

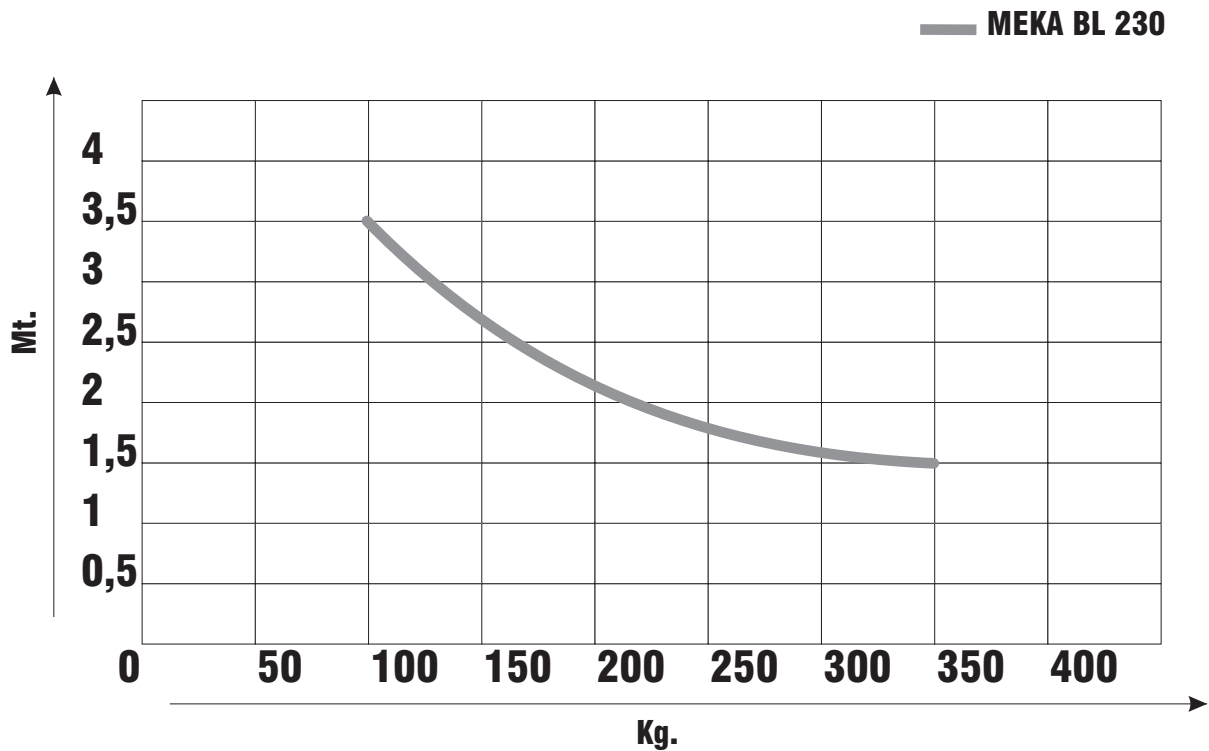

**UK**
**TECHNICAL DATA**

Operator	MEKA BL 230	MEKA BL 230 /1	MEKA BL 230 /2
Type	Non-reversible electro-mechanical with worm screw		
Supply voltage	220/230V 50-60Hz		
Power absorbed	250W (~1500N)		
Current absorbed	1.5A (~1500N)		
Electric motor	4 poles – 1400 rpm		
Thermic	150°C		
Breakaway capacitor	12.5μF		
Effective travel	400mm		
Max thrust/traction force	3000N (electronically adjustable)		
Operating temperature	-20°C + 60°C		
Protection class	IP 44		
Cycles/hour	10		
Frequency of use (%)	20% (at 20°C)		
Maximum gate length	3.5m		
Limit switch	NO	1 LS (open)	2 LS (open / close)

**ELECTRICAL SYSTEMS**

- 1 Antenna; screened co-axial cable.
- 2 Electronic equipment housing.
- 3 Electric lock; cable c/w 2 leads - 1mm<sup>2</sup> (2x1).
- 4 Key selector; cable c/w 3 leads - 0,5mm<sup>2</sup> (3x0,5).
- 5 Operators 220-230V; power supply cable - 4 leads - 1,5 mm<sup>2</sup> (4x1,5).  
**Grey=COMMON Brown=POWER SUPPLY Black=POWER SUPPLY Yellow-Green=EARTH/GROUND**
- 6 Single-pole magneto-thermic switch with minimum contact opening of 3 mm.  
 Equipment power supply line - 220-230V 50-60Hz; cable c/w 3 leads - 1,5mm. (3x1,5)  
 (Refer to applicable standards).
- 7 Warning system - flashing light - 220V; cable c/w 2 leads - 1,5mm<sup>2</sup> (2x1,5).
- 8 Shunt boxes.
- 9 Photocell transmitter; cable c/w 2 leads - 0,5mm<sup>2</sup> (2x0,5).
- 10 Photocell receiver; cable c/w 4 leads - 0,5mm<sup>2</sup> (4x0,5).

## FITTING DIAGRAM



## PRELIMINARY WARNINGS

Make sure that the gate structure conforms with current standards and that gate movement is linear and friction-free.

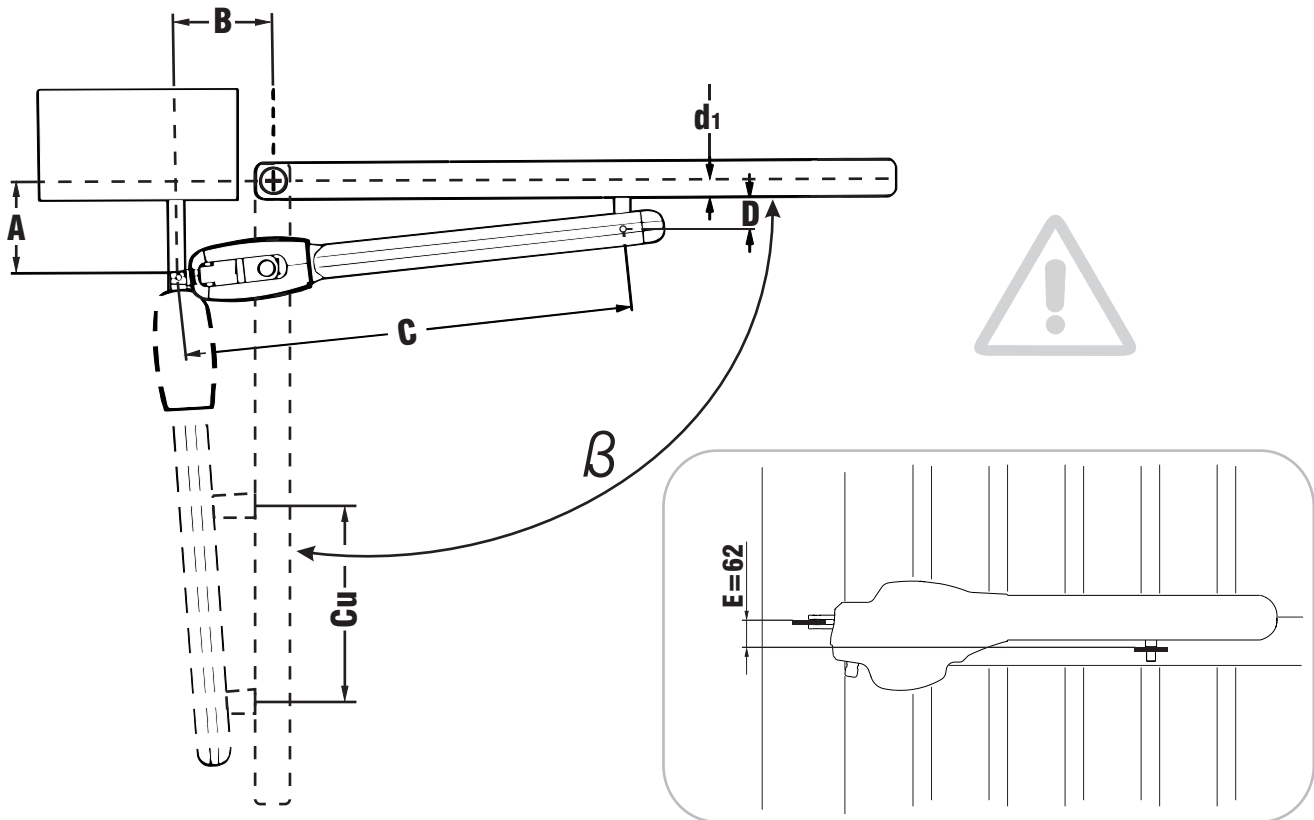
**Preliminary Checks:**

- make sure that the gate structure is sufficiently sturdy. In any case, the actuator must operate on a reinforced point on the gate.
- make sure that the gates move manually without effort over their entire travel.
- make sure that gate opening and closing locator stops are installed.
- if the gate is not a new installation, check the wear status of the hinges and all components; repair or replace defective or worn components.

The reliability and safety of the automation device is directly affected by the status of the gate structure.

UK

## INSTALLATION QUOTAS



	$\beta$	A	B	C	D	E	Cu
MEKA BL 230	90°	200	200	760	90	62	400
MEKA BL 230	110°	130	130	760	90	62	400
MEKA BL 230	90°	160	160	760	90	62	320

**CORRECT OPERATION OF THE SYSTEM REQUIRES THAT THE INDICATED QUOTAS ARE OBSERVED**

If it is not possible to maintain the quotas indicated in the table, different measurements should be calculated with reference to the following items:

- for  $\beta=90^\circ$   $A+B=Cu$
- for  $\beta>90^\circ$   $A+B<Cu$  ( $\beta_{max} 110^\circ$ )
- quota A must always be greater than the sum of quotas D+d1.
- in the event of very thick gates, with consequent difficulties in maintaining quota D, it is possible to increase quota D; it is also advisable to increase quota A by the same amount, in any case observing the rules indicated above.
- the difference between A and B **must not exceed 50 mm**; greater differences cause non-constant door movement (drive/thrust force and movement speed vary during operation).



## OPERATOR INSTALLATION

- 1 • Verify and mark the most suitable securing centre for the front operator bracket (Fig.2).
- 2 • Use a level to mark the point on the pillar for securing the rear bracket (Fig.2).
- 3 • Identify a securing centre for the rear bracket in relation to measurements A-B and E (Fig.3).

**WARNING: if there are large pillars or walls, a niche should be prepared to ensure that measurements A, B and E are observed (Fig.4).**

Securing the rear bracket:

- welding for metal pillars; (check the thickness of the column and if less than 5mm fit a support plate of suitable dimensions so that the welds are made on the edge of the column; see (Fig.5).
  - if the pillar is in cement, the bracket can be fixed with plugs or masonry by means of an appropriate extension (Fig.6).
- 4 • Take the operator and move the lead screw fully forwards as far as the block, then back of by 5-10mm; this operation can also be performed manually by releasing the operator (see release device).
  - 5 • Fix the front bracket on to the operator (Fig.7).
  - 6 • Place the door in the closed position in relation to the mechanical stops and secure it with a clamp.
  - 7 • Fit the operator on the rear bracket using the pin supplied (Fig.8).
  - 8 • Place the front bracket at the point previously marked at stage 3 1 and use a level to check the flatness of the operator; mark point 3 for exact securing of the front bracket (Fig.2 and Fig.3).
  - 9 • Remove the operator from the rear bracket.
  - 10 • Remove the front bracket of the operator.
  - 11 • Fix the front bracket at the point marked

Securing the front bracket:

- welding for metal gates; (check the thickness of the tubular element where the bracket is to be welded; if less than 5 mm, fit a support plate of suitable dimensions so that the welds are made on the edge of the tubular unit (Fig.9).
  - for gates in non-metal materials, a 5 mm shim plate is required. With n°4 holes, weld the bracket to the centre of the plate and secure everything with 8 mm through screws (Fig.10).
- 12 • Release the operator (see release device).
  - 13 • Fit the operator on the brackets.
  - 14 • Open and close the door manually, performing complete opening and closing travel. Movement must be smooth and the lead screw, for both opening and closing, should not reach the mechanical block. If this is not the case, review bracket positioning.
  - 15 • Make the electrical connections between the operator and the control unit with reference to the diagram (Fig. A), using 1.5mm<sup>2</sup> leads.

It is advisable to leave a free cable length of at least 40/50mm. To facilitate electrical connections, the operator can be temporarily turned upside-down.

## LIMIT SWITCH ADJUSTMENT

- 1 • Isolate the power supply to the system. **ATTENTION:** For safety reasons, limit switch adjustment must always be performed with the operator disconnected from the power supply since the micro-switches may be powered at 230V.
- 2 • Back off the screw retaining the front adapter (Fig.13a) and then slide it out (Fig.13b).
- 3 • Slide out the aluminium micro-switch cover profile (Fig.13c).
- 4 • Slacken the screw locking the limit switch, move the limit switch into the required position and tighten the limit switch lock screw (Fig.13d).

The opening limit switch is used if there are no stops in opening, while for closing the doors come to a rest against the closing stop, if the closing limit switch is installed, it can be used to reduce the thrust exerted by the operator. After limit switch adjustment, fully tighten the screws.



## RELEASE DEVICE

### MANUAL OPERATION

If the gate has to be operated manually because of a power failure or malfunction of the automation, move the protection tab (**Fig.12a**), insert the specific key supplied into the lock, turn the key clockwise or anticlockwise by 90° (**Fig.12b**) and pull the release lever upwards (**Fig.12c**). If the lever is completely pulled, the operator remains free without having to hold the lever (**Fig.12d**). Manually perform the door opening or closing operation.

To prevent the door moving because of wind or if it is not balanced, it is advisable, after having performed the emergency manual manoeuvre, to re-lock the operator by lowering the lever until it is fully inserted in its seat, turn the key clockwise or anticlockwise by 90° as shown in **Fig.12b**, then remove the key (the key can only be removed when it is in a certain position), then slightly move the door until it locks.

## ELETRO-LOCK ASSEMBLY

If an electro-lock has to be fitted, refer to **Figs. 11A-11B**:

- 1 Electric lock
- 2 Electro-lock securing plate
- 3 Mouth
- 4 Mouth locator
- 5 Latch
- 6 Through cylinder (optional)
- 7 Gate

## FINAL CHECKS

Power up the system and perform a complete opening and closing cycle, checking:

- Smooth door movement;
- Correct operation of the safety devices;
- Good seal of the securing brackets;
- The power supply cable moves freely;
- The overall gate system must conform with **EN 12453** and **EN 12445** regulations;
- For more details and information about reference regulations, you can visit the Internet site: [www.gibidi.com](http://www.gibidi.com)

## MAINTENANCE

Perform periodic controls of the gate structure and in particular:

- make sure the hinges function perfectly;
- verify correct door balancing. Excessive door slant increases wear of the operator counterweight/counterspring securing bracket. The test is performed by releasing the operator and checking that the doors do not move on their own;
- verify correct operation of the safety devices;
- release the operator and make sure there are no friction points over the entire travel;
- make sure that there is no dirt or litter in the worm screw, otherwise clean and then lubricate the worm screw with lubricant grease.

Periodically verify the correct adjustment of the operator thrust force and the efficiency of the release system used for manual operation (see relative paragraph). The safety devices installed on the system must be checked every six months



## CE Declaration of conformity

The manufacturer:

### Gi.Bi.Di. Continental S.p.A.

Sede Legale :  
Via B.Bonomi, 17 Fraz. Toline 25055 Pisogne (BS)  
Sede Amministrativa-Ufficio Commerciale-Stabilimento :  
Via Abetone Brennero, 177/B, 46025 Poggio Rusco (Mantova) ITALY  
Tel. 0039 0386 522011 - Fax Uff.com 0039 0386 522031

Declares that the products:  
electromechanical operators **MEKA BL 230**

are in conformity with the following CEE Directives:

- **Low Voltage Directive 73/23 and subsequent amendments;**
- **Electromagnetic Compatibility Directive 89/336 and subsequent amendments;**

and that the following harmonised standards have been applied:

**EN 60335-1**  
**EN 55014-1**  
**EN 55014-2**

Date 13/07/05

  
Managing Director  
**David Gualleni**