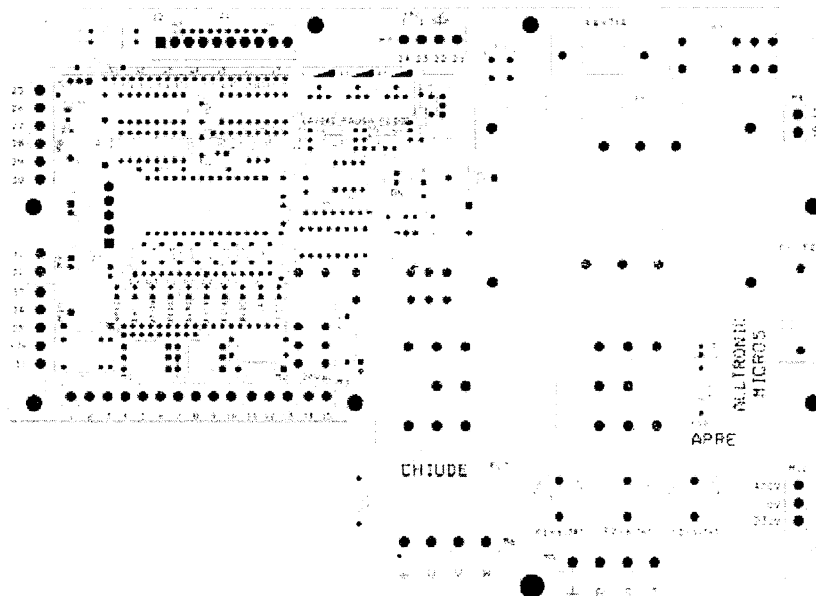


Control Q38 Threephase 380V for Sliding Gates



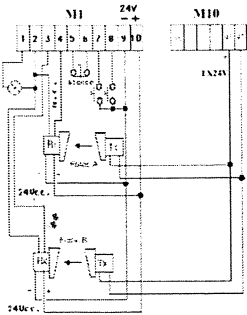
TRIMMER – FUSE – RELAY

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

F1=F2=F3 = FUSE 5X20 T6,3A on 400Vac protection : central supply
F4 = FUSE 5X20 T1A on 24Vac protection : supply 24Vac and 24dc
F6 = FUSE 5X20 F2A on 230Vac protection : transformer and blinker of 230Vca.

RL1 LIGHT OF COURTESY RELAY (exit 24Vdc)
RL3 OPEN RELAY
RL4 CLOSE RELAY
RL5 BLINKER RELAY 230Vac
RL6 - RL7 POWER RELAY 230/400Vac (max. 1,1kW at 400V)

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 = Exit supply of 24Vac. max. 0,6A

2 POLE TERMINAL BLOCK (M4): 19-20 = Exit Blinker 230Vac. max. 30VA (23W)

4 POLE TERMINAL BLOCK (M5): R-S-T = Input 400Vac or R-S = Input 230Vac

↓ = Input EARTH

4 POLE TERMINAL BLOCK (M6): U-V-W = Output 400Vac (or 230Vac - V=Commun)

↓ = Output EARTH

4 POLE TERMINAL BLOCK (M7): 21-22 = Input Aerial RX Radio (22 = Hold)

23-24 = Exit from RX Radio Channel 2

6 POLE TERM. BLOCK (M8): 25-26 = Input N.C. Contact MUSHROOM

27-28 = N.O. button enter of OPEN

28-29 = N.O. button enter of CLOSE

28-30 = N.O. button enter of PEDESTRIAN

**ExitCommand
For Front Panel**

2 POLE TERMINAL BLOCK (M9): 31-32 = N.C. = semi-automatic - N.O.= automatic

5 POLE TERMINAL BLOCK (M10): 33-34 = LUC = Contact enter N.O. to disable the low photocell and the DW in the last centimetres of closing (when N.C. disable).

34-35 = AP/CH = N.O. Button 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)

36-37 = TX24V = Supply Exit 24Vdc for photocells (for autotest)

Only photocells transmitter

+24Vdc. high

0V (-) low

3 POLE TERMINAL BLOCK (M11): If shunt on 16-17 = Input at 230V (Monophase or Treephase)

If shunt on 17-18 = Input at 400Vac. (set of factor)

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 high 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 High 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** (Homme Mort)

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 obscured, keep the counter of the
“Work Time”).

ON : “HIGH” PHOTOCELL BLOCK THE MOUVEMENT (CENTRALE BLOCKED)

WARNING

- The motor time of start is instantaneous 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 fonctionnement 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 possible to insert (SW1 dip 2) the function anti-dragging : with close end-run opened and the low and/or Hihgt photocell obscured, 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 F4.	Insert supply like in the scheme
Control does not move, switched off leds	Short-circuit on output 24Vdc. Check F4.	Disconnect the controls supplied 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 direction	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 SW1(OFF)
Control does not open	Failed 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 SW2	Set in the right way

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:

Q38 control 400V threephase supply
Max. load permitted : 1,1kW
Threephase motor $\cos\phi = 0,7$
N° of possible movement: 100.000

Q38 control 230V threephase or monophase supply
Max. load permitted : 0,65kW
Threephase motor $\cos\phi = 0,7$
N° of possible movement: 100.000

WARNING: Reducing the motor $\cos\phi$ the n° of possible openings decreases (ex. with $\cos\phi = 0,3$ 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.

Regulatin Times (Dip Swich SW2)

WORKING TIME:

Dip 1 OFF Dip 2 OFF	min. 27 sec.	MAX 50 sec.	
Dip 1 OFF Dip 2 ON	min. 80 sec.	MAX 150 sec.	
Dip 1 ON Dip 2 OFF	min. 04 sec.	MAX 30 sec.	(set on factory)
Dip 1 ON Dip 2 ON	min. 04 sec.	MAX 150 sec.	

PAUSE TIME:

min **01** sec. MAX **70** sec. (set on factory)

With R11 shunt the max time is 200 sec.

PEDESTRIAN TIME:

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

REVERSAL TIME:

Dip 3 OFF Dip 4 OFF	reversal time = 0,5 sec.
Dip 3 OFF Dip 4 ON	reversal time = 1 sec. (set of factor)
Dip 3 ON Dip 4 OFF	reversal time = 2 sec.
Dip 3 ON Dip 4 ON	reversal time = 4 sec.

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 <u>PEDESTRIAN ORDER</u>
Shunted 2-3 (central - right) CH2 of receiver	FOR <u>CLOSE ORDER</u>
W2 Shunted 4-5 (central - left) CH1 of receiver	FOR <u>DYNAMIC ORDER</u>
Shunted 5-6 (central - right) CH1 of receiver	FOR <u>OPEN ORDER</u>