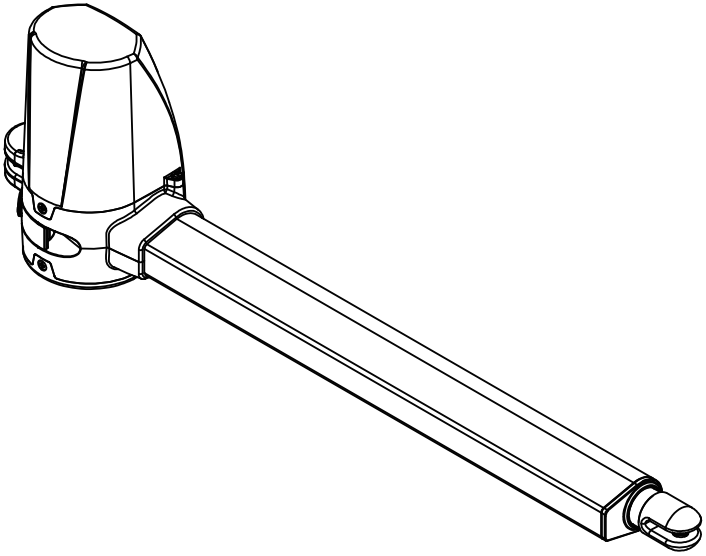

KUDA

KUDA 150 - (15000/DX-15000/SX)
KUDA 200 - (22000/DX-22000/SX)

Electromechanical linear operator
INSTRUCTIONS FOR INSTALLATIONS

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INTRODUCTION

The KUDA operator for swing gates is an electromechanical device that transmits motion to the gate by means of a worm screw. It is locked when the motor is not running, it is necessary to install locks if fitted on blind/flush panel doors.

WARNINGS FOR THE INSTALLER

- Before proceeding with installation, fit a magnetothermal and differential switch with a maximum capacity of 10A upstream of the system. The switch must guarantee omnipolar separation of the contacts with an opening distance of at least 3mm.
- All the packaging materials must be kept out of reach of children since they are potential sources of danger.
- The manufacturer declines all responsibility for proper functioning of the automated device if failing to use original GIBIDI components and accessories suitable for the intended application.
- When installation has been completed, always carefully check proper functioning of the system and the devices used.
- This instruction manual addresses persons qualified for installation of “live equipment”, therefore, good technical
- knowledge is required exercised as profession in compliance with the regulations in force.
- Maintenance must be performed by qualified personnel.
- Before carrying out any cleaning or maintenance operation, disconnect the control unit from the mains.
- This product has been designed and constructed solely for the use indicated in this document. Any other use may cause damage to the product and be a source of danger.
- Verify the intended end use and take the necessary safety precautions.
- Use of the products for purposes different from the intended use has not been tested by the manufacturer and the operations performed are therefore on full responsibility of the installer.
- Mark the automated device with visible warning plates.
- Warn the user that children and animals must not play or stand near the gate.
- Adequately protect the danger points, for example, using a sensitive frame.
- Check proper installation of the earthing system; connect all the metal parts of doors, gates, etc. and all the system components equipped with earthing plate.
- Exclusively use original spare parts for any maintenance or repair.
- Do not make any modification to the components of the automated device unless expressly authorised by GIBIDI.
- Gi.Bi.Di. Srl reserves the right to change the technical data without prior notice in relation to product development.

WARNING: IMPORTANT SAFETY INSTRUCTIONS.
It is important for the safety of persons to follow these instructions.
Keep this instruction manual.

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WARNINGS FOR THE USER

- In the event of an operating fault or failure, cut the power upstream of the control unit and call Technical Service.
- Periodically check functioning of the safety devices. Any repairs must be carried out by specialised personnel using original and certified materials.
- The product may not be used by children or persons with reduced physical, sensorial or mental capacities, or lacking experience and knowledge, unless appropriately instructed.
- Do not access the circuit board for adjustments and/or maintenance.

CAUTION: IMPORTANT SAFETY INSTRUCTIONS.
It is important to follow these instructions in order to safeguard persons.
Keep this instruction booklet

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TECHNICAL DATA

Operator	KUDA 150	KUDA 200
Type	Irreversible electromechanical with worm screw	
Supply voltage	24 Vdc	
Power absorbed	100 W (~1000 N)	
Current absorbed	4 A (~1000 N) MAX	
Electric motor	24 Vdc 2600 rpm	
Useful travel	360 mm	400 mm
Max thrust/traction force	1000 N	1500 N
Maximum leaf length	2 m	2.5 m
	If fitted on blind/flush panel doors it is mandatory to use an electric lock	
Maximum leaf weight	150 Kg	200 Kg
Linear velocity	20 mm/s	
Operating temperature	-20°C + 60°C	
Degree of protection	IP 44	
Frequency of use (%)	intensive	
Encoder	Integrated into the motor	

ELECTRICAL EQUIPMENT

Electric system setup

Set up the electric system as shown in **fig.1** referring to the electric system regulations and other national regulations in force. Keep the mains power connections clearly separated from the service connections (photocells, sensitive frames, control devices, etc.).

The main components are:

1- Antenna; screened coaxial cable
2- Electronic control unit container
3- Electric lock; 1 mm² 2-core (2x1) cable
4- Key selector; 0,5 mm² 3-core (3x0,5) cable
5- 24Vdc operators:
- 1,5 mm² 2-core (2x1,5) cable power supply WHITE = + YELLOW = -
for a cable length of 6 m max., over it's necessary increase the cable section.
-0,5mm² 3-core (3x0,5) encoder cable.
6- Omnipolar magnetothermal and differential switch with minimum contact opening of 3 mm
220-230V/50-60Hz control unit power line: min. 1,5 mm² 3-core cable (3x1,5)
(adhere to the regulations in force)
7- 24V flashing light; 0,75 mm² 2-core (2x0,75) cable
8- Connector blocks
9- Photocell transmitter; 0,5 mm² 2-core (2x0,5) cable
10- Photocell receiver; 0,5 mm² 4-core (4x0,5) cable
A- Opening mechanical end-stop.
B- Closing mechanical end-stop.

CAUTION: It is important that an omnipolar magnetothermal and differential switch with a minimum contact opening of 3 mm be fitted upstream of the control unit.

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PRELIMINARY WARNINGS

Check that the gate structure is in conformity with the regulations in force and that the gate movement is linear without friction.

Preliminary checks:
- Check that the gate structure is sufficiently robust.
- In any event, the actuator must push the leaf at a reinforced point.
- Manually check that the leafs move without force along their entire travel.
- Check that the gate opening and closing end-stops **A-B fig.1** have been installed.
- If the gate is not a new installation, check the state of wear of all the components, and repair or replace the defective or worn parts.

The reliability and safety of the automated device is directly dependent on the condition of the gate structure.

INSTALLATION DIMENSIONS

Refer to **fig.6** for possible installation dimensions.

The difference between A and B must not exceed 50 mm; greater differences cause irregular gate movement (the traction/thrust force and the movement speed vary during the manoeuvre).

OPERATOR INSTALLATION

Preliminary checks:

For proper functioning of the automated device, the existing or new gate structure must meet the following requirements:

- The individual leafs must have a maximum length of 2 metres (KUDA 150) or 2,5 meters (KUDA 200)
- The leaf structure must be robust and rigid
- The leafs must move smoothly and uniformly without irregular friction along their entire travel
- The existing hinges must be in a good condition
- The mechanical end-stops **A-B fig.1** must be fitted

Installing the operators

1 - Find the most suitable point where to fasten the front bracket of the operator and mark it.
2 - Using a spirit level mark the point on the pillar where to fasten the rear bracket .
3 - Identify the point where to fasten the rear bracket in relation to the dimensions **A-B fig.6** and in relation to **fig.3-4-5**. **CAUTION:** Where there are big pillars or walls, a niche must be made so that the dimensions A and B are respected.
4 - Fasten the rear bracket to the pillar **fig.7a** .
5 - Fit the operator on the rear bracket using the pin provided **fig.7b** .
6 - Fasten the front bracket on the operator **fig.8a** .
7- Unlock the operator (see unlocking device), pull out the operator rod fully then push it inside for 20 mm.
8 - Move the leaf to closed position against the mechanical end-stop **B fig.1**.

OPERATOR INSTALLATION

9 - Fix the front bracket to the leaf with a clamp **fig.8b** .
10- Use a spirit level to check that the operator is perfectly level.
11 - Remove the operator from the front and rear bracket .
12 - Fasten the front bracket .
13- Unlock the operator (see unlocking device).
14 - Fit the operator on the brackets.
15 - Manually open and close the gate to its full opening and closing travel. The gate must move smoothly without friction and the lead nut must not reach the mechanical end-stop during opening or closing. If otherwise, adjust the bracket positions.

It is recommended to leave at least 40-50 mm of cable free.

UNLOCKING DEVICE

If the gate needs to be operated manually because of a power failure or operator malfunctioning:

- Remove the rubber plug **fig.9a-9e .**
- Insert the release key to the release slot **fig. 9a-9e** .
- Turn the release key as shown in **fig.9b-9f** .
- Pull out the release bar and keep it pulled out **fig.9c-9g** .
- Turn the release key to its original position to fix the release bar **fig.9d-9h** .

Move the gate manually only in the event of a power failure.

INSTALLING THE ELECTRIC LOCK

If you need to install an electric lock, refer to figures **fig.11** and **fig.12 .**

1) ELECTRIC LOCK
2) ELECTRIC LOCK FASTENING PLATE
3) BUSHING
4) END-STOP FOR BUSHING
5) SPRING LATCH
6) THROUGH CYLINDER (ON REQUEST)
7) GATE

FINAL CHECKS

Power the system and run a complete opening and closing cycle checking that:

- The safety devices function properly;
- The gate moves smoothly;
- Good hold of the fastening brackets;
- That the power cable moves freely;
- The gate assembly conforms to EN 12453 and EN 12445;
- For further details and information on the reference standards, visit our site: www.gibidi.com

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MAINTENANCE

Periodically check the gate structure, in particular:
- Check functioning of the hinges;
- Check that the leafs are correctly balanced. Excessive inclination of the leafs will result in faster wear of the operator fastening brackets. Do the test by unlocking the operator and checking that the leafs do not move on their own;
- Check good functioning of the safety devices;
- Unlock the operator and check that there are no points of friction along the entire travel;
- Check that there is no dirt or debris on the worm screw, and if so, clean and then lubricate the worm screw with lubricating grease.
- Periodically check proper adjustment of the operator thrust force and the efficiency of the unlocking device for manual operation (see the relative paragraph).
- The safety devices installed on the system must be checked every six months.

MALFUNCTIONING

For any unresolved malfunction, cut the power to the system and call in a qualified technician (installer). In the period when the gate is out of service, activate the manual unlocking device to allow manual opening and

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CE Declaration of conformity

The manufacturer:

GI.BI.DI. S.r.l.

Via Abetone Brennero, 177/B,
46025 Poggio Rusco (MN) ITALY

Declares that the products:

ELECTROMECHANICAL GEARMOTOR KUDA 150-200

Are in conformity with the following CEE Directives:

- **LVD Directive 2006/95/CE and subsequent amendments;**
- **EMC Directive 2004/108/CE and subsequent amendments;**

and that the following harmonised standards have been applied:

- **EN60335-1,**
- **EN61000-6-1, EN61000-6-3**

Moreover declares that the product must not be used until the machine in which it has been incorporated has not been declared in accordance with 2006/42/CE Directive.

Date 26/05/14

The legal Representative
Michele Prandi

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