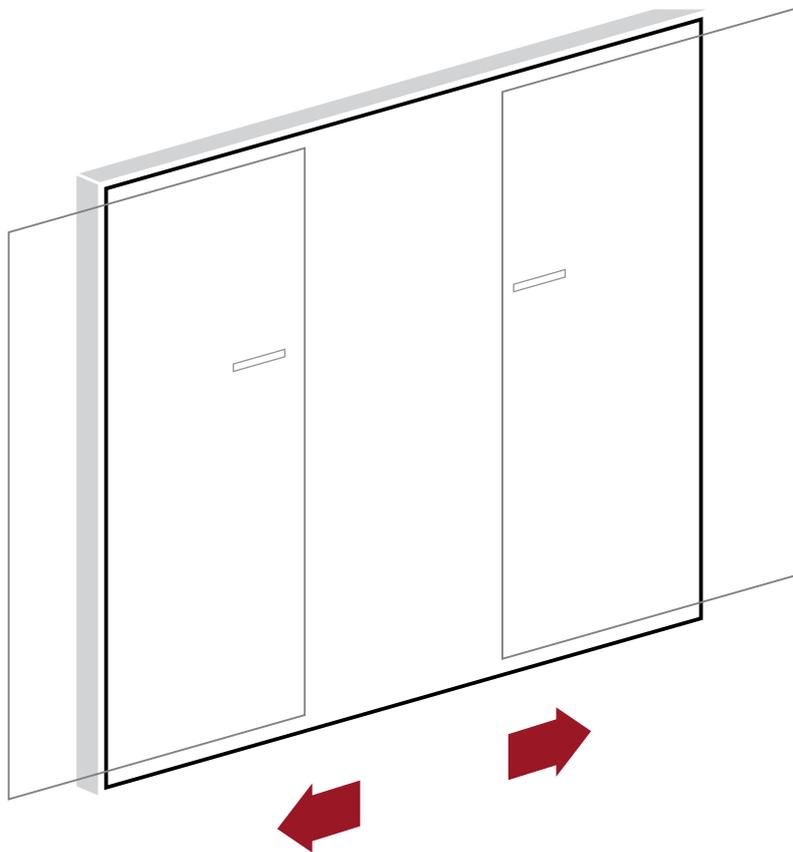


# HOLUX

Automatic Doors



## Holux S150

Installation Instruction



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# 1. Safety Instructions

We recommend that you follow the instructions described below in order to avoid material damage and personal injuries. All of the instructions that need to be followed with a special degree of diligence have been marked with a symbol. If you have any questions, we recommend that you contact your supplier. Although we have exercised a great degree of diligence in creating these instructions, they do not absolve you of your own responsibility. All the tasks should be carried out by professionals or by trained personnel. Deviations can result in faulty functioning and voiding the warranty. Use protective equipment, gloves and goggles.



## 1.1 Initial Assembly

Secure your installation site against unlawful entry by unauthorized individuals. Ensure that the location in question is well-lit and that the floor is secure. Use appropriate measures to protect the site from contaminants. Check the stability of the structure. Work on electrical systems must be performed by authorized staff. Deuschtec GmbH shall not be liable for accidents caused by improper assembly, maintenance and operation.

## 1.2 Maintenance

Before work, examine the status of the door, particularly the safety elements, and the general condition. Damage to the glass, the electrical feed and the mechanical function (e.g. stiffness and wedging) must be repaired prior to maintenance. Secure your installation site against unlawful entry by unauthorized individuals.

## 1.3 Operation

Check the operational status of the door on a daily basis. In case of operational irregularities, decommission the door and notify your service partner. When the system is locked, the escape function is disabled!

## 1.4 Explanation of Symbols

Warning: Risk of Injury



Warning: Electric Shock Possible (risk of injury or death) Repairs should be carried out by an electrician.



**1.5 Declaration of Incorporation**

**In accordance with Annex II section 1.B. of the EC Machinery Directive  
2006/42/EG**

Authors and persons responsible for creating the relevant technical documents:

**Deuschtec GmbH  
Am Fuchsbau 13  
15345 Petershagen/Eggersdorf  
Germany**

We hereby declare that the incomplete machine:

**Sliding Door Operator Type:** \_\_\_\_\_  
**Serial Number:** \_\_\_\_\_  
**Year of Manufacture:** \_\_\_\_\_

as long as supply is possible within the scope of delivery, and corresponds to the basic requirements of the following directives (refer to the Annex regarding which requirements were met):

<b>Machinery Directive 2006/42/EG</b>	<b>EU Official Journal L 157/24 dated 09.06.2006</b>
<b>EG Low Voltage Directive 2006/95/EG</b>	<b>EU Official Journal L 374/10 dated 27.12.2006</b>
<b>EMC Directive 2004/108/EG</b>	<b>EU Official Journal L 390/24 dated 31.12.2004</b>

Harmonized standards that were used, whose references have been published in the Official Journal of the EU:

**EN ISO 13849-1:2008**  
**EN 60335-1:2012**  
**EN 16005:2012**

Petershagen, \_\_\_\_\_  
(Place, Date)

  
  
Am Fuchsbau 13 • 15345 Petershagen/Eggersdorf  
Tel.: +49 (0) 3041 - 30 22 4 - 0  
(Signature of the Authorized Individual)

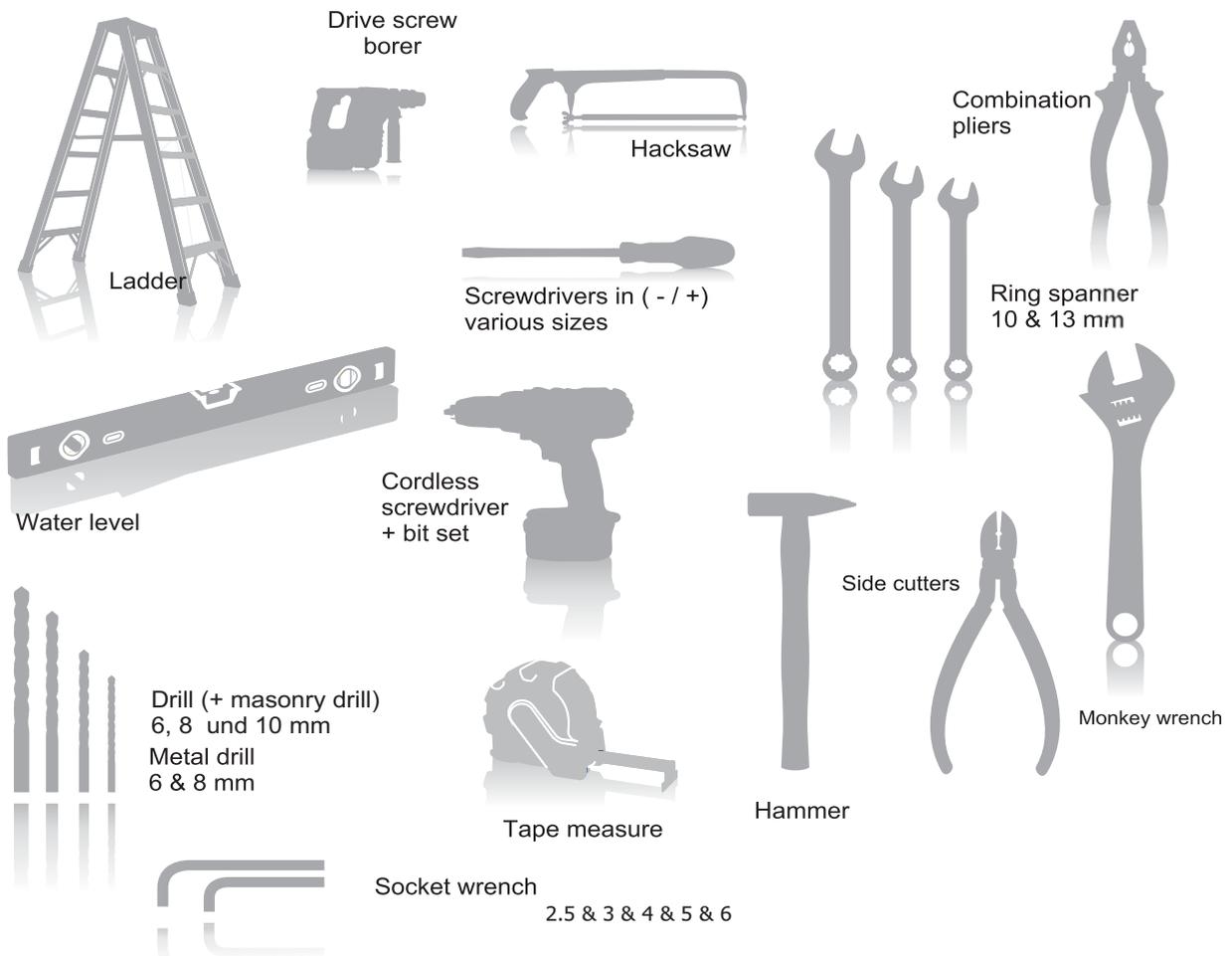
Requirements of Annex I of 2006/42 / EC, which have been complied with. The numbers refer to the sections of Annex I: 1.1.5, 1.3.4, 1.3.7, 1.5.14, 1.3.1, 1.3.2, 3.5.1, 1.2.1, 1.3.8.2, 1.4.1, 1.4.3, 1.5.1, 1.5.2, 1.5.4, 1.5.5, 1.5.6, 1.5.7, 1.5.8, 1.5.9, 1.5.10, 1.5.13, 1.1.3, 1.1.6, 1.2.6, 1.6.3, 1.5.15, 1.3.2, 1.3.3, 1.6.1, 1.6.2, 1.2.4.1, 1.2.4.3, 1.2.4.4, 1.2.3, (partially)

## 2. Commencing assembly

### 2.1 Technical Data

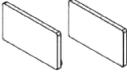
<b>Power Supply:</b>	<b>230 V AC</b>	<b>Max. Weight of Leaf:</b>	<b>1 x 200 Kg</b>
<b>Frequency:</b>	<b>50 Hz</b>	<b>Passage Width:</b>	<b>800 - 3000 mm</b>
<b>Power Consumption:</b>	<b>max. 150 W</b>	<b>Max. Passage Height:</b>	<b>3000 mm</b>
<b>Power Consumption in Idle State:</b>	<b>5 W</b>	<b>Opening Speeds:</b>	<b>100-550 mm/s</b>
<b>Protection Class:</b>	<b>1</b>	<b>Closing Speeds:</b>	<b>100-500 mm/s</b>
<b>Type of Protection:</b>	<b>IP20</b>	<b>Hold-open Time:</b>	<b>1-60 s</b>
<b>Temperature Range:</b>	<b>-15 to +50°C</b>	<b>Sound Emission:</b>	<b>&lt; 70 dBA</b>
<b>Max. Weight of Leaf:</b>	<b>2 x 150 Kg</b>		

### 2.2 Required Tools



### 3. Contents of Delivery

#### S150 operator kit

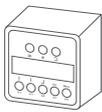
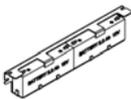
	Art.-No.	Description	This kit/set incl.
	1000000312	S150 Control unit - Steel case	1 Pcs.
	1000000640	S150 Assembled Motor 100 W-24V	1 Pcs.
	1000000641	S150 Assembled Idler Pulley	1 Pcs.
	1000000978	S150 Stopper Set	1 Pcs.
	1000000966	S150 Belt Clamp Set	1 Pcs.
	1000000646	S150 Hanger & Roller 36mm	4 Pcs.
	1000000853	S150 Side Cover	2 Pcs.
	1000000981	S150 Cover Clip Set	1 Pcs.
	1000000532	S150_Screw Pack	1 Pcs.
	1000000376	Standard Cable Pack	1 Set

	<b>Art.-No.</b>	<b>Description</b>	<b>This kit/set incl.</b>
	1000000116	GN Cable Clip	7 Pcs.

**PrimeDrive standard profile set**

	<b>Art.-No.</b>	<b>Description</b>	<b>This kit/set incl.</b>
	1000000934	S150 Cover profile , AL	1 Pcs. Stainless steel set
	1000000933	4m S150 Rail Profile , AL	1 Pcs. Stainless steel set
	1000000023	4m General Track profile, SS	1 Pcs. Stainless steel set
	1000000024	4m General Rubber profile, for SS	1 Pcs. Stainless steel set
	1000000975	4m Back profile	1 Pcs. optional

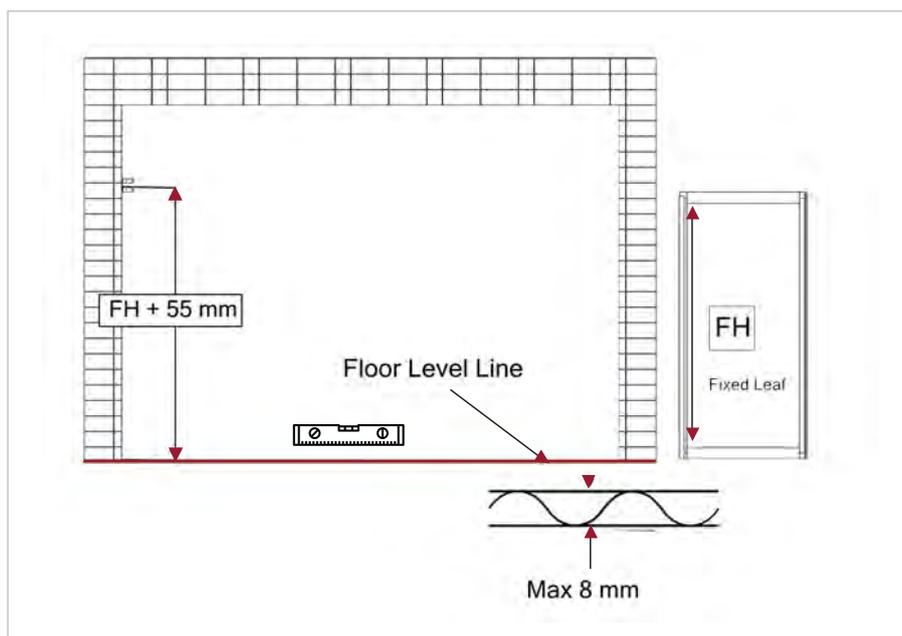
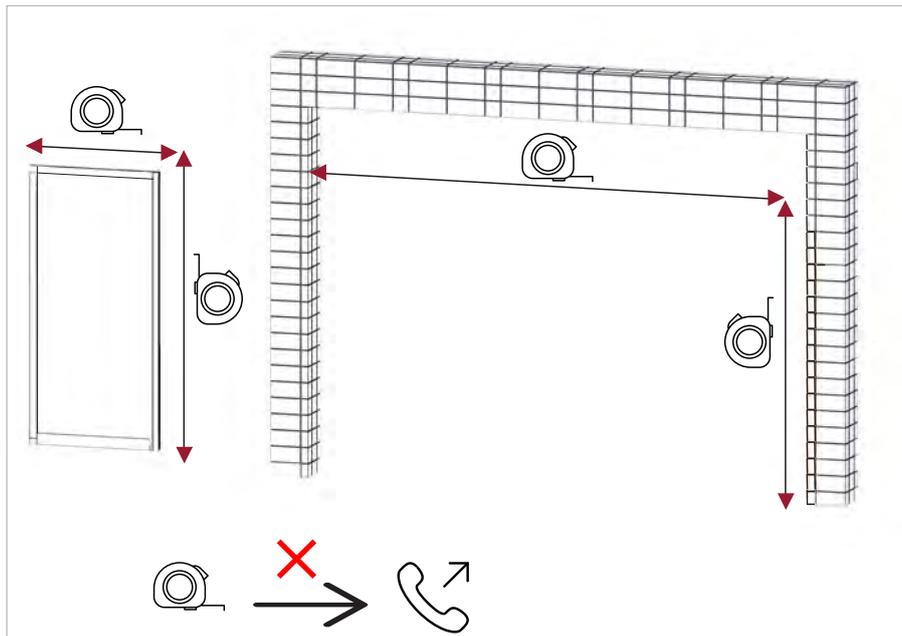
**Accessories**

	<b>Art.-No.</b>	<b>Description</b>	
	100000147	Mechanical key switch	optional
	100000166	Digital programme switch	optional
	100000943	Electromechanical lock - GN - slider	optional
	100000980	HSML_Complete Lock for Prime	optional
	100000124	Battery pack - GN	optional
	100000392	Battery Set - GN	optional
	100000198	Frameless glass clamp set - IR	optional
	100000195	Timing Belt HTD 8M, 12mm, 4.5 meter	optional

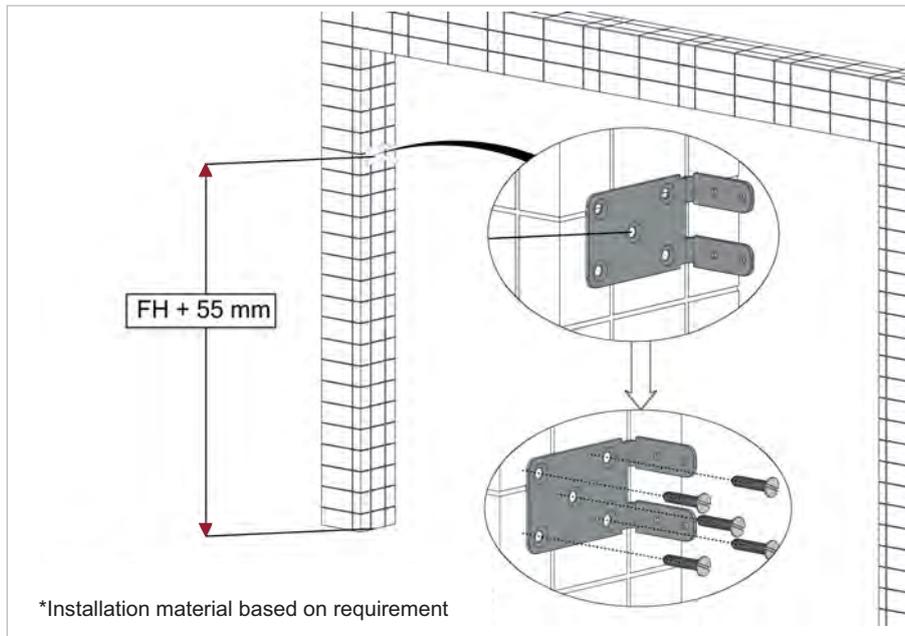
## 4. Installation steps

**Note** : This installation manual is based on combination of Holux S150's operator with back profile and THB frame.

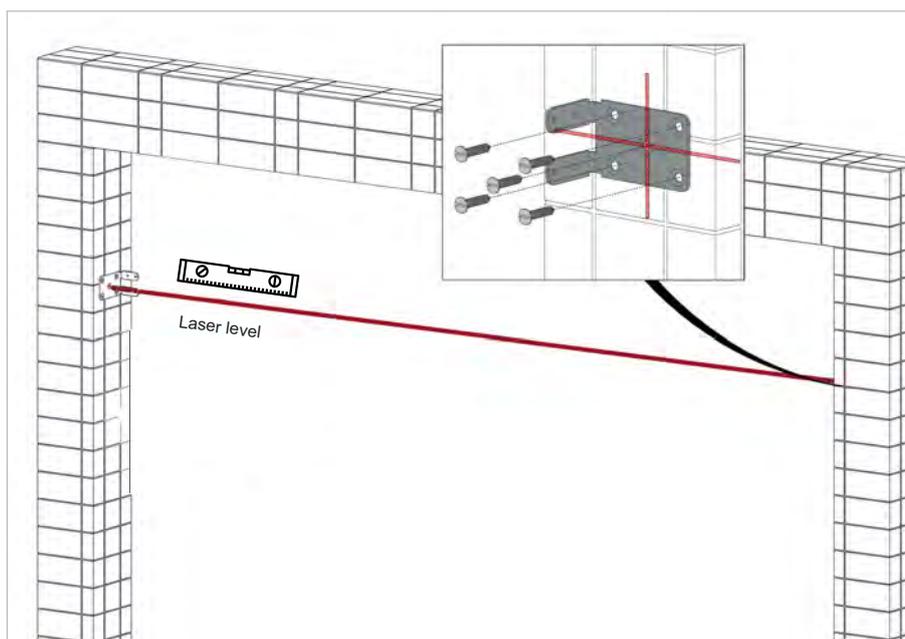
### 4.1 Check leaves & opening dimensions

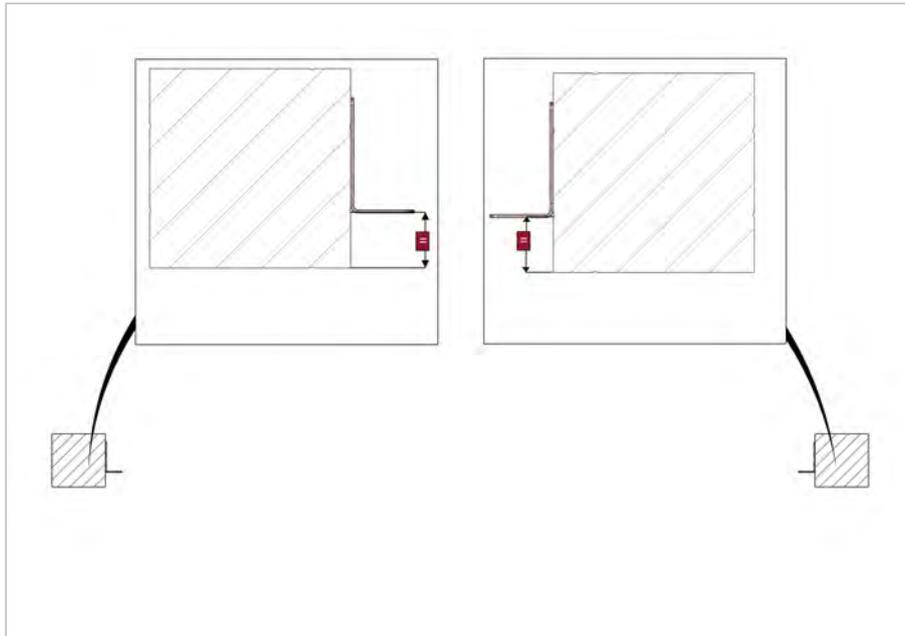


#### 4.2 Install bracket on both side walls - corridor mounting

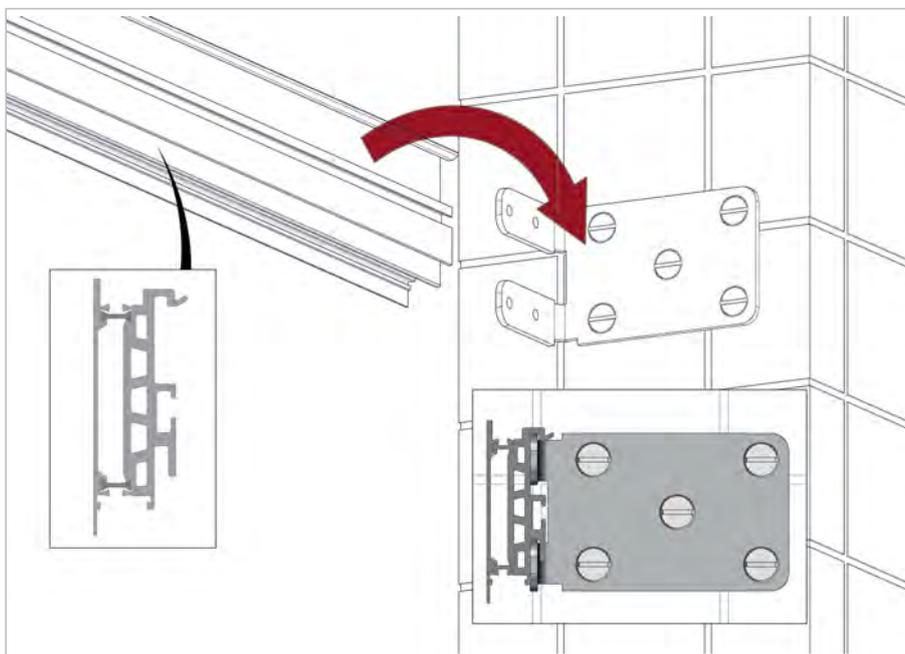


#### 4.3 Use laser level to specify second point - corridor mounting

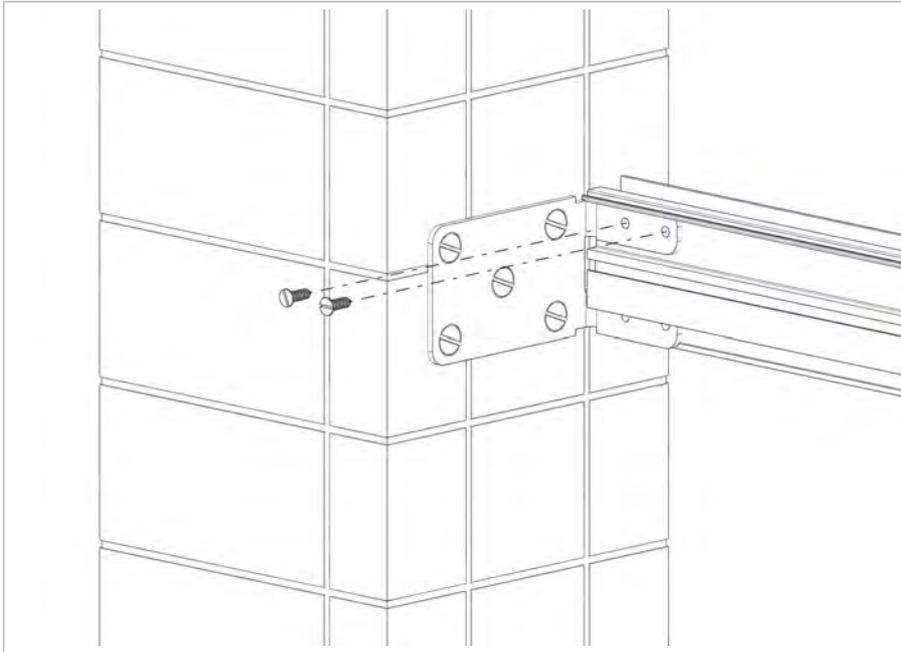




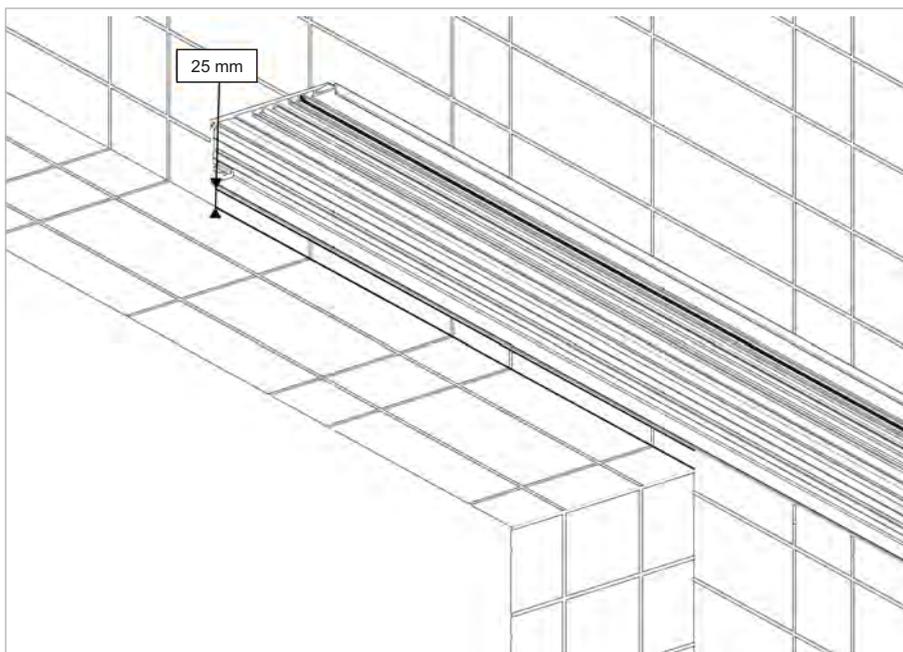
**4.4 Hang on the back profile on bracket - corridor mounting**



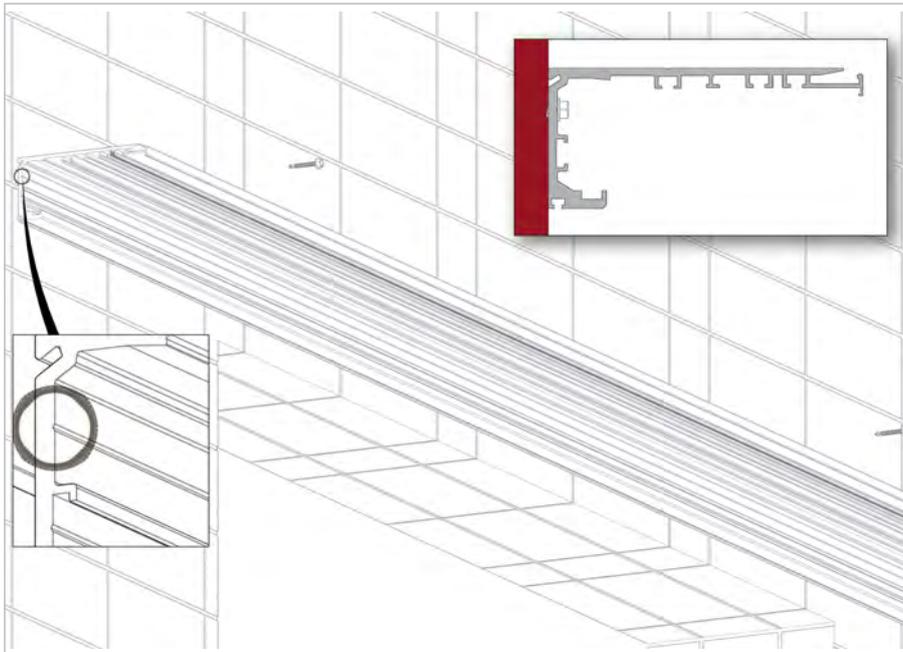
#### 4.5 Fix the back profile - corridor mounting



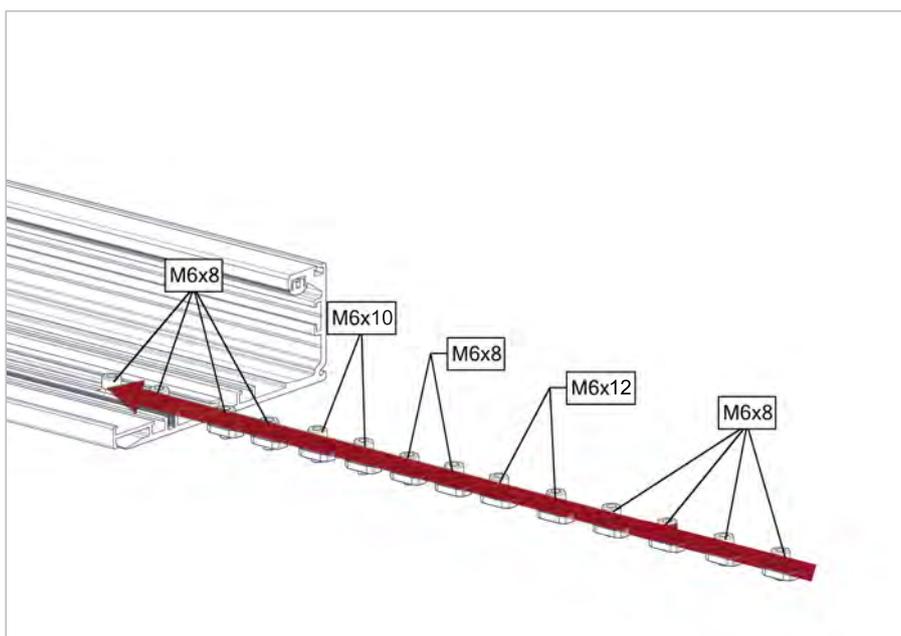
#### 4.6 Adjust the rail horizontally – on facade



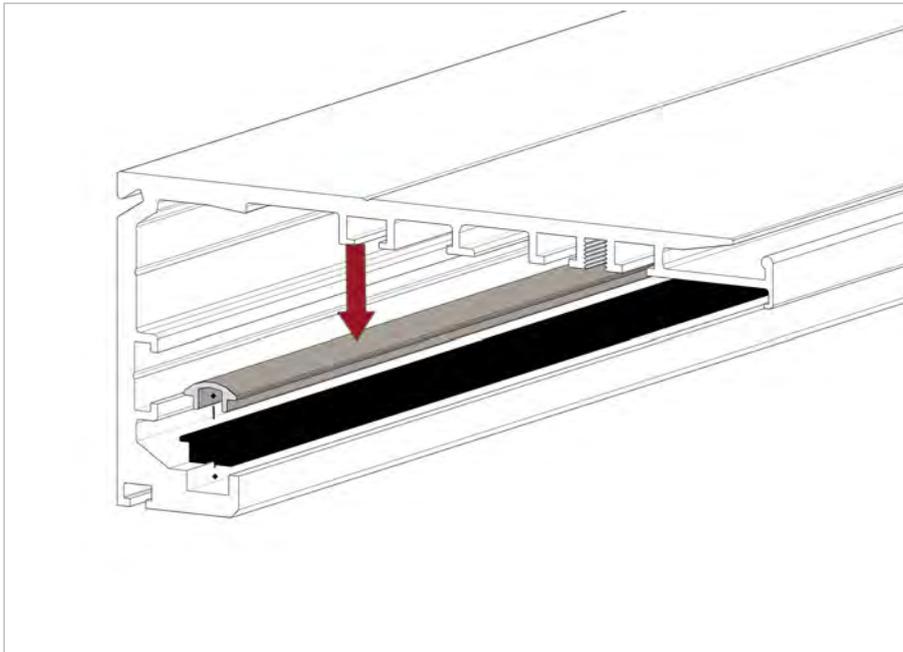
#### 4.7 Fix the rail – on facade



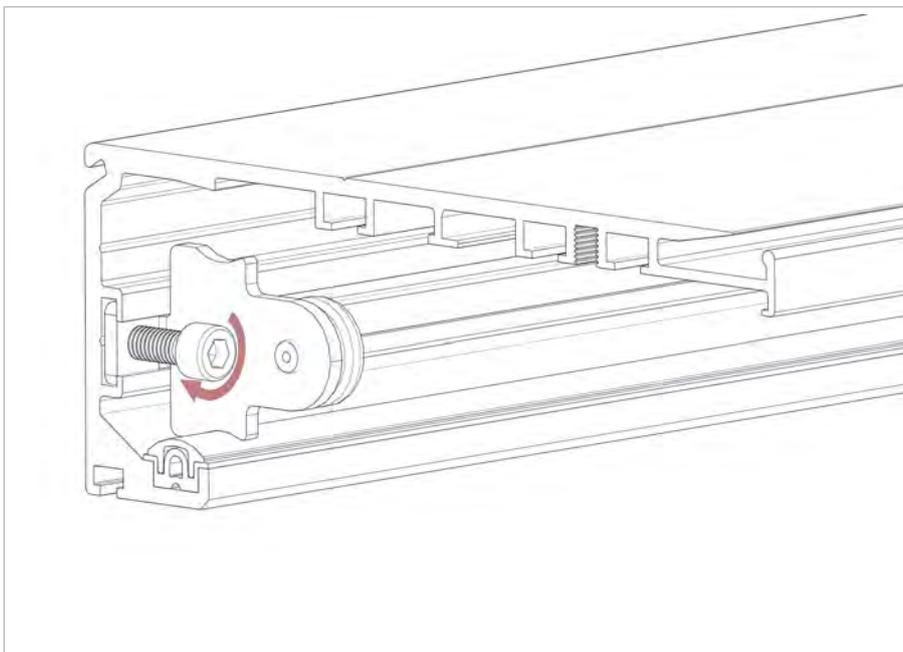
#### 4.8 Insert nuts & screws in rail groove



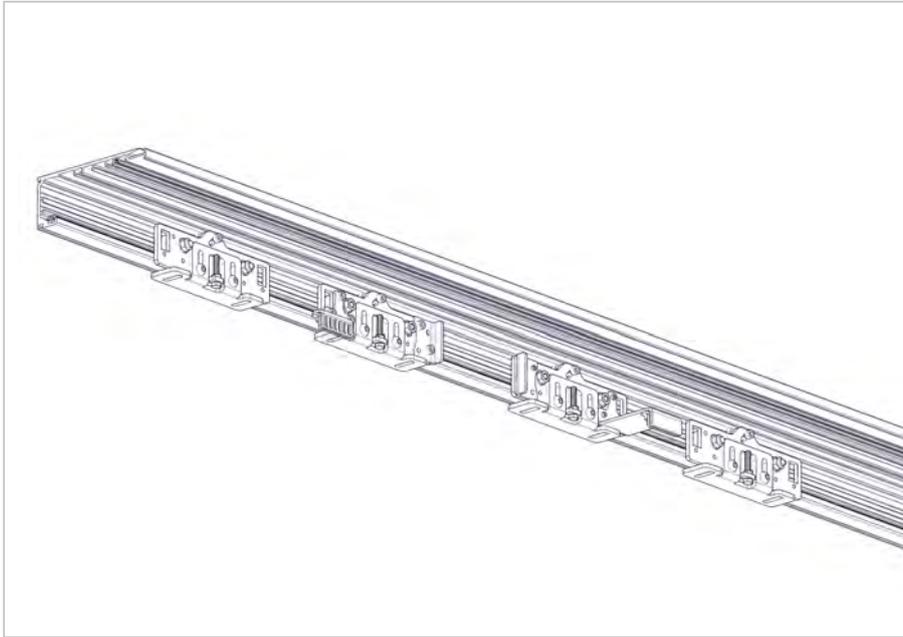
#### 4.9 Install rail profile and track profile



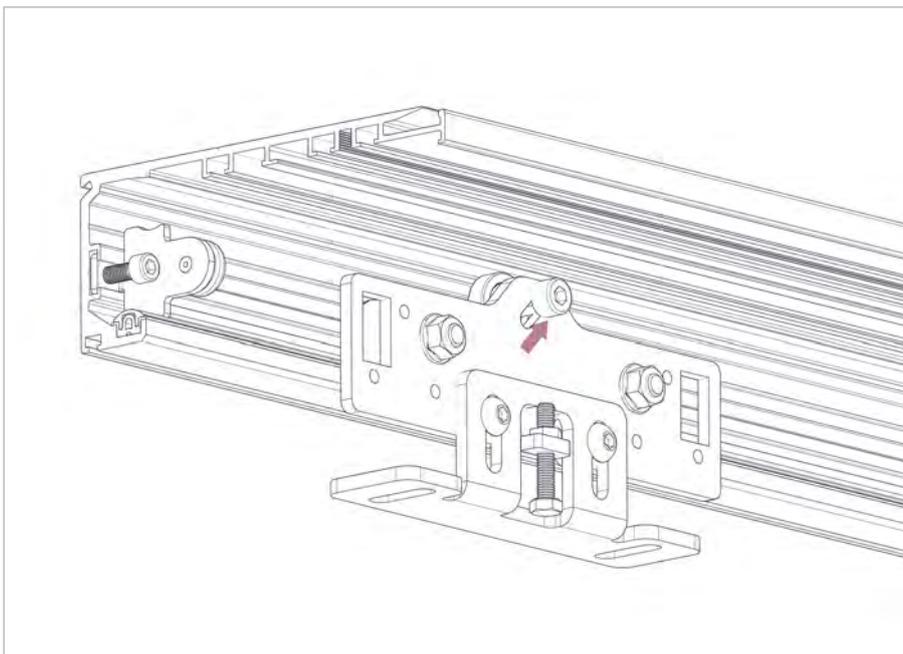
#### 4.10 Install stoppers

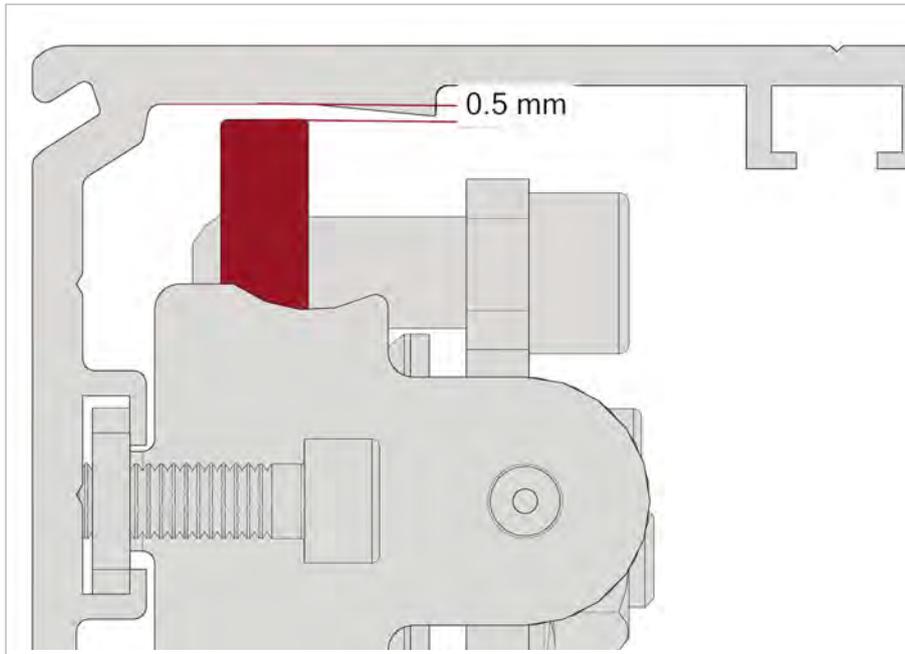


#### 4.11 Install hangers through the rail

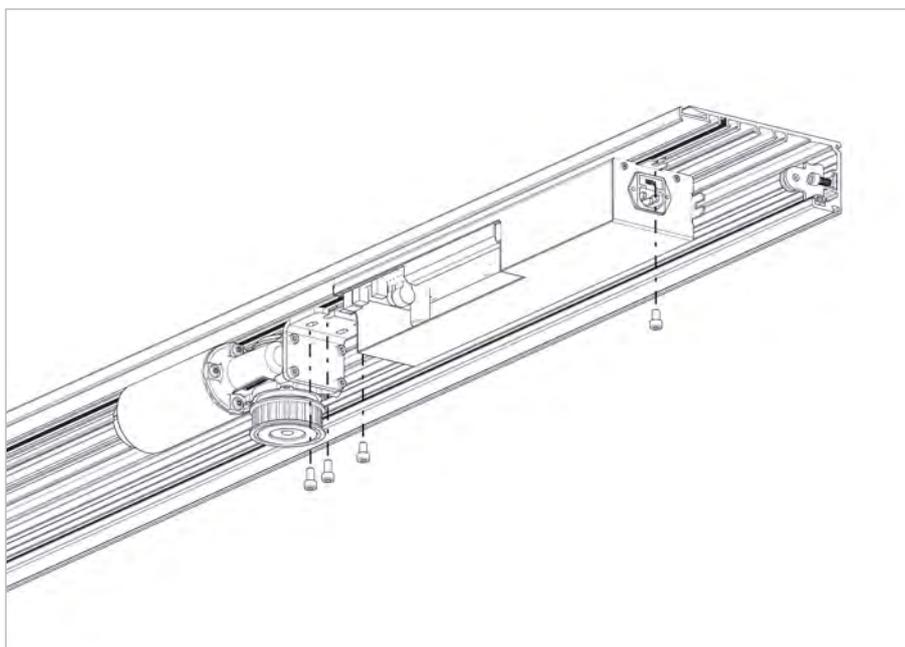


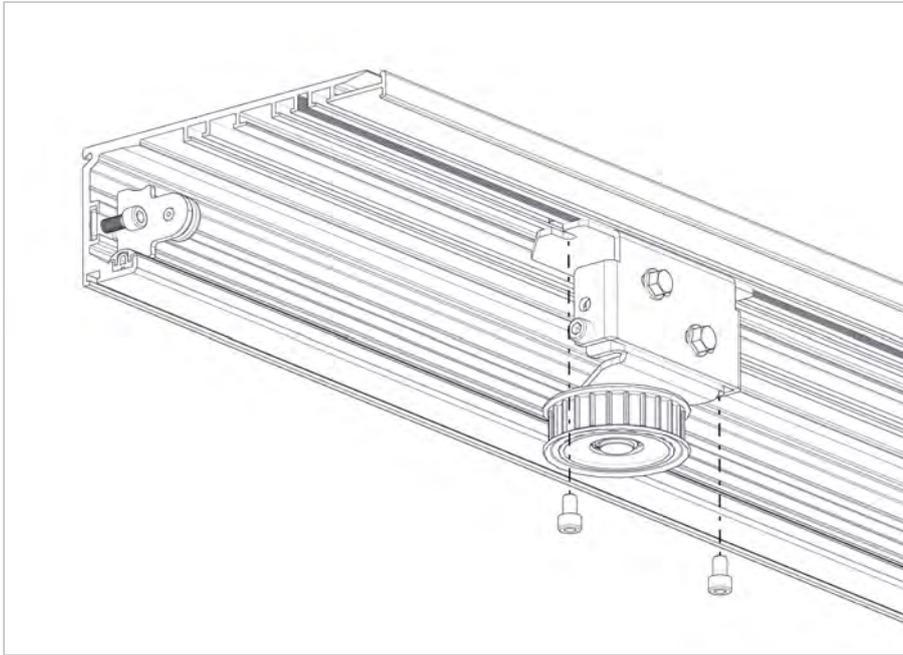
#### 4.12 Fix the counter rollers and mind the 0.5mm gap



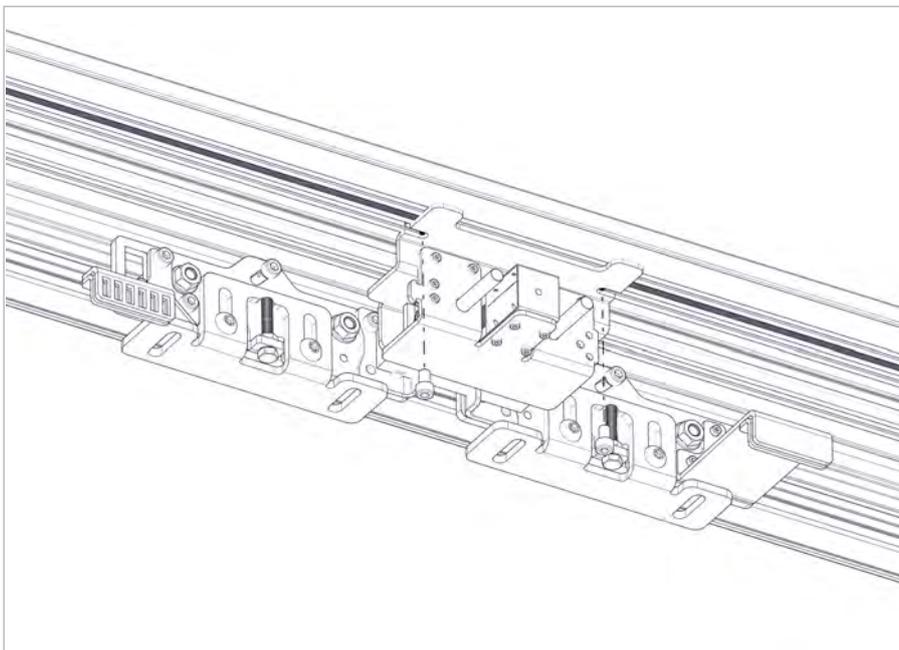


#### 4.13 Install components

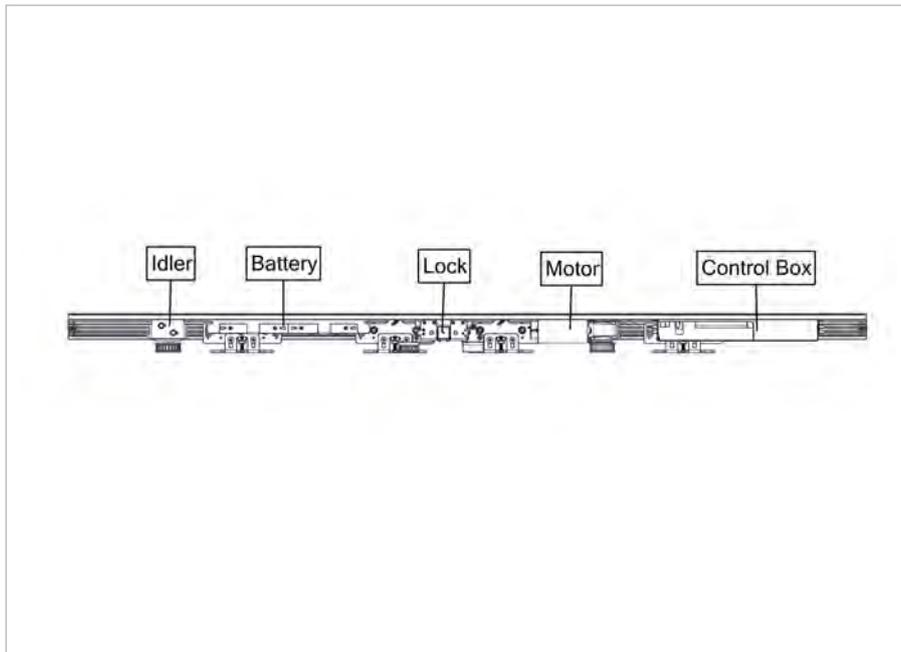




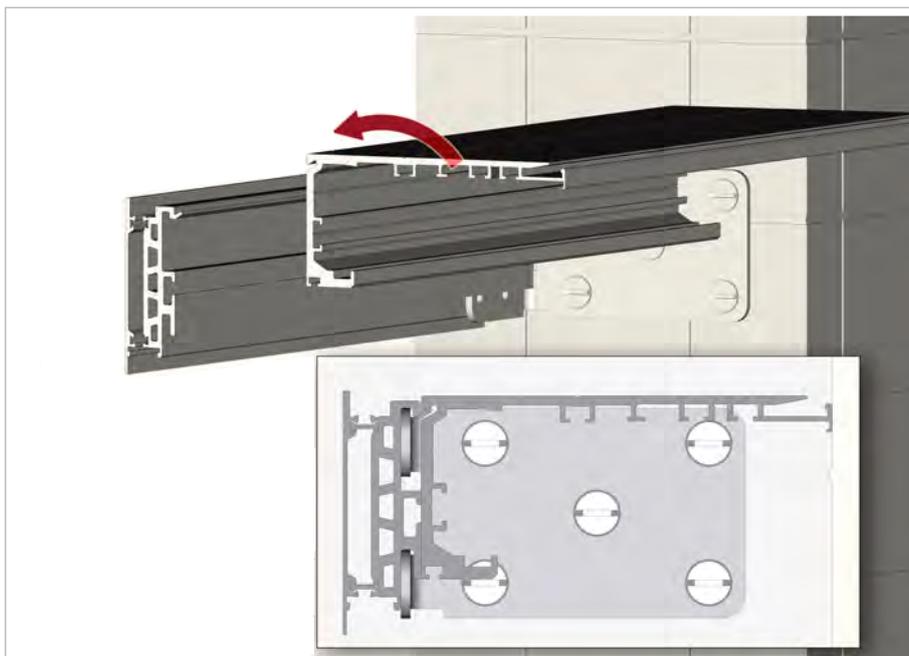
#### 4.14 Install lock (optional)



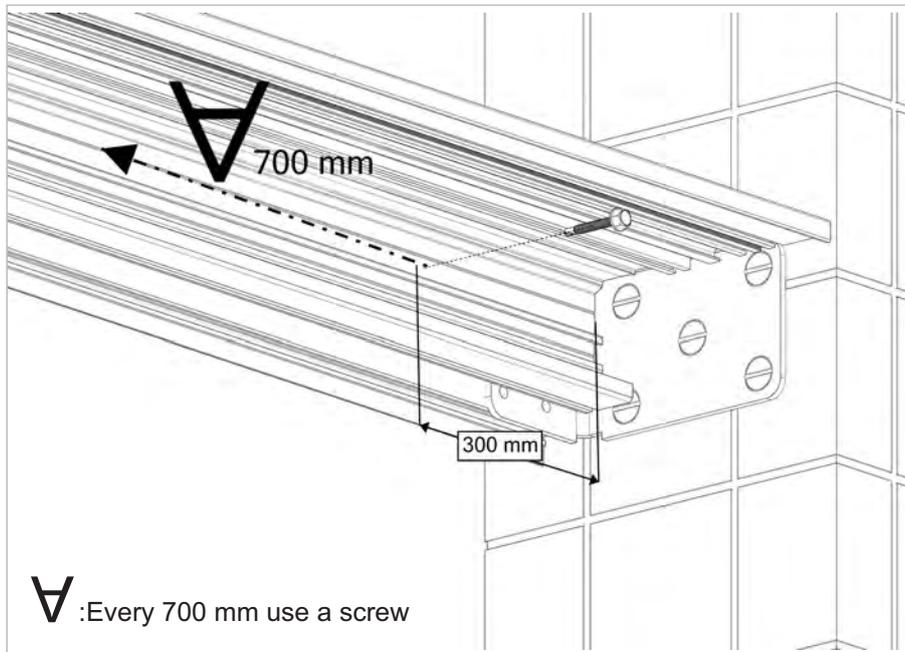
#### 4.15 Check components' layout



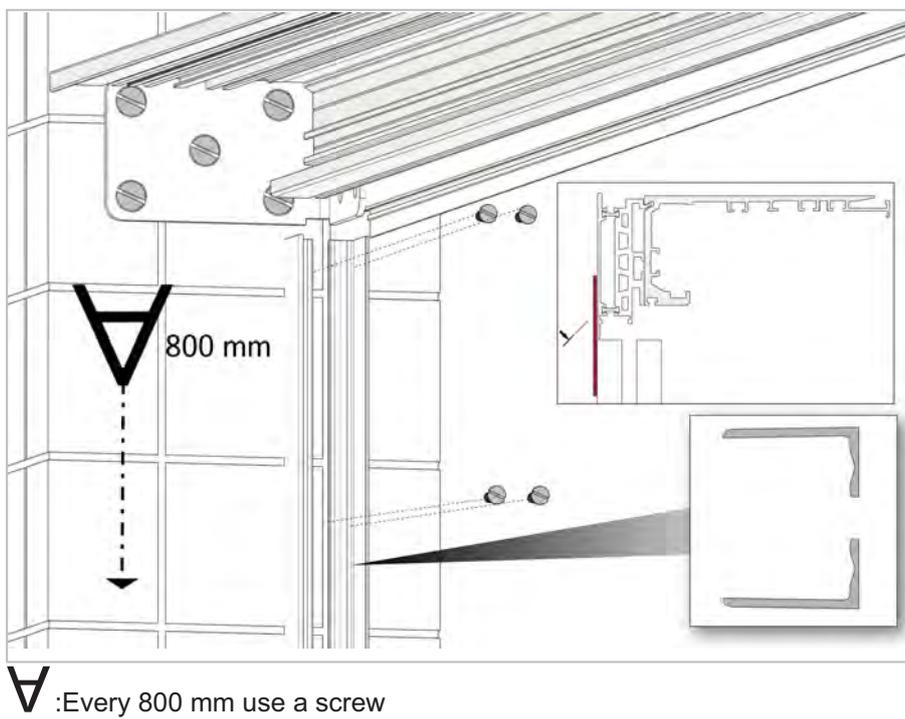
#### 4.16 Hang on the rail on back profile -corridor mounting



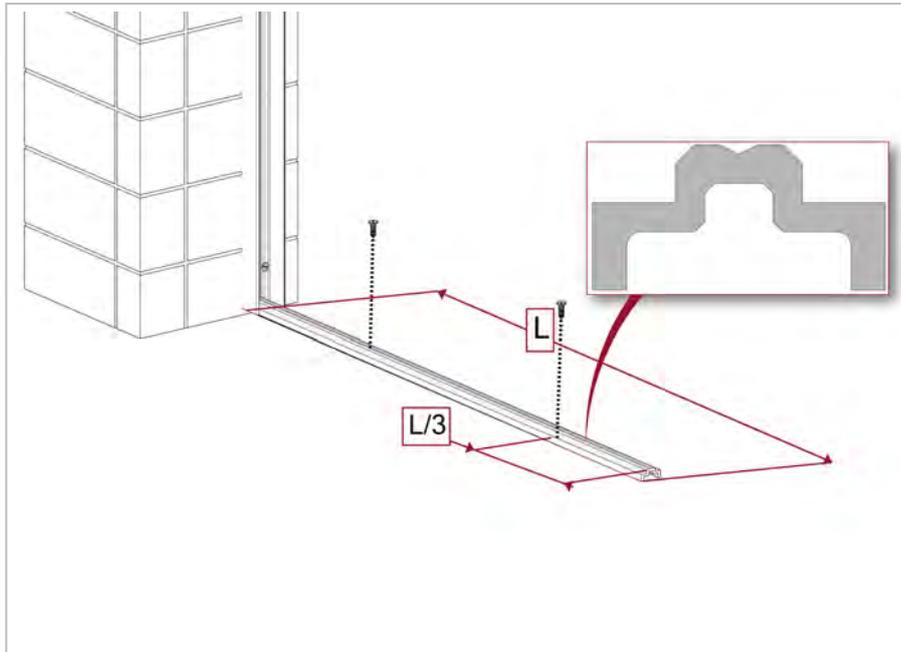
#### 4.17 Fix the rail - corridor mounting



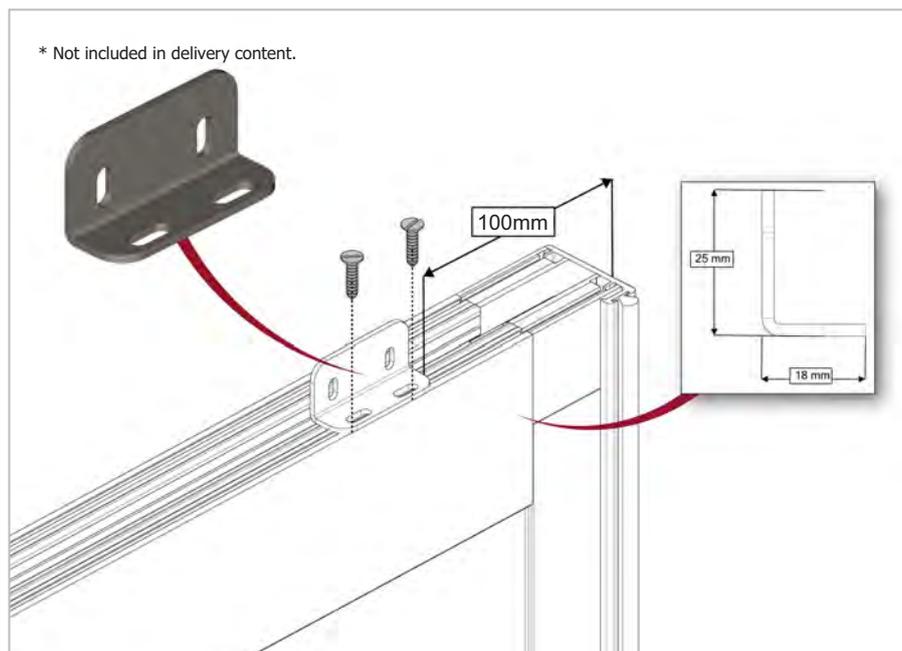
#### 4.18 Install notch on side walls - corridor mounting



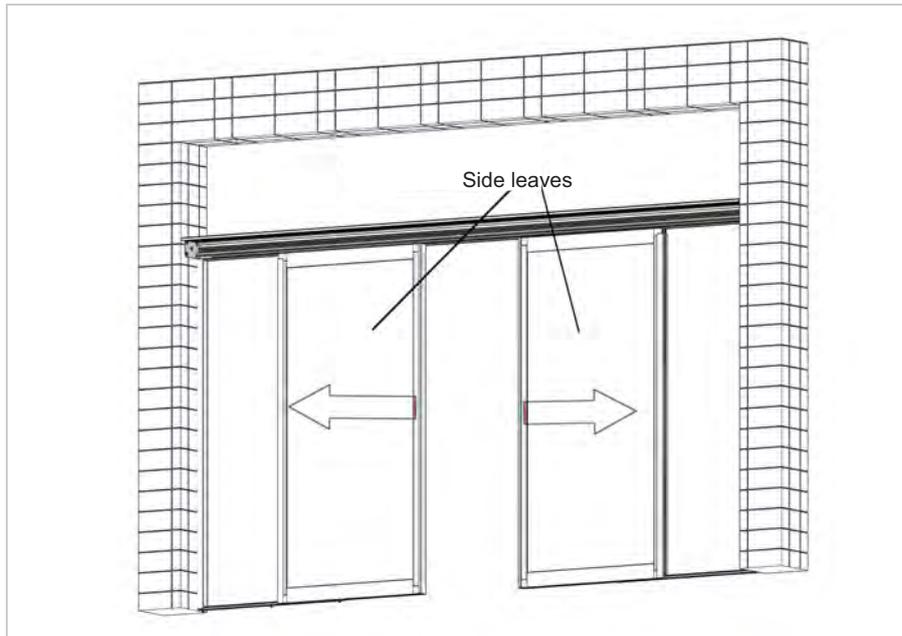
#### 4.19 Install filler for each fixed leaf on floor - corridor mounting



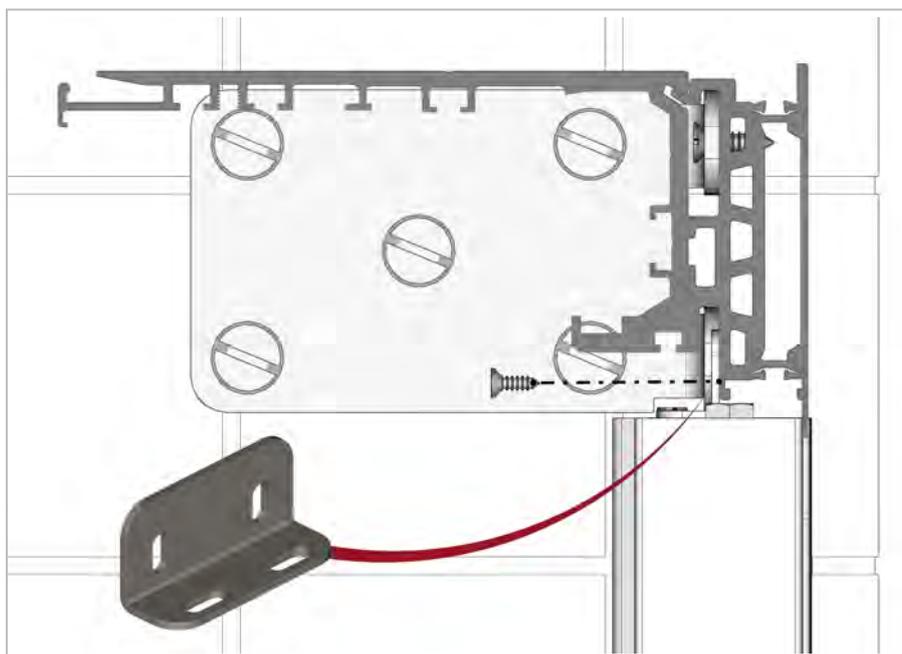
#### 4.20 Install joiner plate \* on each fixed leaf - corridor mounting



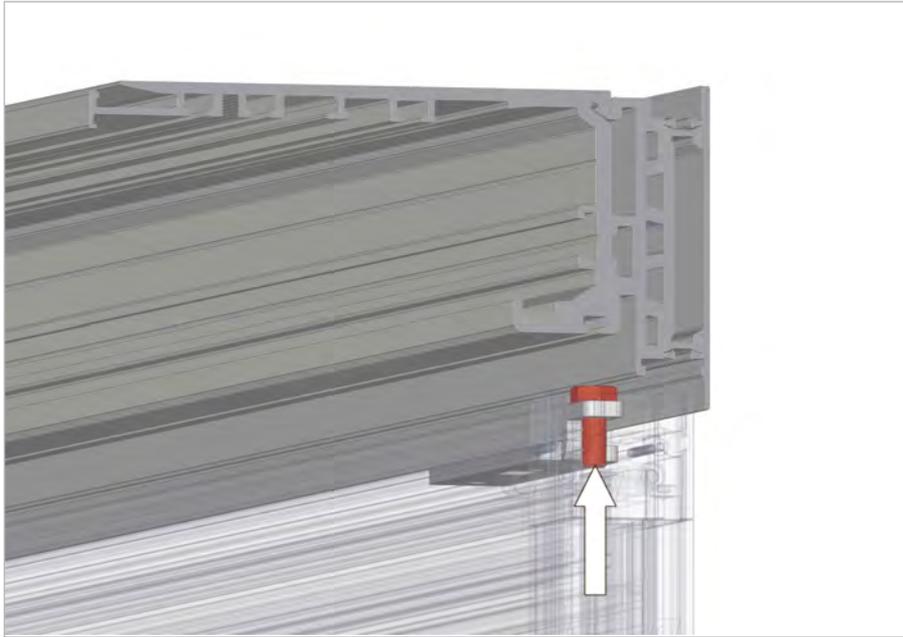
#### 4.21 Slide side leaves



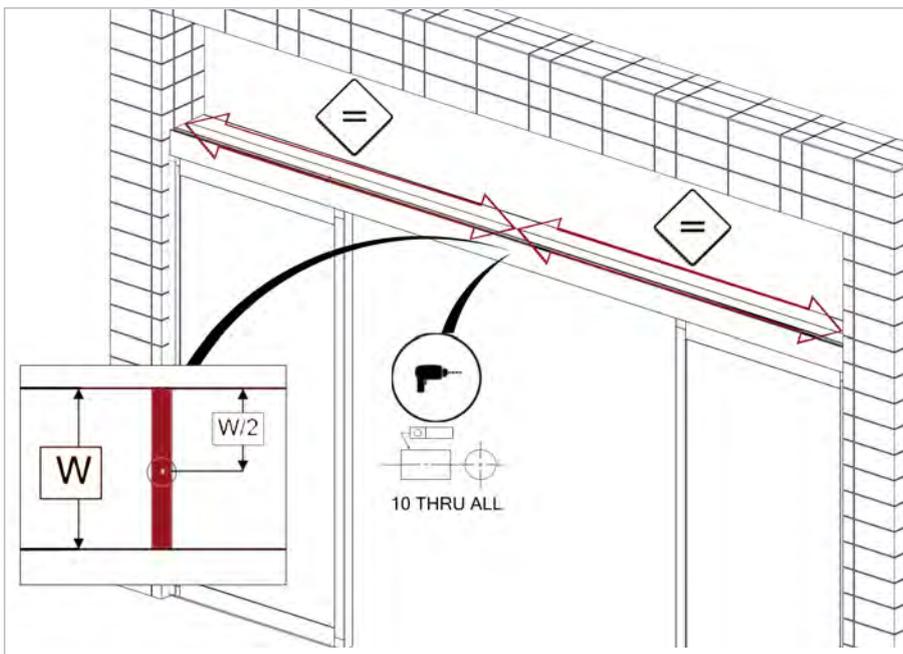
#### 4.22 Fix side leaves - corridor mounting



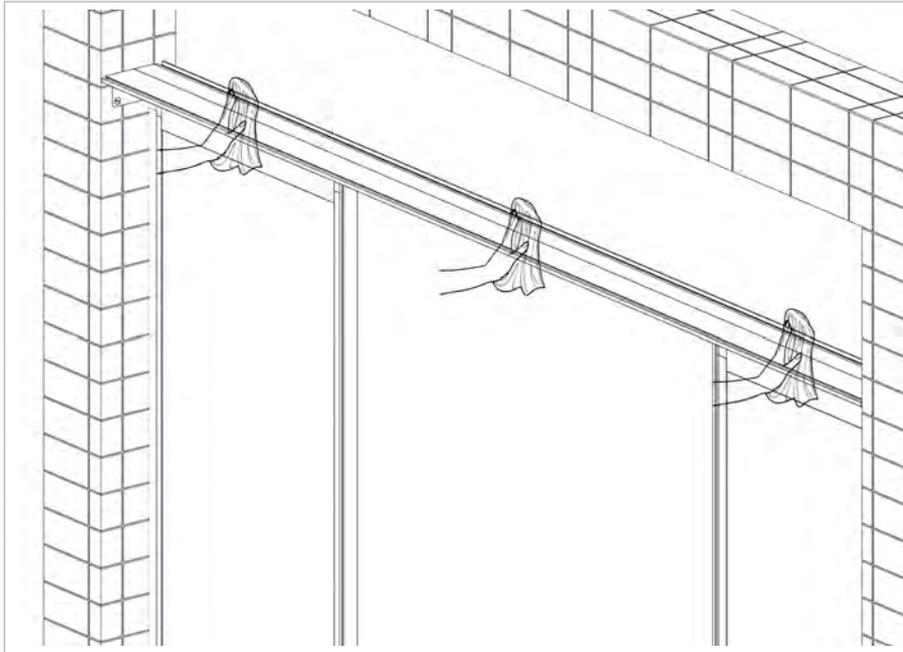
**4.23 Turn the screw until it touches the back profile - corridor mounting**



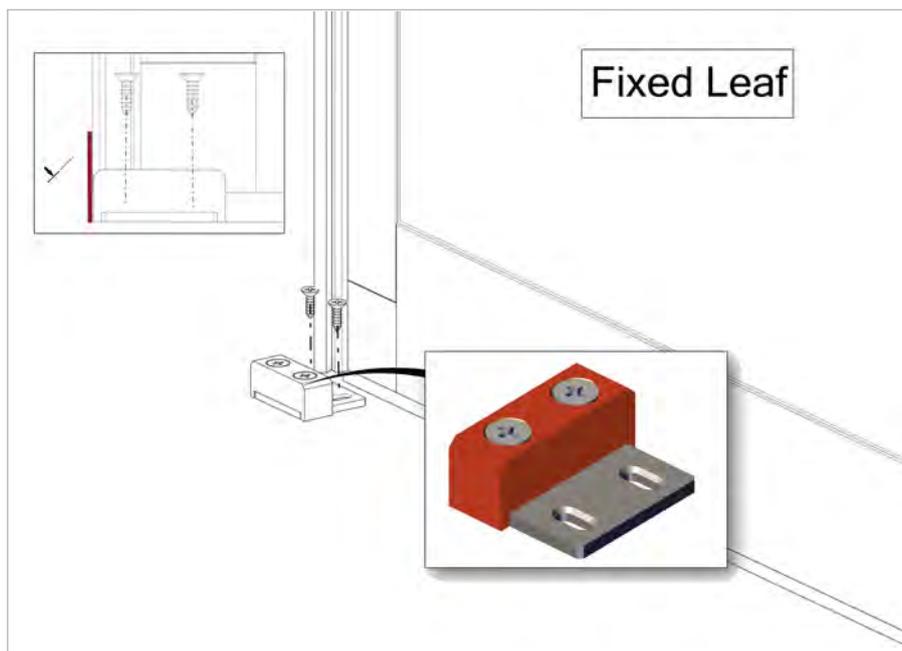
**4.24 Drill a hole for sensor through the rail and back profile**



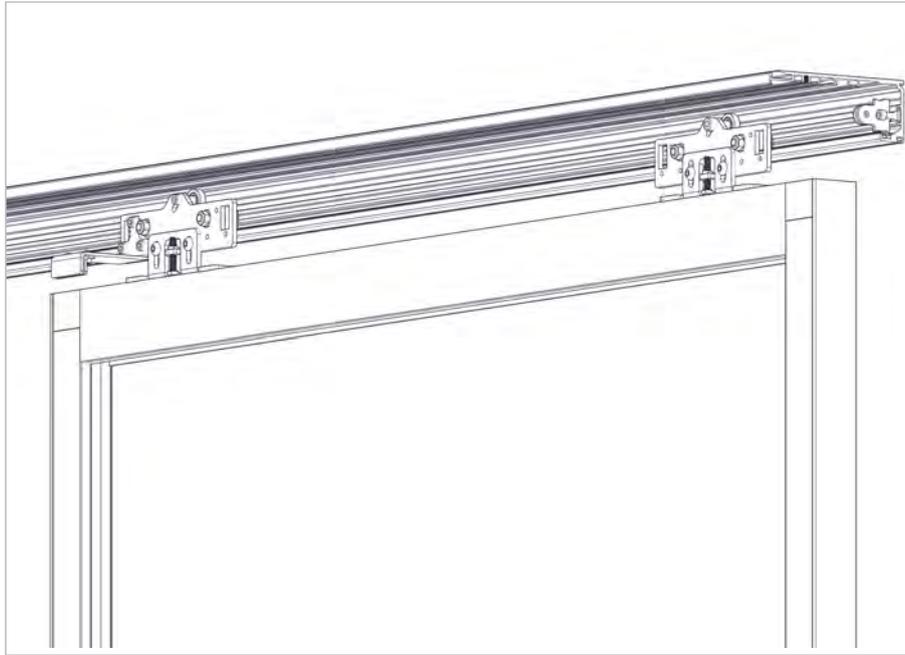
#### 4.25 Cleaning



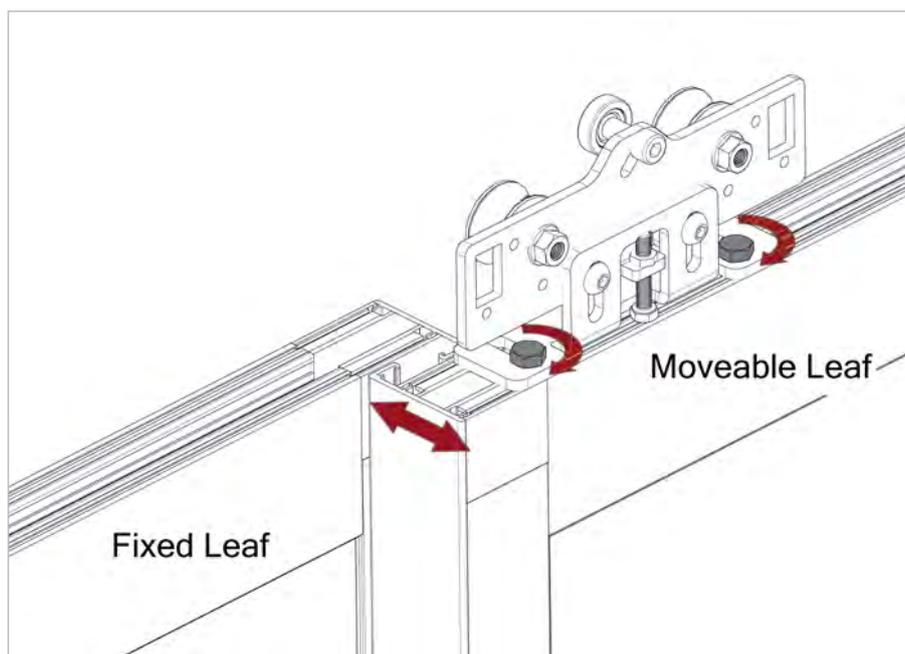
#### 4.26 Install floor guides



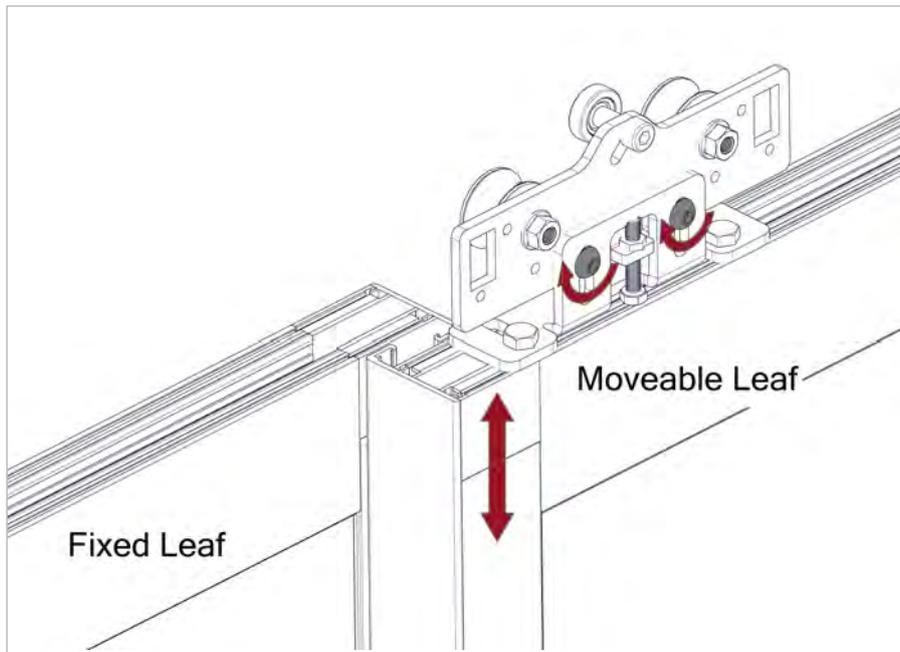
#### 4.27 Hang on moveable leaves



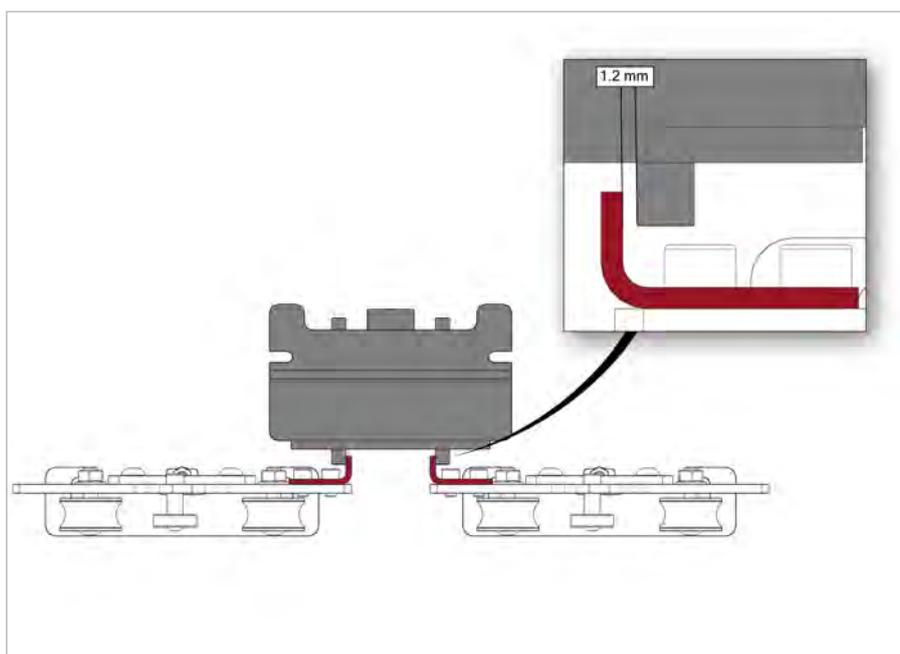
#### 4.28 Adjust leaves' clearance



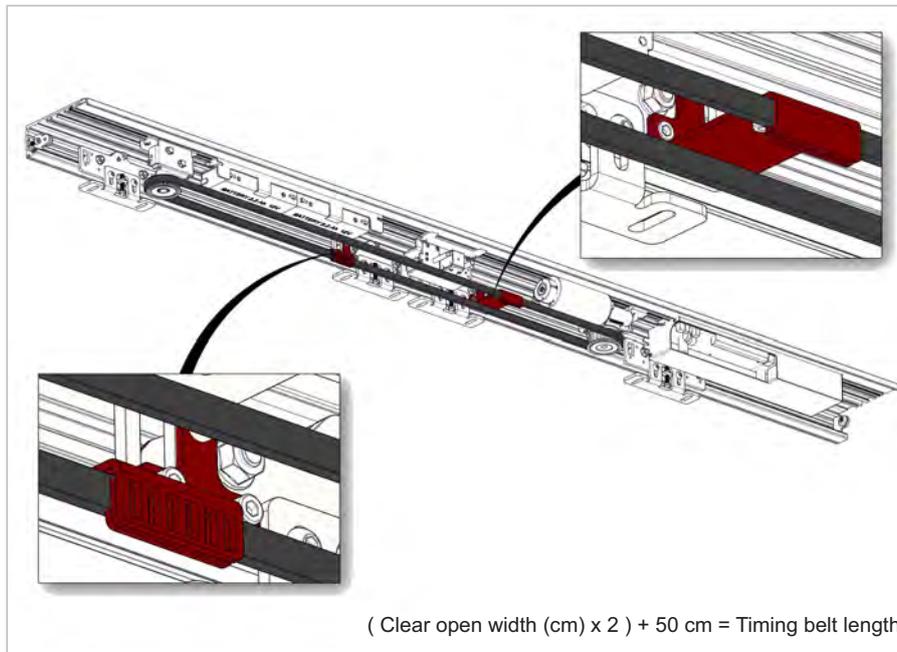
**4.29 Adjust moveable leaves' height clearance  
(collinear with fixed leaf)**



**4.30 Close moveable leaves and adjust lock in correct position**



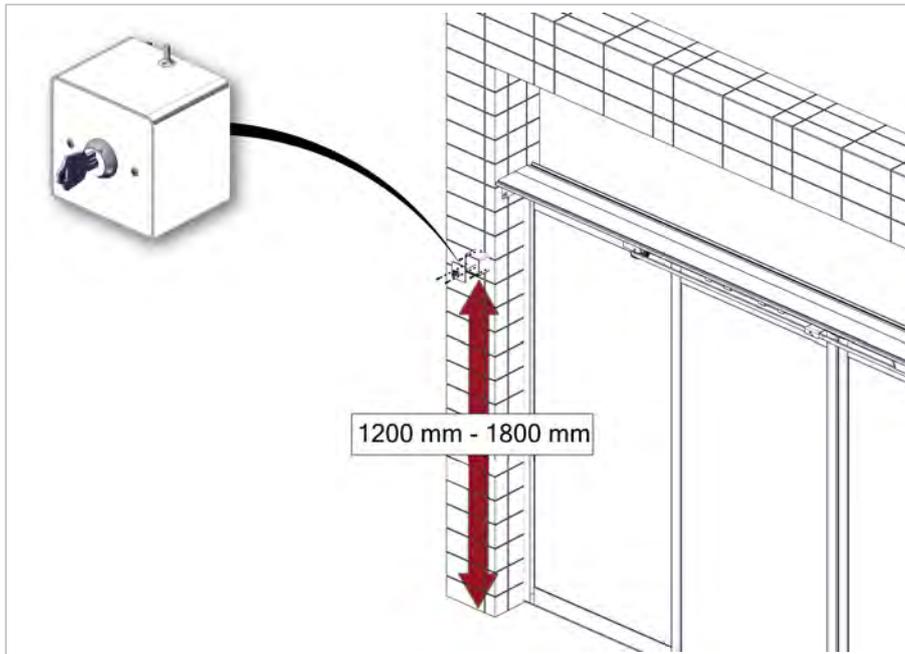
#### 4.31 Install the timing belt



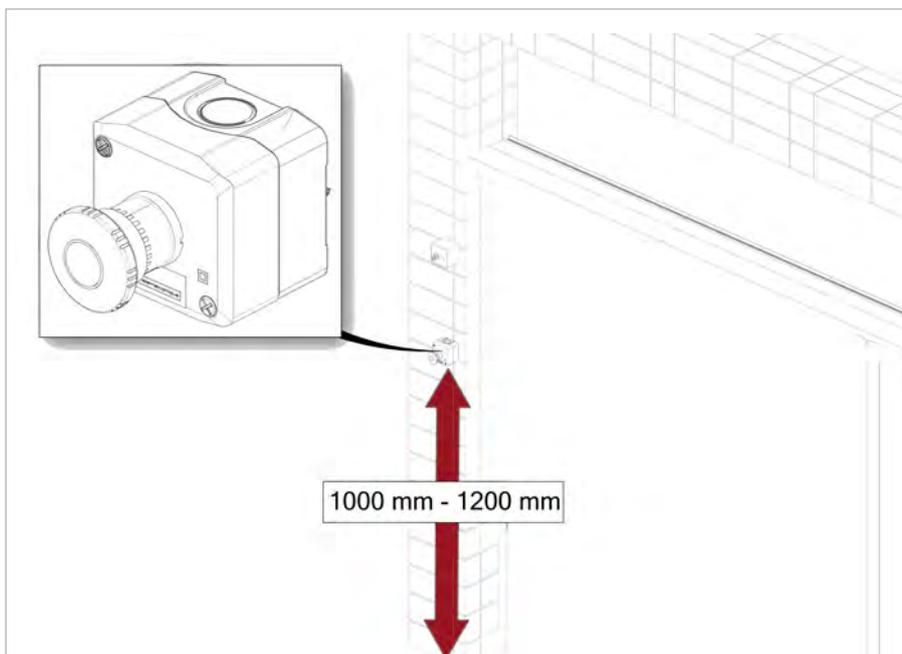
#### 4.32 Adjust belt tension



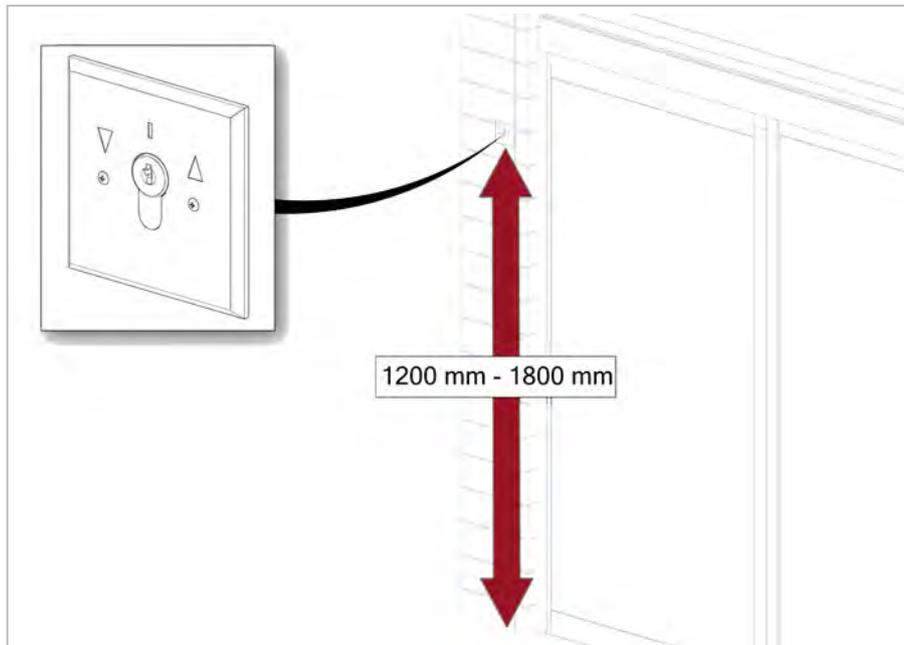
#### 4.33 Install mechanical key switch (optional)



#### 4.34 Install emergency button (optional)



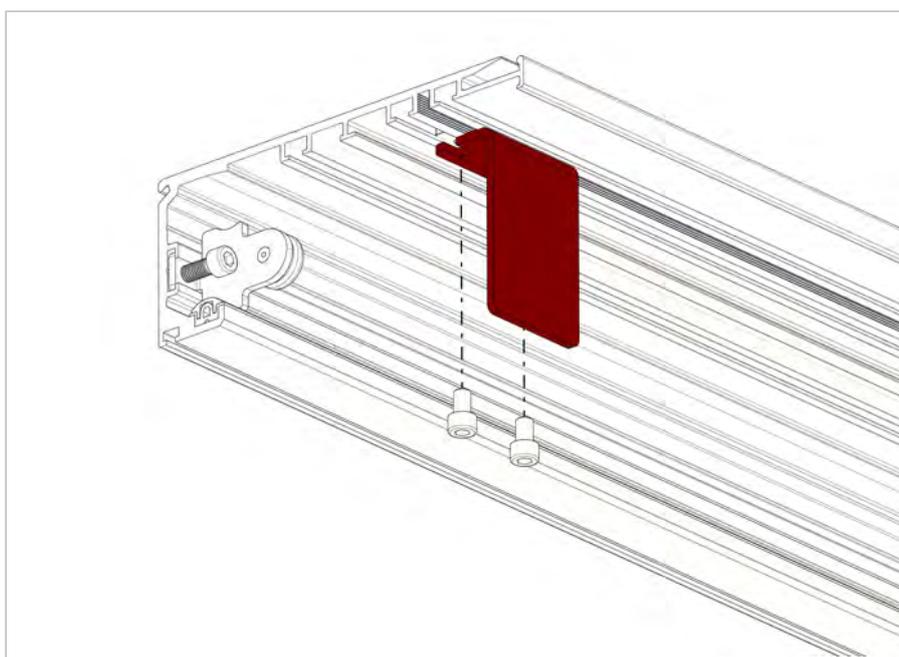
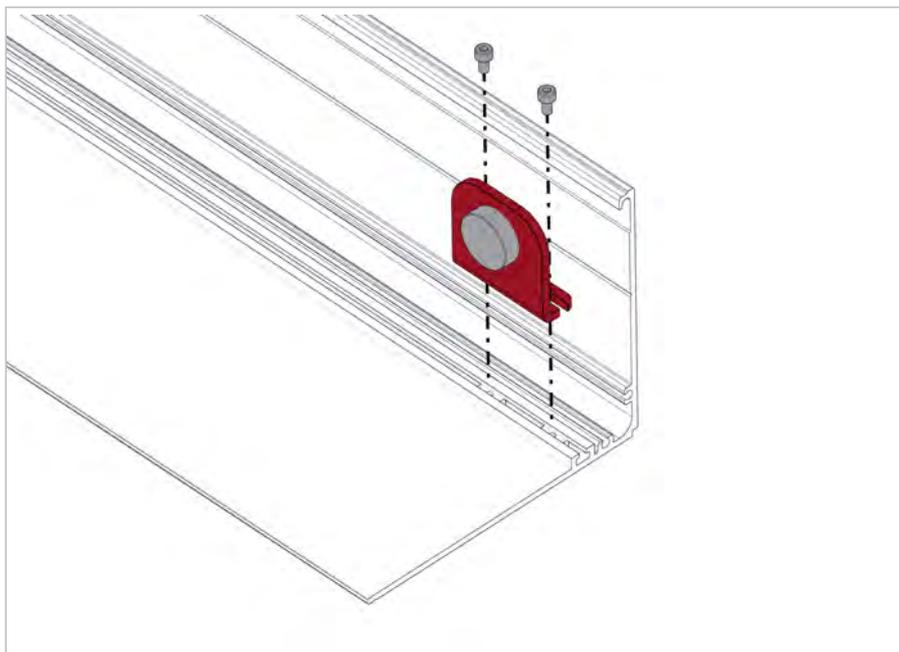
#### 4.35 Install wallflush mounting (optional)

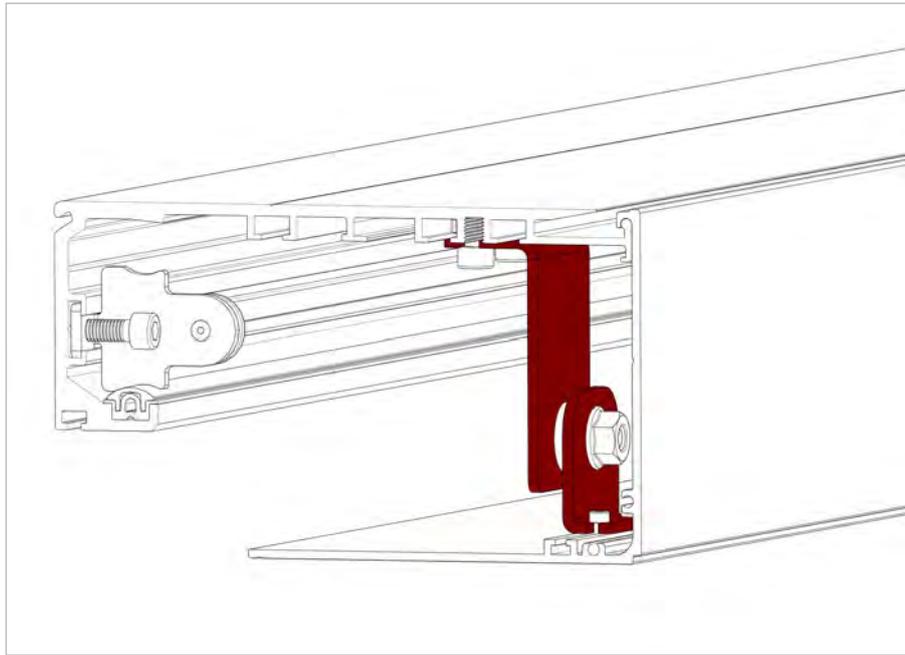


#### 4.36 Install outside sensor



#### 4.37 Install operator cover





#### 4.38 Install inside sensor



## 5. Starting up the operator

### Without digital key:

For a newly-installed system, the following conditions should be met prior to the test drive. A maximum of 5 calibration runs or calibration runs that cover a total of one minute can be used. After 5 calibration runs, the door starts up and remains in the open position.

- The door must be operational when it is installed.
- The travel way of the door leaf must be free of obstacles.
- The battery terminal must not be pinned up.
- The power supply should not be connected.
- Sensors must not be connected.
- The key switch must be set to 'Automatic'.
- If a key switch is not available, you must position a bridge between connections 21 & 22. (This switches the system to automatic mode).
- The door must be opened manually to attain the desired opening width.
- The jumper must be positioned to the left.

The voltage supply is now set up. After a few seconds, the door begins the calibration run. This is how the door calculates the distance (the travel path) and the weight of the leaves. The door closes, opens and closes again. From this point onwards, the door is ready for operation.

### With digital key:

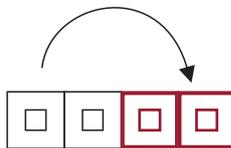
Please refer to digital programme switch instruction manual.

## 6. Modifying the parameters (Without digital key)

### Without digital key:

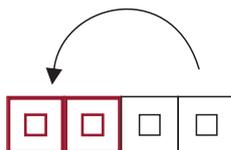
You can use the jumper to adjust the closing speed, the opening speed and the hold-open time. Press the test button to inspect and save your settings. You can use a maximum of 5 calibration runs.

If 5 calibration runs do not suffice, execute a run with the jumper positioned towards the right.



Right : Normal operation/International mode

Position the jumper towards the left. A further 5 calibration runs can now be executed.



Left : Learning

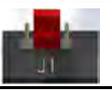
If combination sensors are being used, set the jumper to the central position. If combination sensors are not being used, the jumper must be turned all the way to the right. The sensors, the batteries and the lock can now be connected, after which the door is operational.



Middle : European Mode

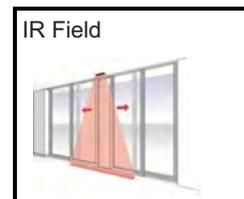
## 7. Sensors' Setup Table

Combination of sensors in European mode 	BEA IXIO DT3	BEA IXIO DT1	BEA ZEN	BEA ZENSAFE	BEA VIO DT1	Optex OA Flex	Combination of sensors in international mode 	BEA IXIO DT3	BEA IXIO DT1	BEA ZEN	BEA ZENSAFE	BEA VIO DT1	Optex OA Flex
BEA IXIO DT3	✓	✓	⊗	⊗	✓	✓	BEA IXIO DT3	✓	✓	✓	✓	⊗	✓
BEA IXIO DT1	✓	✓	⊗	⊗	✓	✓	BEA IXIO DT1	✓	✓	✓	✓	⊗	✓
BEA ZEN	⊗	⊗	⊗	⊗	⊗	⊗	BEA ZEN	✓	✓	✓	✓	⊗	✓
BEA ZENSAFE	⊗	⊗	⊗	⊗	⊗	⊗	BEA ZENSAFE	✓	✓	✓	✓	⊗	✓
BEA VIO DT1	✓	✓	⊗	⊗	✓	✓	BEA VIO DT1	⊗	⊗	⊗	⊗	⊗	⊗
Optex OA Flex	✓	✓	⊗	⊗	✓	✓	Optex OA Flex	✓	✓	✓	✓	⊗	✓

	PRG Mode Position	Jumper Position
		
Sensor Used	International Mode	European Mode
BEA IXIO DT1	IR: Output: NO	IR: Output: NC IR: Presense Time min.30s (EN16005)
BEA IXIO DT3	IR: Output: NO	IR: Output: NC IR: Presense Time min.30s Radar Output Sensor Inside: Frequency in ES/FRW
BEA ZEN	OK	Not Possible
BEA ZENSAFE	OK	Not Possible
BEA VIO DT1	Not Possible	OK
Optex OA Flex	DIP 11: OFF	DIP 11: ON

**International Mode** IR presence sensor, if available, needs to be set to Normally Open mode. System also works without a presence sensor(no test from control unit).

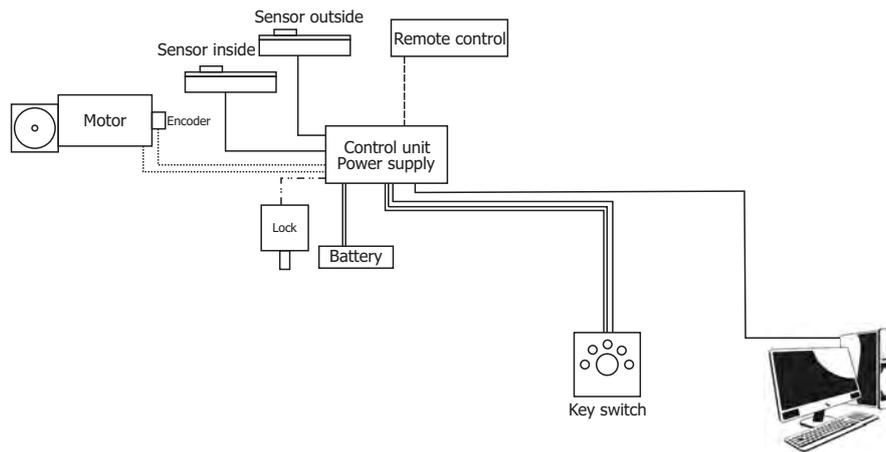
**European Mode** IR present sensor needs to be equipped with test signal and set to Normally Close NC.



**Important:**

- 1- To run our systems as FRW/ES version, the SLT/Mode needs to be set to EU.
- 2- The IR present sensor needs to be set to Normally Close (NC). Outside sensor needs to be set to Normally Open (NO) and the inside sensor needs to be set in Frequency Output (100Hz)

## 8. Block diagram



**Standard-Version**

## 9. Mechanical Key Switch

The key switch has 5 possible modes:



### Full Open

The door leaves are opened and kept open.



### One-way

The door leaves are only opened when the internal sensors are activated.



### Partial Open

The door leaves are opened to a pre-specified width.



### Lock

The opening door leaves are closed and the lock (if installed) is activated.



### Automatic

The opening door leaves are opened and closed when the sensors are activated.

## 10. Troubleshooting

If a newly installed door fails to start up, or if a function is found to be faulty during automatic operation, use the error criteria to check whether it is possible to rectify the defect. If it is not possible to restore the door to a secure operational status, decommission the door temporarily and notify your service partner.

<b>Error</b>	<b>Cause</b>	<b>Action</b>
Door does not open.	Rotary switch is set to the 'Close' mode.	Change the operating mode.
Door does not open.	The main power supply is inaccessible and the battery is inoperative.	Connect the main power supply and check the battery.
Door does not open.	Activated sensor is inoperative.	Notify your service center.
Door remains open.	Safety sensors are activated. LED at the sensor turns red.	Remove the obstacle that is in the door's threshold range.
Door remains open.	The main power supply is inaccessible and the battery is inoperative.	Reconnect the main power supply and check the battery.
Door moves forward by a few centimeters, but then it moves backwards.	Safety sensors detect an obstacle in the door's threshold range.	Remove the obstacle that is in the door's threshold range.
Door moves forward by a few centimeters, but then it moves backwards.	The activated sensor scans the door wings.	Contact your service center in order to get the sensors adjusted.
Door moves forward by a few centimeters, but then it moves backwards.	The encoder line is disconnected or open.	Contact the service center.

## 11. LED Status - Error codes

### Blue LED

Status	1	2	3	4	5	6	7	8	9	10	Error Code on Digital Key	Case	Required action
Permanent											10	Delivery condition	Start initial scan.
Fast blink											11	Initial scan is in progress	--
1 blink											12	Opening width during learning drive not ok	Opening width needs more than 400mm per leaf. Check distance!
2 blinks											13	SLT or jumper settings are ok	--
3 blinks											14	Max door leaf weight is exceeded or door is blocked	Check the weight of the door and if the door is blocked.
5 blinks											15	SLT or jumper settings not ok	Check SLT potentiometer or Jumper position.

Note: Blue LED information are only shown in installation mode! SLT right or jumper right position.

### Yellow LED

Permanent											109	Not referenced	Activate sensor.
Fast blink											145	Key switch error	Check position of key switch or cable connection.
1 blinks											120	Over load cut off	Check mechanical installation.
2 blinks											110	Outside sensor activated	Check outside sensing area or adjustment of sensor.
3 blinks											111	Inside sensor activated	Check inside sensing area or adjustment of sensor.
6 blinks											100	Power supply error	Check wiring and connections.
7 blinks											142	Door is locked	Check the electromechanical lock.
8 blinks											130	Door is blocked	Check for present obstacles.
9 blinks											121	Door can not close	Check for mechanical problems.
10 blinks											101	Door is closing	--

Note: Yellow codes are disturbances which in some cases may get reset by the system automatically.

 Red LED

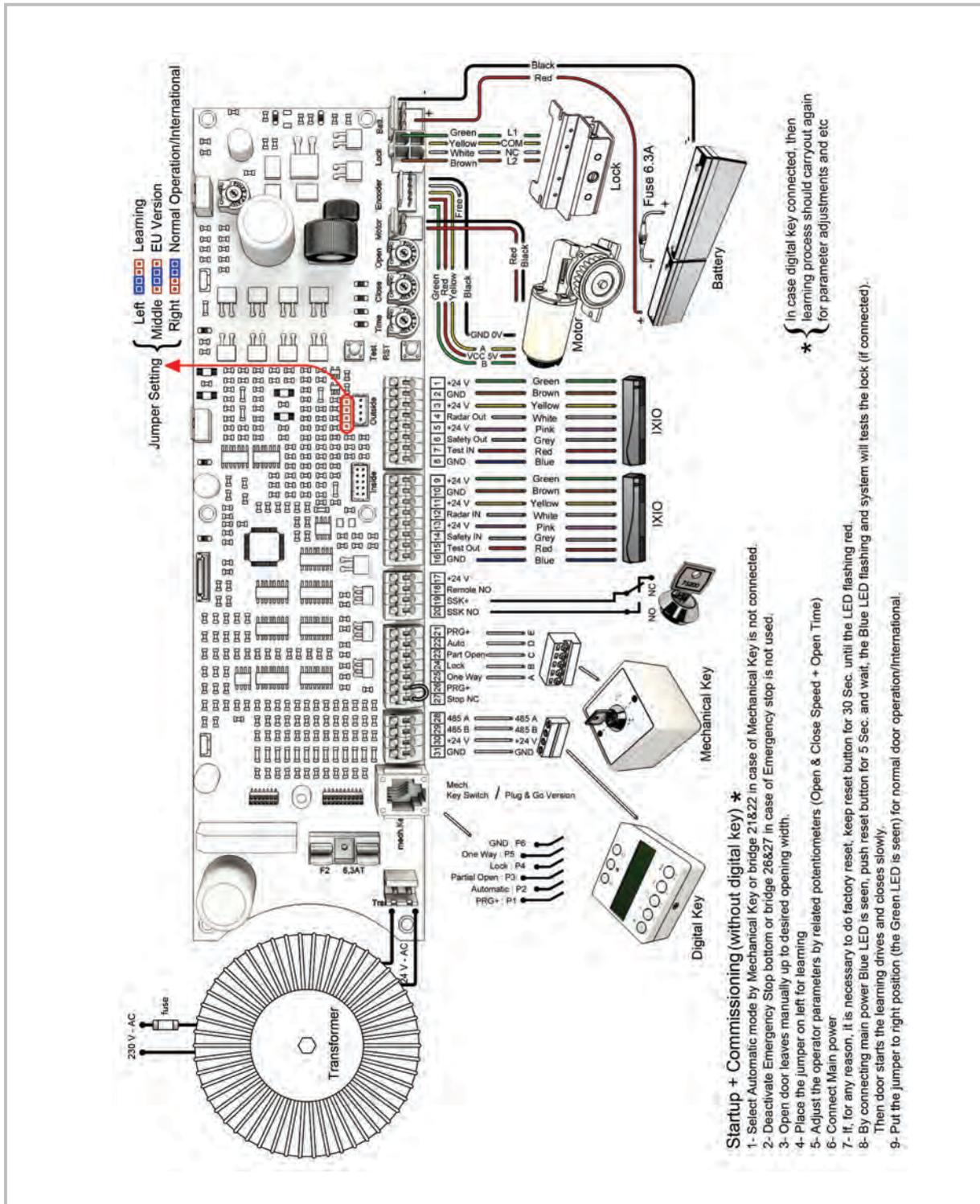
Status	1	2	3	4	5	6	7	8	9	10	Error Code on Digital Key	Case	Required action
Permanent											250,240 251,252 253,254	Critical error on control board	To be replaced.
Permanent blink											238 237 236	Master/slave or digital key communication error	Check the connections.
Fast blink											239	Factory reset (after pressing reset for 15 sec)	–
1 blink											233,202	Safety circuit not closed. Stop and ESC or bridges.	Check connections of safety circuit
2 blinks											200	Failure of Outside sensor test	Check outside sensor, cable and connectors.
3 blinks											201	Failure of inside sensor test	Check inside sensor, cable and connectors.
4 blinks											210,211	Failure of battery test	Check battery capacity and voltage.
5 blinks											223,224	No motor-starting-current	Check motor and connection.
6 blinks											230 231 232	Key switch self-test and ESC and stop	Check key switch and stop and ESC or bridges.
7 blinks											245	Software version not ok	Check if master & slave have the same software version.
8 blinks											241	Broken motor cable	Check motor cable and connection.
9 blinks											243	Puls generator defect or cable damaged	Check puls generator and cable for damages.

 Purple LED

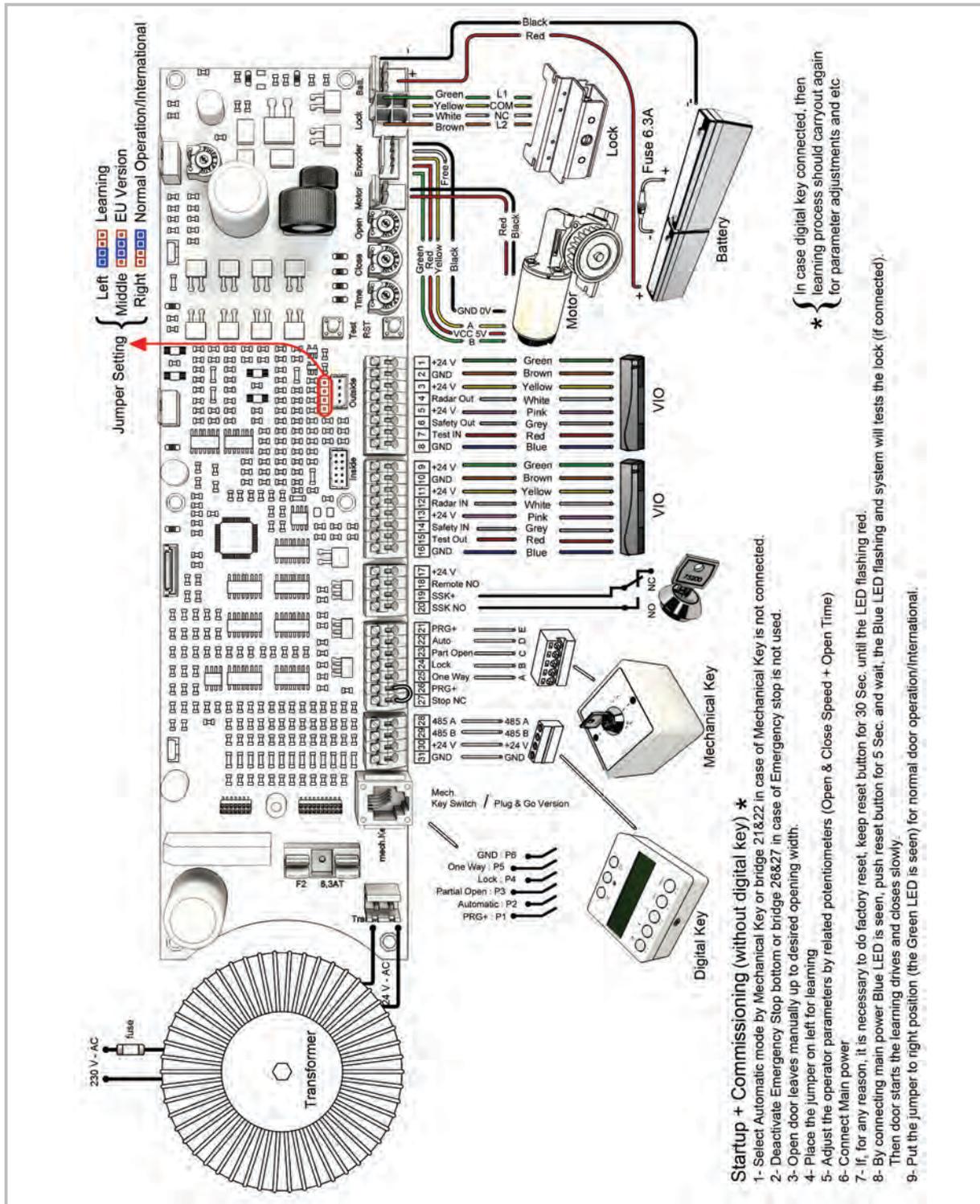
1 blink											141	Lock is blocked	Check if lock is working or microswitch is damaged.
2 blinks											144	Locked microswitch	Check if switch is well-adjusted or damaged.
8 blinks											242	Motor starting current is too high.	Check if door is blocked.
9 blinks											244	Drive can not open	Check if blocked.

## 12. Wiring Diagram

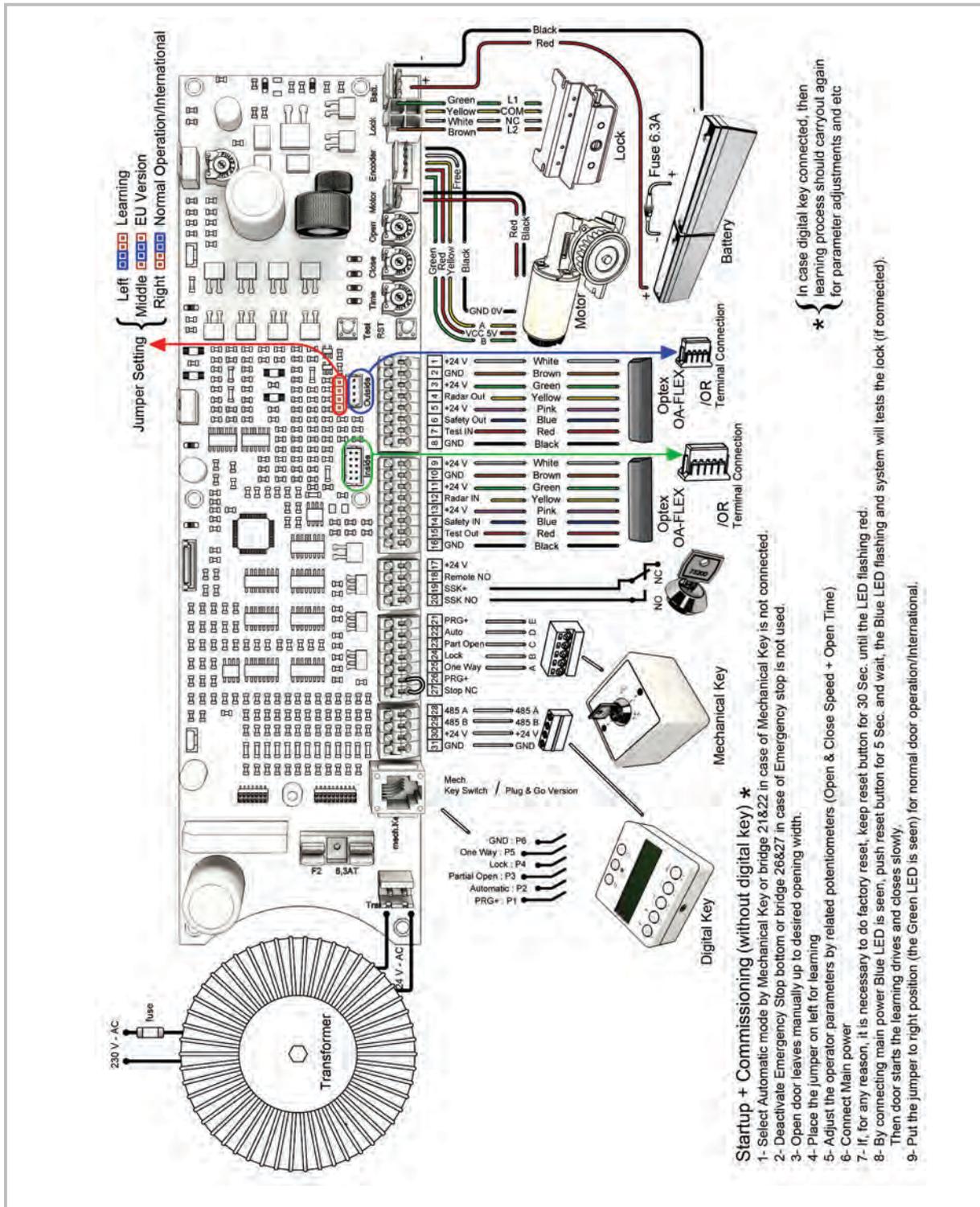
### 12.1 Wiring Diagram -BEA IXIO Sensor



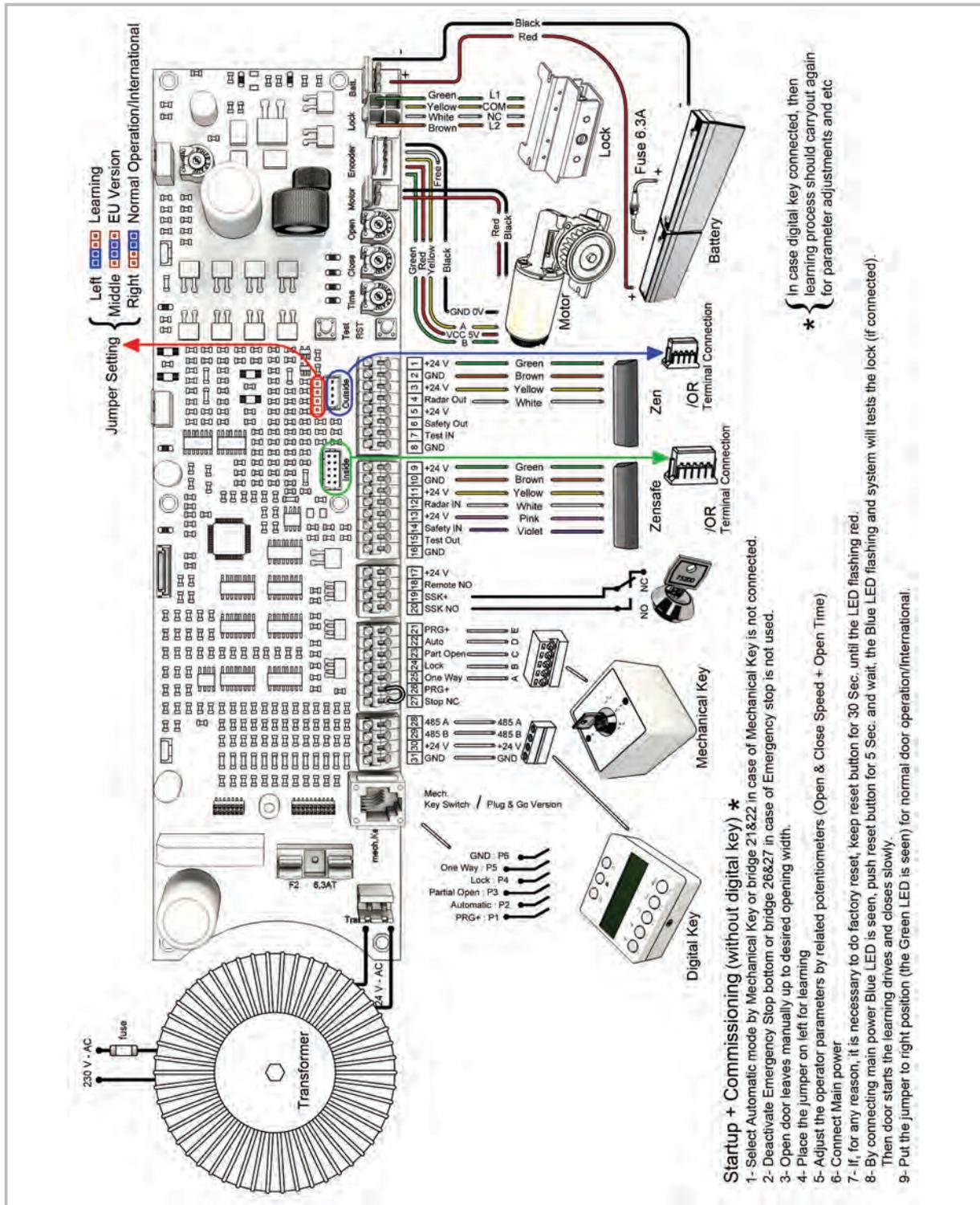
## 12.2 Wiring Diagram -BEA VIO Sensor



### 12.3 Wiring Diagram -Optex OA-Flex Sensor



## 12.4 Wiring Diagram - BEA ZEN/ZENSAFE Sensor





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