TECHNICAL INSTALLATION MANUAL

AUTOMATIC TURNSTILE

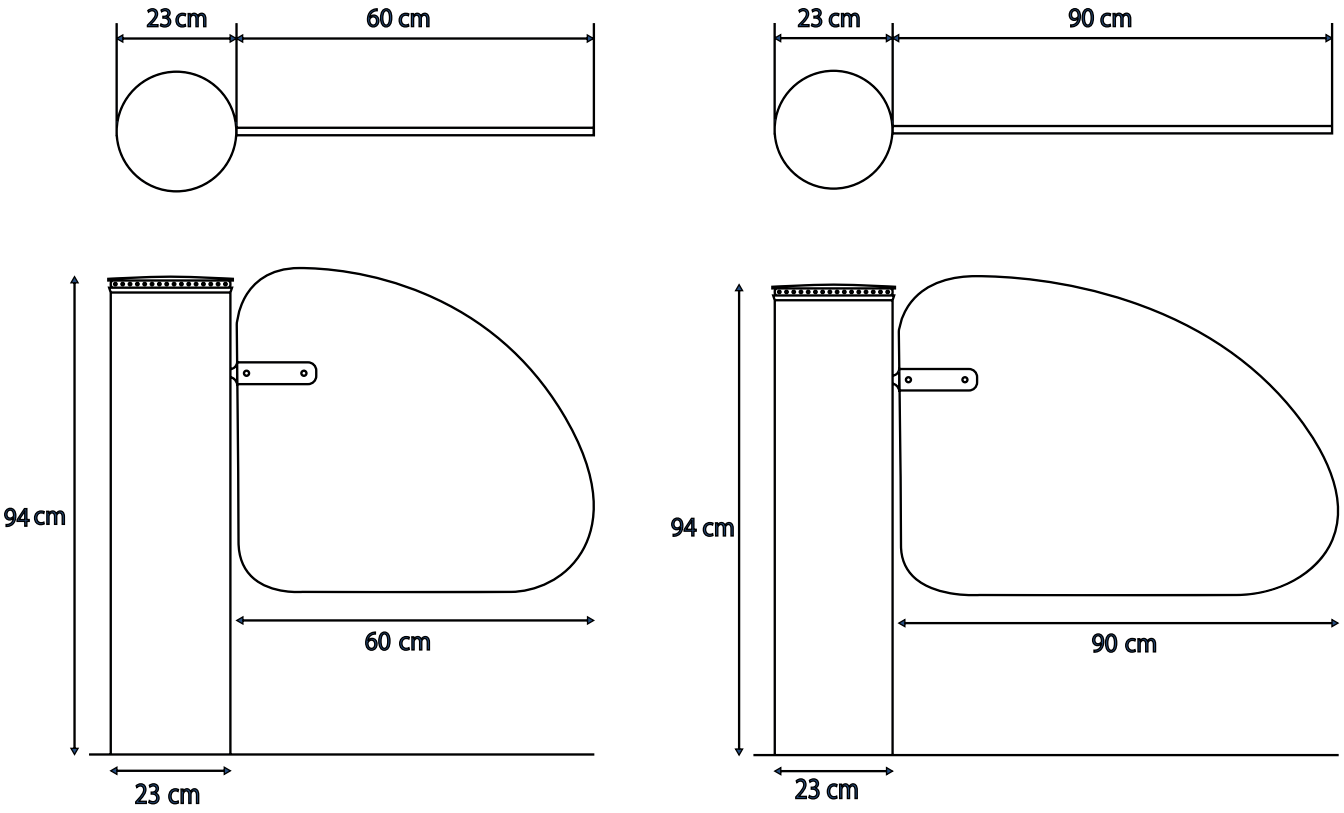
STILO

<u>WARNING!!</u> Before installing, thoroughly read this manual that is an integral part of the pack

Our products if installed by qualified personnel capable to evaluate risks, comply with norms UNI EN 12453, EN 12445

The CE mark conforms to European directive EEC 89/336 + 92/31 + 93/68 D.L. 04/12/1992 N. 476.

DIMENSIONS



TECHNICAL DATA

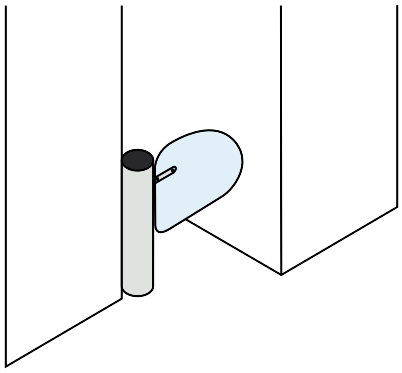
Power supply	120/230 Vac
Motor power supply	24 Vdc
Absorbed power	120 W
Opening time	2 / 3 sec
Working temperature	-20° C / +55° C
Weight	25 Kg
Protection rating	IP44

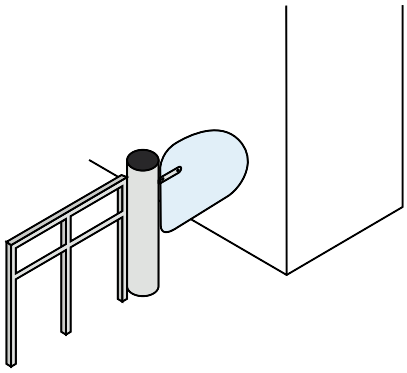
DESCRIPTION

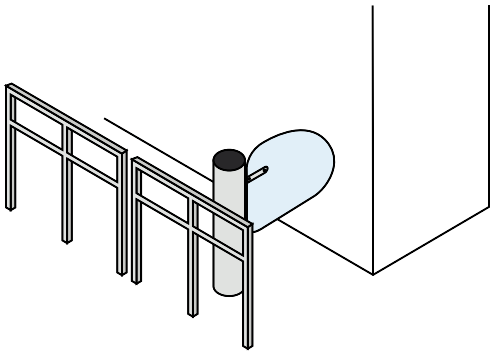
- AISI 304 stainless steel structure and polycarbonate leaf;
- Integrated luminous crown: indicates suitability for entry and movement of the wing (red: stop - green: okay);
- Integration with access control: people counter system, temperature measurement system, detects mask. The opening of the leaf can also be activated by a card reader, by photocells or other control device;
- The system can be interfaced with other automatic opening systems;
- The leaf can be closed automatically or activated by a device command (also via radio);
- The release maneuver can be carried out using a button or a key;
- Polycarbonate leaf is available in 2 sizes 600mm-900mm;
- The system can work with buffer batteries allowing operation even in the event of a blackout;

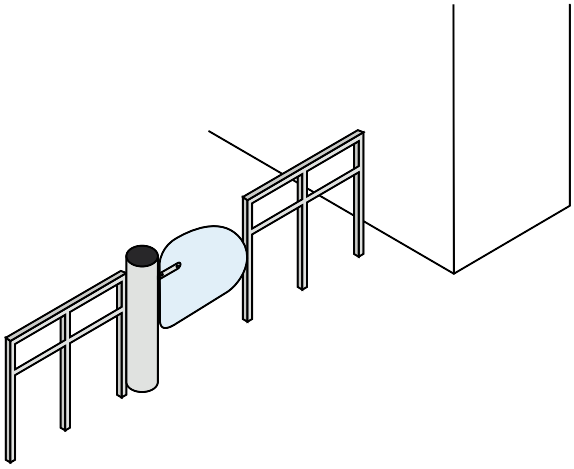
The system is equipped with an amperometric safety device controlled by an encoder: if you accidentally hit the leaf , it stops, goes back and then performs a slow maneuver to check for the absence of obstacles.

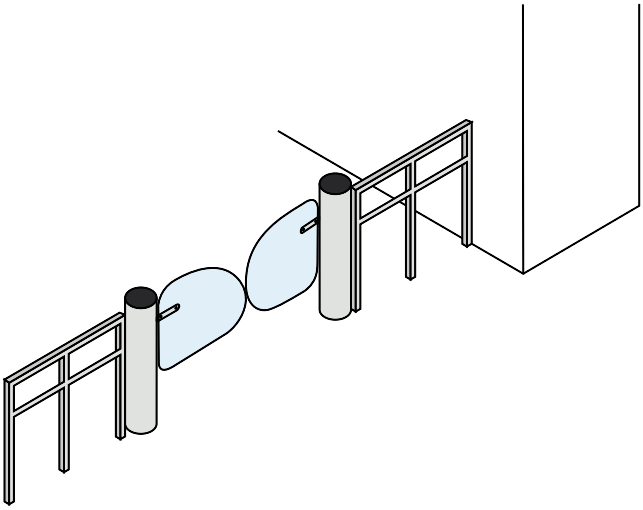
APPLICATION EXAMPLES











CONSIDERATIONS FOR INSTALLATION

- The installation and testing operations must be performed solely by qualified personnel in order to guarantee the proper and safe operation of the automatic gate.
- The company declines any responsibility for damage caused by incorrect installations due to incompetence and/or negligence.
- Before assembling the automatism, check that the gate is in perfect working order, hangs well on its hinges and is suitably lubricated. It must also comply with the safety standards in force in the country of installation.

INSTALLATION

PLATE GROUND FASTENING

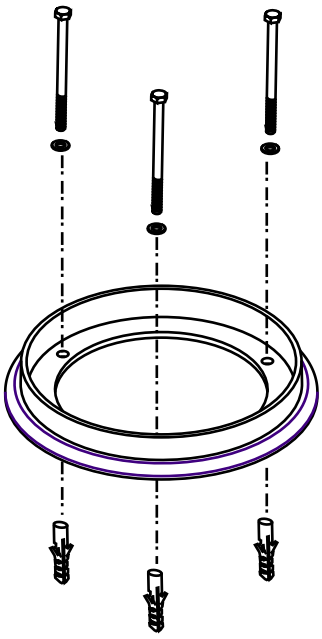


Fig 1

TURNSTILE FASTENING

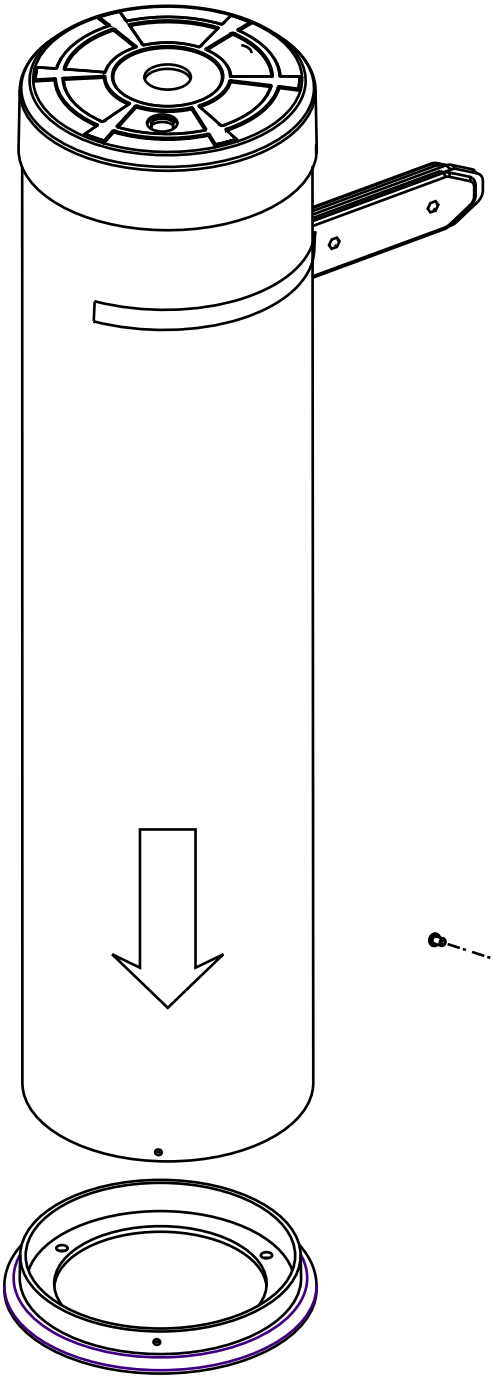
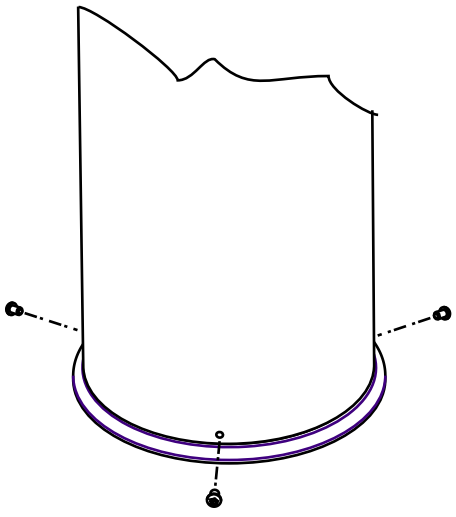


Fig 2



INSTALLATION

WING FASTENING

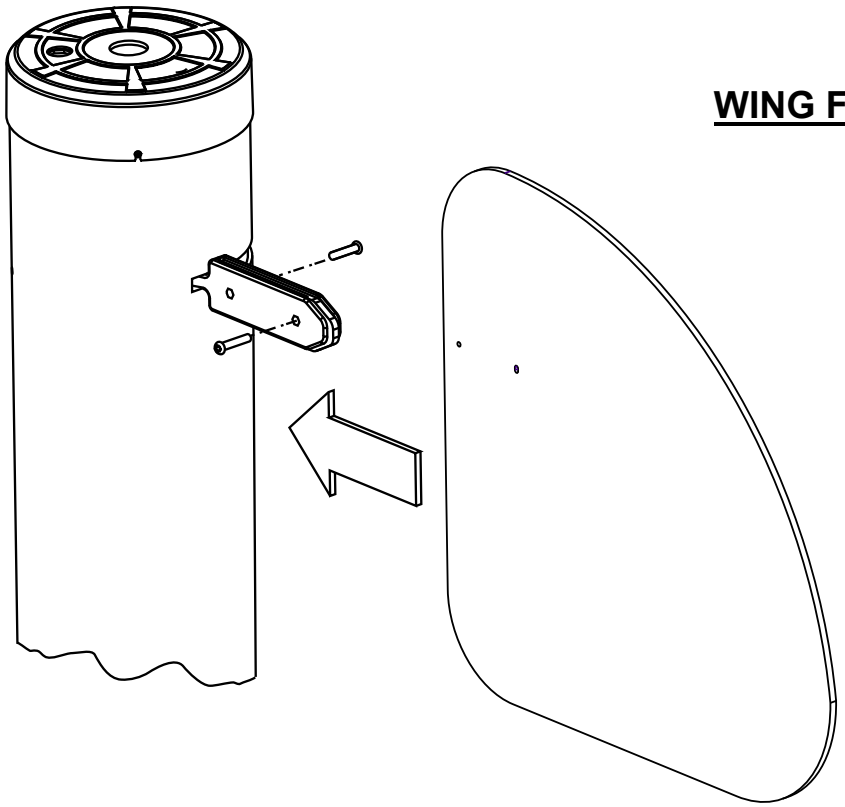
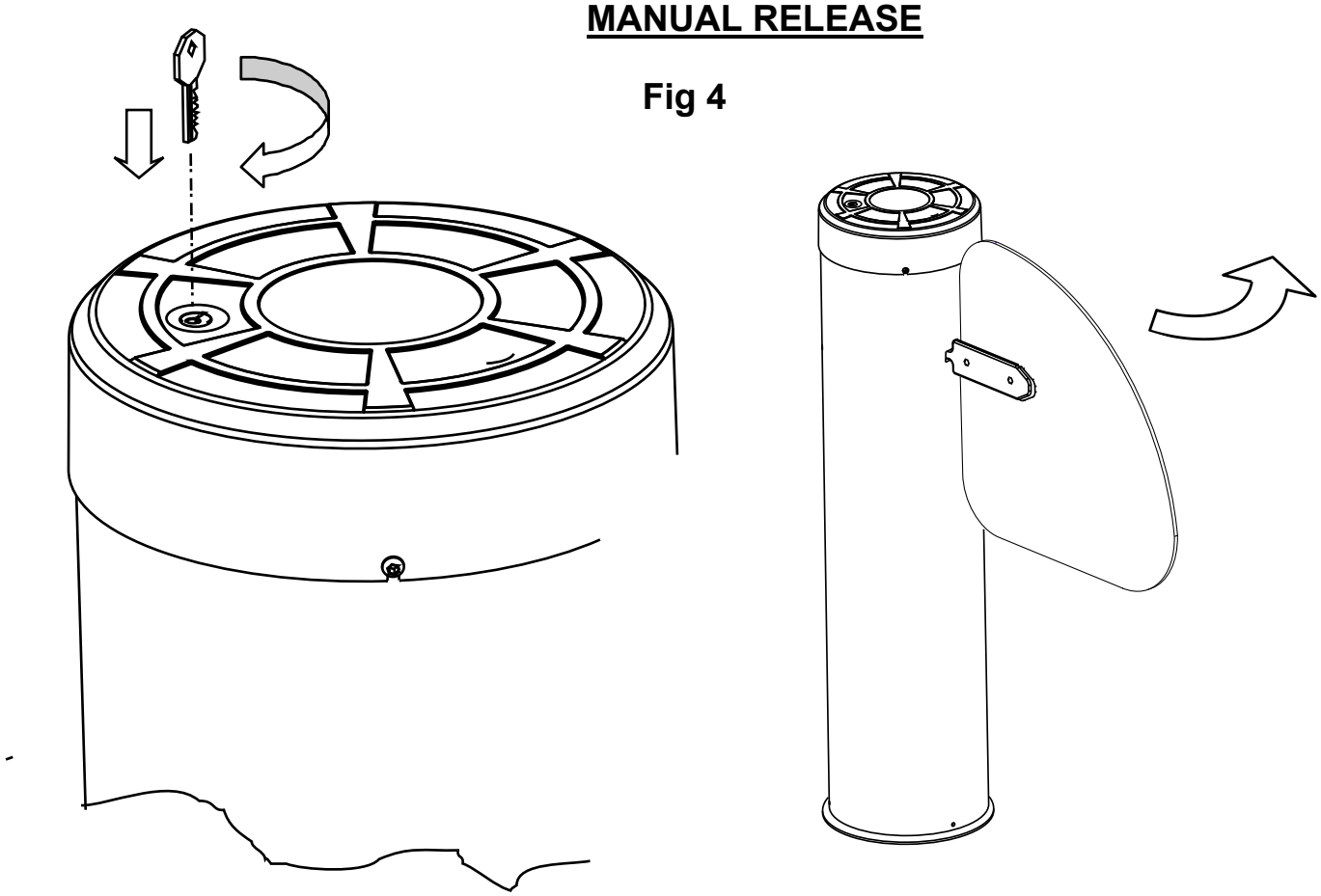


Fig 3

MANUAL RELEASE

Fig 4



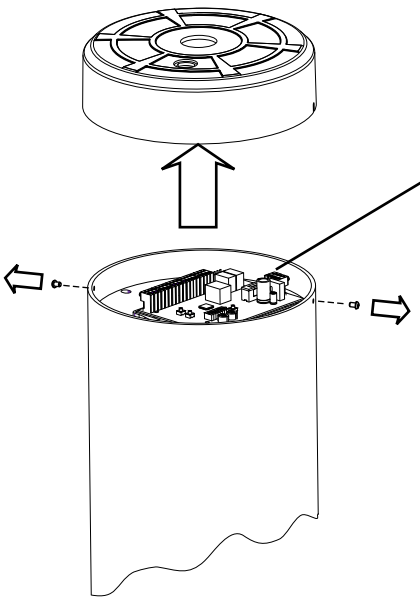
Reset

- To reset the automation, unlock the motor as in fig. 4 and bring the door to the closing position.
- Block the engine.

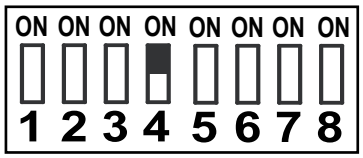
INSTALLATION

OPENING DIRECTION CHANGE

Fig 5

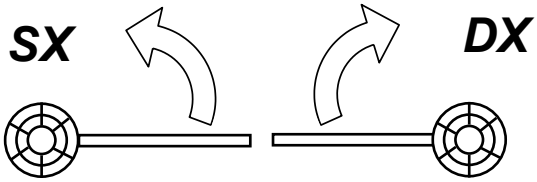


SELECT DIP 4 ON



To change the opening direction from SX (standard) to the right:

- Release the motor as shown in fig. 4 and bring the leaf to the closed position.
- Select dip 4 in ON
- Block the engine.



MONITOR ASSEMBLY (OPTIONAL)

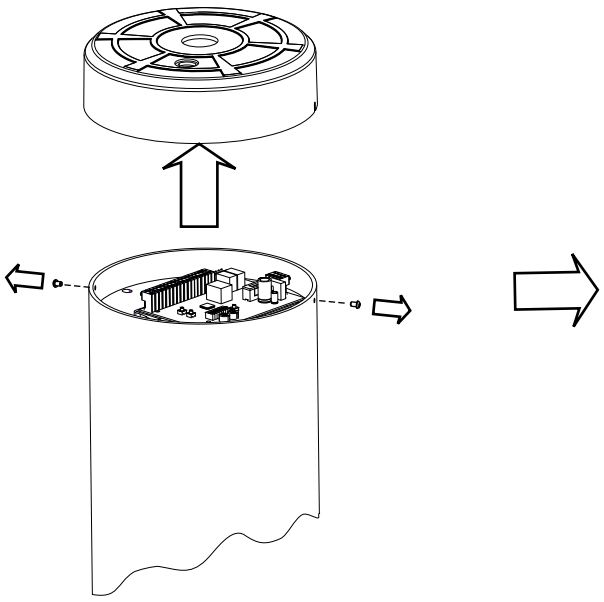
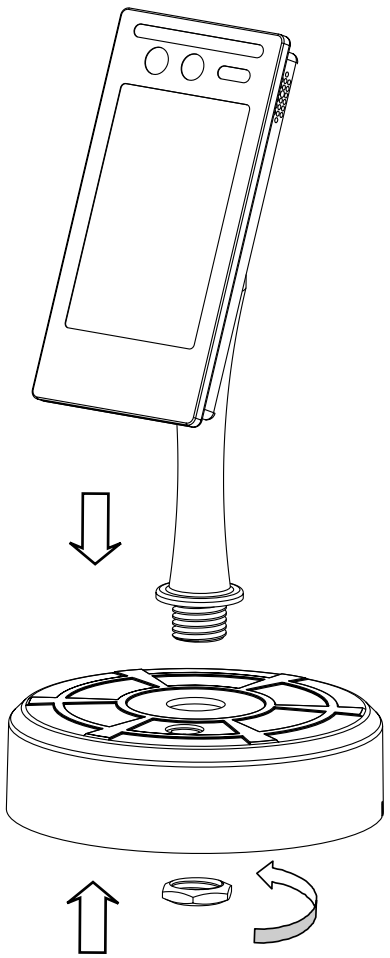
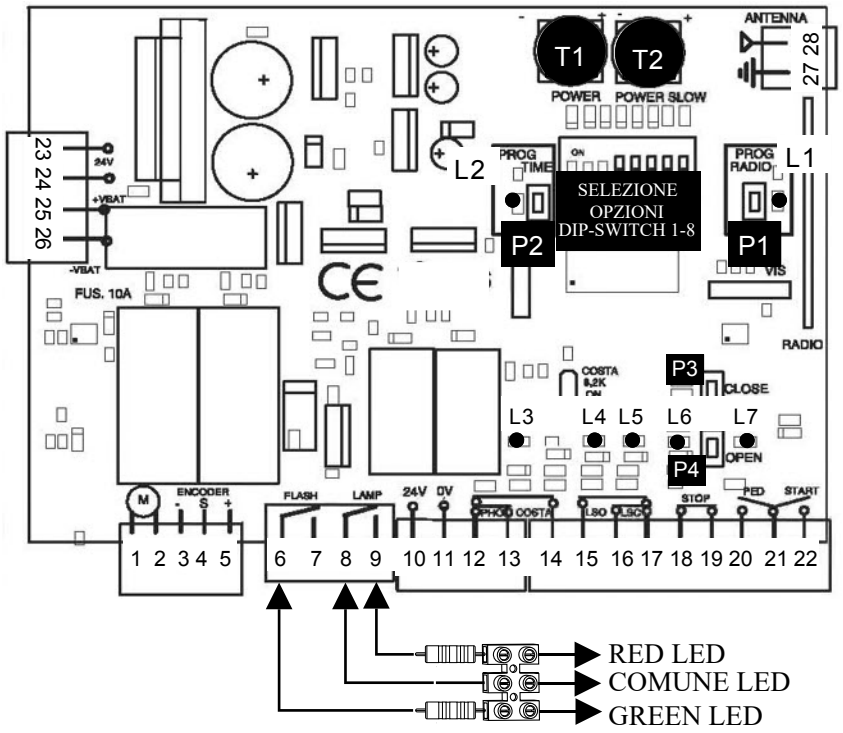
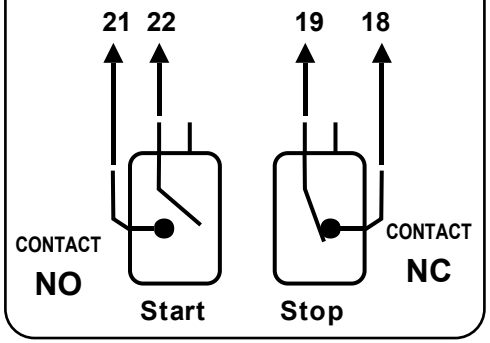


Fig 6

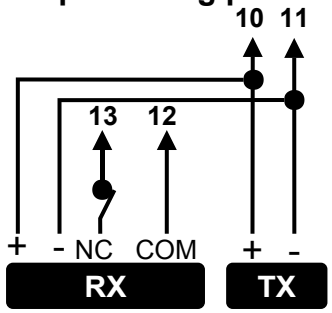




Example wiring selector



Example wiring photocells



TECHNICAL SPECIFICATIONS

Power	24V DC
Power engine	60 W 2.5 A
Output accesories	24V AC 150mA
Time for automatic close	5 a 120 sec
Time for maneuver	3 a 120 sec
Nr codes storable	254 code
Transmitters type	Fix\Roll-code
Frequency	433.92 / 868 Mhz
Temperature to work	0 a 70°C
Sensibility	Better of –100dBm
Homologation	Conf ETS 300-220/ETS 300-683

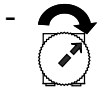
TABLED LEDS

L1	**Led RADIO**	Lit when accessing in radio storage
L2	**Led PROG.TIME**	It is blinking when in programming
L3	**Led FOTOCELLS**	Lit when the fotocells are aligned
L4	**L.S. OPENING**	Lit when limitswitch opening is on NC
L5	**L.S. CLOSING**	Lit when limitswitch opening is on NC
L4+L5	**Led STOP**	Both on when the stop is on NC
L6	**Led PEDESTRIAN**	Lit when taking a pedestrian pulse
L7	**Led START**	Lit when taking a pulse

Terminal	Tip	Description
1-2	24 Vdc	Input ENGINE
3-4-5		Input ENCODER (3neg, 4signal, 5pos)
6-8		Green led connector output (moving automation)
8-9		Red led connector output (stand-by automation)
10-11neg	24Vdc	Power service or accessories (output 24Vac 250mA)(10 positive, 11 negative)
13-12com	NC	CLOSING PHOTOCELLS (If no use make bridge)
14-12com	NC	SAFETY BAND OR OPENING PHOTOCELLS (If no use make bridge)
15-17com	NC	DO NOT USE
16-17com	NC	DO NOT USE
19-18com	NC	STOP contact(If no use make bridge)
20-21com	NO	DO NOT USE
22-21com	NO	START CONTACT (Each impulse OPEN/STOP/CLOSE/STOP)
23-24	24V ~	Input POWER 24Vac
25-26	24Vdc	INPUT BATTERY BACK UP (25 positive, 26 negative)
27-28		NPUT ANTENA (28SIGNAL)

TRIMMER T1
The trimmer POWER regulates the torque and sensitivity during the maneuver

TRIMMER T2
The trimmer POWER SLOW regulates the torque and sensitivity during SLOW DOWN phase



The TORQUE increases turning the trimmer in clockwise sense.

BUTTON P1 or RADIO PROG for storage the transmitter
BUTTON P2 or PROG TIME for storage the stroke

BUTTON P3, P4
In the programming phase the buttons P3 / P4 and CLOSE / OPEN work to "hold" the button is released it interrupts the march. In normal conditions, the P3 button acts as a closing pulse and the key P4 opening pulse, in this case
The fully automated system performs the desired operation.

BACKUP BATTERY MANAGEMENT
The management of the backup battery by terminals 25-26, the control panel operates a voltage 24Vdc 7Ah MAX, place a battery 24Vdc or 2 batteries 12Vdc wired in series.
In the absence of the normal power will use the battery automatically.

ALL DIP-SWITCH:

DIP 1	**DO NOT USE**
DIP 2	**AUTOMATIC CLOSING** **ON -** Automatic closing activated **OFF -** Automatic closing not activated
DIP 3	**CONDOMINIUM / STEP BY STEP** **ON -** The automation will end the operation always on end switches, in opening does not accept pulses, in closing a pulse will cause the reverse. **OFF -** For each pulse automation will stop (OPEN-STOP-CLOSE-STOP)
DIP 4	**INVERSION OF THE DIRECTION** **ON -** Invert direction and the limitswitch **OFF -** Invert direction and the limitswitch
DIP 5	**SETTING SEFETY CONTACT IN OPENING** **ON -** In opening the control board stop and invert for 2sec the gate direction **OFF -** In opening the control board stop the gate direction
DIP 6	**MOVING AUTOMATION GREEN LED FUNCTION** **ON -** Intermittent light **OFF -** Steady light
DIP 7	**SLOW DOWN** **ON -** Activate **OFF -** Not activate
DIP 8	**ENCODER** **ON -** Encoder actived **OFF -** Encoder not actived

GREEN LED FLASHING
IN OPENING: Flash slow
IN CLOSING: Flash fast
IN PAUSE: Steady light
PHOTOCELL : Turn off

ENCODER OPERATION
Actived by DIP8 ON

CHANGE OF SENSITIVITY AND TORQUE
More torque = less sensitivity
Less torque = more sensitivity
The parameters are set by **the trimmer T1 and T2.**

FEATURES

The control unit QK-CE24VSTILO is for 1 motor system 24V power supply.
This panel can manage motors with or without limit switches, encoders and encoder+limit switches.
The peculiarity of QK-CE24VSTILO is that it has separate torque control, through trimmer T1 and T2 (T1 regulates the torque while running in normal speed the T2 adjusts the torque during deceleration). Interacting on these devices can optimize the operation of the automation so as to be within the actual rules. The programming of the switches and remote controls is self-learning, so everything is easier.
The control unit has an amperostop system, therefore in the event of an obstacle during the maneuver it manages the reversal or stopping of the gear. If you use ENCODER, this protection
increases significantly and improve response and intervention parameters

PROGRAMMING REMOTE CONTROL

The control unit is able to handle radio fixed code and rolling code. The two systems can not be managed simultaneously, but with the first remote control will be programmed encoding system.
The QK-CE24VSTILO can handle 254 transmitters ROLLING CODE.
The programming of the transmitters is done by pressing the P1 for 2sec, the LED L1 turns on, then pressing the button of the remote will flash twice to indicate the LED L1 is stored in memory. After 6 seconds automatically control board will exit the programming function.

REMOVE ALL CODES

Press and hold the P1 for 6 seconds when it is released there will be a quick flash of the LED L1, with consequent turning off after 6 seconds.

PROGRAMMING THE STROKE

The programming begins automation is closed, the first operation will be the opening, otherwise reverse the direction by DIP swicht 4.

PROGRAMMING with slow down (DIP 7 ON)

To enter in programming, press the P2 button for 2 seconds, the LED2 will flash. Give a FIRST PULSE by START contact (terminals 21 and 22) or by transmitter already been programmed.
The operator will start the opening phase, give a SECOND PULSE where you want to start the slow down in opening.
The engine will complete the stroke and will stop at close limitswich (if you chose an automatism without limitswitches must give a further impulse to fix the stopping point of the stroke).
If you choose to have the AUTOMATIC CLOSING (OPTION 2 IN ON), the closing time will be calculated from the moment when the operator arrives to open limitswitch until you give the THIRD PULSE, the automatism will start closure.
Where do you want start slowing down in closing you must give the FOURTH PULSE. The arrest will be through the closing limit switch and now the LED2 will turn off. If the automatism is not expected to limit switch, you will need to give a last pulse where you want to stop.

PROGRAMMING without slow down (DIP 7 OFF)

Set the option 7 to OFF for the exclusion of the slowdown phase. Follow the procedure listed above (learning with slowdown) without transmitting the second pulse in opening and the fourth during closing. So once impulses transmitted to the beginning of the maneuvers, in opening and in closing, they will finish at the limitswitch position.

OPERATION LOGIC OF THE SAFETY

TERMINAL (12-14) photocell in opening	This contact protects opening and closing. DIP 5 ON: in opening when there is an obstacle, the engine stop and reverse for 2 sec. DIP 5 OFF: in opening when there is an obstacle engine STOP In both cases in closing when there there is an obstacle the gate stop.
TERMINAL (13-12) photocell in closing	This contact protects only in closing In closing when there is an obstacle engine STOP
STOP TERMINAL (7-6)	The contact if open will cause the immediate arrest of the automation in any situation.

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTION
On giving a command with the remote control or with the key-switch, the automation doesn't open or the motor doesn't start	230 volt mains voltage absent	Check master switch
	Emergency STOP present	Check for any STOP selectors or commands. If not used, check jumper on STOP contact input on the control board
	Fuse blown	Replace with one of same value.
	Power cable of motor or motors not connected or faulty.	Connect the cable to appropriate terminal or replace.
	The photocell is not functioning or the beam is interrupted	Check the connection, remove any obstacle across the beam
On giving a command with the remote control, the automation doesn't open but works with the key command	The remote control has not been memorised or the battery is flat	Carry out the remote control learning procedure on the radio receiver or replace the battery with a new one..
The automation starts, but stops immediately	The force of the motor or motors is insufficient	Modify the value with the FORCE trimmer on the control unit

N.B. - If the problem persists, contact your Retailer or the nearest Service Centre

SAFETY PRECAUTIONS

These warnings are an essential, integral part of the product and must be given to the user. They provide important indications on the installation, use and maintenance and must be read carefully. This form must be preserved and passed on to subsequent users of the system. The incorrect installation or improper use of the product may be dangerous

INSTALLATION INSTRUCTIONS

- The installation must be performed by professionally skilled personnel and in compliance with current local, state, national and European legislation.
- Before beginning the installation, check the integrity of the product.
- The laying of cables, electrical connections and adjustments must be workmanlike performed.
- The packing materials (cardboard, plastic, polystyrene, etc.) are a potential hazard and should be disposed of correctly and not left within reach of children.
- Do not install the product in potentially explosive environments or environments disturbed by electromagnetic fields. The presence of inflammable gases or fumes is a grave danger to safety.
- Set up a safety device for overvoltage, a disconnecting and/or differential switch suitable for the product and conforming to current standards.
- The manufacturer declines any and all responsibility for product integrity, safety and operation in the event incompatible devices and/or components are installed.
- Solely original spare parts should be used for repairs and replacements.
- The installer must provide all the information relating to the operation, maintenance and use of the individual parts, components and system as a whole.

WARNINGS FOR THE USER

- Read the instructions and enclosed documentation carefully.
- The product must be used for the express purpose for which it was designed. Any other use is considered improper and therefore hazardous. In addition, the information given in this document and in the enclosed documentation may be subject to modifications without prior notice. It is given as an indication only for product application. The company declines any responsibility for the above.
- Keep products, devices, documentation and anything else provided out of reach of children. In the event of maintenance, cleaning, breakdown or faulty operation of the product, cut off the power and do not attempt to operate on the product. Contact solely the professionally skilled personnel responsible for these operations. Failure to adhere to the above indications may be dangerous.

Rev. 0-05/20 ING

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