esse-ti LIFT COM

IMQ CERTIFIED QUALITY MANAGEMENT SYSTEM ISO 9001:2015

IQNET RECOGNIZED CERTIFICATION

Certificato n. 9110.ESTI

LIFTRACK

ESSE-TI MONITORING SYSTEM

715-80570 18/10/2024

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General description

LifTrack is a real-time monitoring system for lift systems
Equipped with predictive analysis functions, it provides the information needed for routine and preventive maintenance, regardless of the brand of lift

LifTrack has:
- 2 sensors (accelerometer and barometer)
- 4 digital inputs
- 1 analogue input
- 1 relay output (NO/NC, bistable)

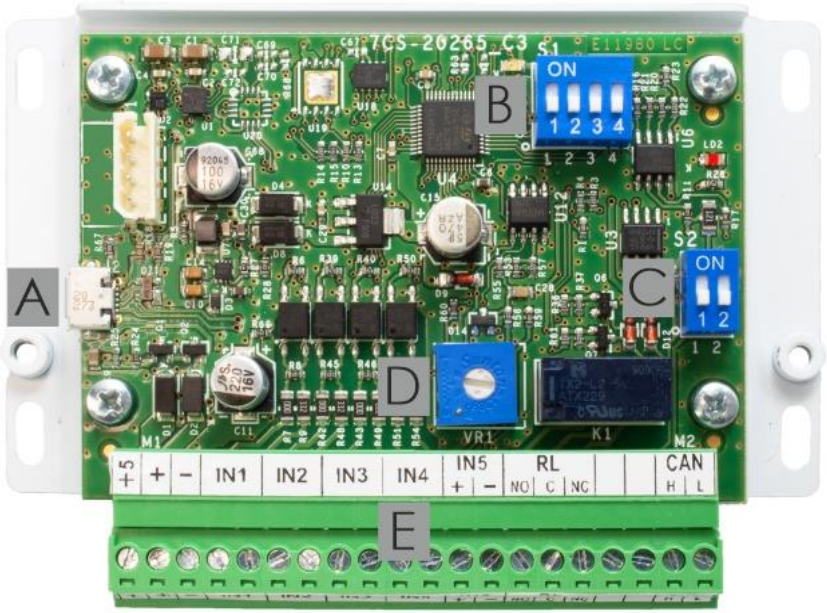
LifTrack (installed integral with the car) processes the data collected from the sensors and inputs and forwards it, via CAN-bus connection, to the alarm system or to the Esse-ti gateway already present on the installation. Via data connection, the information is then sent to an Esse-ti server and is made available in the *e-stant web* application

Main information provided by the sensors:
- car position at floor
- journeys made
- number of stops on each floor
- number of reversals
- average and instantaneous speed
- average and instantaneous acceleration
- distance covered
- time of journey
- temperature
- pressure

Examples of information that can be detected by connecting the inputs to the control panel or external sensor:
- door status
- lighting efficiency (by means of light sensors)
- presence of people inside the car (by means of movement sensors)
- presence of water in the pit (by means of flood sensors)
- presence of smoke (by means of smoke detectors)
- overloading (by means of weight sensors on the car floor)

The integrated relay and the relays of the Esse-ti alarm system or gateway allow active maintenance to be carried out remotely or locally (according to pre-programmed logic)

Hardware description



A	Micro USB AB port for PC connection
B	Not used
C	CAN-bus termination dip switch*
D	Analog input trimmer
E	Terminal blocks

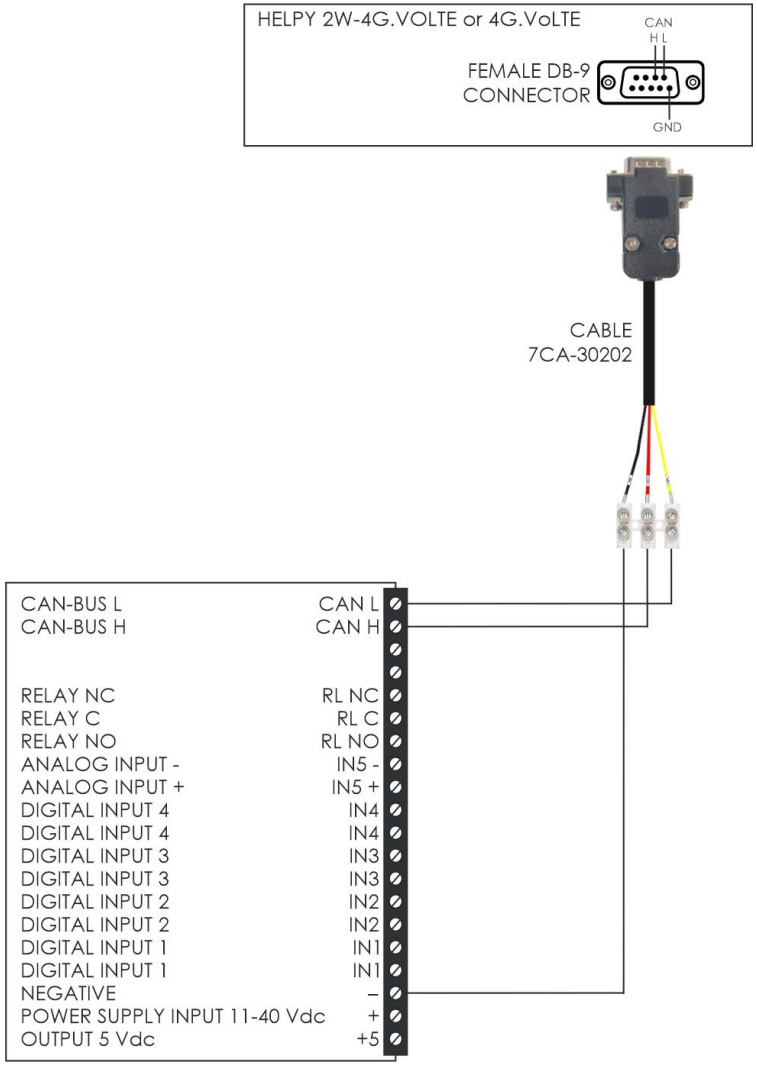
Terminal blocks

+5	5 Vdc ouput
+	11-40 Vdc power supply input
–	Negative pole
IN1	Digital input IN1
IN1	Digital input IN1
IN2	Digital input IN2
IN2	Digital input IN2
IN3	Digital input IN3
IN3	Digital input IN3
IN4	Digital input IN4
IN4	Digital input IN4
IN5 +	Analog input IN5 (positive pole)
IN5 –	Analog input IN5 (negative pole)
RL NO	Relay (normally open contact)
RL C	Relay (common contact)
RL NC	Relay (normally closed contact)
CAN H	CAN-bus H
CAN L	CAN-bus L

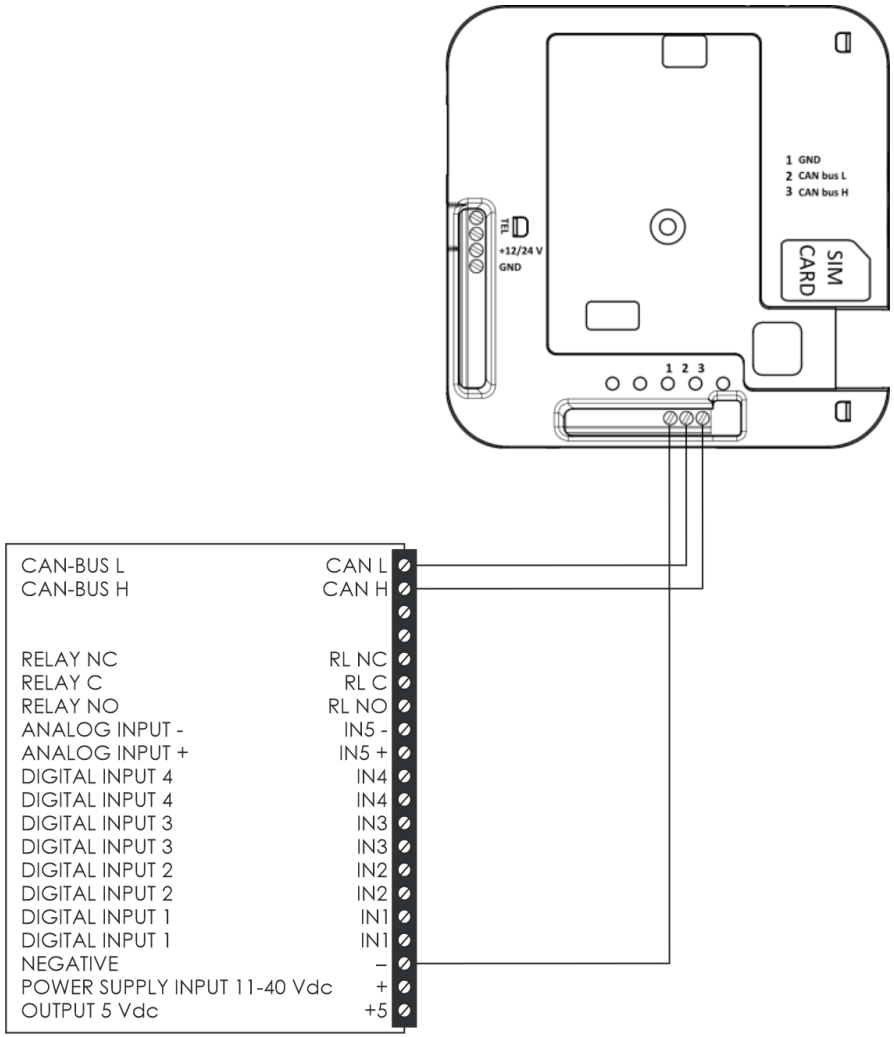
*set the switch n° 1 to ON if Liftrack is the last device on the bus
(after the move, the alarm system or gateway connected to LifTrack must be restarted)

Installation

1. Fix LifTrack to the car top
2. Connect LifTrack to the Esse-ti alarm system or gateway already present on the installation via CAN-bus



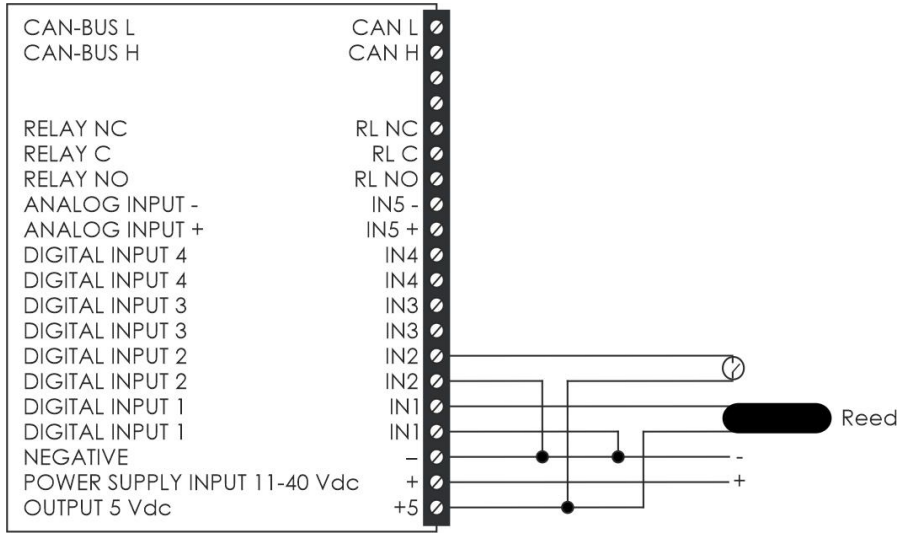
Example of connection to Helpy 2W-4G.VoLTE or to 4G.VoLTE



Example of connection to 4G.evox

3. Move the car to the lowest floor and place the Reed sensor on the roof; fix the metal plate to the wall and centre the magnetic disk, as shown in the picture

4. Connect the Reed sensor to one of LifTrack's inputs (e.g. IN1)
5. For the initial self-learning procedure only, connect a lift motion signal to LifTrack (e.g. to input IN2)



NOTE: in the absence of a lift motion signal, it is possible to connect a button to be held down while the lift is in movement

6. Power on LifTrack

Configuration

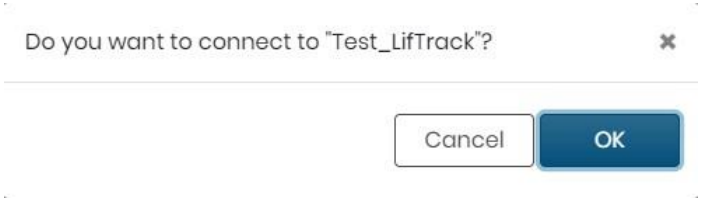
LifTrack can be configured:

- remotely via *e-stant web* application (data connection provided by the Esse-ti alarm system or gateway present on the installation)
- locally via micro USB port and *e-stant* software

Configuration via e-stant web

NOTE: please refer to the *e-stant web* guide for registering to the service and for entering, registering and programming the devices

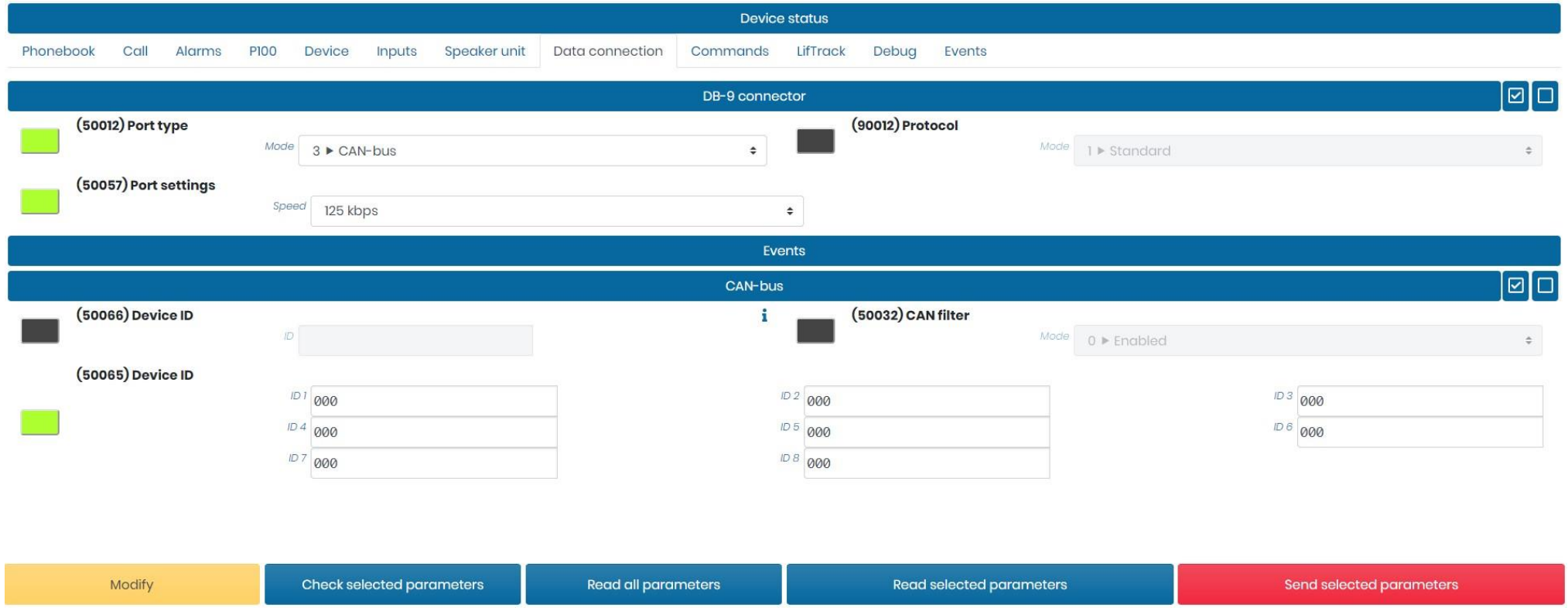
1. Access *e-stant web*
2. Enter a new lift or select an existing lift in the lifts list
3. Click on the device  button and check that *LifTrack* is selected in the field *Main data connection mode*
4. Fill in the fields *Number of floors* and *Lower floor*
5. Click on *Save* button
6. Click on  button to remotely configure the device



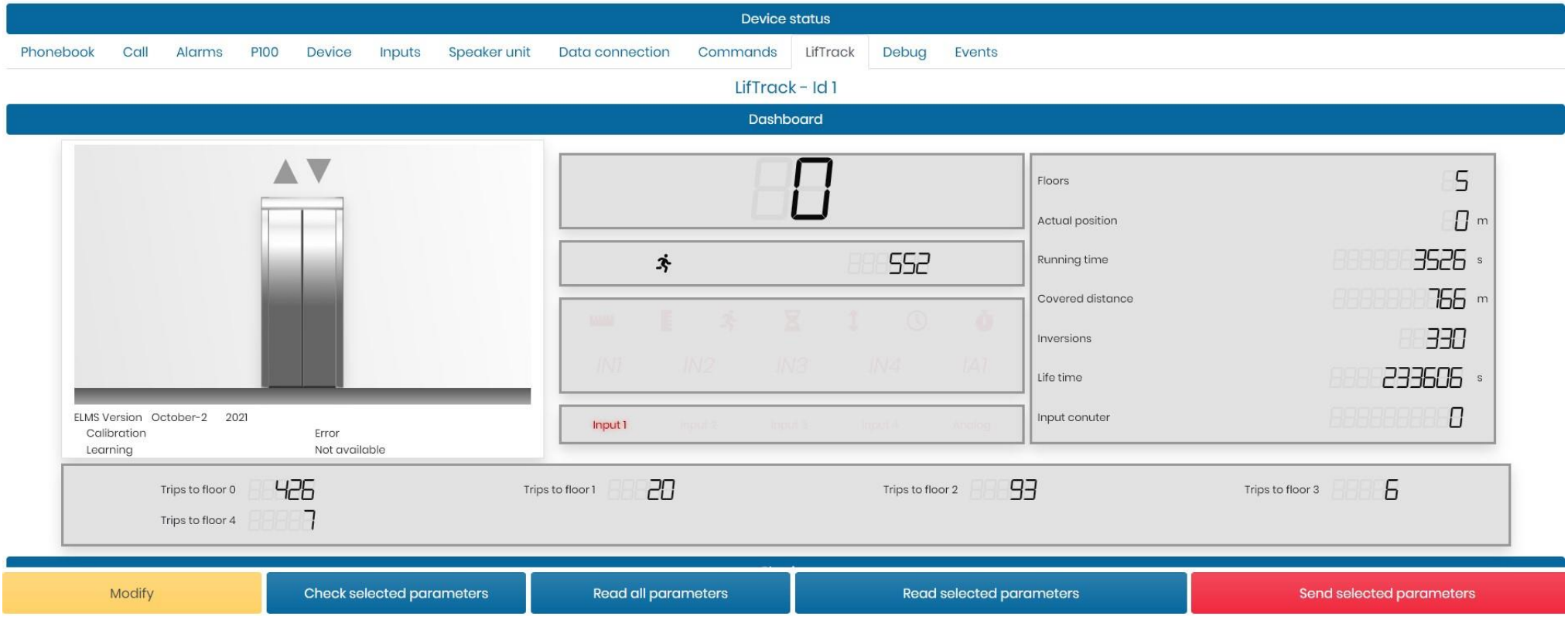
7. Click on *OK* to start remote connection with device
8. Wait for connection confirmation

NOTE: please follow steps from 9 to 18 only when connecting to Helpy 2W-4G.VoLTE; go to step 19 when connecting to 4G.VoLTE or to 4G.evox

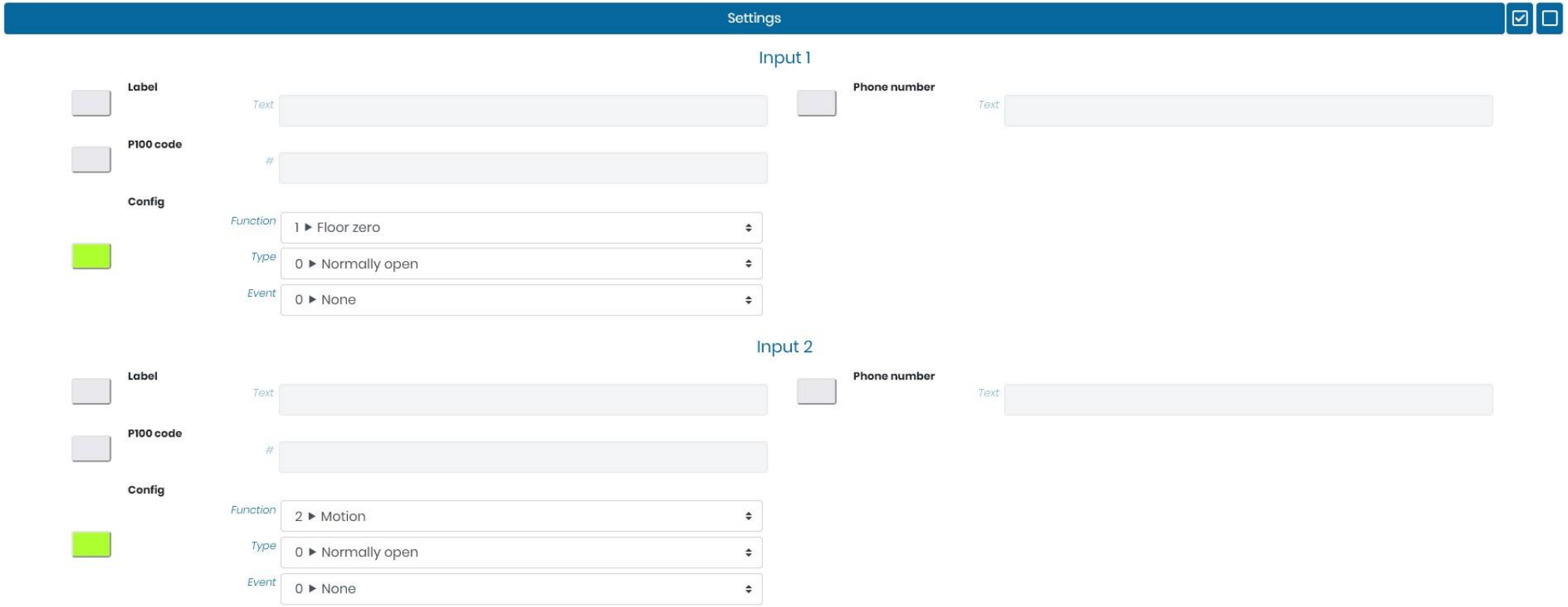
9. Click on *Data connection -> DB-9 connection*
10. Select *Port type* (button will turn blue)
11. From *Mode* menu select *CAN-bus*
12. Select *Port settings* (button will turn blue)
13. From *Speed* menu select *125 kbps*
14. Click on *Send selected parameters* (buttons will turn green)
15. Click on *Data connection -> CAN-bus*
16. Select *(50065) Device ID* (button will turn blue)
17. Enter the value *000* in all fields *ID1I…ID8*
18. Click on *Send selected parameters* (buttons will turn green)



19. Click on *LifTrack* (NOTE: in the case of the first CAN-bus configuration, the *Liftrack* item may be displayed approximately 1 minute after step 18)



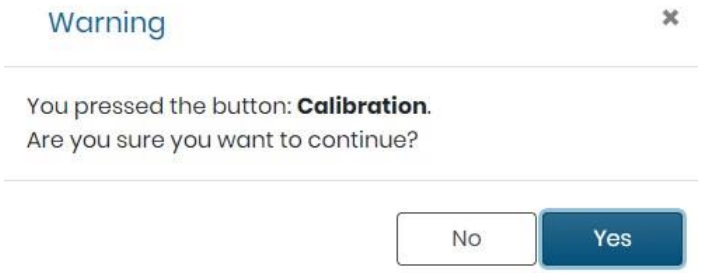
20. Click on *Settings*
21. Select the *Config* buttons for inputs 1 and 2 (buttons will turn blue)
22. In the *Function* menu of input 1, select *Floor zero*
23. In the *Type* menu of input 1, select *Normally open*
24. In the *Function* menu of input 2, select *Motion*
25. In the *Type* menu of input 2, select *Normally open* or *Normally closed* according to the type of lift motion signal used
26. Click on *Send selected parameters* (buttons will turn green)



NOTE: if the connection and configuration of the Reed sensor are correct, the dashboard will light up *Input 1* when the lift is at the lowest floor

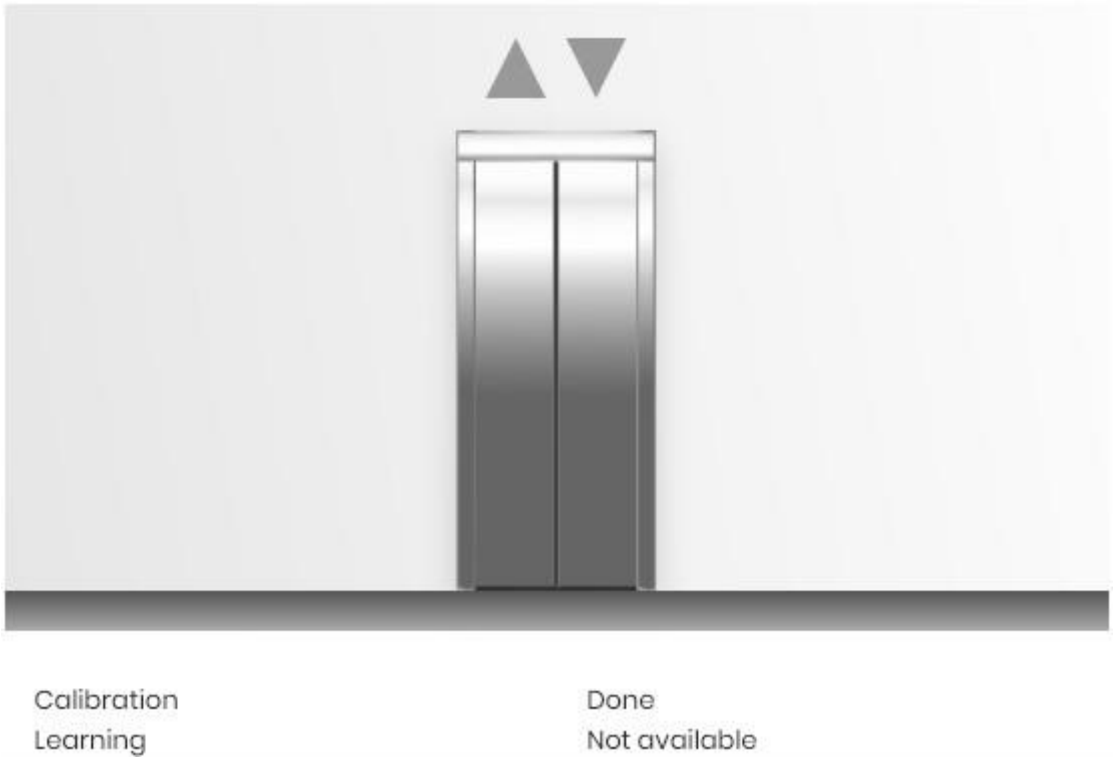
NOTE: if the connection and configuration of the lift motion signal (or pushbutton) are correct, the dashboard will light up *Input 2* when the lift is moving (or the pushbutton is pressed)

27. Click on *Management*
28. Click on the *Calibration* button to start the Liftrack calibration procedure

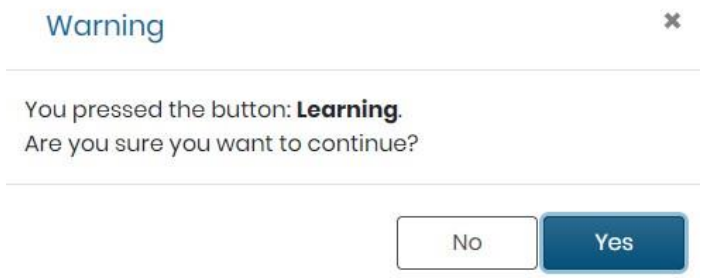


29. Click on *Yes* to confirm

At the end of the calibration procedure, the dashboard displays "*Done*".



30. Click on the *Learning* button to start the Liftrack self-learning procedure

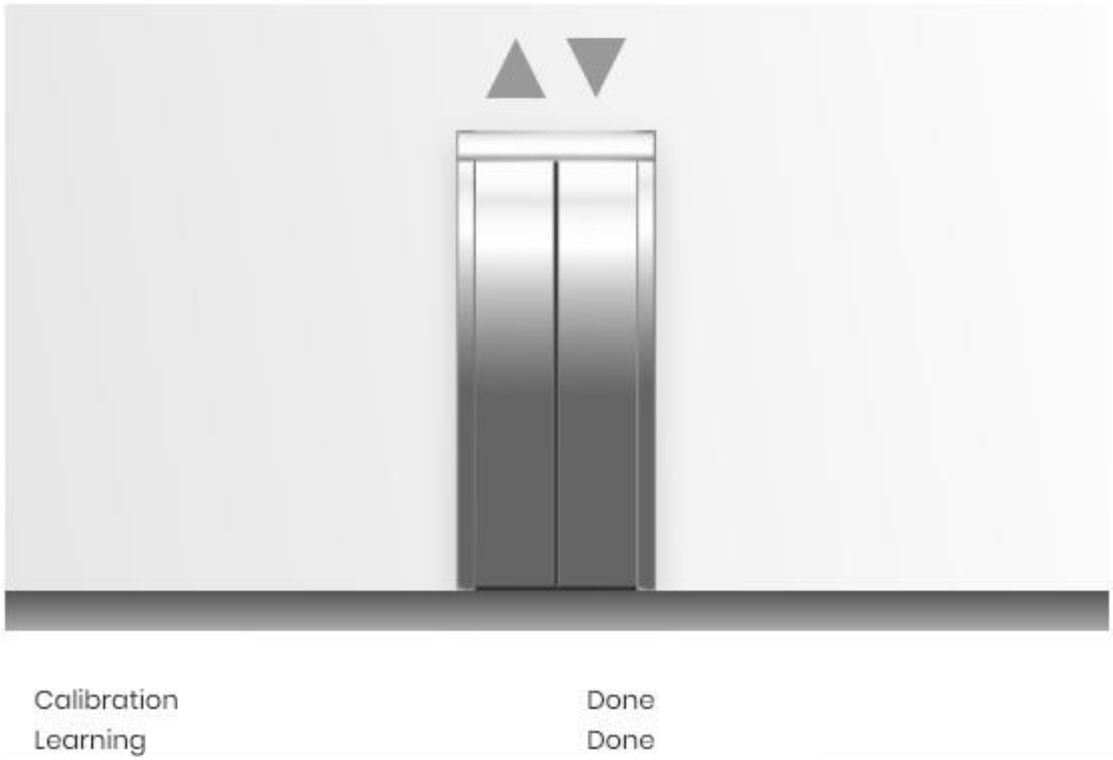


WARNING: before clicking on *Yes*, make sure that the car is at the lowest floor

31.Click on *Yes* to confirm

32. Within 15 minutes, run the self-learning procedure described in the next paragraph

At the end of the procedure, the dashboard displays "*Done*".



Self-learning procedure

LifTrack requires the self-learning procedure to acquire information on the number and position of floors

Procedure:

- move the car from the lowest to the highest floor, stopping at each floor for the time required by the opening and closing of the doors
  (if a pushbutton is connected to input 2, press it every time the car moves from one floor to another and release it when the car stops at the floor)
- once you have reached the highest floor, you shall move the car directly to the lowest floor without intermediate stops

Note

If a pushbutton has been used in the absence of a lift motion signal, the pushbutton must be disconnected at the end of the self-learning procedure and the input programming must be cleared:

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