

In- struc- tions

Original instructions

Pivot door with an electromechanical closure system



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1 About this document



These instructions contain all the information regarding the intended use of the pivot door.

The following should be noted:

- The instructions are part of the product.
- The instructions must always be available to the operator.
- The instructions must be stored nearby for the entire service life of the pivot door.
- The instructions must also be passed on if the pivot door is transferred to other owners.

1.1 Applicability

These instructions describe the manually operated pivot door with an electromechanical closure system and a pneumatic sealing system from Air-Lux Technik AG.

They include basic details on how to operate, inspect, maintain and clean the product.

NOTICE

The scope excludes transport, installation, assembly, commissioning and disassembly. For this information, please refer to the separate details from the manufacturer.

Standardised illustrations

The illustrations in these instructions correspond to the described product as closely as possible. Some illustrations are standardised and may differ slightly from the actual product.

1.2 Manufacturer

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1.3 Target group

These instructions are intended for everyone coming into contact with the pivot door, especially operators.

1.4 Conventions

The following chapters explain the text design elements used in these instructions and the layout of the warnings.

1.4.1 Typographical conventions





Table 1: Typographical conventions

Representation	Meaning
<i>Italics</i>	Warnings that could lead to environmental or property damage if not followed.
Bold	Important information that should be particularly highlighted, as well as operating and display elements.
Marginal notes	Brief information to guide the reader's attention to a specific portion of the text.

1.4.2 Warnings and other information

When using these instructions, follow the safety warnings. The following symbols and signal words are used:

Table 2: Warnings

Symbol/signal word	Meaning
 DANGER	Warning Imminent danger. This will result in death or serious injury.
 WARNING	Warning Potentially dangerous situation. This may result in death or serious injury.
 CAUTION	Warning Potentially dangerous situation. This could result in slight or minor injury.
NOTICE	Note Information that must be taken into account to ensure safe operation of the system.
	Additional information and important chapters.

Structure of warnings

- **Signal word**
Indicates the severity of the danger.
- **Type and source of danger**
Describes the danger being warned against and where it can occur.
- **Result of danger**
Describes the potential consequences of ignoring the warning.
- **Escape to safety**
Describes how to prevent the danger from occurring and instructs on safety measures to be taken if the danger occurs.

Example warning



Risk of injury from improper use

Improper use of the machine may result in personal injury or property damage.

- Only use the machine as intended and described below.
-

Instructions

Instructions are numbered consecutively to indicate the sequence of the individual steps. The results of actions are listed directly below, if present. Example:

1. This is the first step.
2. This is the second step.
 - This is the result of the second step.

Operating and display elements

Operating and display elements, e.g. keys, switches or indicator lights, are highlighted in **bold**.

e.g.: The **button** is located on the frame.

2 General product information

The following chapters detail the guarantee and warranty provided by the manufacturer and general information about the product.

2.1 Guarantee

The statutory guarantee obligation in accordance with SIA 118 applies. Damage due to operational wear and tear of the pivot door is excluded from the guarantee. Air-Lux Technik AG disclaims responsibility or guarantee liability and is hereby exempt from potential claims by third parties, in the event of personal injury or property damage caused by the owner or a third party due to one or more of the following causes:

- Improper use of the pivot door,
- Failure to observe the warnings in these instructions,
- Non-compliance with the specified limitations of use and conditions,
- Improper commissioning, operation, inspection or maintenance,
- Non-compliance with the specified inspection and maintenance intervals as well as regular care,
- Modification of the product or individual components when not explicitly approved by Air-Lux Technik AG, or
- Use of non-approved accessories or non-approved replacement parts.

2.2 Warranty

If the manufacturer or an authorised sales partner provides a product warranty that goes beyond the statutory warranty obligation, this will be set out in the service contract.

2.3 Product identification

A type plate is attached to the pivot door to identify the product precisely and must be replaced if damaged or lost.

2.4 Scope of delivery

The product is delivered with the complete, operation-ready pivot door, including:

- Control with operating button
- Instructions

NOTICE

Information on optional product components and product versions can be found in Chapter 6 “Structure and function” on page 17.

3 Information for your safety



In this chapter you will find all safety-relevant information. Before using the pivot door, read all safety information carefully and follow it during use. The safety warnings focus on the dangers of possible personal injury, property damage and damage to the environment and contain information on how to prevent and avoid such dangers.

3.1 Intended use

Operate the pivot door only if the operating conditions are taken into consideration (see Chapter 5 “Operating conditions” on page 16).

The pivot door is solely intended for use as a manually operated building door with an electromechanical closure system and a pneumatic sealing system.

Operating activities include manually opening and closing the moveable segment of the door as well as sealing and locking the door using the **button** (see Chapter 6 “Structure and function” on page 17).

The pivot door is unsuitable for operation with explosive vapours or dust (ATEX) or within an ATEX area. Any other use of the pivot door beyond the scope described here is deemed improper. The service life is approx. 20 years, following which a refurbishment (and possibly a general overhaul) by the manufacturer or a specialist company is necessary.

3.2 Improper use

Improper use is deemed to have occurred if the pivot door is used for any purpose other than that described in Chapter 3.1 “Intended use” on page 11. In particular, the pivot door must not be locked while open in order to prevent the door from slamming closed unexpectedly, for example due to a gust of wind.

NOTICE

The manufacturer disclaims all liability for damages resulting from improper use. The owner thus remains solely responsible for the same.

3.3 General rules of conduct

When using the pivot door, always adhere to the following rules of conduct:

- Only use the pivot door as instructed.
- Always ensure your own safety and that of others.
- Do not use the pivot door if damage or obstructions are visible. If necessary, notify the manufacturer or an authorised specialist.
- Always use the handle to open and close the pivot door. Do not accelerate the pivot door excessively, and guide it with your hand for the duration of the entire movement.

3.4 Personnel qualifications – Who does what?

The following chapters explain the various groups of people who come into contact with the pivot door.

3.4.1 Operators

An operator can be any person who is fully mentally and physically capable of operating the machine.

Obligations of the operator

- Read and follow the operating and safety information in these instructions completely.
- Only operate the pivot door if there is no damage and the operating conditions are met.
- In the event of errors, malfunctions or visible damage, inform the owner or contact the manufacturer's customer service.
- Keep the pivot door clean (see Chapter 8 "Cleaning and care" on page 23).

Operation by children

- Teach children proper operation and supervise them during operation.

3.4.2 Installation and maintenance personnel

NOTICE

All assembly, disassembly, modifications (i.e. integration into household technology) as well as inspection and maintenance are performed exclusively by the manufacturer or authorised specialists.

Installation and maintenance personnel are defined as follows:

- Trained specialist in electronics and metal construction.
- Receives ongoing training on technical innovations and has the necessary specialist knowledge of the installed technology (training at the manufacturer's headquarters in Engelburg, Switzerland).
- Has been briefed on the following topics through training from the manufacturer:
 - Functional description of the system,
 - Adjusting features and integration into household technology,
 - Explanation of the individual components,
 - Explanation of danger sources,
 - Use of the system,
 - Recognising and resolving malfunctions,
 - Performing inspection and maintenance work.

3.4.3 Overview – Who does what?

The following table assigns the individual groups described above to their corresponding tasks.





Table 3: Overview – Who does what?

Activity	Operator	Installation/ maintenance personnel
Operation	Yes	
Cleaning/care	Yes	
Visual inspection for external damage	Yes	
Error and malfunction resolution		Yes
Releasing blockages		Yes
Maintenance		Yes
Repair		Yes
Assembly/modification/transport/ disassembly/disposal	In coordination with the manufacturer	

3.5 Signs and warnings

Signs and warnings mark locations at which, under certain circumstances, potential dangers could occur. Do not remove the warning and information signs. Replace damaged or missing warning and information signs immediately.

Table 4: Signs and warnings

Symbol	Meaning	Symbol	Meaning
	Dangerous electrical voltage warning		Hand injury warning
	Crush hazard warning		Crush and slamming hazard in the event of strong wind

3.6 Residual dangers during operation

The following residual dangers apply when using the pivot door.

Mechanical hazards

The pivot door comprises moving and heavy components. Observe the following safety instructions to avoid personal injury and property damage due to crushing and cuts:

- Only move the door segments after confirming that no people, pets or objects are in the way. Pay particular attention to the second closing edge resulting from the structural design.
- Do not rush through the pivot door as it is closing.
- Always keep the pivot door in sight when it is moving.
- Do not operate the pivot door if external damage is visible or unusual noises can be heard during operation.
- Do not accelerate the pivot door excessively during manual opening and closing to ensure it can be slowed at any time.
- Guide the pivot door manually for the duration of the entire movement.

3.7 Safety devices and functions

Safety devices cannot protect persons and property properly unless in proper working order. Therefore, observe the following:

- Ensure the safety devices are in faultless condition and adhere to the specified maintenance intervals.
- Do not use the pivot door if the safety devices are defective or missing.
- Do not modify the function of safety devices or disable them.
- Have defective safety devices replaced or repaired immediately by qualified specialists.

Door closer (optional)

A door closer is installed on the pivot door to slow down the opening and closing of the door and thereby minimise the danger of crushing at both closing edges.

4 Technical data

The following table lists the key system-wide technical data.

Table 5: Technical data

Technical data	Value/designations
Designation/type	Pivot door
Serial number	Series 75
Personal installation number	See pivot door documentation and construction drawing
Dimensions L x W x H	Various, see construction drawing
Total weight	Various, see construction drawing
Electrical connection	100–240 V (AC), 50–60 Hz, max. 100 W
Air pressure (p_{\max})	0.9 bar
Opening/closing speed	Various
Noise emission	< 70 dB (A)

5 Operating conditions

Comply with the operating conditions to ensure safe operation. The following table lists the key operating conditions for the pivot door.

5.1 General operating conditions

Table 6: Operating conditions

Technical data	Value/designations
Ambient temperature	-20 to 50°C
Relative humidity	15 to 85%, non-condensing
Required space	Both pivoting ranges of the moving door element (inner and outer closing edges)

The following conditions also apply:

- Do not disable the protective devices or other components.
- Only operate the pivot door when in perfect working order.
- Keep the pivoting ranges clear.
- Do not use the pivot door in very windy weather.
- Do not operate the pivot door in areas with explosive vapours or dust (ATEX) or in an ATEX area.

5.2 Protecting the glass

Do not place furniture or other large objects directly behind or in front of the glass. To prevent thermal breakage, maintain a distance of at least 30 cm:

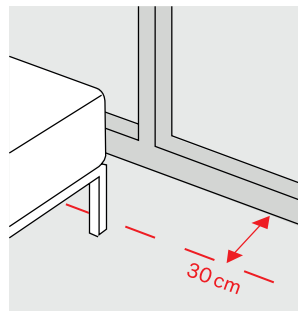


Fig. 1: Protecting the glass

6 Structure and function

The following chapters explain the pivot door using an exemplary design version.

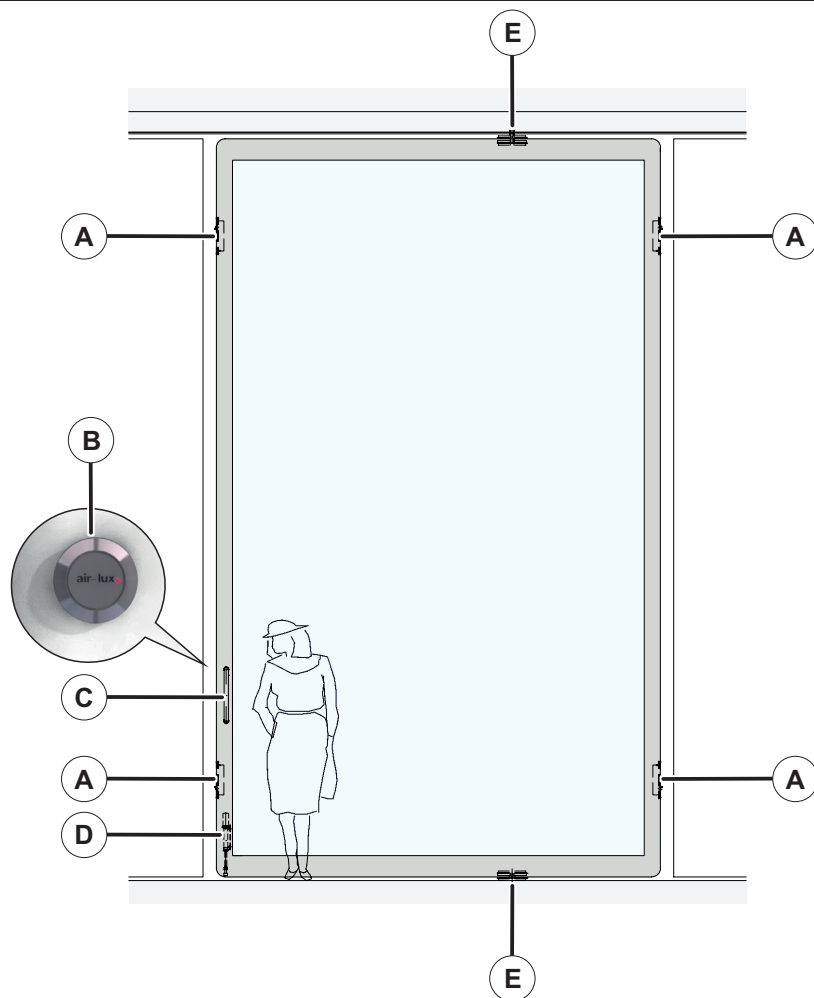


Fig. 2: Entire structure

- A** Locking points (electromechanical closing piston)
- B** Button
- C** Handle
- D** Locking mechanism (optional)
- E** Pivot point (optionally with door closer on the lower pivot point)

6.1 Functional description

The pivot door is a room-height wall installation with a manually rotatable door leaf. It is intended for use as a manually operated outer building door with an electromechanical closure system and a pneumatic sealing system.

All automatic functions are controlled by a built-in control unit.

It is operated from the inside with a **button** installed in the vertical frame profile. From the outside, it can be operated with a **key fob**, **finger scanner** or **numeric code**. When the button is pressed with the door closed, the two air seals deflate and the locking bolts retract.

6.2 Control unit

The control unit is installed in the upper area of the frame and controls and monitors all functions. It monitors the position using magnetic contacts to determine whether the system is open or closed. The system also has alarm contacts to the pivot door to be integrated into the household alarm system. Optionally, VDS contacts can also be used for the alarm system.

6.3 Electromechanical lock

The pivot door has a locking system with an electrically actuated closing piston. The following figure shows an exemplary locking point on the door frame:

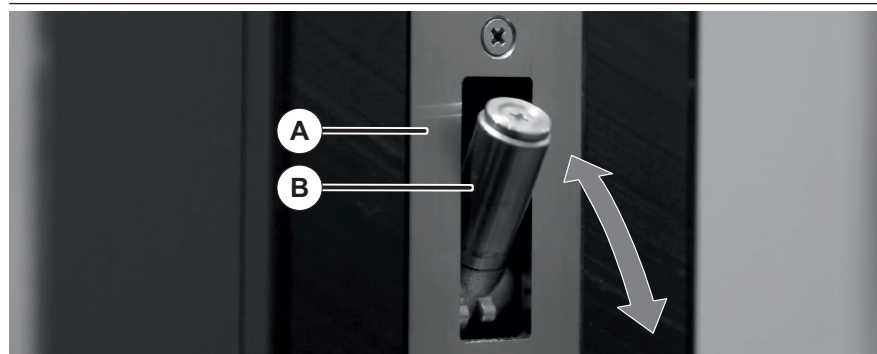


Fig. 3: Electromechanical lock

- A Door frame
- B Electromechanically operated locking bolts

6.4 Pneumatic sealing system

The pivot door has two circumferential air seals that are inflated when the door is closed and thus pressed against the leaf profile. This seals the pivot door so that it is air-tight and insulated against noise from all sides.

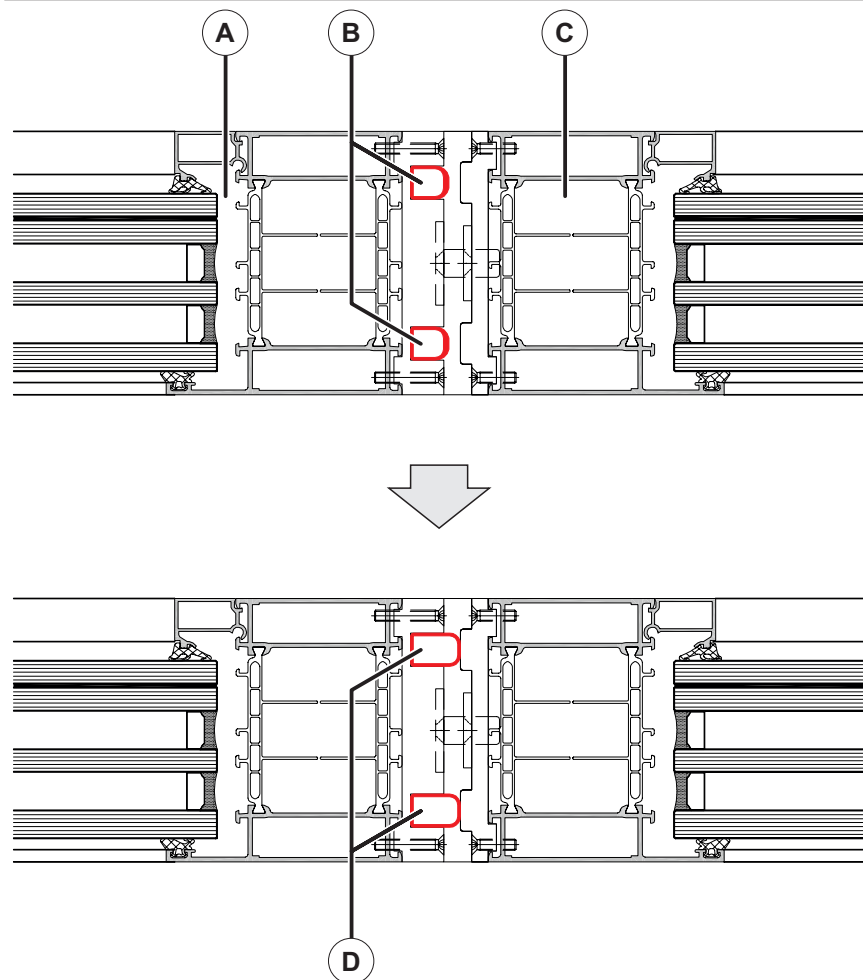


Fig. 4: Sealing system

- A Door leaf
- B Inflatable seal, inactive (deflated)
- C Door frame
- D Inflatable seal, active (inflated)

6.5 Product and installation versions

The pivot door is available in various sizes and production materials. It is individually tailored to your property.

NOTICE

Full details of the versatile possibilities for use can be found in the list "Optional additional services" from Air-Lux Technik AG.

7 Operation

The system is operated (from the inside) using the **button** on the frame of the pivot door (see Fig. 2 “Entire structure” on page 17).

7.1 Button

The **button** is the central operating and indicator element and simultaneously serves the following purposes:

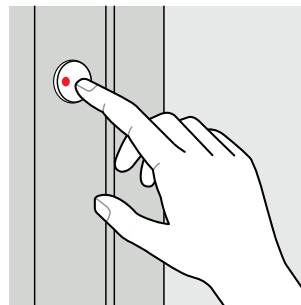
- Unlocking and deflating (deflating air seal),
- Locking and sealing (inflating air seal).

7.2 Unlocking

CAUTION

Crushing and slamming hazard! When it is windy the pivot door can move unexpectedly after being unlocked. Always hold the pivot door handle firmly before unlocking it. Do not use the pivot door at very high wind speeds.

Press the **button**.



- ▶ The electromechanical lock opens audibly and the seal deflates.
- ▶ Once the **LED** in the **button** turns red (status: unlocked/deflated), the door leaf can be opened manually.

7.3 Opening and closing

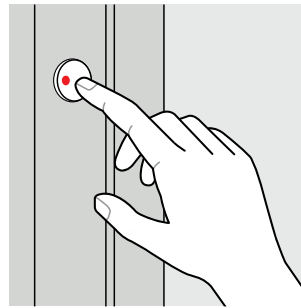
⚠ CAUTION

Crushing danger! The door has 2 closing edges. Ensure that no people are in the way and that the movement area of the door leaf is completely clear.

Push the door open or closed with the **handle**.
In the open position, the button is non-functional.

7.3.1 Locking

1. Ensure that the pivot door is completely closed.
2. Press the **button**.



- ▶ The locking bolts lock audibly and the seal is inflated.
- ▶ The LED in the button goes out (status: locked and sealed).

8 Cleaning and care

The following chapters contain important information on how to clean and care for the pivot door. Observe the cleaning and care instructions to ensure the product continues to function properly.

8.1 Care products

Do not use abrasive cleaning agents or solvents for cleaning and care. Observe the specific instructions for the surface and those of the cleaning and care product provider or the SZFF guideline 61.01 "Maintenance and cleaning of façades".

8.2 Glass

Clean the glass only with clean water, commercially available glass cleaner and suitable glass cloths. For more information, see the SIGAB guideline 102 "Cleaning glass".

8.3 Profile

In general, clean surfaces as mildly as possible and rinse them thoroughly with water. In the event of stubborn stains, contact a cleaning specialist.

8.4 Seals

The seals have a permanent coating and must be protected from mechanical damage.

Do not clean or treat the seals.

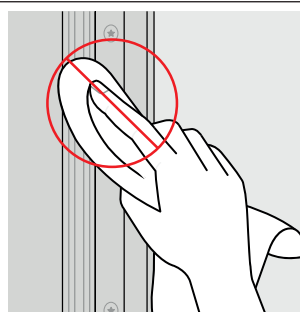


Fig. 5: Do not clean seals

9 Errors and malfunctions

The **LED** on the **button** displays the status of the pivot door:

- LED red: pivot door open
- LED not illuminated: pivot door closed

If the LED does not go out when the door is closed or another error is present, contact Air-Lux customer service.

The following table describes possible errors and malfunctions and provides information on how to proceed.

Table 7: Errors and malfunctions

Error/malfunction	Remedy
The seal is inflated but has a small leak.	Contact Air-Lux customer service.
The seal cannot be inflated and has a large leak.	Contact Air-Lux customer service.
The electromechanical locks do not unlock (unresponsive when button is pressed)	Disconnect the pivot door from the power supply for 10 seconds and retry. If the error continues, contact Air-Lux customer service.
Lock or alarm contacts are inactive.	Re-open/close the pivot door, then press the button.

10 Inspection and maintenance

To maintain functionality and prevent damage, yearly inspection and maintenance must be performed.

If you have a service contract, the manufacturer (or authorised sales partner) inspects and maintains the equipment properly and punctually. For more information, contact Air-Lux customer service.

NOTICE

Do not attempt to maintain or repair the equipment yourself. Instead, have this done by qualified installation and maintenance personnel.

10.1 Commissioning a specialist

If you do not have a service contract, commission a qualified specialist to inspect and maintain the equipment. Ensure that the equipment is inspected and maintained once a year. A commissioned specialist must fulfil the requirements for installation and maintenance personnel (for more information, see Chapter 3.4.2 “Installation and maintenance personnel” on page 12) and is obliged to acquire the necessary information regarding inspection and maintenance from the manufacturer.

10.2 Keeping inspection records

Inspections and maintenance must be documented. Ensure all inspection, maintenance and repair work done on the pivot door as well as expansions and modernisations are entered into your records by the specialist performing the work. This is a prerequisite when asserting possible compensation claims in the event of damages.

11 Disassembly and disposal

NOTICE

Do not perform attempt to disassemble the equipment yourself. Instead, have this done by appropriately qualified personnel.

Dispose of components properly and in an environmentally friendly manner. In the process, comply with all legal regulations. Ensure that dismantled components are provided for reuse wherever possible:

- Scrap metallic components.
- Bring plastic parts for recycling.
- Dispose of remaining components according to the nature of the material (e.g. electrical waste).

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