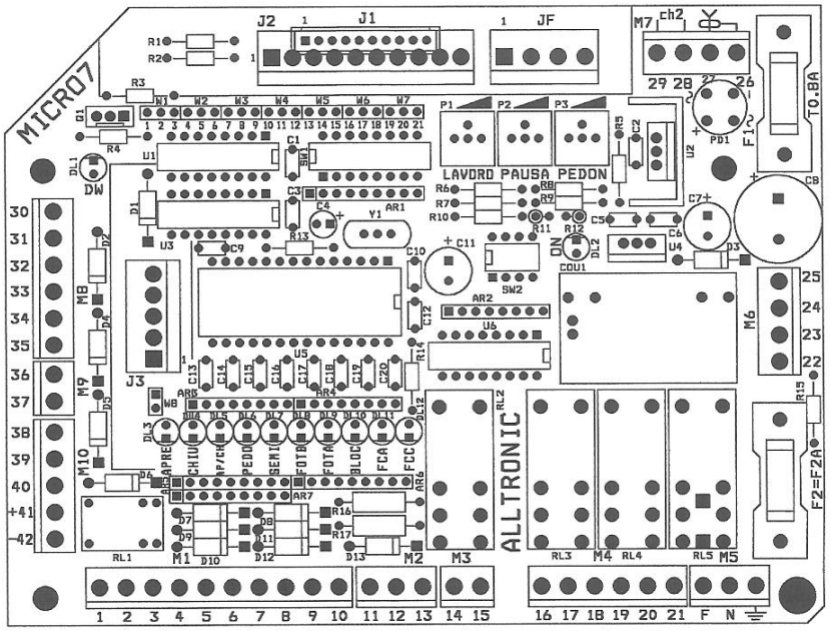
Gate-Opener Control Type Micro 7 Threephase 400V

For rolling (fast) door



TRIMMER – FUSE – RELAY

P1 WORKING TIME TRIMMER
P2 PAUSE TIME TRIMMER
P3 PEDESTRIAN TIME TRIMMER

F1 FUSE 5X20 T0,8A	on 18Vac	protection : electronic supply and exit 24Vdc.
F2 FUSE 5X20 F2A	on 230Vac	protection : transformer, contacts and blinker of 230Vca.

RL1 LIGHT OF COURTESY RELAY (exit 24Vdc)
RL2 BLINKER RELAY OF 24Vac
RL3 OPEN RELAY
RL4 CLOSE RELAY
RL5 SECURITY RELAY and BLINKER RELAY 230V

DECLARATION OF CONFORMITY (according to ISO/IEC Guide 22 and EN 45014)

Manufacturer's Name : **ALLTRONIC s.n.c.**
Manufacturer's Address : **Via Torino. 84—12041 Bene Vagienna (Cn) Italy**

DECLARES THAT THE FOLLOWING PRODUCT

Product Name : **Gate Opener for Rapid Door**
Model : **Micro7**

CONFORMS TO THE FOLLOWING EMC SPECIFICATIONS BASED ON SAMPLE TESTING:

EN 55011	EN 60335-1
EN 55014-1	EN 60204-1
EN 55014-2	EN 12453
EN 61000-3-2	EN 61000-6-1
EN 61000-3-3	EN 61000-6-3 + A11

The product has been tested in the typical installation configuration and with peripherals which conform to EMC Directive.

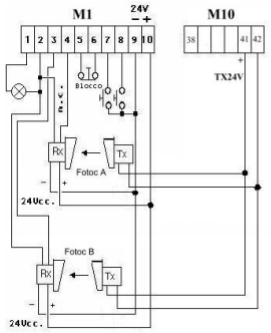
I the undersigned declare that the product herewith complies with the protection requirements of the **EMC Directive 89/336/EEC**, the **73/23/CEE Low Tension Directive** and also the **Directive 89/392/CEE** (Electric Equipment Security of the Devices).

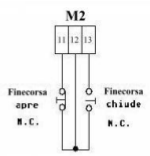
Bene Vagienna, 30/10/2006

Allodi Francesco

Proprietario

TERMINAL BLOCKS





10 POLE TERMINAL BLOCK (M1):

01-02 = Light of Courtesy Exit of 24Vdc. 3W max.
02-03 = N.C. contact enter photocell Low
02-04 = N.C. contact enter photocell High
05-06 = N.C. block enter (electronic block)
07-09 = N.O. button enter of OPEN
08-09 = N.O. button enter of CLOSE
09-10 = Exit 24Vdc. 500mA max. (10 = + 24V)

3 POLE TERMINAL BLOCK (M2):

11-12 = N.C. End-run enter of OPEN (12 = common) - STOP OPEN
12-13 = N.C. End-run enter of CLOSE (12 = common) - STOP CLOSE

2 POLE TERMINAL BLOCK (M3): 14-15 = Blinker exit of 24Vac. **max.25W**

5 POLE TERMINAL BLOCK (M4): 16-17-18 = Exit contactors-drive (16 = Common / 17 = Open)
19-20 = Exit Blinker 230Vac **max 30W**

3 POLE TERMINAL BLOCK (M5): F-N = Input 230Vac

⏚ = Input EARTH

4 POLE TERMINAL BLOCK (M6): 22-23 = Input 24Vac (external supply with fuse)
24-25 = Input 18Vac

4 POLE TERMINAL BLOCK (M7): 26-27 = Input Arial RX Radio (27 = Hold)
28-29 = Exit from RX Radio Channel 2

6 POLE TERM. BLOCK (M8): 30-31 = Input N.C. Contact MUSHROOM
32-33 = N.O. button enter of OPEN
33-34 = N.O. button enter of CLOSE
33-35 = N.O. button enter of PEDESTRIAN

Command on Front Panel

2 POLE TERMINAL BLOCK (M9): N.C. = semi-automatic - N.O.= automatic

5 POLE TERMINAL BLOCK (M10): 38-39 = LUC = Contact enter N.O. to disable the low photocell and the DW in the last centimetres of closing (when N.C. disable).

39-40 = AP/CH = N.O. Buttom enter of OPEN/CLOSE **Dynamic**
With SW1 - Dip 4 at ON : Dynamic = at every impulse : Open – Block – Close – Open etc.)
With SW1 - Dip 4 at OFF: Dynamic = Open - Close (on end-run)

41-42 = TX24V = Supply Exit 24Vdc for photocells (for autotest)
Only photocells transmitter
+24Vdc. high
0V (-) low

DIP FUNCTIONS (Dip Switch SW1)

DIP 1 : ON : **LEAF DOOR FUNCTION ACTIVATED** (photocell stops movement in opening)

OFF: **LEAF DOOR (P. L.) DISACTIVATED**

DIP 2 : ON : **ANTI-DRAGGING FUNCTION ACTIVATED** (with low and/or hight photocell obscured, the control does not grasp the opening order)

OFF : **ANTI-DRAGGING DISACTIVATED**

DIP 3 : ON : **PRESSED BUTTON FUNCTION** (look at the instructions next page)

OFF : **PRESSED BUTTON DISACTIVATED : Automatic or Semiautomatic cycle**

DIP 4 : ON : **DYNAMIC FUNCTION ON BUTTOM : OPEN - BLOCK - CLOSE**

OFF : **DYNAMIC FUNCTION DISACTIVATED (**Normal Cycle: Open - Close)

DIP 5 : ON : **THE BLINKER BLINKS DURING ALL THE CYCLE**
(il pulsante di blocco – 5 e 6 di M1 - lo spegne)

OFF : **THE BLINKER FIRST BLINK 4 SEC BEFORE CLOSING**
(the button of block – 5 and 6 of M1 - switches it off)

DIP 6 : ON : **AUTO-TEST FUNCTION DW24B ACTIVATED**

OFF : **AUTO-TEST DW24B DISACTIVATED**

DIP 7: ON : **AUTO-TEST FUNCTION LOW PHOTOCELL ACTIVATED**

OFF : **AUTO-TEST LOW PHOTOCELL DISACTIVATED**

DIP 8 : ON : **AUTO-TEST FUNCTION HIGH PHOTOCELL ACTIVATED**

OFF : **AUTO-TEST HIGH PHOTOCELL DISACTIVATED**

WARNING OF FAILURE AUTOTEST :

- If the low photocell does not work, the blinker advises with a blink of 2 seconds and the control does not move.

- If the hight photocell does not work, the blinker advises with 2 blink of 2 seconds and the control does not move.

- If the DW 24B does not work, the blinker advises with 3 blink of 2 seconds and the control does not move.

DIP (SW1) FUNCTIONS DEEPENING

- DIP 3 ON : "PRESSED BUTTON" FUNCTION ACTIVATED

OPENING ORDER = OPENING WITH PRESSED BUTTON

CLOSING ORDER = CLOSING WITH PRESSED BUTTON (with close pressed an order of "open" blocks the closing movement)

THE PEDESTRIAN ORDER IS NOT CONNECTED

DYNAMIC ORDER = OPENING WITH SELF-HOLDING AND CLOSING WITH PRESSED BUTTON

At end opening, an impulse to the dynamic order closes with **pressed button** (closing activated, the order release for 3 sec. (before arrive at FCC) stops the function = an other impulse connects the opening.

OPEN END-RUN = STOP THE OPENING

CLOSE END-RUN = STOP THE CLOSING

BLOCK = BLOCK THE MOVEMENT

With DIP8 on ON; "A" HIGH PHOTOCELL = PHOTOCELL BLOCKS IN OPENING
With DIP7 on ON; "B" LOW PHOTOCELL = PHOTOCELL BLOCKS IN CLOSING
With DIP6 on ON; DW24B (edges) = DW24B BLOCKS IN CLOSING
With DIP8 on OFF; "A" HIGH PHOTOCELL = PHOTOCELL NOT CONNECTED (OR DISACTIVATED)
With DIP7 on OFF; "B" LOW PHOTOCELL = PHOTOCELL NOT CONNECTED
With DIP6 on OFF; DW24B (edges) = DW24B NOT CONNECTED

- DIP3 OFF : PRESSED BUTTON DISACTIVATED

AUTOMATIC OR SEMIAUTOMATIC CYCLE

- DIP1 ON : "LOW" PHOTOCELL STOP TEMPORARILY THE MOUVEMENT
(stop the movement until the "low" photocell is obscurated, keep the counter of the "Work Time").

ON : "HIGH" PHOTOCELL BLOCK THE MOUVEMENT (CENTRALE BLOCKED)

ON REQUEST

TOUCH METER :

The electronic "counter" increase of 1 unit the count of manoeuvres made from the door every times that the opening end-run is pressed.
Increase the count also when the open buttom is pressed and then the door is blocked with the mushroom before being stopped from the end-run of open.

Regulatin Times (Dip Swich SW2)

WORKING TIME:

Dip 1 OFF min. **27** sec. MAX **50** sec.
Dip 2 OFF

Dip 1 OFF min. **80** sec. MAX **150** sec.
Dip 2 ON

Dip 1 ON min. **04** sec. MAX **30** sec. (set of factor)
Dip 2 OFF

Dip 1 ON min. **04** sec. MAX **150** sec.
Dip 2 ON

PAUSE TIME:

min **01** sec. MAX **70** sec. (set of factor)

With R11 shunt the max time is 200 sec.

PEDESTRIAN TIME:

min. **02** sec. MAX **13** sec.

REVERSAL TIME:

Dip 3 OFF reversal time = **0,5** sec.
Dip 4 OFF

Dip 3 OFF reversal time = **1** sec. (set of factor)
Dip 4 ON

Dip 3 ON reversal time = **2** sec.
Dip 4 OFF

Dip 3 ON reversal time = **4** sec.
Dip 4 ON

SHUNTS SET

W3 - W4 – W5 – W6 – W7 = For predisposition type of Rx Radio (on costumer request)

W8 Shunted: DW control not connected

Free: DW control connected (insert DW24 in J3 position)

W1 Shunted 1-2 (central – left) CH2 of receiver FOR *PEDESTRIAN ORDER*

Shunted 2-3 (central – right) CH2 of receiver FOR *CLOSE ORDER*

W2 Shunted 4-5 (central – left) CH1 of receiver FOR *DYNAMIC ORDER*

Shunted 5-6 (central – right) CH1 of receiver FOR *OPEN ORDER*

LEDS VISUALIZATION

DL1 ***(yellow led)*** LIGHT (On) : DW24B in warning (contact Open)

DL2 ***(green led)*** SWITCHED ON : power supply insert
SWITCHED OFF : lack of supply

DL3 ***(red led)*** SWITCHED ON : pressed OPEN order
It remains lighted only during the time while it is pressed

DL4 ***(red led)*** SWITCHED ON : presses CLOSE order
It remains lighted only during the time while it is pressed

DL5 ***(red led)*** SWITCHED ON : pressed AP/CH order (Dynamic)

DL6 ***(red led)*** SWITCHED ON : pressed PEDESTRIAN order

DL7 ***(yellow led)*** SWITCHED ON : semi automatic cycle activated
SWITCHED OFF : automatic cycle activated

DL8 ***(yellow led)*** SWITCHED ON : present LOW PHOTOCELL (Open contact)

DL9 ***(yellow led)*** SWITCHED ON : present HIGH PHOTOCELL (Open contact)

DL10 ***(yellow led)*** SWITCHED ON : present button of BLOCK (Open contact)

DL11 ***(red led)*** SWITCHED ON : present END-RUN OF OPEN (Open contact)

DL12 ***(red led)*** SWITCHED ON : present END-RUN OF CLOSE (Open contact)

Functionnement

Automatic Cycle: Pressing N.O. button of Open the motor will begin to move for the time determinated by the "End-run/working time" combination (P1).
The control works with normally closed End-run (N.C.).
With the gate opened the pause timer (It can be bypassed pressing the button of close) , after the determinated time (P2), will close the door. If during the pause time an object or a person crosses the photocell, it resets the the pause time which will start again from the beginning. We get same function, always during the pause time, giving an opening impulse.
The contact of **Low and Hight Photocell** (N.C.) is activated only during the reclosing phase, it opens again the door if there is an obstacle.
A possible temporary Block of the control can be obtained by acting on the block button (N.C.), in this case the motor will stop until the open-close button will be pressed again giving movement to the gate in the desired direction.

Pedestrian Function : N.A. enter contact which operates the opening door for the time determinated by the P3 trimmer.
<u>During the reclosing phase the photocell or an impulse of Open will open the door completely.</u>

Semiautomatic Cycle (pass-pass):
All the functions are the same of the automatic cycle except the pause time that is not inserted, therefore to reclose you should press the close button once again.

WARNING

- The motor time of start is istantaneous when the door is on the end-run, the movement reversal time of the door out of the end-run (and also of starting) is regulated by the Dip-switch "SW2".
Inserting the photocell contact (N.C.) in this control, control the the right functionnement otherwise the control will not close or will always be on block (Autotest).
Always check the signalling leds before of every intervention.
On this control it is possibile to insert (SW1 dip 2) the function anti-dragging : with close end-run opened and the low and/or Hihgt photocell obscurated, an impulse of open does not give movement.
In case of damage of the photocells it is possible to make the control working only with "Pressed Button" (SW1 dip 3) for opening and closing movement.

First intervention on Control drawbacks

Problem	Likely Cause	Solution
Control does not move, switched off leds	Wrong connection line 18V, check Fuse F1.	Insert supply like in the scheme
Control does not move, switched off leds	Short-circuit on output 24Vdc. Check F1.	Disconnect the controls supplyed from the gate-opener and check wires.
Control doesn't move, DL10 led light	Block contact opened	Check that the block is N.C.
Control doesn't close, DL8-9 led light	photocell enter opened	Check that the enters are N.C.
Control goes on with opening or don't close in automatic	Open button always pressed (led DL3 or DL5 or DL6 lighted)	Check all the enters (buttons, Rx radio, magnetic spool)
Control opens a little and then stops	Safety profile, block, end-run	Check that there are not false contacts
Control opens but does not reclose	Semiautomatic function insert	Select function (DL7)
Control does not feel end-run of open and close	Wrong connection of the end-run	Connect in the right way
Control gives movement only in one directon	Wrong connection of the Common wire of the end-run	Connect in the right way
Control reverse with low photocell when the motor opens	Wrong connection of the motor (reverse 2 phases)	Connect in the right way
The motor does not open the door completely	"Working" time too short	Increase the "Time of working" trimmer (P1)
Control close at once	"Pause" time short	Increase the "Time of pause" trimmer (P2)
Control reverse the movement brusquely	"Reversal" time short	Set the "Reversal Time" (SW2)
Photocell stops on Open	P.L. function inserted	Check Dip 1 (OFF)
Control does not open	Failured of the hight or low photocell autotest	Check the photocells
Control does not open	Anti-dragging acrivated (SW1 Dip 2)	Check the photocells
Times too long	Time Regulations SW1	Set in the right way

The Alltronic s.n.c. will not be responsabile for wrong connections and/or mishandlings of the control which will not be considered under guarantee.

Installation Advices

1) The control should be installed as near the gate as possible.
2) If this is not possible, you should:
   Use cables with proper sizes.
   Never use a multiwire cable to connect either the motor or all the services (open, close, block, photocell, end-run), but ALWAYS SEPARATE THE POWER from the Low Tension (controls and securities) using more cables.
   In case of threephase 400V supply it is necessary to place the control near the gate in order to have the shortest way of the power wires , always separating the low from the very low tension.
   If it is not possible, so it is necessary to use screened cables, remembering to earth the cable screen at the two ends.
3) After every installation check, with a tester Vac., that there isn't any induction tension on the enters, measuring between the earth and one end of the "Open button" terminal block. If there is an "Alternating tension" below 20—30 V (induced tension for cable passage with supply) the system is ready to be tested, otherwise it is necessary to overhaul the cable arrangement as described above.

Max Loads and Maintenance

The relays set on the control have a load of 9 Amp. And they must be, relating to their load, periodically checked.
It is advisable to overhaul the relay contacts every 4 years, but always according to the following conditions:

Micro 7 control 400V threephase supply
Max. load permitted : 3kW
Threephase motor cosØ = 0,7
N° of possible movement: 500.000

Micro 7 control 230V threephase supply
Max. load permitted : 2kW
Threephase motor cosØ = 0,7
N° of possible movement: 500.000

WARNING: Reducing the motor cosØ the n° of possible openings decreases (ex. with cosØ = 0,3 the number of movement is halved).

Check always the values of the installed motors

WARNING : The above specifications are adressed to technicians and/or qualified staff.
All checks and works should be made OUTSIDE the electric and electronic details of the controls.
Never forget that installations should be made according to law requirements and "Rules of good installation".

It is advisable to protect the control, at least on the upper side, if it could be subject to inclement weather.