

# GROUP OF LIFTS

with controller

# MP ecoGO

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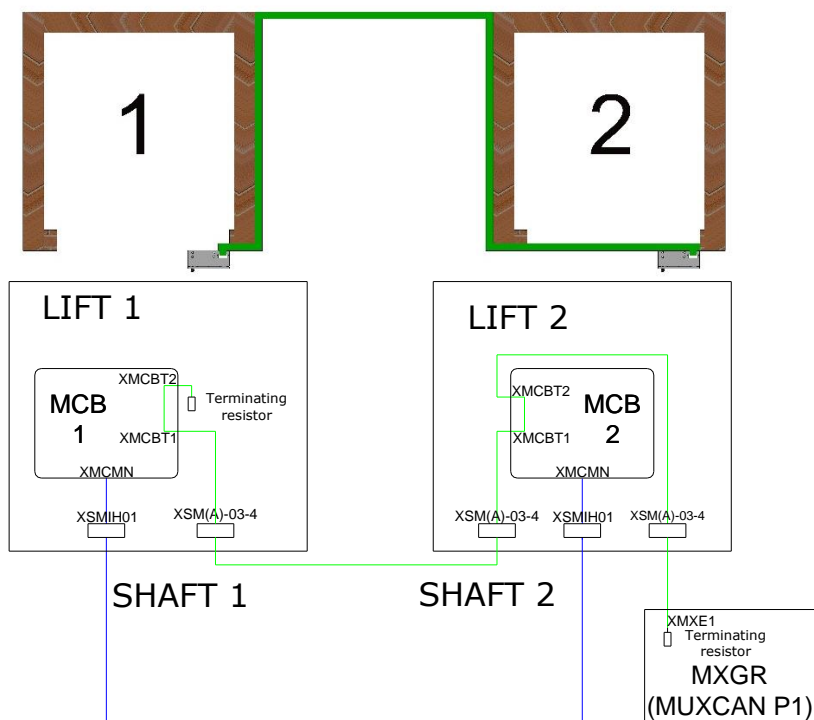
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## 1. GROUP OF LIFTS

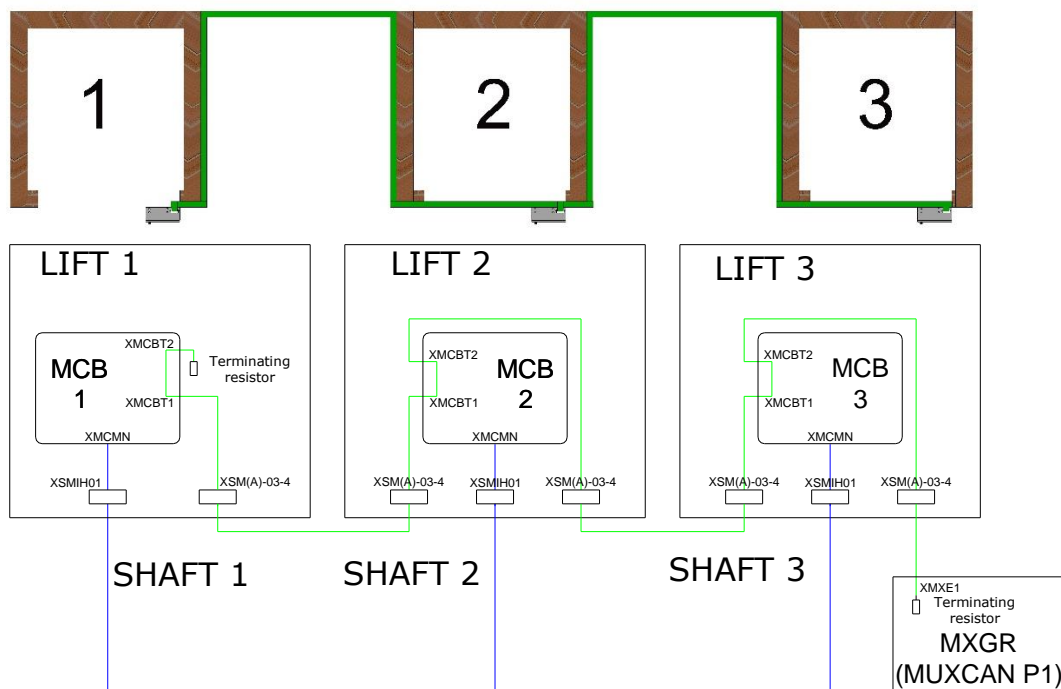
The function of a group of lifts is to optimise the vertical motion of the people inside a building and improve the energy efficiency. The operation in a group requires specific architecture and connections between the different lifts making it up.

### 1.1. Set-up of group of lifts

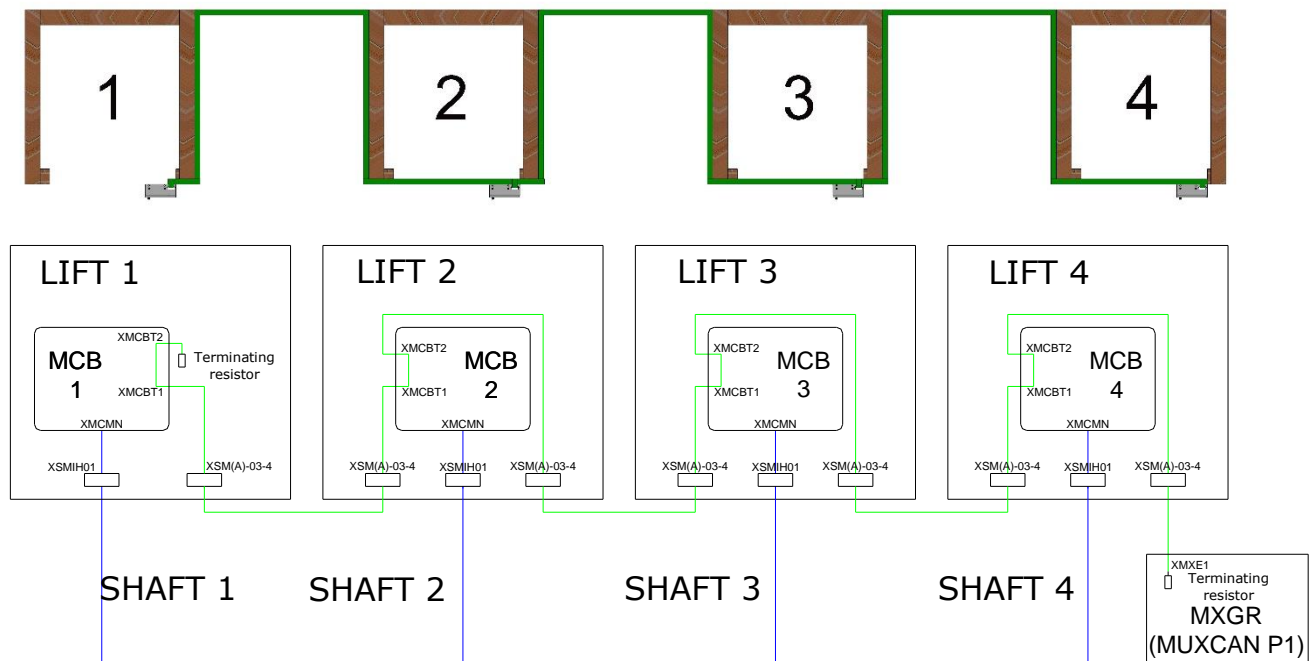
#### 1.1.1. Duplex



#### 1.1.2. Triplex



### 1.1.3. Quadruplex

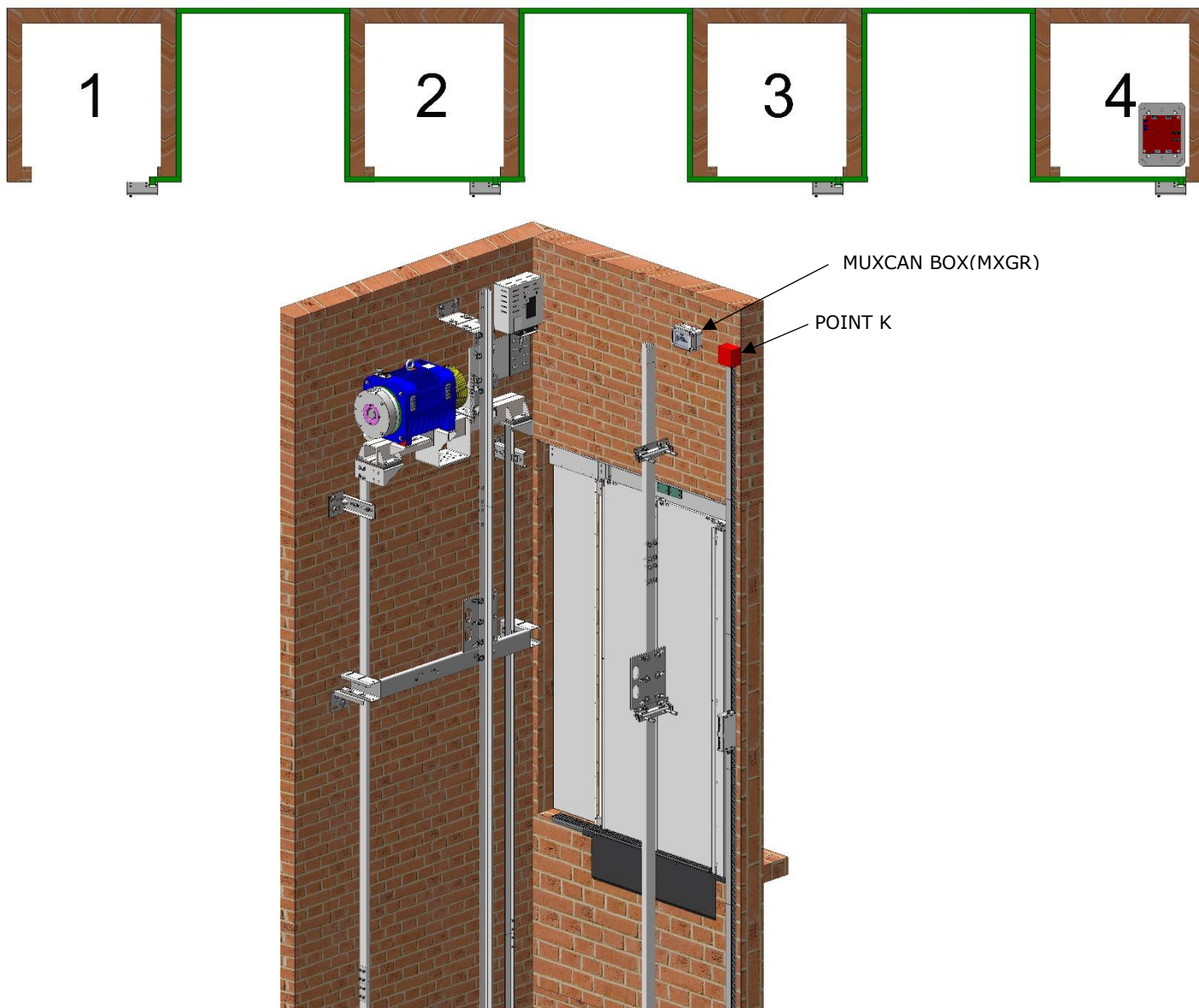


## 1.2. Main control element of the group

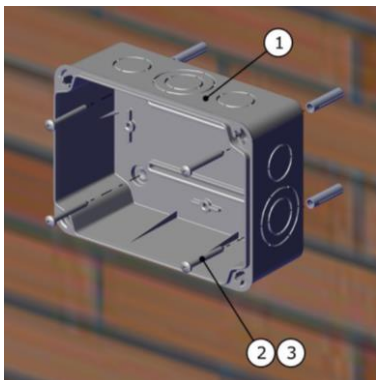
For managing the group of lifts, an additional board is included, MUXCAN board, that will be set up in mode "groups". In the event of MUXCAN board malfunction, the group management will be carried out by the lift which is operational and to which the lowest ordinal number has been assigned (lift 1, 2, or 3, in quadruplex installations). However, in such a situation, some limitations appear in terms of the above mentioned efficiency. This function uses the MUXCAN board with version P1.

### 1.2.1. Location of MUXCAN box (MXGR)

It will be placed into the shaft of the group last lift. The picture shows a quadruplex group example.



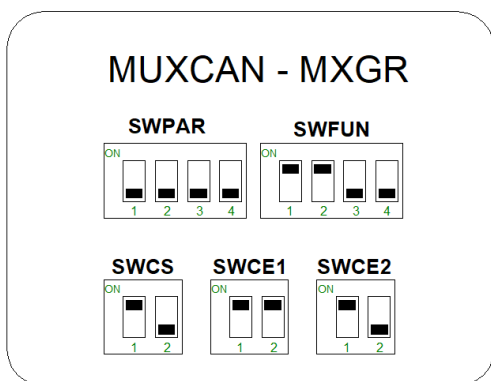
### Fixing the MUXCAN box to the wall



No.	NAME	QUANTITY
1	MUXCAN BOX	1
2	SCREW DIN 7981 M4x38	4
3	PLUG 6x30	4

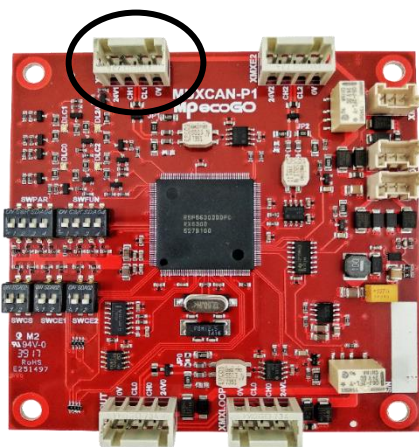
### 1.2.2. Set-up MUXCAN box (MXGR)

This is the set-up of switches to get MUXCAN board behaving as manager of the group of lifts. For further information about the board, refer to the manual MTELEcoGO\_GRAL\_xx.



### 1.2.3. Connecting the MUXCAN box (MXGR)

It will be connected to the shaft wiring of the last group lift, through XMXE1, as shown in the figure:





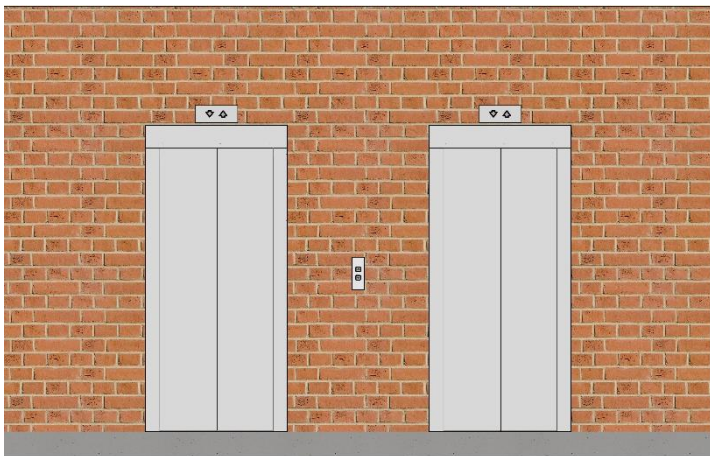
## 2. VERTICAL WIRING OF LOPs

### 2.1. Vertical wiring of LOPs shared (every 2 lifts)

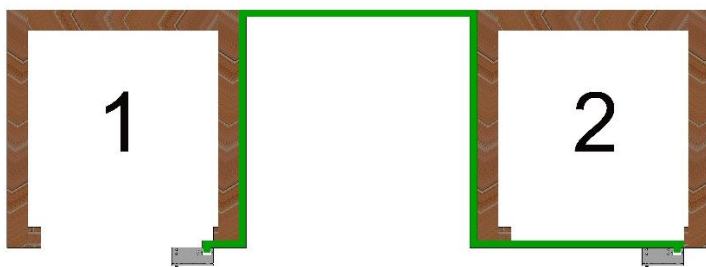
#### 2.1.1. Set-up of group of lifts

##### 2.1.1.1. Duplex

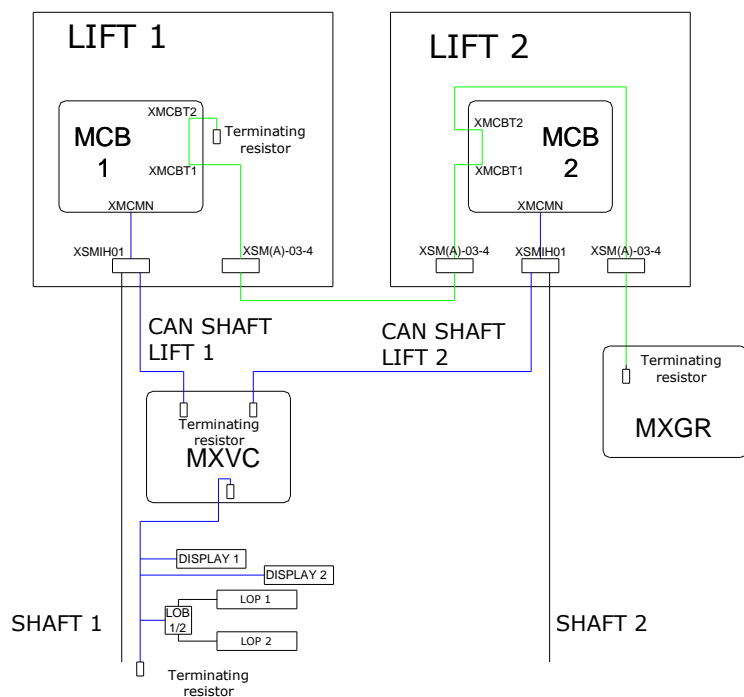
View of landing floor



Layout of group shaft

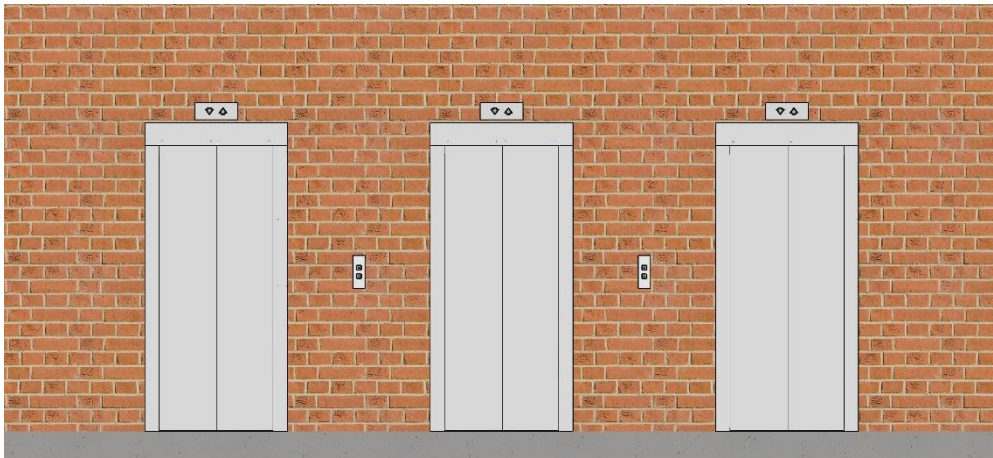


Set-up of electrical wiring

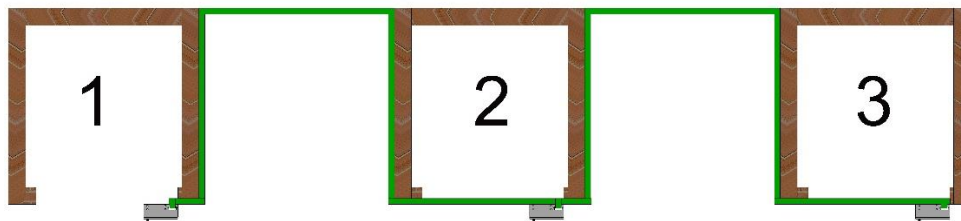


### 2.1.1.2. Triplex

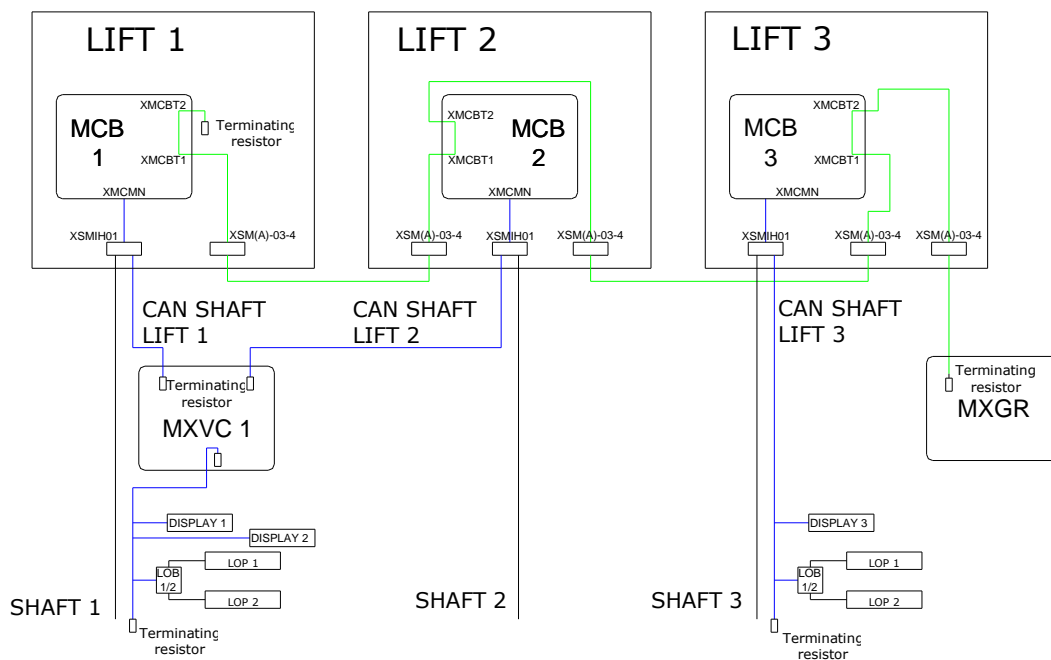
View of landing floor



Layout of group shaft



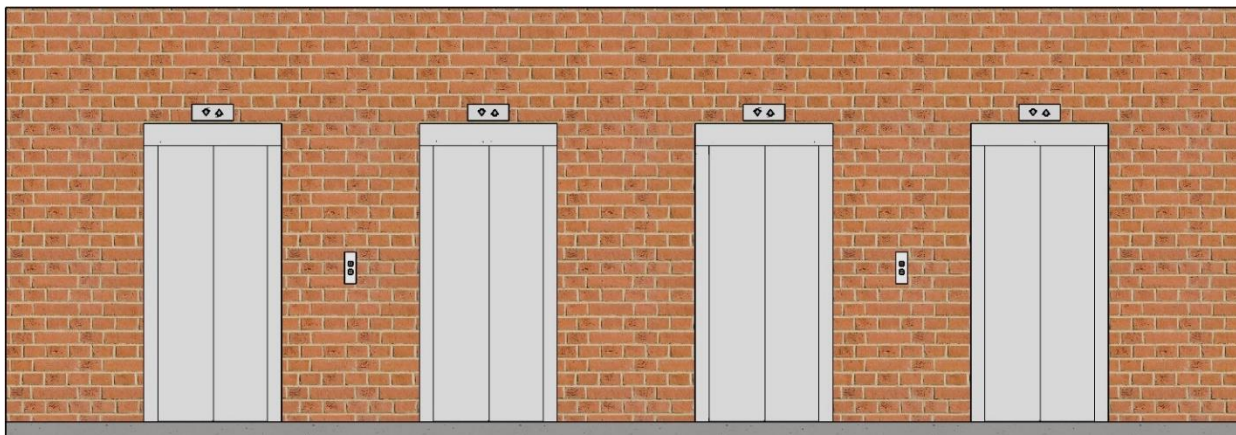
Set-up of electrical wiring



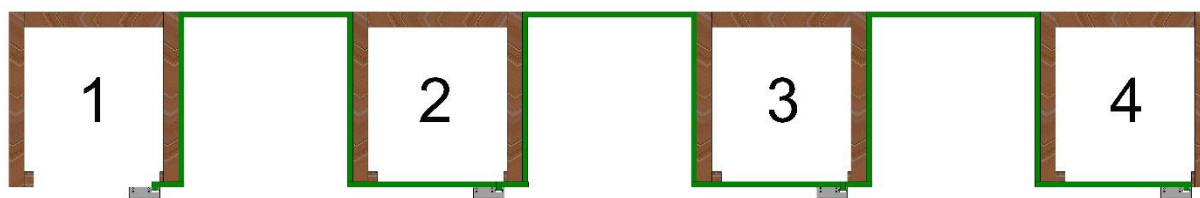


### 2.1.1.3. Quadruplex

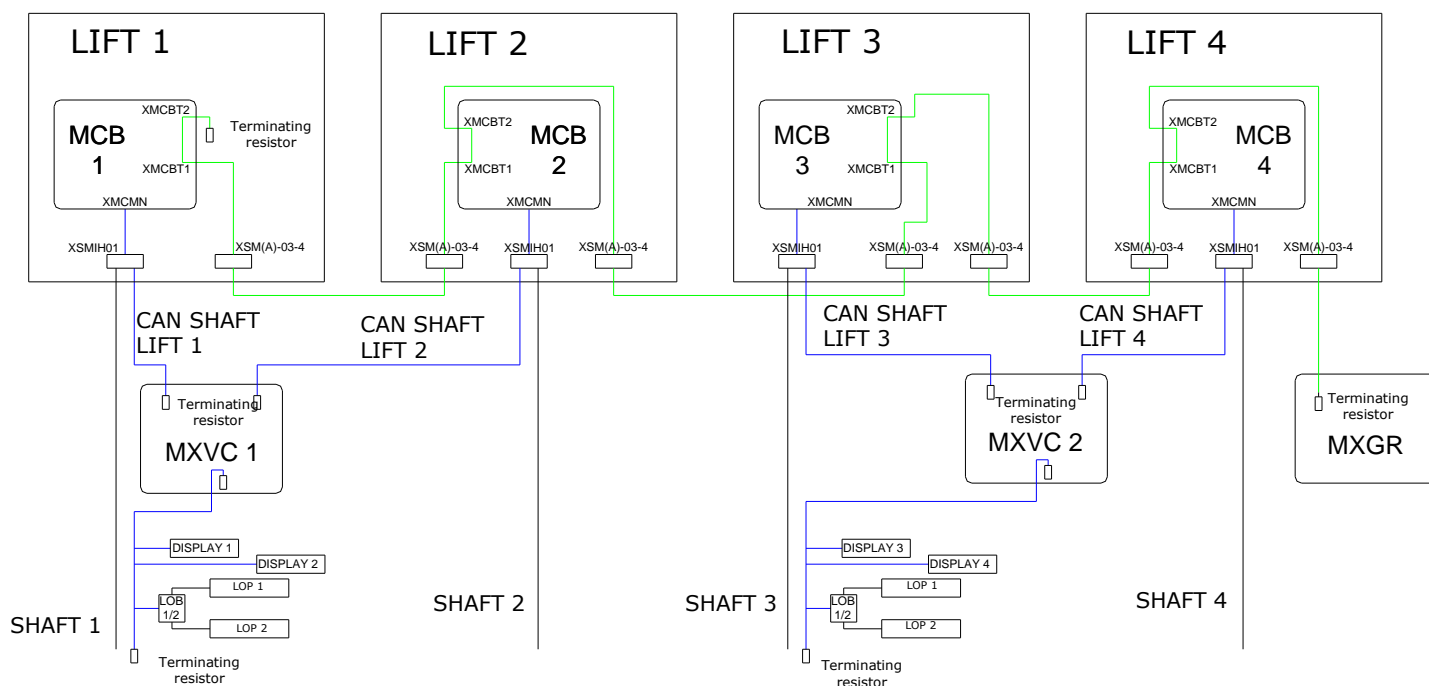
View of landing floor



Layout of group shaft



Set-up of electrical wiring

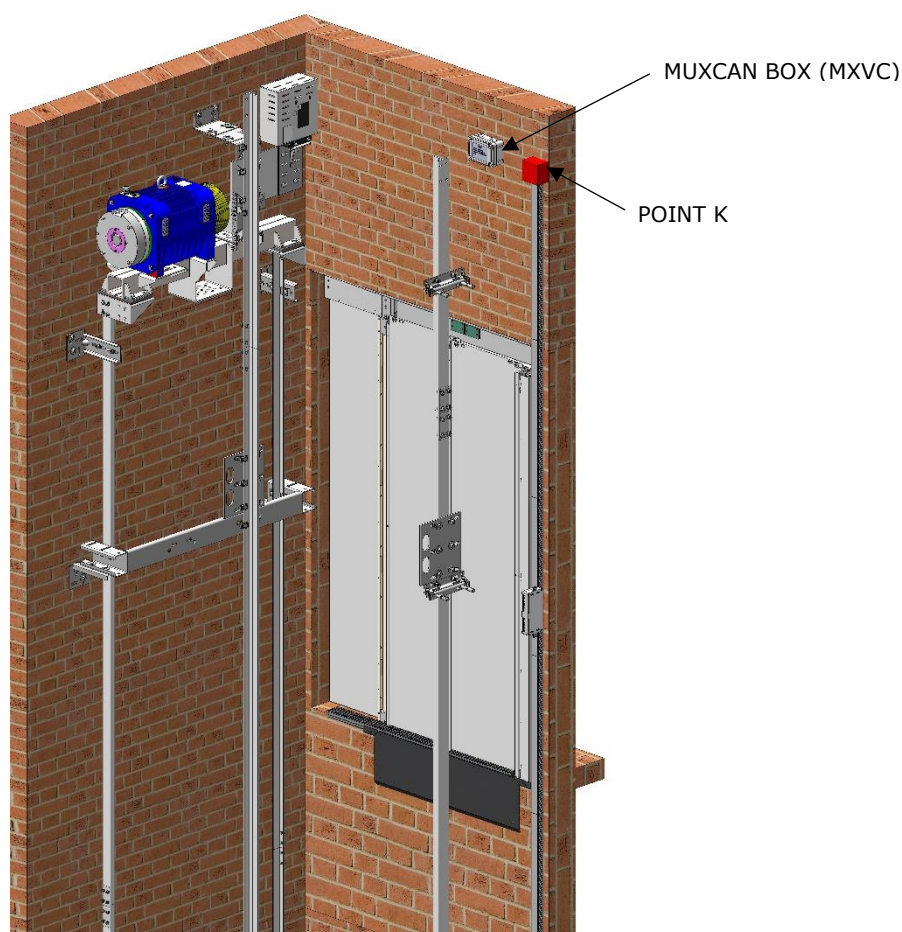
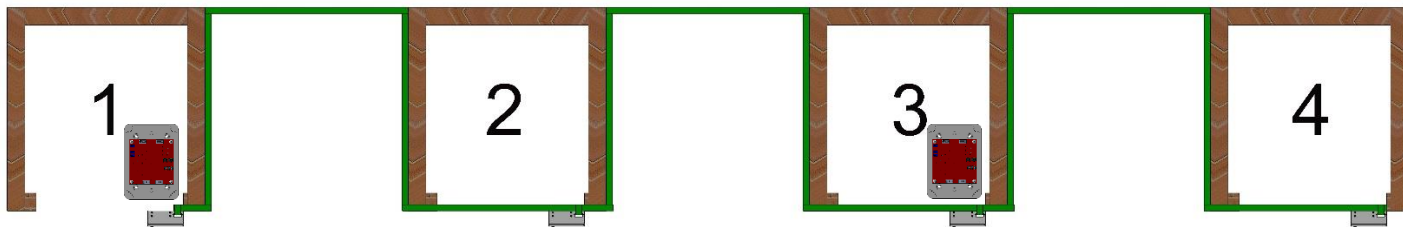


### 2.1.2. Main element for vertical wiring shared

The main element is board MUXCAN version V1. MCB boards will be connected to this board, in pairs, and the shaft wiring communication will also come out from it for connecting the LOB boards and displays. In the event of malfunction, the vertical wiring will not be operational.

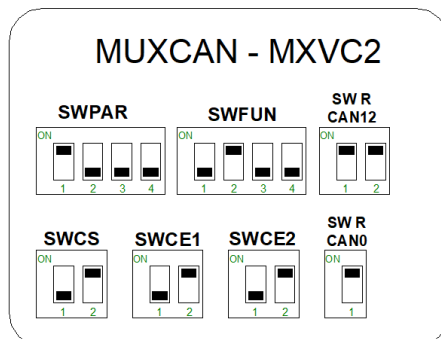
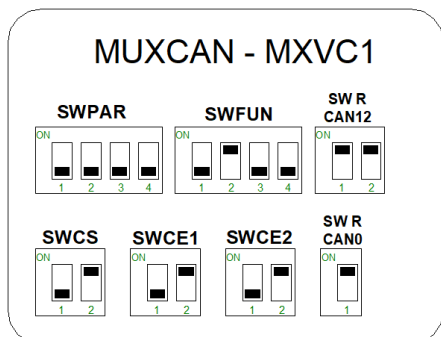
#### Location MUXCAN box (MXVC)

The MXVC board will always be close to the trunking of vertical wiring of the first lift sharing it. A MUXCAN board version V1 is included.

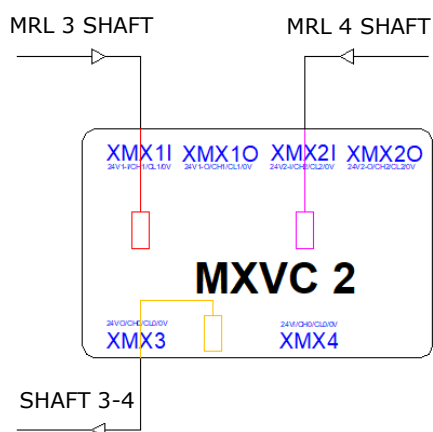
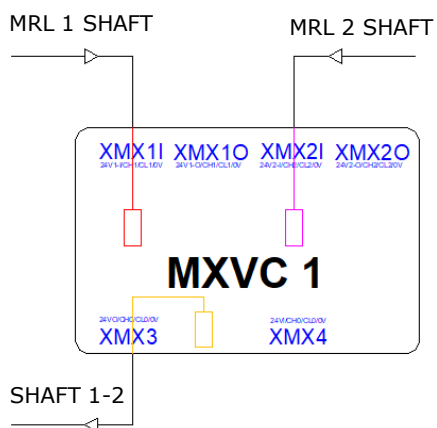


### 2.1.3. Set-up of MUXCAN board (MXVC)

MXVC1 is related to MUXCAN board of vertical wiring placed between lift 1 and 2  
MXVC2 is related to MUXCAN board of vertical wiring placed between lift 3 and 4

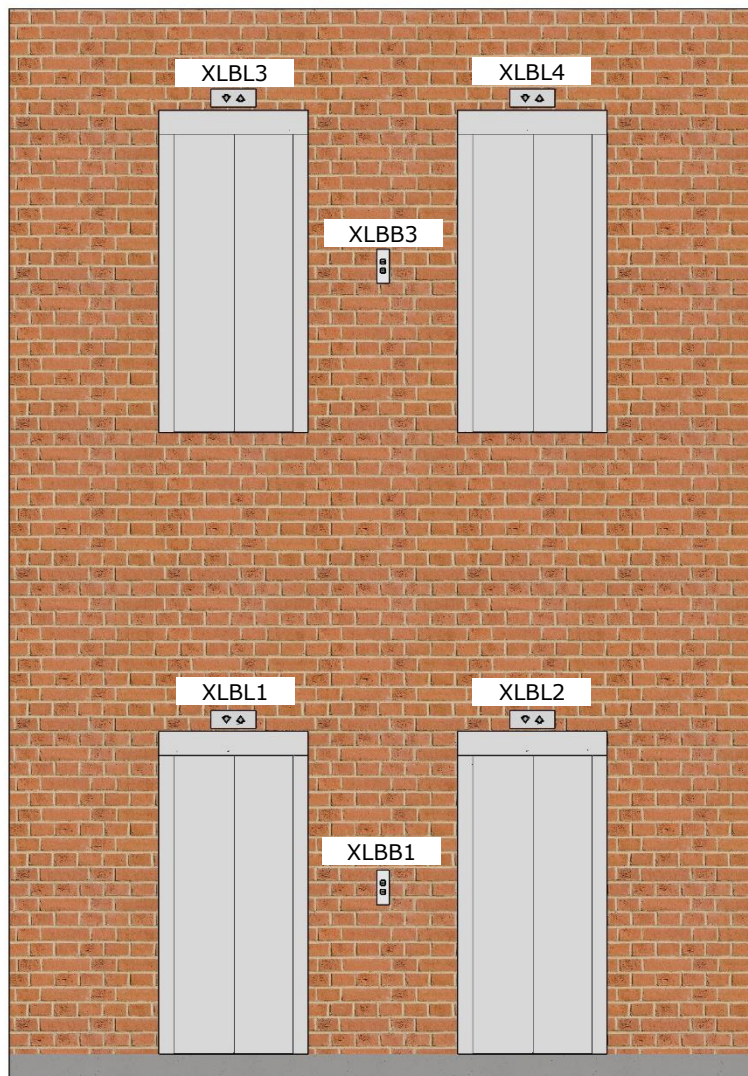
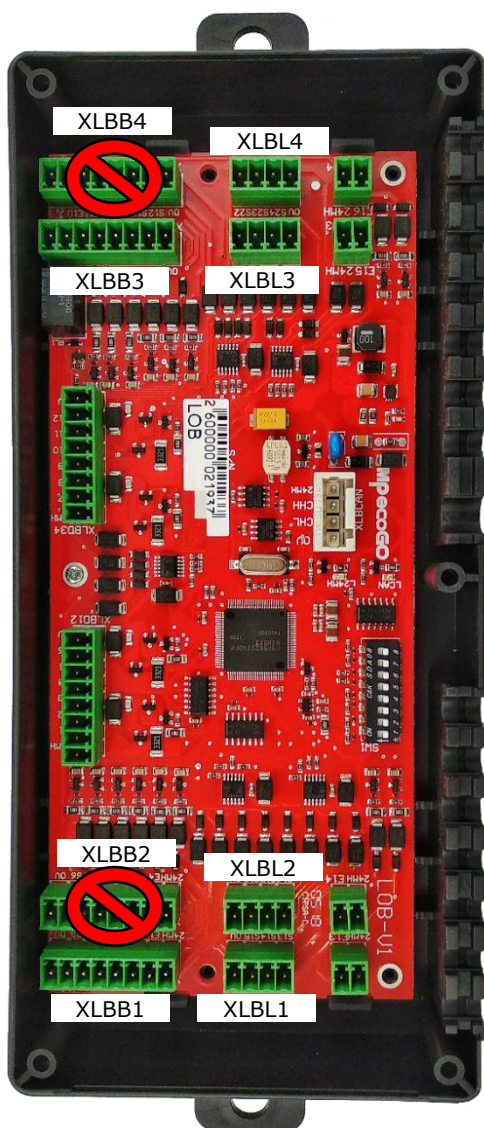


### 2.1.1. Connecting the MUXCAN box (MXVC)



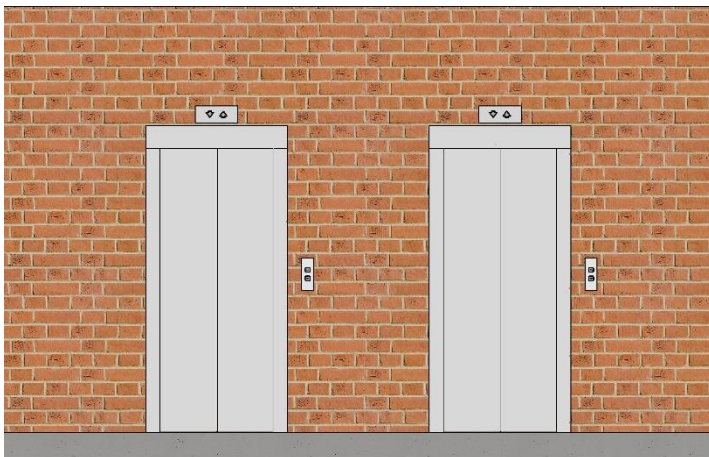


### 2.1.2. Wiring distribution for LOB box

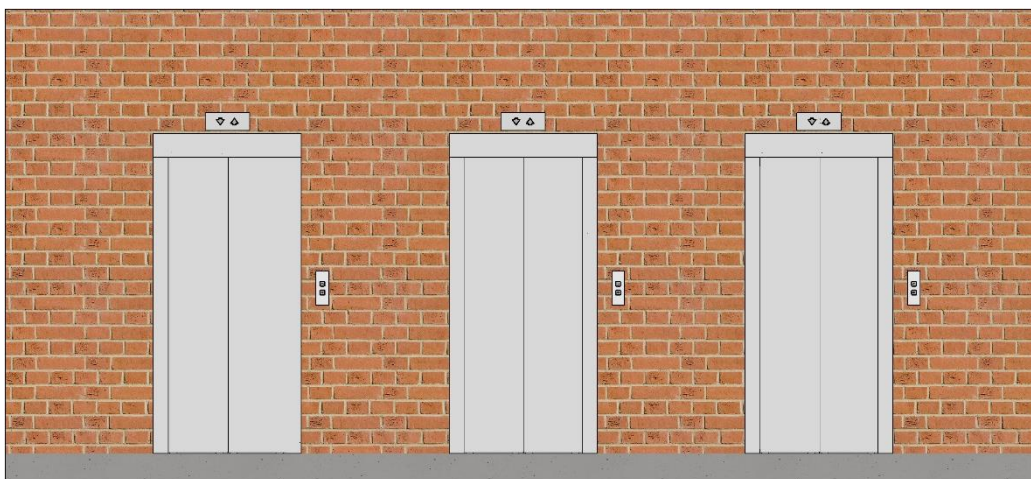


## 2.2. Single vertical wiring of LOPs (per lift)

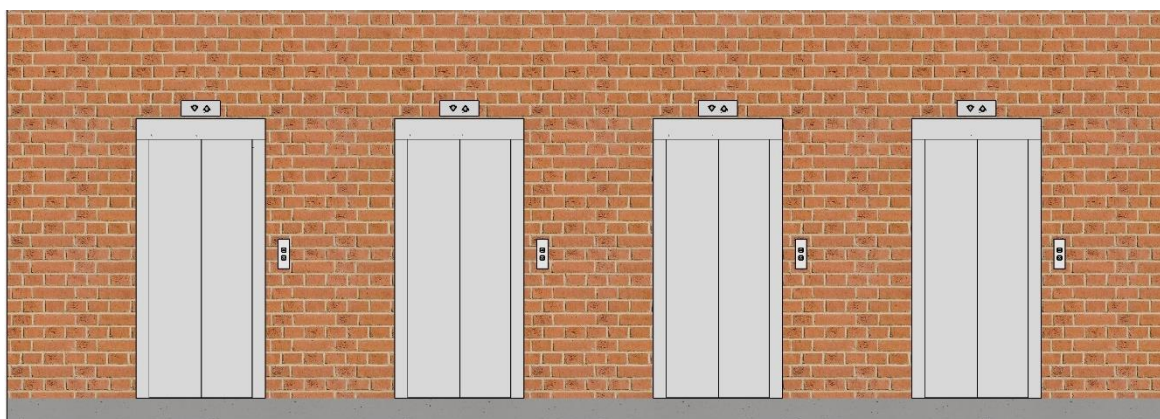
### 2.2.1. Duplex



### 2.2.2. Triplex

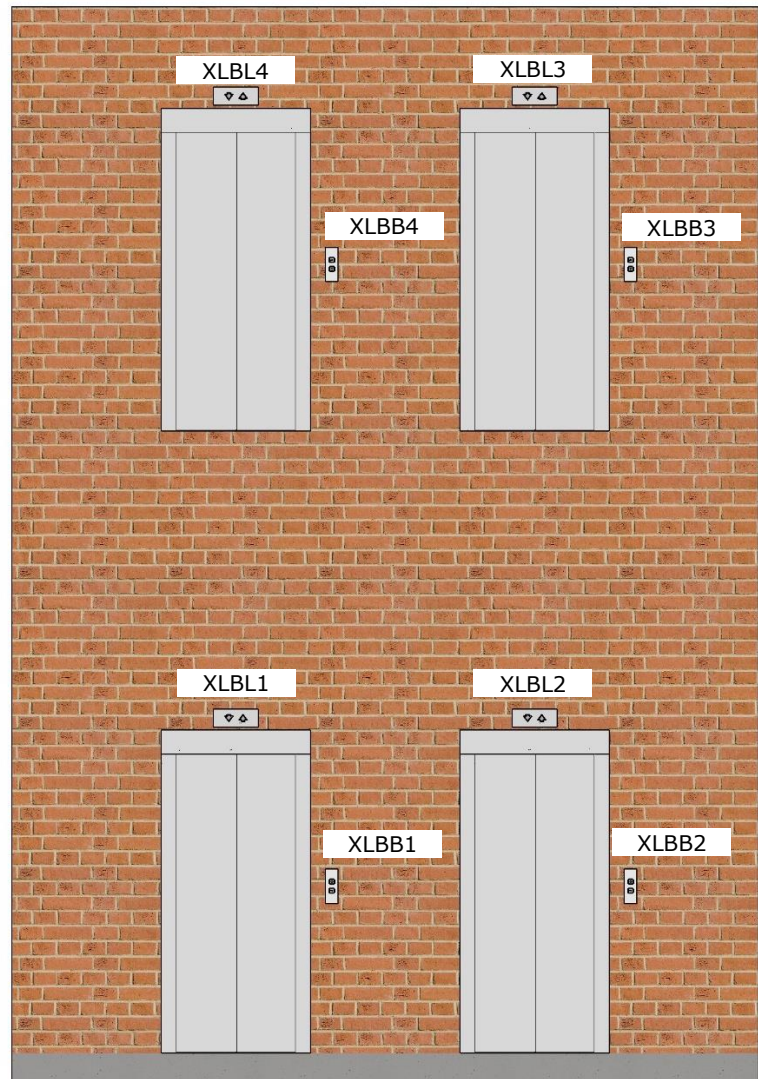
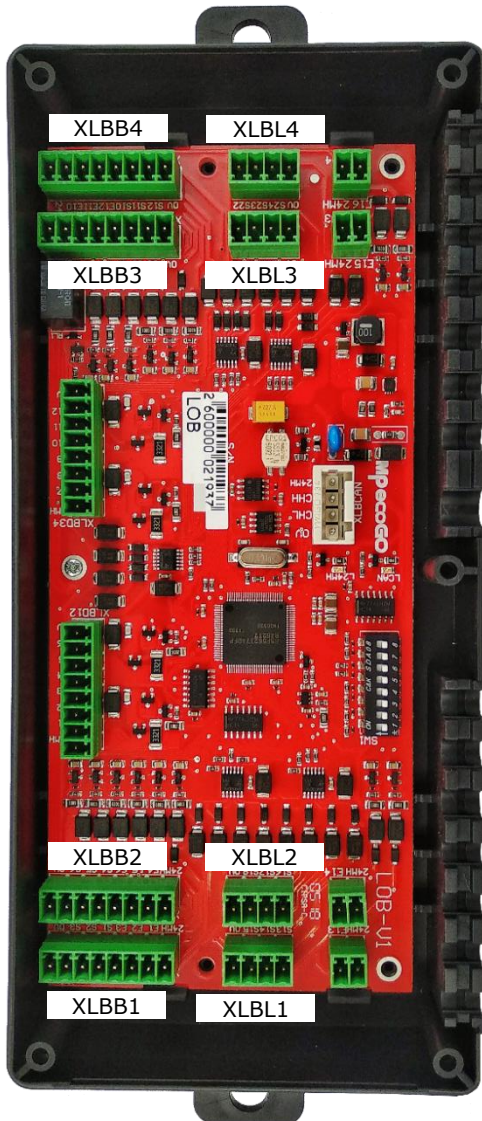


### 2.2.3. Quadruplex





### Wiring distribution for LOB box




### 3. OPERATION OF A GROUP OF LIFTS

The controllers can be gathered in what is called groups of lifts for dispatching traffic demand of a building in a de coordinated way. In such a case, the management of calls is unique and there is a board responsible for assigning the closest calls to every car. The criterion set to manage the calls is "the closest lift responds". This closeness criterion is based on distance and availability. The calls will be assigned to the closest lifts, provided that they are available to accept them. The assignment is Dynamic in such a way it can vary during the lift motion.

A lift is considered available if the doors are closed and it is moving in the direction coinciding with the direction of the call to be responded.



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