



Ditec REXS

IP2135 EN
Technical manual

Sliding doors automation (Original instructions)

Index

	Subject	Page
1.	General safety precautions	3
2.	Declaration of incorporation of partly completed machinery	4
2.1	Machinery directive	4
3.	Technical data	5
3.1	Applications	5
4.	Standard installation	6
5.	Installation of the automation	7
5.1	Box fastening	7
5.2	Preparation of glass door wing	9
5.3	Door wing installation and adjustment	10
5.4	Floor guide installation	11
5.5	Belt adjustment	12
5.6	Lock installation	12
6.	Electrical connections	13
7.	Ordinary maintenance program	14
	User instructions	15
	General safety precautions	15
	Manual release instruction	17
	Function selector user instructions	18

Key



This symbol indicates instructions or notes regarding safety, to which special attention must be paid.



This symbol indicates useful information for the correct functioning of the product.

1. General safety precautions



Failure to observe the information in this manual may result in minor personal injury or damage to equipment.
Save these instructions for future reference.

This installation manual is intended for qualified personnel only.

Installation, electrical connections and adjustments must be performed in accordance with Good Working Methods and in compliance with the present standards.

Read the instructions carefully before installing the product.

Bad installation could be dangerous.



The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as these are a potential source of danger.

Before installing the product, make sure it is in perfect condition.

Do not install the product in explosive areas and atmospheres: the presence of inflammable gas or fumes represents a serious safety hazard.

Before installing the motorisation device, make all the necessary structural modifications in order to create safety clearance and to guard or isolate all the crushing, shearing, trapping and general hazardous areas.

Make sure the existing structure is up to standard in terms of strength and stability.

The motorisation device manufacturer is not responsible for failure to observe Good Working Methods when building the frames to be motorised or for any deformation during use.



The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account: applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the motorised door.

The safety devices must protect the crushing, cutting, trapping and general hazardous areas of the motorised door.

Display the signs required by law to identify hazardous areas.

Each installation must bear a visible indication of the data identifying the motorised door.

When requested, connect the motorised door to an effective earthing system that complies with current safety standards.

During installation, maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts.

The automation protection casing must be removed by qualified personnel only.



The electronic parts must be handled using earthed antistatic conductive arms.

The manufacturer of the motorisation declines all responsibility in the event of component parts being fitted that are not compatible with the safe and correct operation.

Use original spare parts only for repairs or replacements of products.

The installer must supply all information on automatic, manual and emergency operation of the motorised door and must provide the user with the operating instructions.

2. Declaration of incorporation of partly completed machinery

(Directive 2006/42/EC, Annex II-B)

The manufacturer Entrematic Group AB with headquarters in Lodjursgatan 10, SE-261 44 Landskrona, Sweden

declares that the automation system for Ditec VALOR sliding doors:

- has been constructed to be installed on a manual door to construct a machine pursuant to the Directive 2006/42/EC. The manufacturer of the motorized door shall declare conformity pursuant to the Directive 2006/42/EC (annex II-A), prior to the machine being put into service;
- conforms to applicable essential safety requirements indicated in annex I, chapter 1 of the Directive 2006/42/EC;
- conforms to the Low Voltage Directive 2006/95/EC;
- conforms to the Electromagnetic Compatibility Directive 2004/108/EC;
- technical documentation conforms to Annex VII-B to the Directive 2006/42/EC;
- technical documentation is managed by Marco Pietro Zini with offices in Via Mons. Banfi, 3 - 21042 Caronno Pertusella (VA) - ITALY;
- a copy of technical documentation will be provided to national competent authorities, following a suitably justified request.

Landskrona, 05-08-2013

Marco Pietro Zini
(President)



2.1 Machinery Directive

Pursuant to Machinery Directive (2006/42/EC) the installer who motorizes a door or gate has the same obligations as the manufacturer of machinery and as such must:

- prepare the technical file which must contain the documents indicated in Annex V of the Machinery Directive;
(The technical file must be kept and placed at the disposal of competent national authorities for at least ten years from the date of manufacture of the motorized door);
- draw up the EC Declaration of Conformity in accordance with Annex II-A of the Machinery Directive and deliver it to the customer;
- affix the EC marking on the motorized door in accordance with point 1.7.3 of Annex I of the Machinery Directive.

3. Technical data

	Ditec REXS
Power supply	230 V- 50/60 Hz
Absorption	0,5 A
Power fuse	F1A
Rated power input	200 W
Max speed 1 wing	0,6 m/s
Max speed 2 wings	1,2 m/s
Service life	5 - HEAVY DUTY
Intermittence	S3=100%
Max door weight 1 wing	100 kg
Max door weight 2 wings	140 kg
Temperature	-20 °C - +55 °C
Temperature with batteries	-10 °C - +50 °C
Degree of protection	IP20 (FOR INTERNAL USE ONLY)
Control panel	EL20
Accessories power supply	24 V= 0,5 A

3.1 Operating instructions

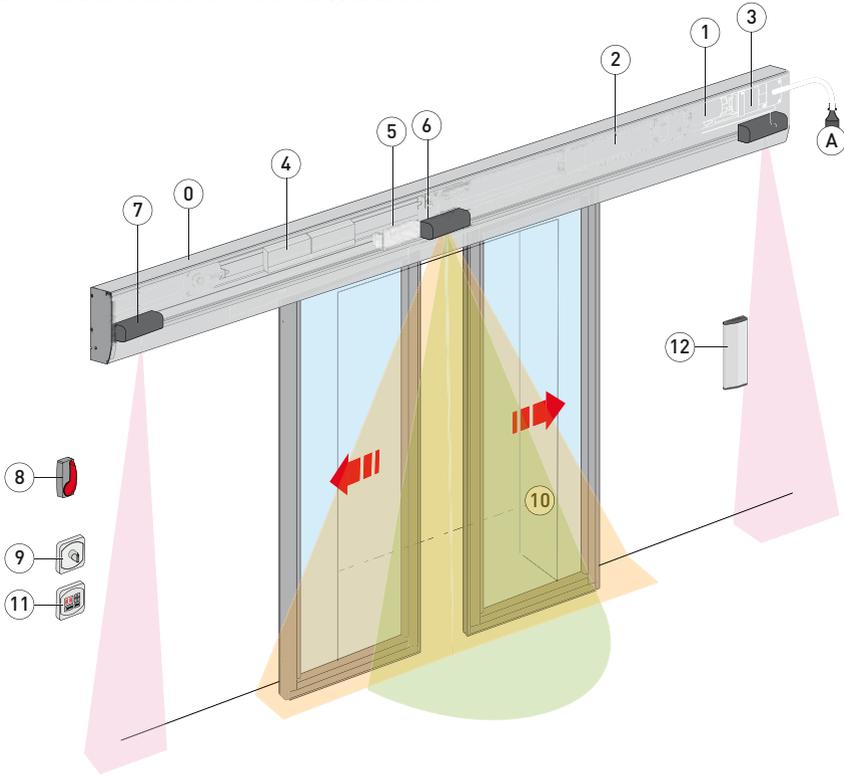
Service class: 5 (minimum 5 years of working life with 600 cycles per day).

Applications: VERY INTENSE (for shared entrances with very intense pedestrian use).

- Performance characteristics are to be understood as referring to the recommended weight (approx. 2/3 of maximum permissible weight). A reduction in performance is to be expected when the access is made to operate at the maximum permissible weight.
- Service class, running times, and the number of consecutive cycles are to be taken as merely indicative having been statistically determined under average operating conditions, and are therefore not necessarily applicable to specific conditions of use. During given time spans product performance characteristics will be such as not to require any special maintenance.
- The actual performance characteristics of each automatic access may be affected by independent variables such as friction, balancing and environmental factors, all of which may substantially alter the performance characteristics of the automatic access or curtail its working life or parts thereof (including the automatic devices themselves). When setting up, specific local conditions must be duly borne in mind and the installation adapted accordingly for ensuring maximum durability and trouble-free operation.



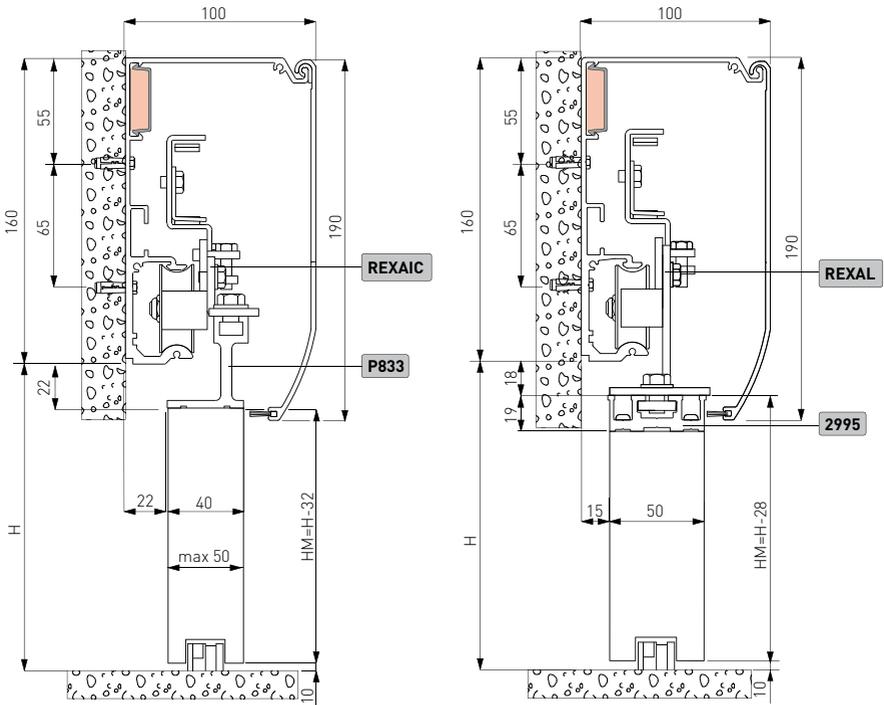
4. Standard installation



Ref.	Code	Description
0	Ditec REX S	Operator
1		Drive unit
2	EL20	Control panel
3	AL15	Transformer
4	REXAB	Emergency batteries (optional) No-break batteries (optional)
5	PAS024AMW (microwave+infrared), or PASAA2 (only infrared)	Combined sensor for opening and safety during closing external side
6	PAS024AMW (microwave+infrared), or PASAA2 (only infrared)	Combined sensor for opening and safety during closing internal side (operator)
7	PASAT3	Safety during opening sensor (outside or inside the operator's housing)
8	LOKSBM	Release handle
9	COME - COMHK	Functions selector switch
10	CELPR	Photocells (NOT ACCORDING TO STANDARD EN 16005)
11	MD1 + MDA	Display
12	PFP1 - PFP2 PDP1 - PDP2	Open push buttons
A	Connect the power supply to an approved omnipolar switch with an opening distance of the contacts of at least 3mm (not supplied). The connection to the mains must be made via an independent channel, separated from the connections to command and safety devices.	

5. Installation of the automation

5.1 Box fastening



Wiring passage

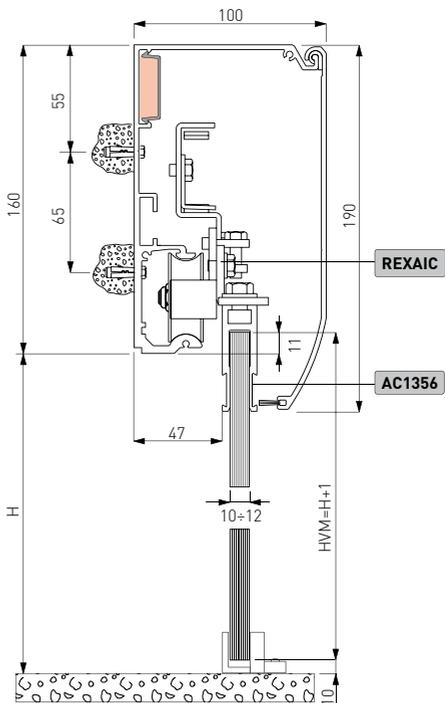
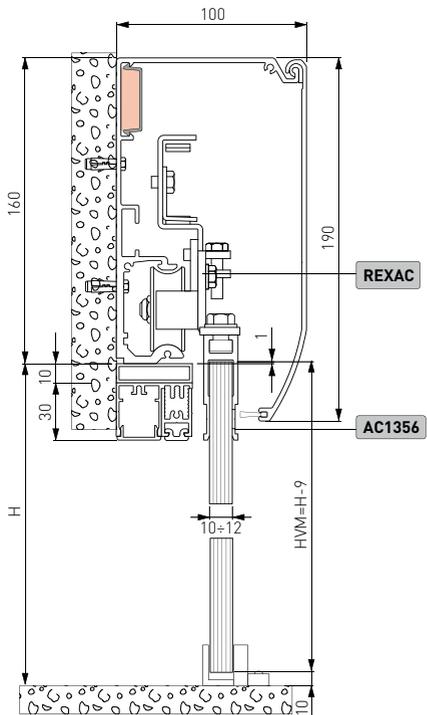
Unless otherwise specified, all measurements are expressed in millimetres (mm).

The REX automation wall fixing measurements are illustrated in the diagram, considering that the door wing profiles are not of our production.

If the door wings are made with DITEC profiles of the following series: PAM16, PAM23, PAM45, refer to the measurements in the related manuals.

Fix the box with M6 Ø12 steel plugs or 6MA screws. Distribute the fixing points approx. every 800 mm. Make sure that the box is level and its top surface is perpendicular with the floor and not deformed lengthwise with the shape of the wall. If the wall is not straight and smooth, the box must be fixed to metal plates.

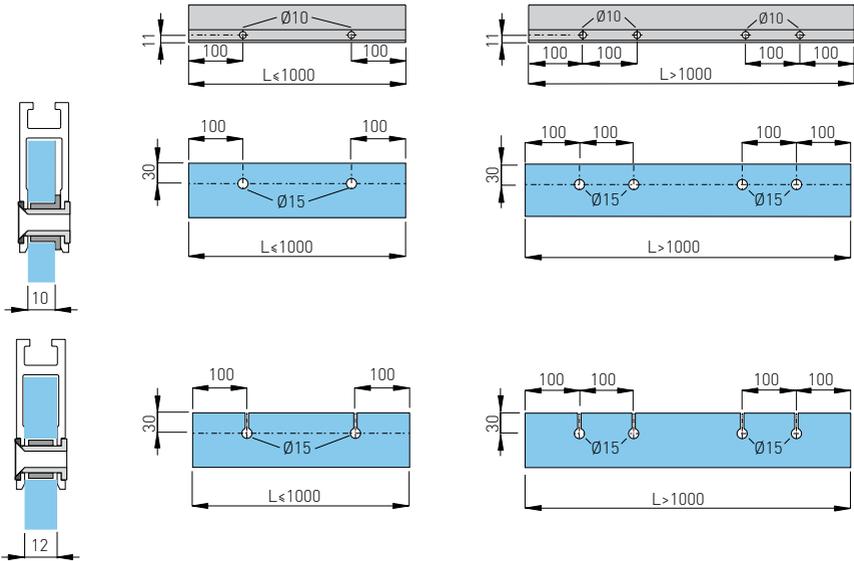
WARNING: The fastening of the box to the wall must be suitable in order to sustain the weight of the door wings.



 Wiring passage

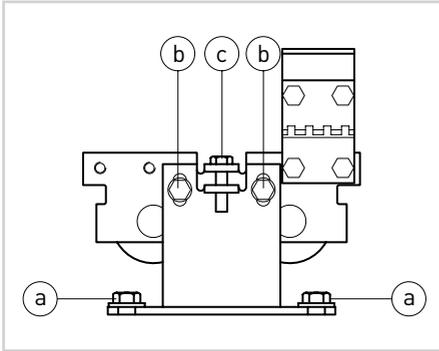
5.2 Preparation of the glass door wing

The diagram indicates the process measurements of the aluminium profile AC1356 and glass. $\varnothing 10$ through holes are required on the aluminium profile and $\varnothing 15$ on the glass for fastening. The number of holes and related distance between centres are based on the door wing width. Silicon should ideally be used between the edge of the glass and the internal base of the profile.



With AC4255 or AC4870 glass wing attachment applications, see the respective manual.

5.3 Wings installation and adjustment

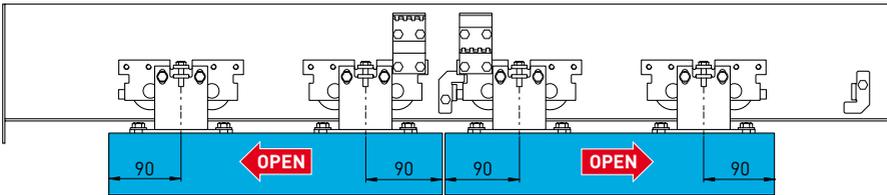


Fix the door wing to the carriage with screws [a]. The outer wheel of the carriage must not protrude beyond the dimension of the door wing. Adjust the horizontal position of the door wing in accordance with the measurements indicated in diagram REX 2 for 2 door wing automations, REX 1 RH for right-hand opening automations and REX 1 LH for left-hand opening automations. Secure the adjustment with screws [a]. Loosen screws [b], adjust the vertical position of the door wing by means of screw [c] and fix the adjustment with screws [b]. Check, by moving the door manually, that the movement is free and without friction and that

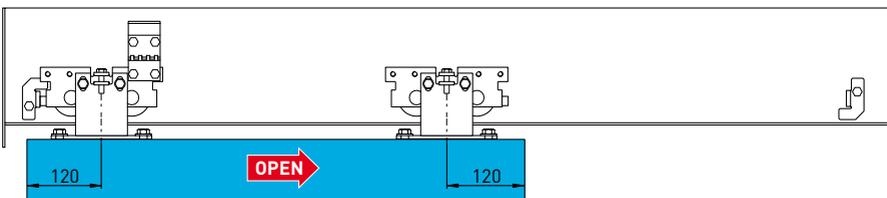
at the wheels rest on the guide.

WARNING: Leave a gap of at least 10 mm between the glass door wings when closed to avoid contact of the glass.

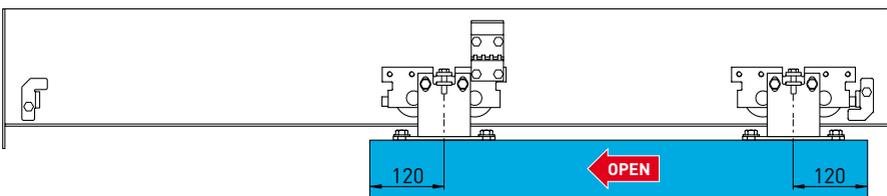
2 WINGS



1 WING - RIGHT OPENING



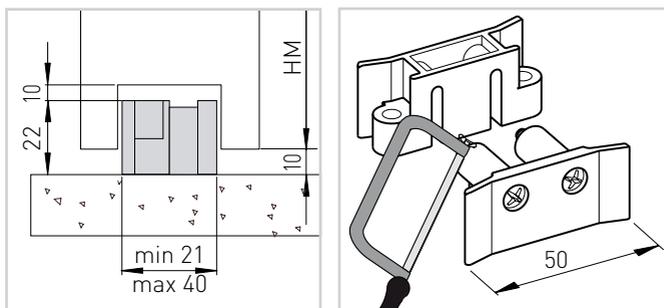
1 WING - LEFT OPENING



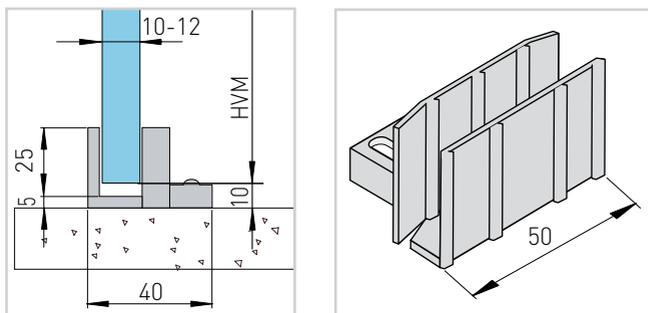
5.4 Floor guide installation

The floor guides must be made of an antifriction material such as PVC, NYLON, TEFLON. The length of the floor guide should not be greater than the overlap of between the fixed and mobile door wing and must not enter the doorway.

The measurements of the code 0KP515AB floor guide for framed door wings are indicated in the diagram.



The measurements of the code 0KP369 floor guide for glass door wings are indicated in the diagram.



5.5 Belt adjustment

Loosen screws [a], and tighten screw [b] until maximum extension of the spring.

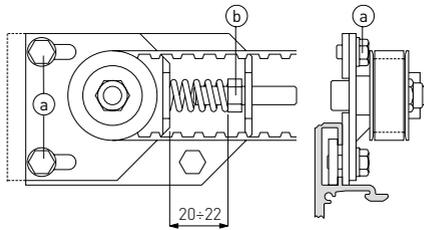
Loosen the screws that attach the return unit to the guide.

Manually pull the entire return unit to the left and attach it to the guide.

Loosen screw [b] until the spring is at a compression of 20 mm (if the length of the automation is lower than 2600 mm) or 22 mm (if the length of the automation is greater than 2600 mm).

Block the adjustment by tightening screws [a].

WARNING: incorrect adjustment impairs the correct functioning of the automation.



5.6 Lock device installation

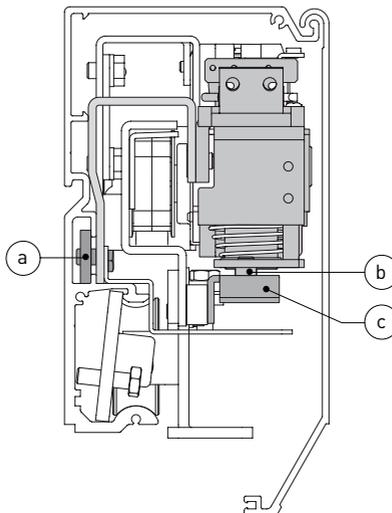
Place the door wing in the closure position.

Fasten the lock device to the box profile by means of the supplied screws [a].

Align the lock pin [b] and the lock bracket [c] and manually check the correct functioning.

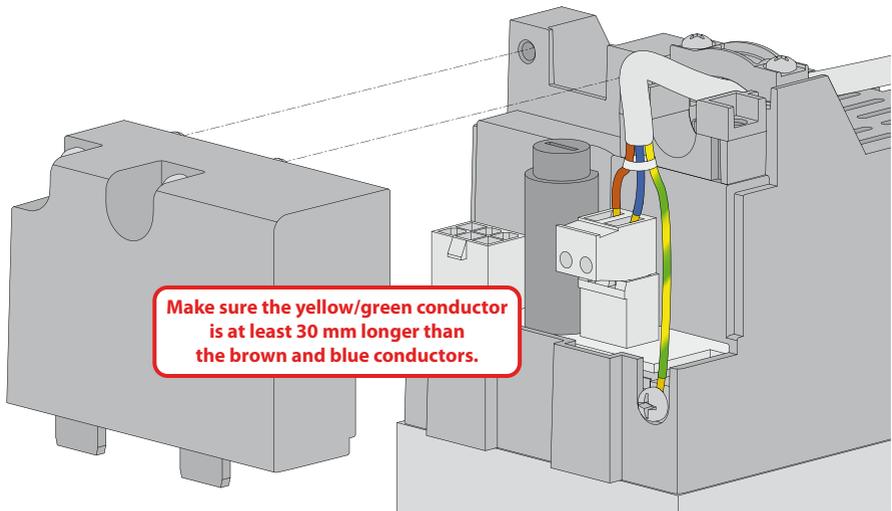
Slightly lubricate the lock pin and lock bracket.

For further information, refer to the blocking device installation manuals.



6. Electrical connections

Electrical wiring and starting are shown in the installation manual of control panel EL20.



 Before connecting the power supply, make sure the plate data correspond to that of the mains power supply.

An omnipolar disconnection switch with minimum contact gaps of 3 mm must be included in the mains supply.

Check that upstream of the electrical installation there is an adequate residual current circuit breaker and a suitable overcurrent cutout.

Use a H05RN-F 3G1,5 or H05RR-F 3G1,5 type electric cable and connect to the terminals L (brown), N (blue),  (yellow/green) in the automation. Make sure the yellow/green conductor is at least 30 mm longer than the brown and blue conductors.

Secure the cable using the special cable clamp and remove the outer sheath near the terminal only.

Connection to the mains power supply, in the section outside the automation, is made with independent channels and separated from the connections to the control and safety devices.

The channels must penetrate a few centimetres inside the automation through a hole maximum $\varnothing 16$ mm.

Make sure there are no sharp edges that may damage the power supply cable.

Make sure that the mains power supply (230 V) conductors and the accessory power supply (24 V) conductors are separate.

7. Routine maintenance plan

Perform the following operations and checks every 6 months according to intensity of use of the automation.

Without 230 V~ power supply and batteries:

- Clean and lubricate the moving parts (the carriage guides and the floor guides).
- Check the belt tension.
- Clean sensors and photocells.
- Check the stability of the automatic system and make sure that all screws are correctly tightened.
- Check the alignment of the doors, the closing positions and the correct introduction of the blocking device.

Connect the 230 V~ power supply and batteries:

- Check that the blocking system is working correctly.
- Check the stability of the door and that the movement is regular and without friction.
- Check that all command functions are operating correctly.
- Check the correct functioning of the photocells.
- Check that the door's developed powers are in accordance with applicable regulations.



NOTE: for spare parts, see the spares price list.



For repairs or replacements of products only original spare parts must be used. The installer shall provide all information relating to automatic, manual and emergency operation of the motorised door or gate, and provide the user with operating instructions. The installer must prepare the maintenance log, which will indicate all the interventions of ordinary and extraordinary maintenance carried out.



Ditec REX S

user's manual

Ditec
ENTREMATIC

Sliding door automation

General safety precautions

The following precautions are an integral and essential part of the product and must be supplied to the user.

Read them carefully since they contain important information on safe installation, use and maintenance.

These instructions must be kept and forwarded to all possible future users of the system.

This product must only be used for the specific purpose for which it was designed.

Any other use is to be considered improper and therefore dangerous.

The manufacturer cannot be held responsible for any damage caused by improper, incorrect or unreasonable use.

This product should not be used by people (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge unless they have been given supervision or instructions concerning the use of the appliance by a person responsible for their safety.

Avoid operating in the proximity of the hinges or moving mechanical parts.

Do not enter within the operating range of the motorized door while it is moving.

Do not block the movement of the motorized door since this may be dangerous.

Do not allow children to play or stay within the operating range of the motorized door.

Keep remote controls and/or any other control devices out of the reach of children in order to avoid possible

involuntary activation of the motorized door.

In the event of fault or malfunctioning of the product, turn off the power supply switch, do not attempt to repair or intervene directly and contact only qualified personnel.

Failure to comply with the above may cause a dangerous situation.

All cleaning, maintenance or repair work must be carried out by qualified personnel.

To ensure that the system works efficiently and correctly, the manufacturer's indications must be complied with and routine maintenance of the motorized door must be performed by qualified personnel.

In particular, regular checks are recommended in order to verify that the safety devices are operating correctly.

All installation, maintenance and repair work must be documented and made available to the user.



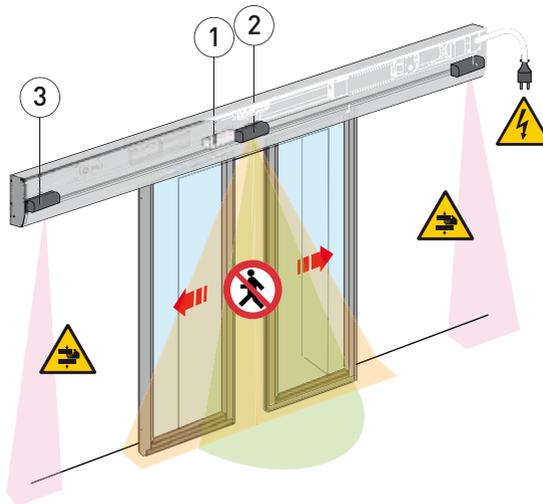
For the correct disposal of electric and electronic equipment, waste batteries and accumulators, the user must take such products to the designated municipal collection facilities.

Technical data



	Ditec REX S
Power supply	230 V- 50/60 Hz
Power fuse	F1A
Rated power input	200 W
Service life	5 - VERY INTENSE
Temperature	-20 °C - +55 °C
Temperature with batteries	-10 °C - +50 °C
Degree of protection	IP20 (FOR INTERNAL USE ONLY)
Control panel	EL20
Accessories power supply	24 V= 0,5 A

The following safety devices may be installed to protect the danger areas (according to EN 16005):



1	PAS024AMW (microwave+infrared), or PASAA2 (infrared only)	Combined sensor for opening and safety during closing external side
2	PAS024AMW (microwave+infrared), or PASAA2 (infrared only)	Combined sensor for opening and safety during closing internal side (operator)
3	PASAT3	Safety during opening sensor (outside or inside the operator's housing)

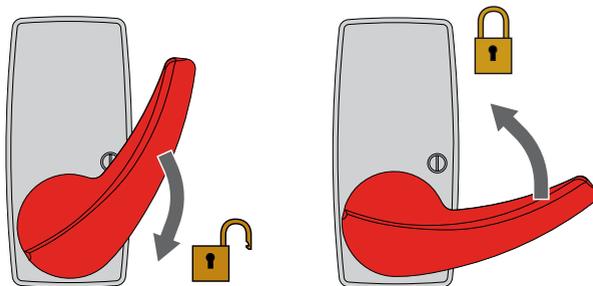
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Manual release instructions



In the event of maintenance, malfunctioning or emergency, lower the lock release lever LOKSBM (if installed) and move the door wings manually into the open position. To block the door wings again, reposition the lock release lever to the initial position.



WARNING: carry out the door wing blocking and release with the motor switched off.

User instructions function selector



The STOP position prevents the batteries from engaging in case of emergency.

NOTE: for correct door operation and regular battery recharging, it is essential that the automatic system be always powered with batteries connected (also during the night).

FUNCTION SELECTOR	COME	COMH-K
DOOR OPEN The door opens and remains open.		
TOTAL ONE-WAY OPENING For one-way operation from the inside/outside of the door.		
TOTAL TWO-WAY OPENING For two-way door operation		
PARTIAL OPENING For two-way, one-way and partial opening operation.		
PARTIAL OPENING For two-way partial opening.		
DOOR CLOSED The door closes and remains closed and locked (if lock is present).		
IMMEDIATE NIGHT-TIME CLOSURE (STOP) The door stops immediately when the NIGHT-TIME CLOSURE key is pressed for 3 s.		
DELAYED NIGHT-TIME CLOSURE Pressing the NIGHT-TIME CLOSURE key, the door closes after 10 seconds (with J1=ON) or 60 seconds (with J1=OFF). This allows authorised door management personnel to get out before it closes.		
IMMEDIATE NIGHT-TIME CLOSURE The door stops immediately when the NIGHT-TIME CLOSURE is selected.		
POWER RESET Cancels the data acquired, proceeding with a new acquisition after 3 seconds.		
DMCS Jack This is used to connect the DMCS software. N.B.: The DMCS jack can be accessed by removing the function selector switch cover.		
SETTING THE CODE (with J3=ON) The code can contain up to 5 numbers. Press the LOCK key for 3 seconds. Enter the numerical code. NOTE: the red LED flashes during this procedure. Press the LOCK key for 3 seconds. If the LED remains steady on, the selector is protected by an access code.	 	
CANCELLING THE CODE (with J3=ON.) Press the LOCK key for 3 seconds. Enter the numerical code. NOTE: the red LED flashes during this procedure. Press the LOCK key for 3 seconds. If the LED is switched off, the selector is working and no access code is set.	 	

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