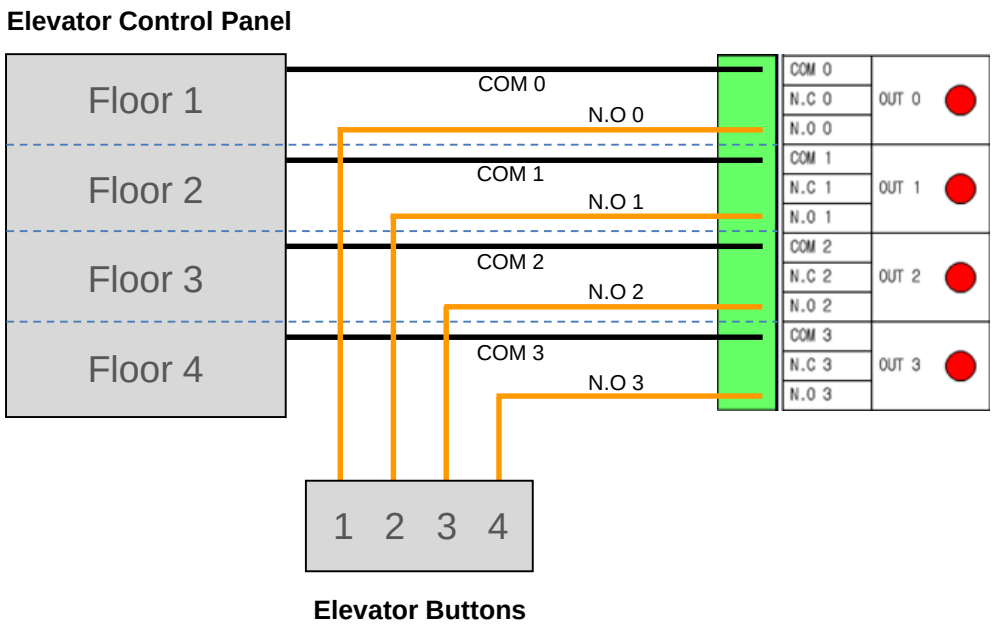
Use the diagram below to aid in connecting Lift I/O to the host device or another Lift I/O. All three lines must be connected to ensure a stable communication. A daisy chain connection must be used when connection to another Lift I/O.



If the communication in the RS-485 is unstable, connect the enclosed 120 Ohm resistor between TRX+ and TRX- connector of Lift I/O for termination.

2-4 Relay Connection (Example)

Relay connections may differ from elevator to elevator. Please consult your elevator installer for details. Use the figure below as an example of a suggested connection. Each output has to be linked to the corresponding floor.



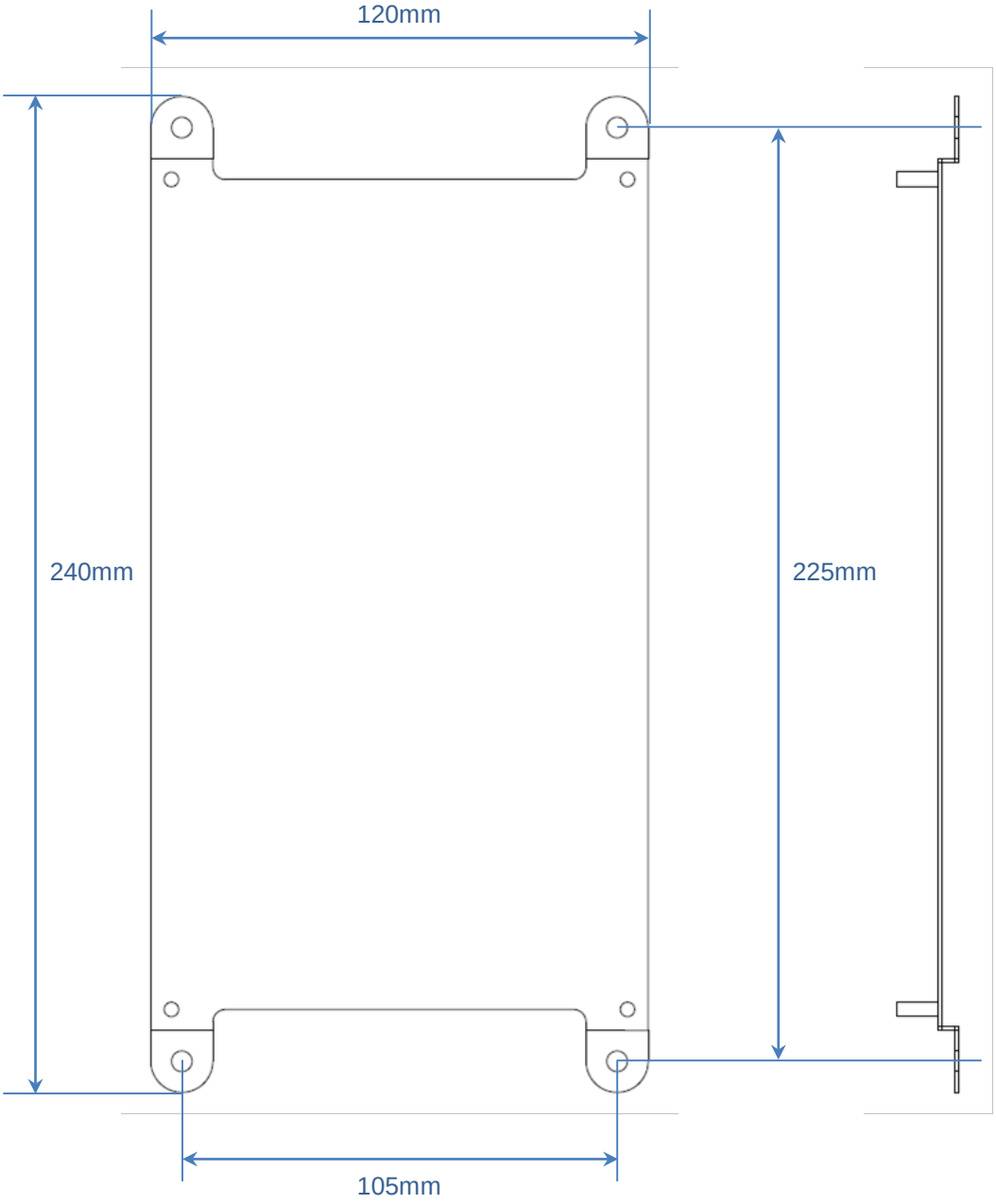
Appendix A: Specifications

- CPU : 8bit, 16MHz Microcontroller
- Memory : 128Kbyte Flash
- Display : 31ea Status LED
- IO : Input - 12ch, Output - 12ch (Form C Relay), RS-485 - 1port
- Product size : 140 x 240 x 32 mm (width x length x depth)

	Min.	**Typ.**	**Max.**	**Notes**
Power				
Voltage (V)	10.8	12.0	13.2	
Current Consumption (A)	-	1.0	1.5	

Relay		
Rating (resistive)	Voltage	220VDC, 250VAC
	Current	Typ. 1.0A, Max. 2.0A

Appendix B: Bracket Dimensions



Memo

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