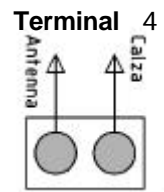
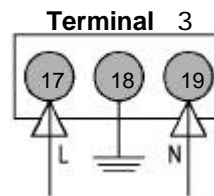
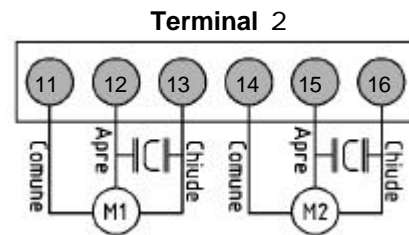
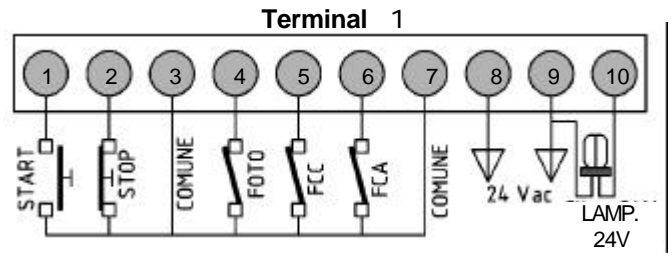
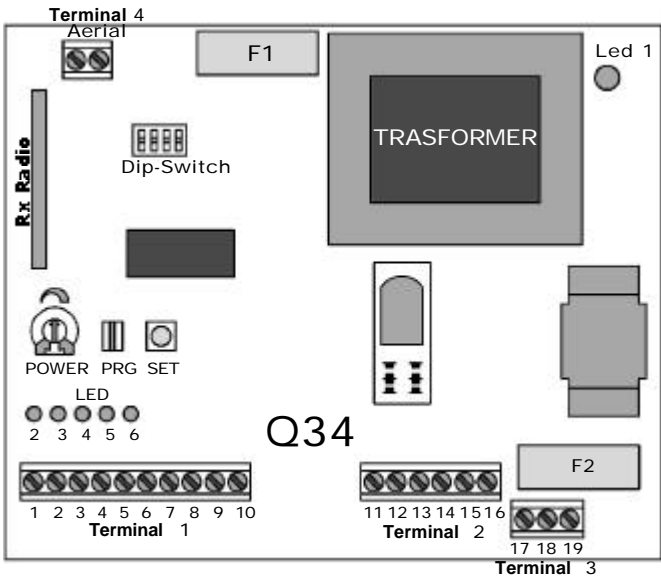


Instruction and use manual



TECHNICAL FEATURES

Power supply	230/240V 50/60 Hz
Dimensions	136x106mm
Motor Output	2x500W 230V
F1 Fuse 24 Vac	2A
F2 Fuse ofi line	5A
Flashing line output	24V ac 10W
Subsidiary output	24V ac 250ma
Relay motor cantacts	16 A
Reversal timing	2 sec. fisso
Phase difference in opening	2 sec fisso
Weight	580 gr.

GENERAL FEATURES

- Reliable, stout and immune from induced disturbances
- Special protection in case of atmospheric and electrostatic discharge.
- The EMC head against electromagnetic issues and for immunity to disturb.
- Suitable for 1 or 2 standard opening panel or sliding gates.
- Suitable for engines with friction or without clutch (electronic clutch and filer or couple)
- "Torque limiter" electronic clutch adjustable.
- "Wing delay in opening fixed.
- Adjustable second wing delay in the closing (Out-of-sync wings)
- Adjustable and disconnectable automatic closing.
- Adjustable working time.
- Warning of starting in closing and in opening.
- Differential blinking (slow in the opening, fast in the closing) fixed light during pause.
- Exit lighting with control both for models with incorporated card or fix light.
- Collective function excludible
- Tendency for the connection of a timer to the start control.
- Led signalling of the gate conditions.
- Bit-by-bit function.
- Safety devices active during opening and closure input (Fotocell and security coast)
- Self-hanging radio receiver incorporated
- Timing memory.

TRIMMER REGULATION:

POWER = Motor capacity adjustment from 35% to 98%

SIGNALLINGS:

- F1 Fuse 24 Vac
- F2 Fuse of line 230 Vac
- LED 1 = work signal
- LED 2 = Start button present signal
- LED 3 = Stop button present signal
- LED 4 = Photocell present signal
- LED 5 = Closing stop present signal
- LED 6 = Opening stop present signal

CONNECTION HOLDFAST 1	
1-3	Start control. Normally opened contact. Connection to push-button transmitter, key selector and radio. The start control begins the cycle of scheduled operations.
2-3	Emergency stop control - normally closed contact When the button is pressed the gate stops immediately and we need a further impulse to restore the operating cycle.
4-3	Photocell or coast connection for security in closing. Normally closed contact. In opening time: it provokes no change to the gate motion. In pause time: it brings to naught the covered time and it does not accept START impulse for the re-closing In closing time: it stops instantaneously the gate, it makes a pause of two sec. and then it opens again. There is the timing memory
5-7	Closing stop input (only for sliding gates)
6-7	Opening stop input (only for sliding gates)
8-9	Power supply output for fittings 24 Vac - 250 mA max.
9-10	Intermittent exit for flashing 24 Vac 10 W max

CONNECTION HOLDFAST 2	
11	Output motor 1 (11=Bleu - 12=Brown - 13=Black).
12	Wing wich opens secondly.
13	Condense among the clamps n° 12 and n° 13
14	Output motor 2 (14=Bleu - 15=Black - 16=Brown).
15	Wing wich opens firstly and has a delay in the closing or sliding gate.
16	Attention: in sliding gates the motor reduction is made for installation on the right-hand side of the gate (looking from inside); in case is assembled on the left side is necessary to invert the thread 15 with 16 (engine) and thread 5 with 6 (end of running) internal of the electric board of command. Condense among the clamps n° 15 and n° 16

CONNECTION HOLDFAST 3	
17-19	Power supply entry 230Vac 50/60 Hz 19=Neuter - 17=Phase
18	Ground Connect the motors cables Yellow-Green and the alimentation ground cable to the ground terminal.

INSTALLATION ADVICE

- The installation has to be done according to the rules of the country and by specialised workers according to the rules of a good installation.
 - Before opening cupboard of the control unit verify that the power supply has been excluded by the interruptor placed before the installation.
 - Always use different and divided connection cables for power, auxiliary and control circuits in order to avoid that the disturbances induced by the power supply cables and the motors provoke wrong controls or, even, damages.
 - For the control circuits the section of 0,25 mm² is more than enough given its low absorption.
 - In case of lines superior to 50 m. it is advisable the de-coupling with some relays in the control unit.
 - Make the connections as indicated above and install all the security devices that the normatives recommend before alimentating the power station.
 - All the connections of the security normally closed (photocells, button STOP, coast) must be connected to the correspondent entrance of the control unit.
- In case of it's necessary to use two security contacts on one entrance in the control unit and their connections in serial. If the actual norms allowed to exclude one or more security contacts joined in the control unit the contacts not in use with the common.
- Verify that the line of alimentation has been protected by a magnetohermic interrupter differential, having characteristics and suitable calibration to the installation and in conformity to the law in force.
 - Even if the cupboard is IP 53 is a good norm to protect it almost in the superior part, if it's installed outside.

Check the following:

- The red leds, signalling of normally closed entries, are alight (interrupting the contact they must switch off).
- The leds, signalling of leds normally opened, are off (putting the buttons in action they must light up).
- The perfect alignment of the fotocells.
- All the connections.

INSTALLATION

- Connect the photocell's buttons to the electrical connections.
- The normally closed entries not used must be solved with the common.
- Connect the motors to clamps M1 and M2, checking the direction of rotation and remembering that motor M2 coincides with the gate panel which opens first or the sliding gate.
 - Adjust the Dip-Switch for the functions you desire.
 - Connect the 230 V line of power supply in order to give power to the circuit.
 - Check through the leds the right connection of photocells and buttons.
 - Check the exact adjustment of the trimmer POWER.

ADJUSTEMENT:

DIP-SWITCH PROGRAMMABLES FUNCTIONS:

Dip	Function	Pos.	Description
1	Pre-Flash	On Off	Activates flash for three seconds before the opening or closing cycle. Pre-flash excluded.
2	Photocell opening	On Off	The photocell also intervenes during opening, the gate stops and continues in the same direction once the obstacle has been removed. The photocell only intervenes during closure.
3	Collective included	On Off	During the opening and the pause timing the Start impulses are not accepted. Collective excluded
4	Running	On Off	Sliding gate Wing gate

FAULTS AND SUGGESTIONS

At the impulse of start the motor is not activated or the gate makes opening but not closing.	Verify that are used and connected all the contacts of security in opening and the fotocells are perfectly allineated and working. To verify if the anomaly is due to an accessory (ex. Fotocell) or to the power plant disconnect the accessory remembering that the connections of securities not allied must be combined with the common
The gate does not fulfil the complete operating cycle or it does not come into function again in time.	Check the times installed. Reprogram the central unit
A motor or both does not turns or starts in the opposite way to our will.	Keep in mind that the first impulse of Start, after having supplied with power the central unit, begins the cycle of opening. Verify the connections motor.

POWER: REGULATION COUPLE OF ENGINE:

- The trimmer POWER regulates the potency delivered from the appliance to the engine. Check that the motors, once set in motion, can be stopped opposing a resistance not superior to 150 N (about 15 Kilos - UNI 8612).
- This kind of regulation is excluded at the beginning of every manoeuvre for a second, giving full rise, (power) to permit that the automation win the initial inertness.

INCORPORATED RADIO-RECEIVER PROGRAMMING

Digit a personal code into the transmitter using its Dip-Switches.
Keep the programming button (SET) on the central unit pressed and, at the same time, send a pulse using the remote control.

Release the two buttons.
The receiver is now programmed to the remote control code.

PROGRAMMING THE RUNNING TIMES

It is possible to sequentially program the running time, closure difference and automatic re-closure using the START control.

Proceed as follows:

Wing gate:

Check that the PRG jumper is fitted correctly.

Programming the running time:

With the gate closed, the first motor (M2) starts at the first pulse, followed two seconds later by the second motor (M1 delayed).

Upon completion of the opening manoeuvre, a second impulse is given.

The central unit memorises the running time.

Programming pause and closure difference:

The third START pulse signals the moment from which the pause, before Automatic re-closure begins, is calculated (to exclude Automatic re-closure give two START pulses in rapid succession).

The fourth START pulse signals the beginning of the closing manoeuvre and the moment from which the time required for the closure difference is calculated.

At the fifth START pulse, the time between the fourth and fifth pulses, representing the closure difference, is memorised.

For single panel gates, give the fifth pulse immediately to eliminate the difference after the fourth.

The running times have now all been programmed. Switch off the power supply to the central unit and disconnect the PRG jumper.

The programmed times are digitally memorised inside the microprocessor, eliminating possible changes due to variations in the components (resistances and/or condensers).

Sliding gate:

Check that the PRG jumper is fitted correctly.

With sliding gates (Dip 4 on "On") the running time (emergency) is set at two minutes.

The only time which needs programming is the automatic re-closure and this can be programmed at any time.

With the gate open, the first START pulse signals the moment from which the pause before Automatic re-closure is calculated (to exclude the automatic re-closure give two START pulses in rapid succession).

The second START pulse signals the beginning of the closing manoeuvre the time between the first and the second pulses, representing the pause, is memorised.

The running times have now all been programmed. Switch off the power supply to the central unit and disconnect the PRG jumper.

The programmed times are digitally memorised inside the microprocessor, eliminating possible changes due to variations in the components (resistances and/or condensers).

FUNCTIONS

TIMER:

- It is possible to connect parallelly to the Start control a switch or a timer contact.
- The timer control controls the opening of the gate. As long as this control is active the gate remains opened. The end of this programming provokes the automatic re-closing (if this one is inserted), after the established pause.

SAFETY PRINCIPLES

- Before putting in motion the gate the micro-processor does a checking of the signals that there are on the entry circuits. it does not accept any Start control if one or more safety devices are in function. However, always before keeping in movement the gate the microprocessor makes a control on the electric friction's device. If any kind of anomaly is accuring the gate is immediatly blocked.
- To avoid disturbances during the ignition the micro-processor refuses every type of control for the first 2 sec.
- The Stop Emergency Button, provided by the rules, must be easily accessible. In case of danger it stops immediately the gate run.



SPARE PARTS: Use exclusively original spare parts.

- For a proper use of this product and to avoid any damages to people, animals or things, refer to the paper "General Instructions" that is part of this manual.
- The device must be used respecting the safety rules in force (UNI 8612) and the norms for a good installation.
- All the electrical connection must be done in absence of electric supply.
- The builder is not responsible for possible damages caused by improper and unreasonable installation.
- To alimentate the motors paying attention that the rotation way corresponds to that one indicated.
- Protect always the alimentation by an automatic switch of 6A, or by a monophas of 16A including the fuse.
- The power supply lines to the motors, to the control unit and the connection lines to the outfits must be separated to avoid troubles which could generate problems in the installation working.
- Any outfits (of control or safety) eventually connected to the control unit must be tension free.
- This control unit has been created according to the electromagnetic compatibility norms and the presently in use safety norms in agreement with the directives of the European Union. In particular it satisfies the 89/336/EEC and the 92/31/ECC EU- EMC directives.

PAY ATTENTION:

The adjustment must be effected when the device has no power supply.