## ELECTROMECHANICAL OPERATOR FOR SWING GATES

## FLIPPER 24V W. CONTROL UNIT FLIPPER 24V W/OUT CONTROL UNIT



# FITTING INSTRUCTIONS and security advices 

SEA S.r.I.
Zona Ind. S.Atto 64020 TERAMO Italy
Tel. +39.0861.588341 - Fax+39.0861.588344
e-mail: seacom@seateam.com
WEB SITE : www.seateam.com

Flipper is an irreversible electromechanical swing gate operator for medium sized piers, maximum leaf length 2 m or 200 kg weight (see drawing in Fig 4-A)

## DIMENSIONS (mm)

| TECHNICAL DATA | FLIPPER 24V W/C.U. | FLIPPER 24V NO C.U. |
| :--- | :---: | :---: |
| Power Supply | $230 \mathrm{~V} \sim$ | $24 \mathrm{~V}=-=$ |
| Motor | $24 \mathrm{~V}=-$ |  |
| Motors' power | 40 W |  |
| Cycles hour (at a temp. of $20^{\circ} \mathrm{C}$ ) | 20 |  |
| Working temperature | $-20^{\circ} \mathrm{C} \nmid+55^{\circ} \mathrm{C} \backslash$ |  |
| Weight | 8 kg |  |
| Max weight of the gate | 200 kg |  |
| Max. weight of the leaf | 2 m |  |
| Opening degree | $110^{\circ}$ |  |
| IP degree | 24 |  |

Note: The frequency of use is valid only for the first hour at $20^{\circ} \mathrm{C}$ room temperature.

Fig. 1

## STANDARD INSTALLATION

Note: If the power supply cable is for outside, it has to be at least of HO5RN-F type.



Fig. 3

TAKING APART OF CARTER
Open the little release door and take off the screw on the inside (Fig 4).


DRAWING LEAVES DIMENSIONS


FLIPPER 24V W/CONTROL U.


Fig. 5

FLIPPER 24V W/CONTROL U.


Fig. 6



The yellow/ green ground wire is pre-wired and must not be removed. Pay particular attention when connceting the power supply cable referring to the corrisponding references.

Note: All the cables must be restrained by an additional fixing in proximity of the clamps. For instance through bands.
use 6,3A del.


Note: The power supply cable necessarily has to be separate from the low tension or control cables.

## GATE ARRANGEMENT

It is necessary to make controls on the gate to make sure the application of FLIPPER automation can be possible.

## Make sure that:

A. The fixed and moving parts of the gate have a strong and crush-proof structure;
B. Each leaf does not weigh more than 200 kg (see drawing pag. 19, Fig 4-A);
C. Each is leaf is not longer than 2 m (see drawing pag. 19, Fig 4-A);
D. The hinges are strongly anchored and can support the torque of the operator; they do not have irregular movements and/or any friction during the whole movement of the leaf;

The FLIPPER operator comes with limit switch stop in opening and closing, nevertheless it is recommended to install mechanical limit switch stops to be fixed on the ground in closing and opening (Fig. 9).


## DIMENSIONS FOR THE INSTALLATION



## MOUNTING PLATE AND MOTOR ASSEMBLING

- Attach the mounting plate to the pilaster with 4 screws and 4 washers *not included( (Fig. 11).
- Make sure that the plate is in horizontal position (with level).
- Mount the motor on the plate using the 2 furnished screws.

Note: Use appropriate fixing wedges for the material on which will be fixed the support.



## ASSEMBLING OF THE ARTICULATED ARM

- The two articulated arms must be assembled differently, distinguishing the right arm from the left one.

See Fig. 13 and 14.
Note: Before inserting the pivots lubricate them with water repellent grease


## ATTACHMENT OF THE ARTICULATED ARM TO THE MOTOR

- Fit the articulated arm into the motor shaft and lock it with the special screws (Fig. 15).
- The protection cover must be mounted on the end of all adjustments.



## EXTERNAL RELEASE MOUNTING



For further information see point "External release".

## FIXING OF THE FRONT BRACKET

- Close the leaf completely
- Release the motor (see Fig. 26 e 27 )
- Extend the articulated arm (Fig. 10), lean the adjustable front bracket on the gate and make two marks on the center of the two holes (Fig. 17) respecting the measures in Fig. 10.
- Perforate the leaf and fix the front bracket with the screws (Fig. 18)
- Before tightening the screws move the front bracket to the right or to the left for a good positioning of the arm on the gate (Fig. 19) respecting the measure $C$ in Fig. 10.



## MECHANICAL POSITIVE STOP ADJUSTMENT IN OPENING

- Release the operator.
- Open the leaf completely or up to the desired opening point.
- Position the stop as in Fig. 24 on the stop of the arm and lock the screws as in Fig. 25.
N.B: The delivered screws are selfthreading and have to be locked at 10 Nm .



## LEFTHAND MOUNTING




Fig. 24

## TO THE ATTENTION OF USERS AND TECHNICIANS

## RELEASE SYSTEM

## To release operate as follows:

- Take off the protection cap of the lock.
- Insert the key and turn about $90^{\circ}$ into clockwise direction (Fig. 26).
- Pull the door until its complete opening (Fig.27).
- Open manually the leaf

To block again operate as follows:

- close the door again.
- Turn the key about $90^{\circ}$ into anti-clockwise direction.
- Extract the key.
- Close the lock again with the protection cap.



## RISK EXAMINATION

The points pointed by arrows in Fig. 28 are potentially dangerous. The installer must take a close risk examination to prevent crushing, conveying, cutting, grappling, trapping so to guarantee a safe installation for people, things and animals (Re. Laws in force in the country where the installation has been made).

## PERIODICAL MAINTENANCE

| Grease the moving parts <br> (Articulated arm, release, etc..) | Annual |
| :--- | :---: |
| Check the functioning of the release | Annual |
| Check the lock of the screws | Annual |
| Check the wear of the devices in movement | Annual |
| Check the integrity of the connected cables | Annual |



Fig. 28


The periodic maintenance must be executed by qualified personal.
SEA s.r.l. is not liable for damages caused by bad maintenance.

## TO THE ATTENTION OF USERS AND TECHNICIANS

## INTENDED USE:

FLIPPER W/C.U. and FLIPPER W/OUT C.U. operator has been designed to be used only for the automation of swing gates.

## SPARE PARTS:

To obtain spare parts contact:
SEA S.r.I. -Zona Ind.le S.Atto, 64020 S. Nicolò a Tordino - Teramo -ITALIA
SAFETY AND ENVIRONMENTAL COMPATIBILITY:
Don't waste product packing materials and/or circuits.
When being transported this product must be properly packaged and handled with care.

## WARRANTY

The warranty for the operator FLIPPER W/C.U. and FLIPPER W/OUT C.U. is of 24 months starting from the date printed on the product. The product will be accepted under guaranty if it does not present damages due to improprer use or to any kind of modification or changement.

## MAINTENANCE AND OUT OF SERVICE:

The decommission and maintenance of FLIPPER W/C.U. and FLIPPER W/OUT C.U. must only be carried out by specialised and qualified personnel.

## NOTE: THE MANUFACTURER CAN NOT BE DEEMED RESPONSIBLE FOR ANY DAMAGE OR INJURY CAUSED BY IMPROPER USE OF THIS PRODUCT.

SEA reserves the right to do changes or variations that may be necessary to its products with no obligation to notice.

## ARRANGEMENTS

Read attentively the installation manual as it gives important indications concerning safety, installation, use and maintenance.

Installation, maintenance, reparation, controls and eventual putting out of function of the product must be executed by qualified staff only.

For the security of people it is important to follow with attention all the advises and instructions in this manual. A wrong installation or a wrong use of the product can cause sever damages to people.
The max. length of the power supply cable between control unit and motors is 10 m , use cables with $\mathbf{2 , 5} \mathbf{~ m m}^{2}$ section.

Use wirings with double insulated cables (cables with sheath) up to the immediate proximities of the terminals especially for the power supply cable (230V~).

The control unit must not be used by people (including children) whose physical, sensory or mental ability is reduced, or with lack of experience or knowledge, unless they are guarded or have been instructed on how to use the control unit by a person respondsible for their safety. Children must be guarded to make sure that they don't play with the control unit.

Foresee on the power supply net of the automation a device that assures the complete omnipolar disconnection from the net, with a distance of opening of the contacts on each pole of at least 3 mm . Those devices of disconnection have to be foreseen on the power supply net accordingly to the rules of installation, and they have to be directly connected to the power supply terminals.

It is necessary to keep in adequate distance (at least 2.5 mm in the air) the low tension conductors (230V~) from the very low tension conductors (SELV) or to use a suitable sheath of at least 1 mm which supplies an additional insulation.

Make sure that during installation the power supply and interconnection cables cannot come into contact with pointed or sharp extremities.

Dispose of the package materials (plastics, carton, polistirene, etc.) respecting the laws in order. Keep nylon and polistirene bags out of the reach of children.

