



XTILUS

MOTORIDUTTORE IRREVERSIBILE
PER CANCELLI A BATTENTE

MOTORÉDUCTEUR IRREVERSIBLE
POUR PORTAILS à BATTANTS

IRREVERSIBLE GEARMOTOR FOR
WING GATES

MOTORREDUCTOR IRREVERSIBLE
PARA CANCELAS A HOJAS

ONOMKEERBARE
REDUCTIEMOTOR VOOR
DRAAIPOORTEN



Motoriduttore Gearmotor Motoréducteur Motorreductor Reductiemotor	Alimentazione Power Supply Alimentation Alimentación Voeding	Larghezza max anta Max wing width Largeur max du battant Longitud máx hoja Max. lengte vleugel	Peso max anta Max wing weight Poids max du battant Peso máx hoja Max. gewicht vleugel	Spinta max Max Thrust Poussée maxi Max Empuje Max. duwkracht
XTILUS	230V 50/60Hz	3,5 m	400 Kg / 880 lbs	1600 N
XTILUS 120V	120V 50/60Hz	3,5 m	400 Kg / 880 lbs	1600 N
XTILUS 24V	24Vdc	3,5 m	350 Kg / 770 lbs	1600 N

GENERAL WARNINGS



ATTENTION! Before installing the product it is mandatory to read the document related to the **GENERAL SAFETY WARNINGS** supplied with the product. Document **6-1620001**. The supplementary sheet can also be downloaded from www.allmatic.com.

1. PRODUCT DESCRIPTION

Irreversible gearmotors for wing gates with a leaf length of up to 3,5 metres. The irreversibility of this gearmotor allows you to avoid using any electric lock for an effective closing of the gate. The motor is protected by an heat probe, that temporary interrupts the operating cycle in case of prolonged use.

2. TECHNICAL FEATURES		XTILUS	XTILUS 120V	XTILUS 24V
Max. leaf weight	Kg	400	400	350
Max. leaf lenght	m	3,5	3,5	3,5
Power supply		230V - 50/60Hz	120V - 50/60Hz	24Vdc
Current absorbed	A	1	1	2,5
Motor power	W	200	200	60
Towing speed	m/s	0,10	0,10	Variable
Stem stroke	mm	400	400	400
Gearmotor weight	Kg	8,5	8,5	8,5
Capacitor	µF	8	31,5	-
Daily operations suggested	n°	150	150	200
Max consecutive operations	n°	20	20	45
Service	%	50	50	80
Unlocking device for emergency movement		with key	with key	with key
Working temperature	°C	-20...+55	-20...+55	-20...+55
Protection	IP	44	44	44
Average opening time	s	20	20	14...22
Max thrust	N	1600	1600	1600
Control unit		BIOS2 / BIOS2 ECO	BIOS2 120V / BIOS2 ECO 120V	BIOS2 24

3. CHECKING BEFORE THE INSTALLATION



ATTENTION! THE GATE SHALL MOVE FRICTIONLESS

Note: gate features must be uniformed with the standards and laws in force. The door/gate can be automated only if it is in a good condition and its conditions comply with the EN 12604 norm.

- The door/gate leaf does not have to have a pedestrian opening. In the opposite case it is necessary to take the appropriate steps, in accordance with EN 12453 norm, point 5.4.1 (for instance; by preventing the operation of the motor when the pedestrian opening is opened, by installing a safety microswitch connected with the control panel).
- Must not generate points of entrapment (e.g. between the leaf of the opened gate and the fence).
- No mechanical stop shall be on top of the gate, since mechanical stops are not safe enough.

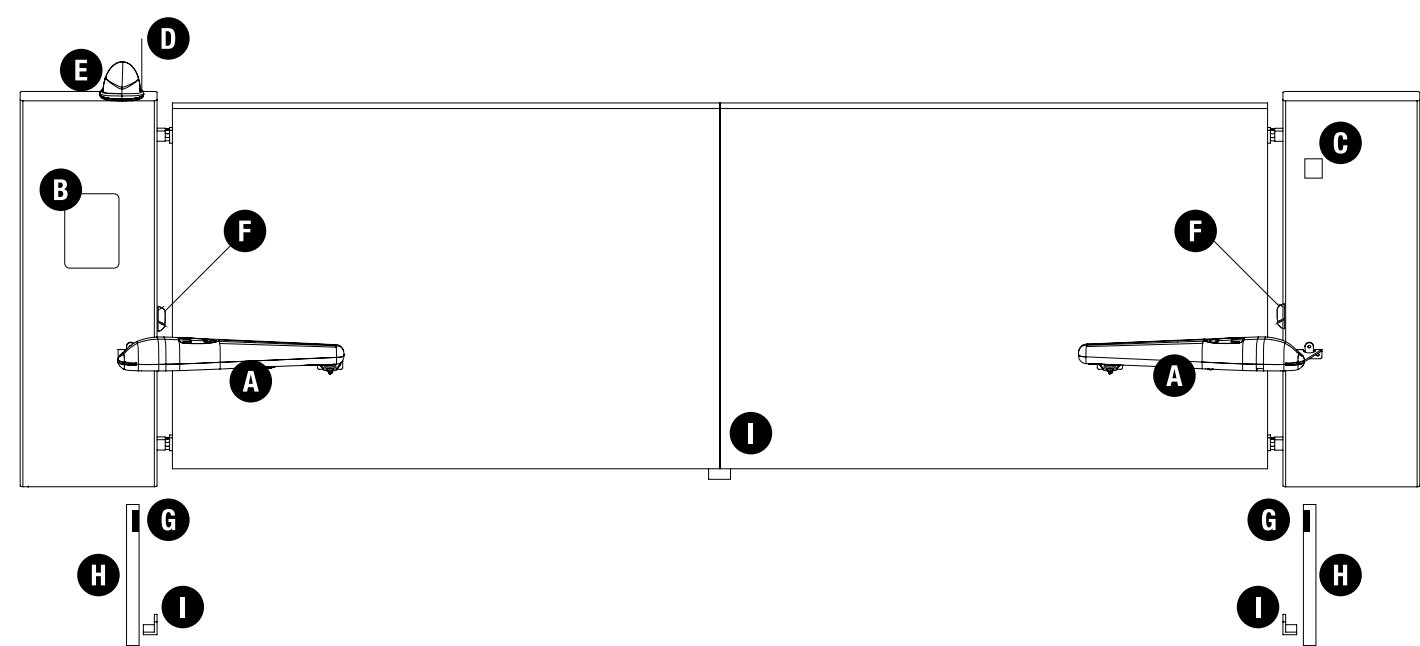
Note: the leaf must be fixed firmly on the hinges to the pillars, must not be flexible during the movement and must move without frictions.



WARNING!

- Before to install of motor, it is necessary verify all dimensions and conditions to do it.
- It is recommended to install the mechanical stops on the ground both in opening and closing. If it is not possible to use them, it is mandatory to use the mechanical stops on the motor, see fig. 10-11 A page 10.
- To optimize the functioning of the automation, we suggest to use the slowing down at the end of the movement
- For installations in places with strong wind, we recommend use of the electric lock type v06, accessory code: 64100182 (electrical lock v06) / 64100183 (half cylinder).

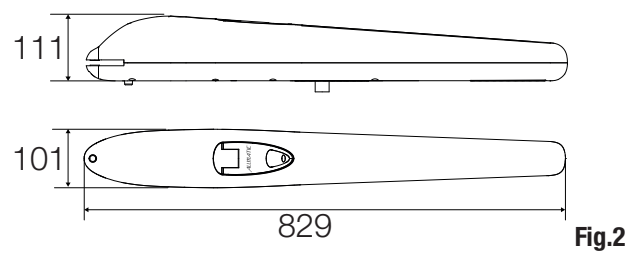
4. TYPICAL SYSTEM LAYOUT, Fig. 1



- A - XTILUS gearmotor
- B - Control unit with box
- C - Key selector
- D - Tuned antenna
- E - Flashing lamp
- F - Photocells (external)
- G - Photocells (internal)
- H - Column for photocells
- I - Mechanical stops on the ground (opening and closing).

WARNING! TO OPTIMIZE THE OPERATION OF XTILUS, WE RECOMMEND THE USE OF ALLMATIC CONTROL UNIT AND ACCESSORIES.

5. XTILUS DIMENSIONS



6. PARTS TO INSTALL MEETING THE EN 12453 STANDARD

COMMAND TYPE	USE OF THE SHUTTER		
	Skilled persons (out of public area*)	Skilled persons (public area)	Unrestricted use
with manned operation	A	B	not possible
with visible impulses (e.g. sensor)	E	E	E
with not visible impulses (e.g. remote control device)	E	E	E
automatic	E	E	E
* a typical example are those shutters which do not have access to any public way A: Command button with manned operation (that is, operating as long as activated). B: Key selector with manned operation. E: Photocells.			

7. INSTALLATION

Before fastening the brackets provided, establish the A and B (Fig. 3) coordinates using the data given in **Table 1**. These data are valid if the gearmotor is at maximum extension minus one centimetre of the available stroke (C_D) when the gate is closed to obtain maximum working efficiency. To anchor the piston, use the fastening brackets provided.

Note: data B in the table, with reference to the single values A, are to be considered as values recommended.

Establish coordinates A + B that are to be used: the sum of coordinates establishes the stroke used C_U .
Note: the stroke used (C_U) of the gearmotor must never be equal or greater than the available stroke (C_D) = 400mm.

TABLE 1

ANGLE	A	B	C	D	E	L _{max}	C _u	Figure pag. 6
90°	90	195	120	75	76	760	285	1
	110	180	120	60	76	760	290	2
	110	150	90	60	76	760	260	3
	90	210	90	120	76	760	300	4
	130	130	120	10	76	760	260	5
110°	160	140	120	20	76	760	300	-
	160	150	120	30	76	760	310	-

$A+B=C_U$ (stroke used) / C_D = (maximum available stroke) = 400 mm

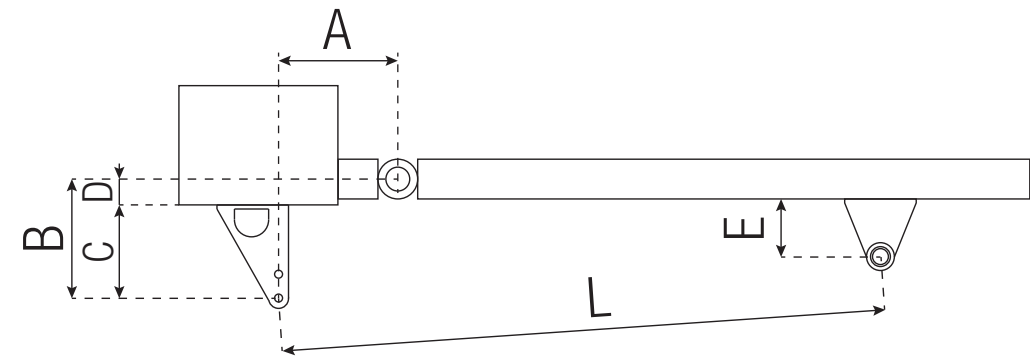


Fig. 3

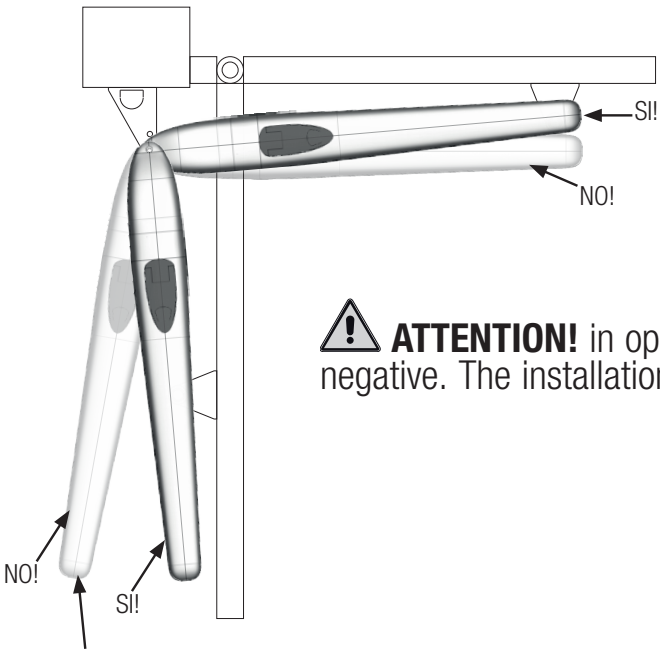
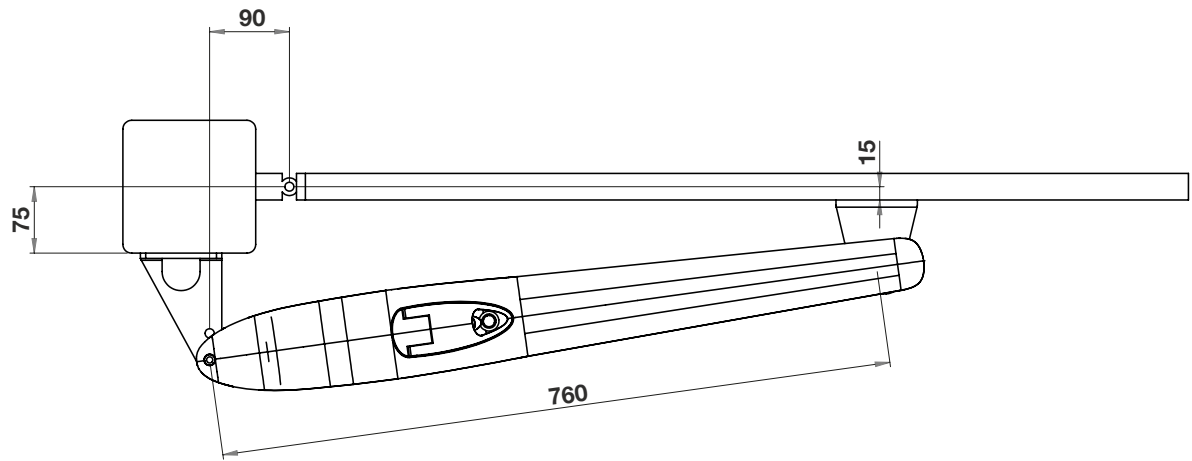


Fig. 4

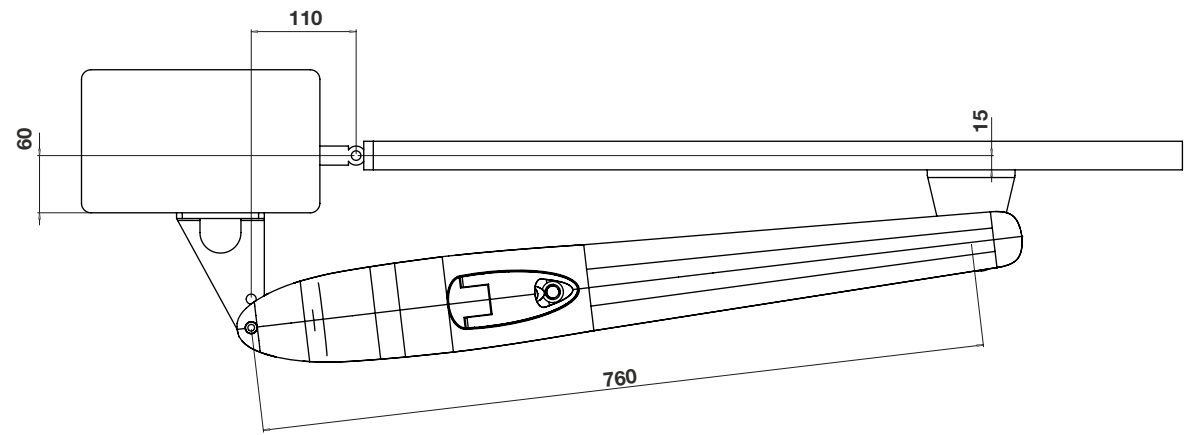
! ATTENTION! in opening position, the angle should not be negative. The installation is not correct. See examples at page 6

EXAMPLES OF IDEAL INSTALLATIONS

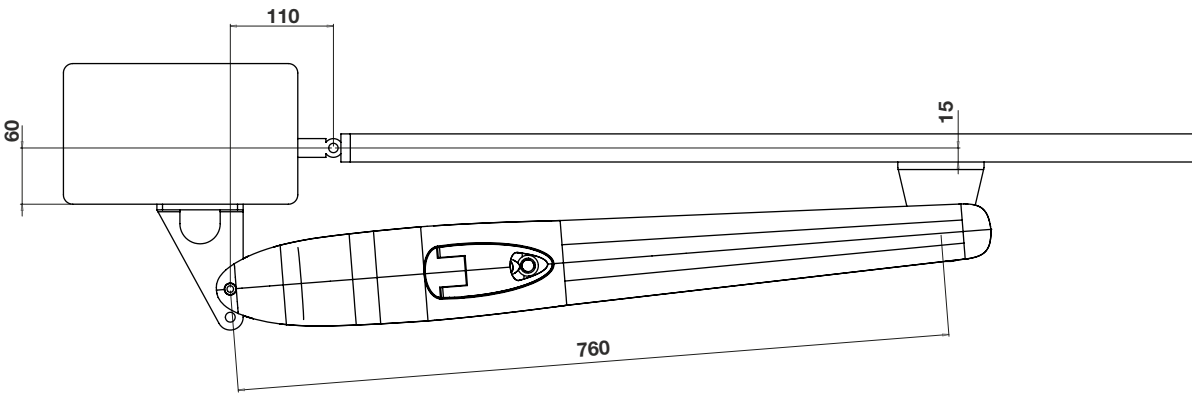
1. External hole of the rear plate



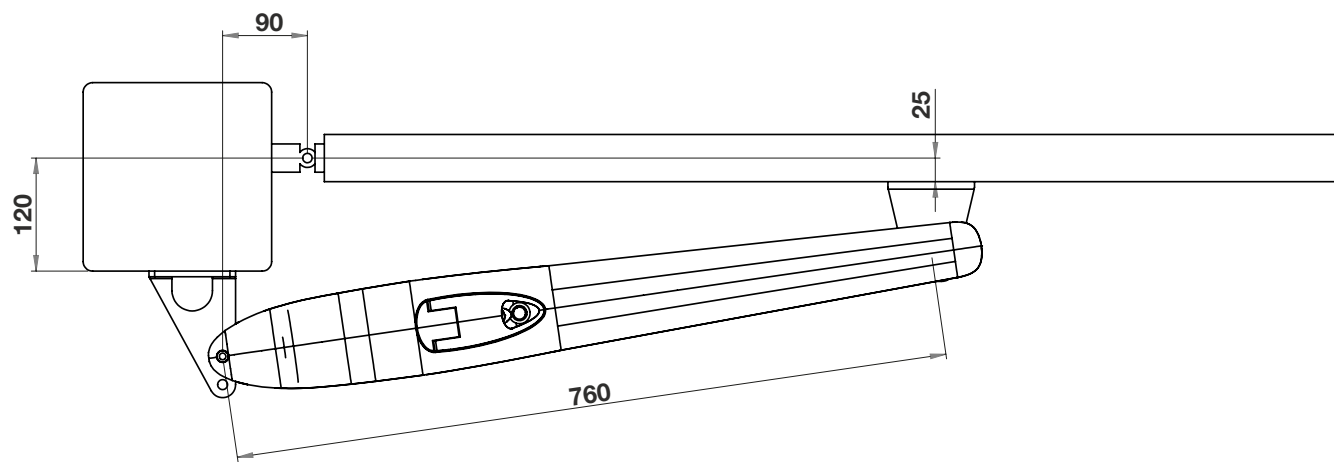
2. External hole of the rear plate



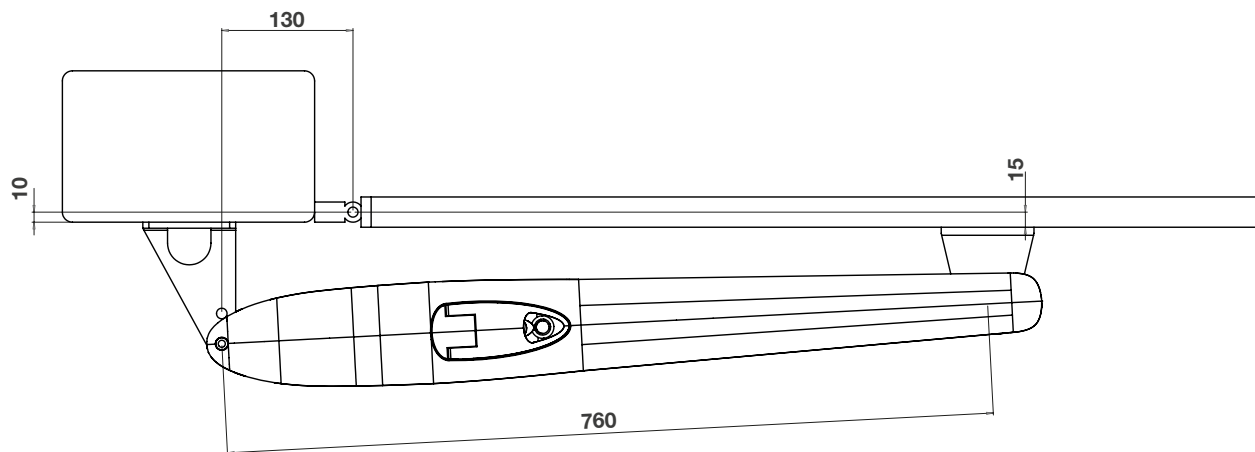
3. Internal hole of the rear plate



4. Internal hole of the rear plate

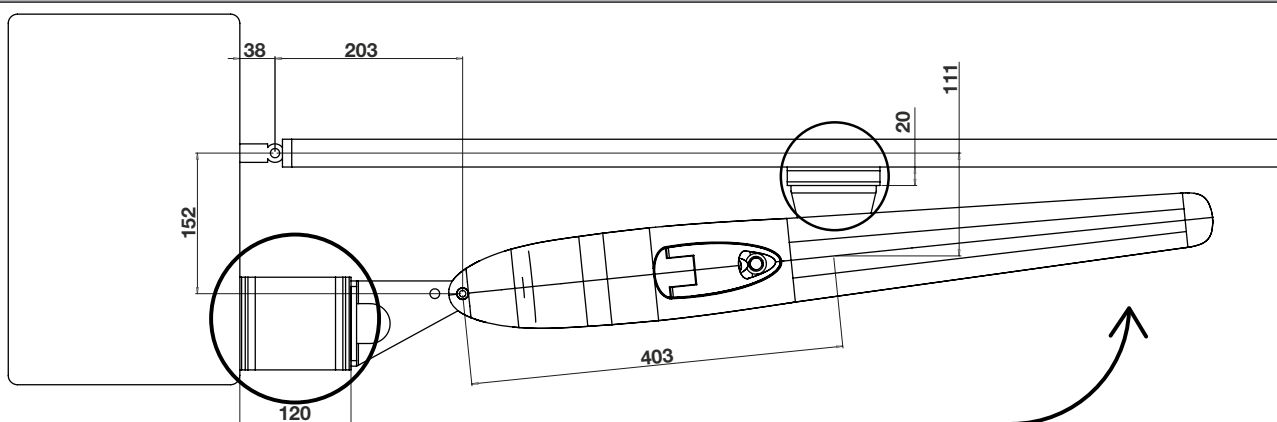


5. External hole of the rear plate

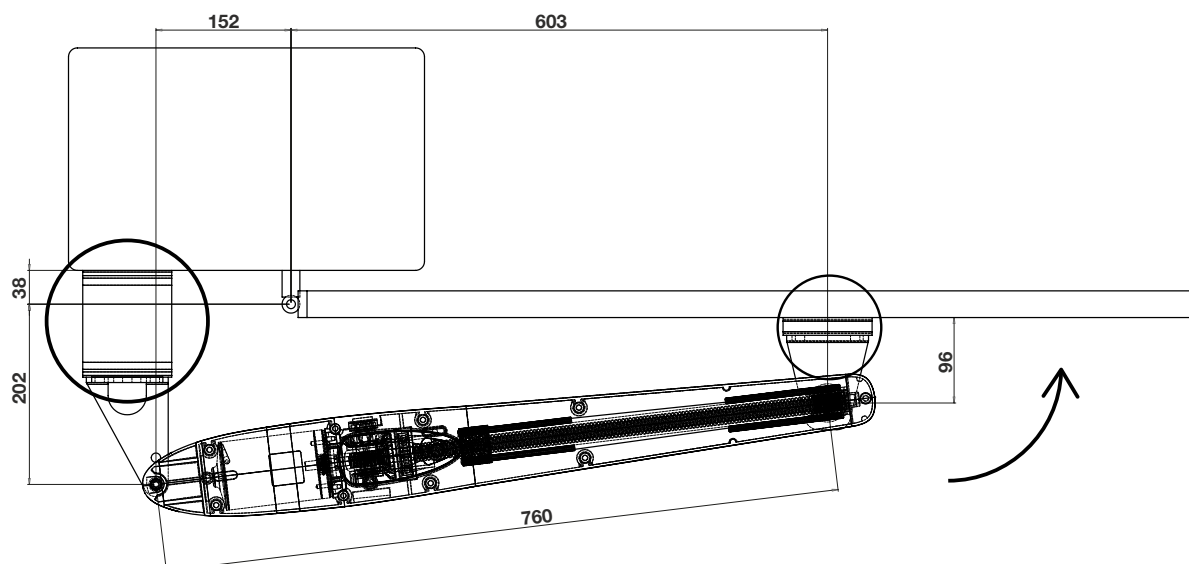


PARTICULAR APPLICATION, GATE EQUIPPED WITH OPENING OUTWARDS. IN THIS CASE USE PLATES NOT SUPPLIED

6.1 CLOSE GATE



6.2 OPEN GATE



7.1 FIXING OF THE REAR PLATE TO THE COLUMN

Fix the rear plate to the column (Fig. 5, 6) in accordance to the desired coordinates. In case an iron pillar is available, screw directly onto the column the plate with 3 screws M8. In case you need to fix the bracket onto a concrete pillar, use the fixing plate to be fastened with 3 Fischer screws of Ø 8 mm. When the backing plate is fixed, anchor the rear part of the piston to the plate and fasten it firmly (Fig. 6).

ATTENTION! when establishing the height off the ground at which to fasten the plate to the pillar, keep in mind that the plate for anchoring the piston to the gate must be fastened 50 mm below that on the post to obtain horizontal levelling (Fig. 9).

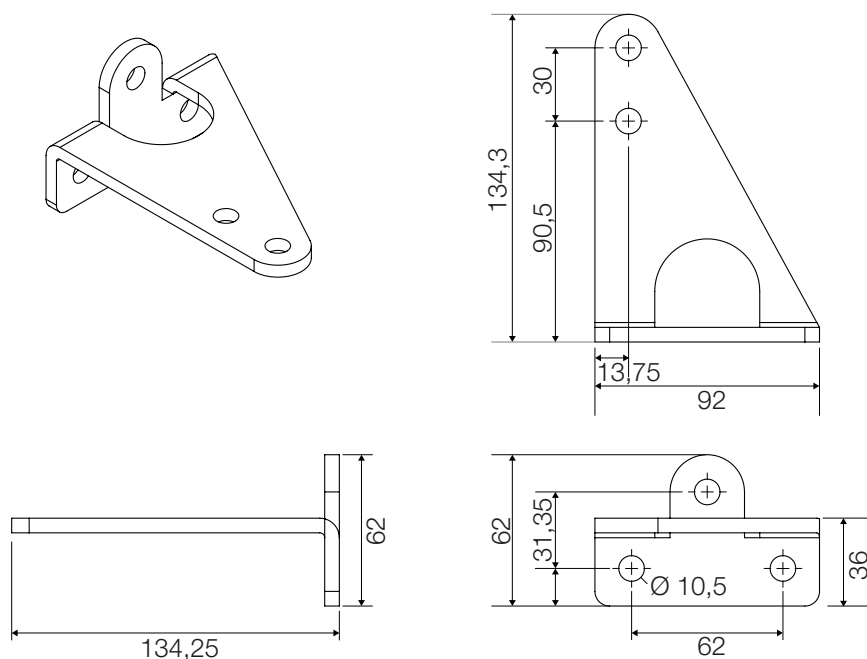


Fig. 5

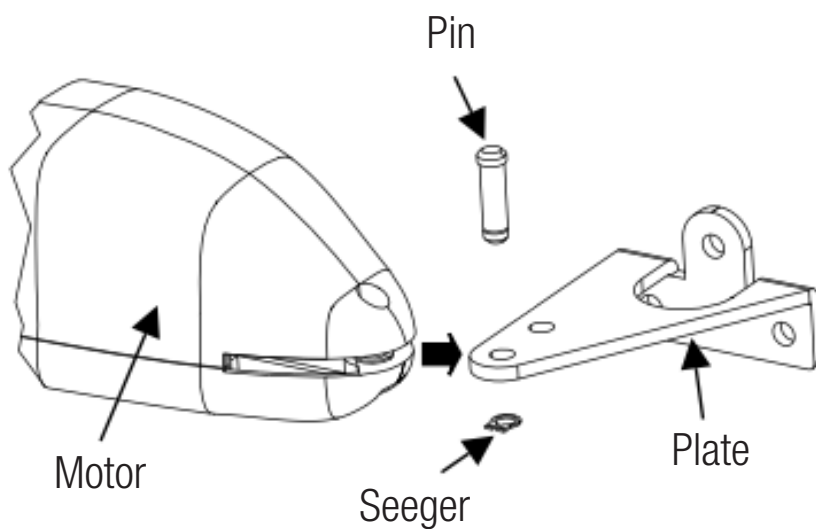


Fig. 6

7.2 FIXING OF THE FRONT PLATE TO THE GATE

For the fixing of the front plate to the leaf, follow this procedure:

1. Fit the anchor plate onto the piston. Insert the washer, tighten the bolt firmly (Fig. 8).
2. Close the gate.
3. Move the piston with the plate already fitted towards the gate.
4. Move the stem to the limit stop, then move it back by approximately 1 cm and mark the position of the plate.
5. Realize the same operation in opening.
6. If positions correspond, fix the plate on the gate; otherwise revise A and B coordinates (TABLE 1).

N.B.: during the installation, try several times to open and to close the gate, controlling that the gearmotor does not touch the moving gate

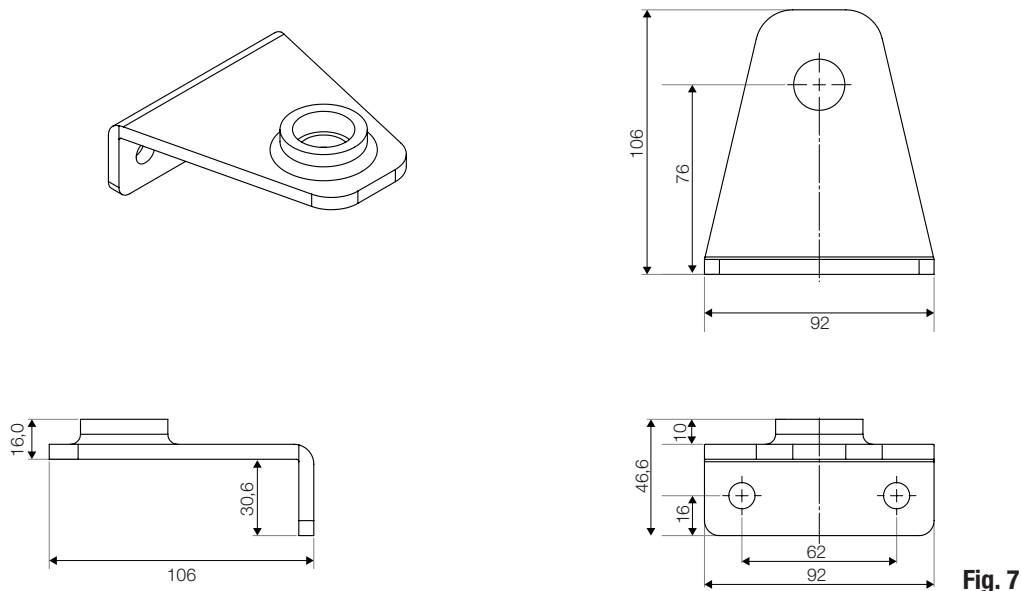
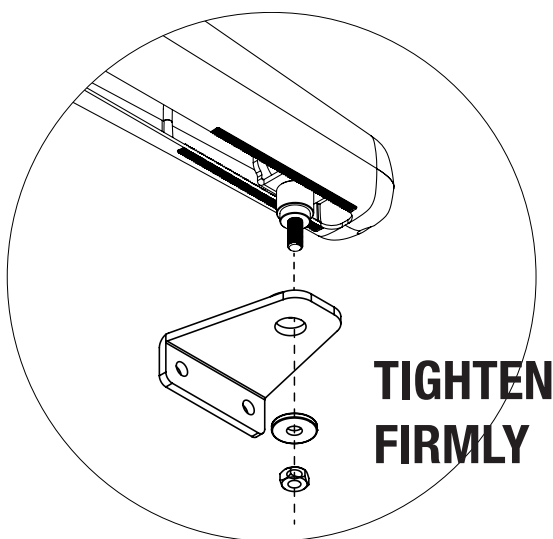


Fig. 7



ATTENTION! Lubricate the hole of the front plate and the towing of the motor with silicone grease before the fixing.

Fig. 8

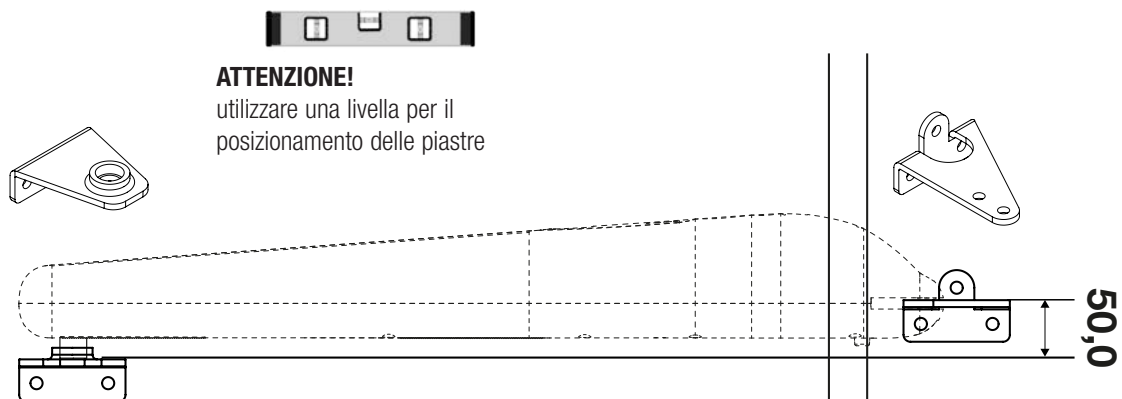


Fig. 9

7.3 ADJUSTMENT OF MECHANICAL LIMIT SWITCHES

XTILUS is supplied with a mechanical limit switch for the opening (Fig. 10, 11), but it is also possible to install the mechanical limit switch for the closing (**optional**), to stop opening or closing in case the gate is without ground stops.

To adjust, loosen the screw located on the limit switch and move it to the desired position. Tighten the screw on the limit switch (Fig. 12).

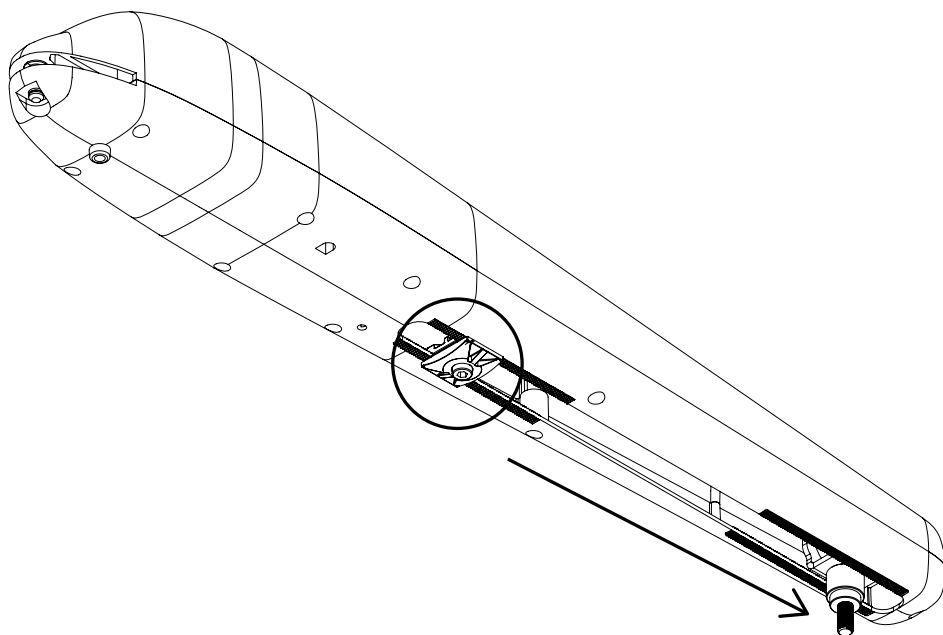


Fig. 10

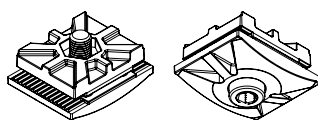


Fig. 11



WARNING!

FOR OPTIMUM XTILUS OPERATION IT IS RECOMMENDED TO USE ALL THE LENGTH OF THE STEM STROKE FOR EVERY MOVEMENT. IF YOU DO NOT USE ALL THE AVAILABLE STEM STROKE, USE THE STEM STROKE AS MOST POSSIBLE TOWARDS THE POINT OF THE MOTOR, AND NOT TOWARDS THE REAR.

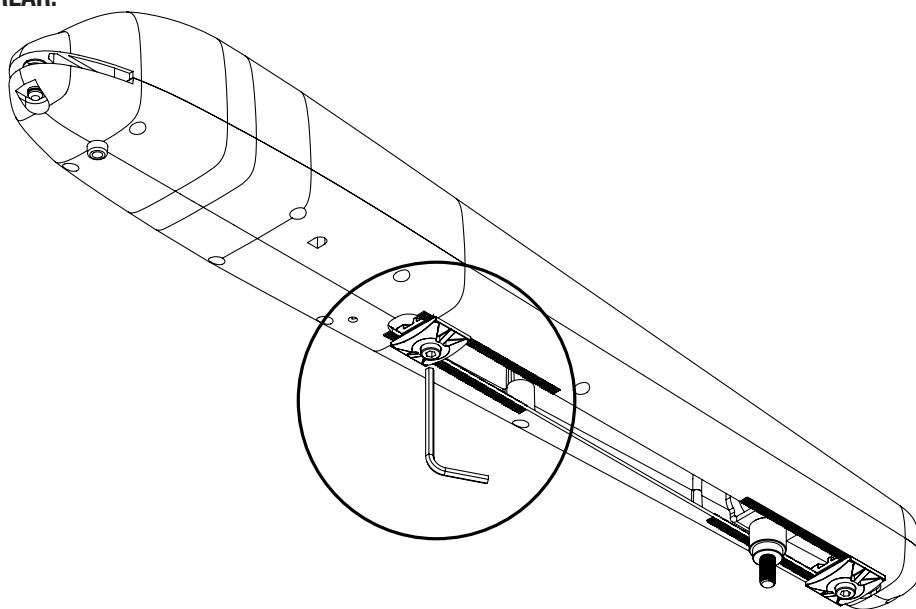


Fig. 12

7.4 FINAL CHECK OF THE INSTALLATION

Before to proceed with the electrical cabling of the motor, check the correct movement of the gate:

1. Unlock the motor and move manually the wing of the gate ([see related paragraph](#))
2. If the wing moves easily, the installation is correct. Otherwise lubricate the hinges, the hole in the front plate and the towing of the gate. Check the correct installation of the motor.

8. CONNECTIONS AND CABLE SECTIONS



9. RELEASE

To move the gate manually it is necessary to release the gearmotor inserting the special key, turning it for 90° and lift up the lever (Fig. 13, 14). In order to carry out the manual operation of the gate leaf the followings must be checked:

- That the gate is endowed with appropriate handles;
- That these appropriate handles are placed so to avoid safety risks for the gearmotor;
- That the physical effort necessary to move the gate leaf should not be higher than 225 N, for doors/gates for private dwellings, and, 390N for doors/gates for commercial and industrial sites (values indicated in 5.3.5 of the EN 12453 norm).



Fig. 13 Lock motor



Fig. 14 Unlock motor

10. TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTION
By giving a command with the remote control or with the key selector, the gate doesn't open or the motor doesn't start.	230 volt mains voltage absent.	Check the main switch.
	Emergency STOP present.	Check for any STOP selectors or commands. If not used, check the jumper on the STOP input of the control unit.
	Fuse blown.	Replace with one of same value.
	Power cable of motor not connected or faulty.	Connect the cable to the appropriate terminal board or replace it.
	The photocell is not functioning or the beam is interrupted.	Check the connection, remove any obstacle across the beam.
By giving a command with the remote control, the gate does not open, but it works with the key selector.	The remote control has not been memorized or the battery is flat.	Carry out the remote control learning procedure on the control unit or replace the battery with a new one.
The gate starts, but stops immediately	The torque of the motor is insufficient.	Modify the value of the torque in the control unit.
	The value of the obstacle sensitivity (if present) it is not suitable for the installation.	Modify the value of the sensitivity in the control unit, if possible.
One wing opens and the other closes	The wire connection is not correct.	Carry out the learning of the stroke with the BIOS2 / BIOS2 ECO control unit.
		Invert the connection of the cable of the motor

11. MAINTENANCE

To be carried out exclusively by skilled persons after the power supply to the motor has been interrupted.

Lubricate the hinges, the hole of the front plate, the towing of the motor and check the thrust force generated by the gearmotor on the gate once a year. Lubricate the nut screw with silicone grease every two years.

12. GUARANTEE

In compliance with legislation, the manufacturer's guarantee is valid from the date stamped on the product and is restricted to the repair or free replacement of the parts accepted by the manufacturer as being defective due to poor quality materials or manufacturing defects. The guarantee does not cover damage or defects caused by external agents, faulty maintenance, overloading, natural wear and tear, choice of incorrect product, assembly errors, or any other cause not imputable to the manufacturer. Products that have been misused will not be guaranteed or repaired. Printed specifications are only indicative. The manufacturer does not accept any responsibility for range reductions or malfunctions caused by environmental interference. The manufacturer's responsibility for damage caused to persons resulting from accidents of any nature caused by our defective products, are only those responsibilities that come under Italian law.

13. DISPOSAL OF THE PRODUCT

This product is an integral part of the automation, and therefore, they must be disposed of together. As for the installation operations, at the end of the life of this product, the dismantling operations must be performed by qualified personnel. This product is made from different types of materials: some can be recycled, others must be disposed of. Please inform yourselves on the recycling or disposal systems provided for by the laws in force in your area, for this category of product.



CAUTION! – some parts of the product can contain polluting or dangerous substances which, if dispersed in the environment, may cause serious harm to the environment and human health.

As indicated by the symbol at the side, it is forbidden to throw this product into domestic refuse. Therefore, follow the “separated collection” instructions for disposal, according to the methods provided for by local regulations in force, or redeliver the product to the retailer at the moment of purchase of a new, equivalent product.

CAUTION! – the regulations in force at local level may envisage heavy sanctions in case of abusive disposal of this product.



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