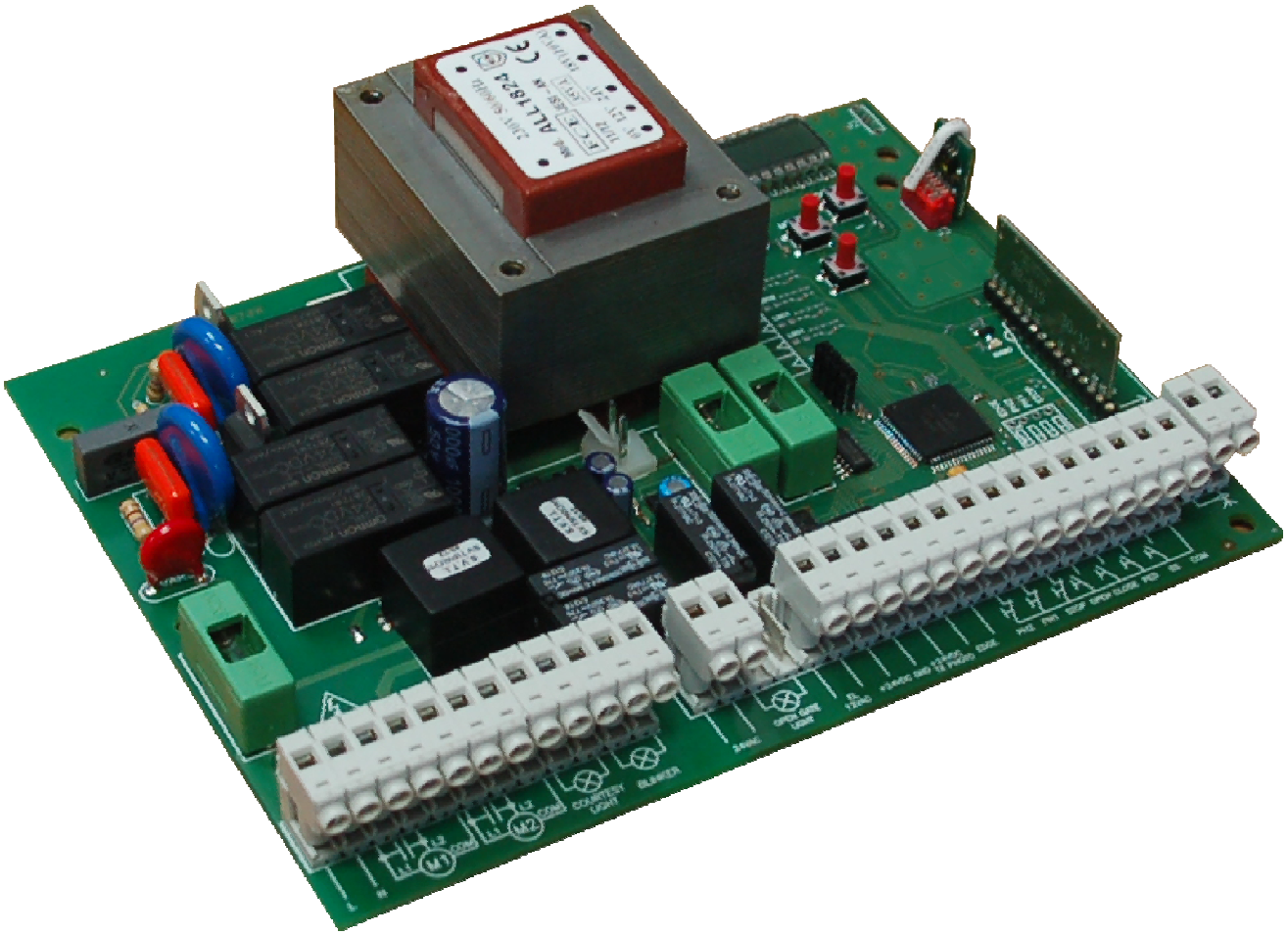
CE

CONTROL UNIT BIOS2 HR

Programmable Control board for wings gates



Manual for installation

HR MATIC

The control unit is compatible only with HR Rolling Code transmitters

ALLMATIC

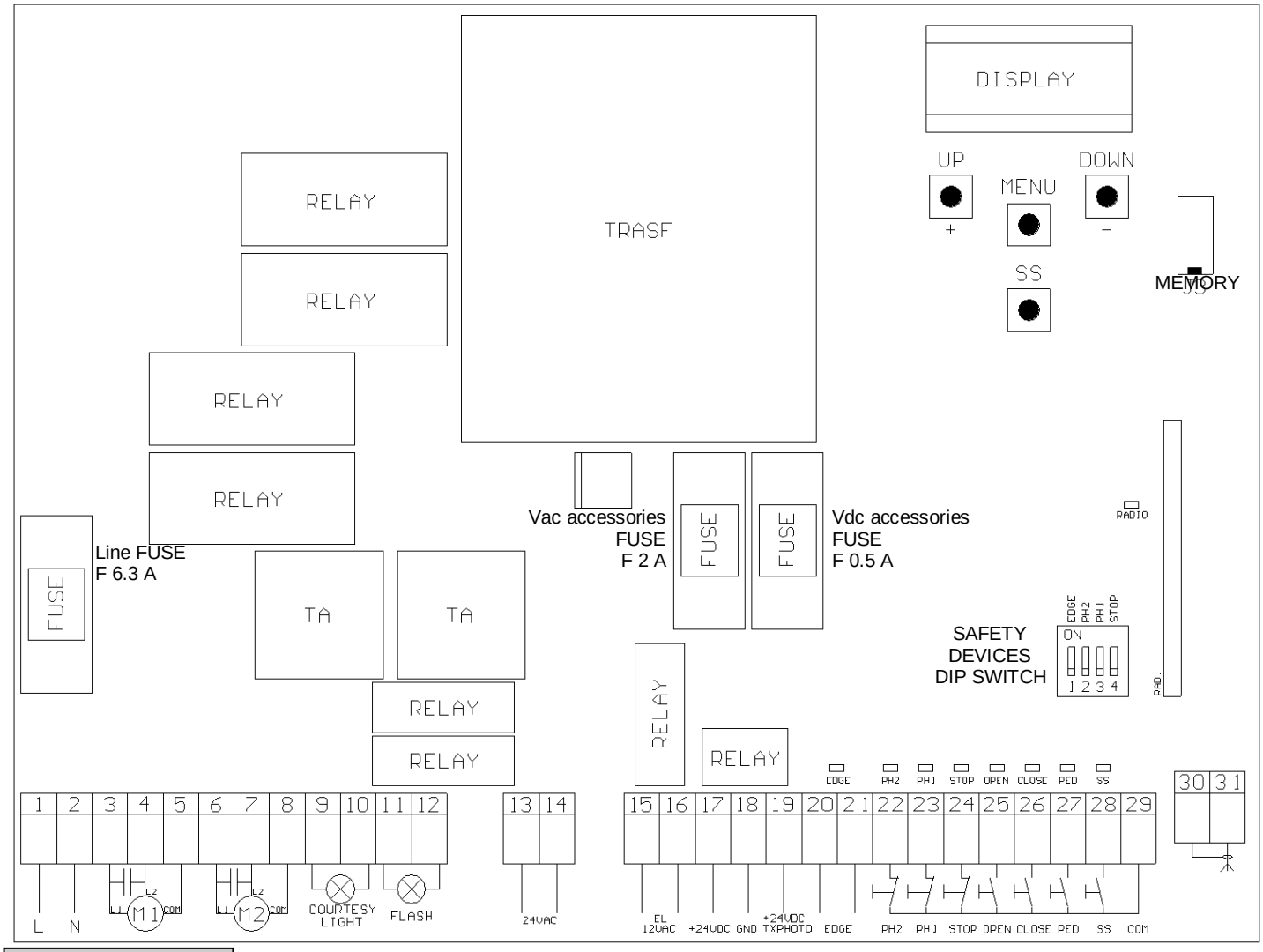
1. Introduzione

The control unit BIOS2 HR is particularly indicated for the installation of 1 or 2 wing gates with 230 Vac motors with maximum power absorbed of 700W.The control unit equipped with a display that allows a precise regulation of the thrust of the gates and sensitivity. It is also possible to adjust the delay in closure of the second wing in the base settings menu. The control unit can memorize up to 8000 transmitters with the external memory, with the step by step, pedestrian, open and close functions. It is supplied with inputs for interior and exterior photocell, safety edge (mechanical or 8k2), possibility to connect the buttons for step by step, pedestrian, open, close and stop. The outputs include a 230 Vac flashing light, electrical lock 12 Vac 15 VA or by the expansion card R1 (not supplied) with dry contact 230 Vac 5A max/30 Vdc 5A max, courtesy light/zone light/open gate light, 24 Vac/dc accessories power supply.

ATTENTION: DO NOT INSTALL THE CONTROL UNIT WITHOUT READING THE INSTRUCTIONS FIRST !!!
THE INSTALLATION SHOULD BE PERFORMED ONLY BY QUALIFIED PERSONNEL.

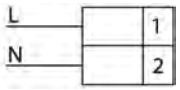
For a correct functioning of the system, it is absolutely indispensable the use of mechanical stops in opening and closing.

2. Configuration



3. Connections

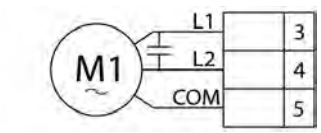
1



POWER SUPPLY
Connect the power supply cable between clamp 1 and 2 of the control unit

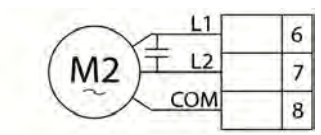
Power supply 230 Vac 50 Hz
Do not connect the card directly to the electric network. Put a device which can ensure the disconnection of each pole from the power supply of the control unit.

2



MOTOR 1 OUTPUT
Connect the **common** of the motor 1 to the clamp 5 of the control unit.
Connect the **phase 1** of the motor 1 to the clamp 3 of the control unit.
Connect the **phase 2** of the motor 1 to the clamp 4 of the control unit.

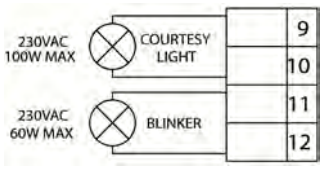
Connect to the MOTOR 1 output the wing which beats.Install an aventual electrical lock on this wing. MOTOR 1 is always activated first during opening phase and in second during closing phase.



MOTOR 2 OUTPUT
Connect the **common** of the motor 2 to the clamp 8 of the control unit.
Connect the **phase 1** of the motor 2 to the clamp 6 of the control unit.
Connect the **phase 2** of the motor 2 to the clamp 7 of the control unit.

Motor condensers 230 Vac
!Risk of electric shock!

3



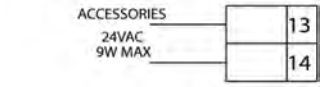
COURTESY LIGHT OUTPUT
Connect the courtesy light to the clamps 9 and 10, 230Vac 100W MAX.

FLASHING LIGHT OUTPUT
Connect the flashing light to the clamps 11 and 12.

It is possible to light up the action area of the automatism during each motion.
The functioning of the auxiliary light is controlled in the advanced menu FLY.

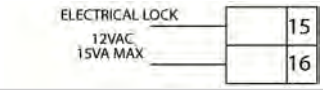
Use a flashing light without self flashing card
230Vac 60W MAX

4



ACCESSORIES OUTPUTS
Accessories output 24Vac 9W max.

5



ELECTRICAL LOCK OUTPUT
12Vac 15VA

The functioning of the electrical lock is controlled in the advanced menu HAo

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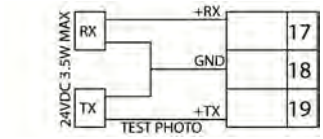
6



PHOTOCELLS POWER SUPPLY
Connect the **clamp 17** of the control unit to the **clamp +** of the power supply of the photocells receiver.
Connect the **clamp 18** of the control unit to the power supply **clamp -** of the photocells receiver and of the transmitter.
Connect the **clamp 19** of the control unit to the power supply **clamp** of the trasnmitter of the photocells.

The photocells test is activated in the advanced menu tPh.
ATTENTION: the control unit gives a voltage of 24 Vdc and can supply a maximum power of 3.5W.

For the safety edge test connect the test device of the safety edge on the power supply pins of the TX (test activated wiht low logic signal 0Vdc).
Please refer to the manual of the safety edge.

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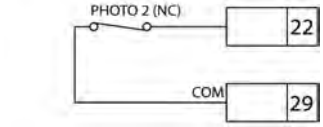
SAFETY EDGE INPUT
Connect the safety edge contacts to the clamps 20 and 21 of the control unit.

Select the type of security edge used (mechanical or 8K2) through the menu Edn, select the type of functioning through the menu iEd.
If not used set the DIP switch EDGE ON.

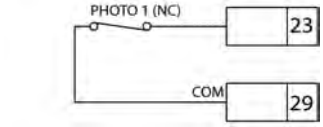
8



OPENING PHOTOCELL INPUT
Connect the **NORMALLY CLOSED** contact of the photocell (PHOTO) between the clamps 22 and 29 of the control unit.

The functioning of the opening photocell is controlled in the advanced menu Ph2.
If not used set the DIP switch PH2 ON.

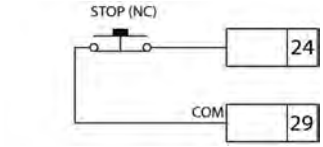
9



CLOSING PHOTOCELL INPUT
Connect the **NORMALLY CLOSED** contact of the photocell (PHOTO) between the clamps 23 and 29 of the control unit.

The functioning of the closing photocell is controlled in the advanced menu SPh.
If not used set the DIP switch PH1 ON.

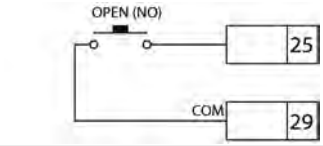
10



STOP INPUT
Connect the contact **NORMALLY CLOSED** of the STOP between the clamps 24 and 29 of the control unit.

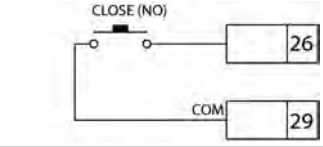
If not used set the DIP switch STOP ON.

11



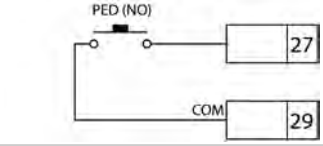
OPEN INPUT
Connect the button OPEN between the clamps 25 and 29 of the control unit.

12



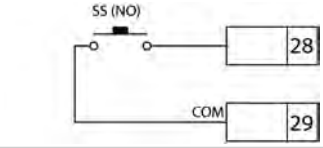
CLOSE INPUT
Connect the button CLOSE between the clamps 26 and 29 of the control unit.

13



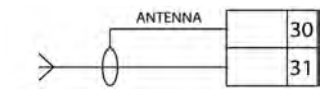
PEDESTRIAN INPUT
Connect the button PED between the clamps 27 and 29 of the control unit.

14



STEP BY STEP INPUT
Connect the button SS between the clamps 25 and 28 of the control unit.

15



ANTENNA
Connect the signal cable of the antenna to the clamp 31 and the ground of the antenna to the clamp 30 of the control unit.

The presence of the metallic parts or humidity in the walls could have negative influences on the range of the system. We suggest therefore to not place the receiving antenna and/or transmitters near big metallic objects, near the floor or on the ground.

4. Remote control learning

The control unit is compatible only with HR Rolling Code transmitters

4.1 Learning of one transmitter

The 1st memorized key performs the STEP by STEP function (opening and closing of the gate), the 2nd key performs the pedestrian opening, the 3rd key performs the OPEN function, 4th key performs the CLOSE function.
The control unit exits from the learning phase if no new key or trasnmitter command is given in 10 seconds.

1. Make sure that the board is out of any menus, press the button UP[+] — `--` ⇨ On the display will appear and the flashing light lights on — `rAd`
2. Press one key of the transmitter ⇨ On the display will appear **don**. If the transmitter was already memorized will appear **Fnd** — `don` / `Fnd`

If you want to memorize another key or a new transmitter repeat the procedure

4.2 Learning with the hidden key of an already memorized transmitter

With the hidden key of a transmitter it is possible to enter the learning phase in order to memorize new keys or new transmitters.
With the automation still, with the aid of a clip press the hidden button of an already memorized transmitter, the flashing light lights on, now it is possible to memorize new keys or transmitters.

4.3 Cancellation of one transmitter

Enter the learning phase (with the UP[+] button or with the hidden key of a transmitter) 4.1.1 or 4.2, press in the same time the hidden key and another key of the transmitter that you want to cancel, the flashing light bilnks 4 times and on the display will appear `CLr`.

5. Setting the wing stroke

For a correct functioning of the system, it is absolutely indispensable the use of mechanical stops in opening and closing.

5.1 Easy settings of the wings stroke (parameter `LSI ≠ P`)

Connect to the MOTOR 1 output the wing which beats.Install an aventual electrical lock on this wing. MOTOR 1 is always activated first during opening phase and in second during closing phase. In this procedure it is necessary to provide the limits positions of the wings with a step by step command (SS).

1. Unlock the motors, move the wings in the middle of the stroke and relock the motors.
2. Press and keep pressed the buttons UP[+] e MENU for at least 5 seconds. ⇨ The **wing 1** moves in **opening**. If the wing moves in closing press the DOWN[-] button to stop and reverse the direction of movement and give a step by step command (SS) to resume the procedure — `LOP`
3. When the wing 1 reaches the opening mechanical stop give a step by step command (SS) ⇨ The wing 1 stops and the **wing 2** moves in **opening**. If the wing moves in closing press the DOWN[-] button to stop and reverse the direction of movement and give a step by step command (SS) to resume the procedure — `LOP`
4. When the wing 2 reaches the opening mechanical stop give a step by step command (SS) ⇨ Wing 2 stops, after 2 seconds the wing 2 moves in closing — `LCL`
5. When the wing 2 reaches the closing mechanical stop give a step by step command (SS) ⇨ Wing 2 stops, after 2 seconds the wing 1 moves in closing — `LCL`
6. When the wing 1 reaches the closing mechanical stop give a step by step command (SS) ⇨ Wing 1 stops, after 2 seconds the wing 1 moves in opening — `LOP`
7. When the wing 1 reaches the the opening mechanical stop give a step by step command (SS) ⇨ Wing 1 stops, after 2 seconds the wing 2 moves in opening — `LOP`
8. When the wing 2 reaches the the opening mechanical stop give a step by step command (SS) ⇨ Wing 2 stops, after 2 seconds the gate closes with the settings of delay between the wings and slowing downs set in the menu. When the gate is closed the learning phase is ended. — `LCL`

For a correct functioning of the system, it is absolutely indispensable the use of mechanical stops in opening and closing.

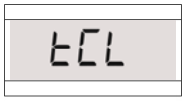
5.2 Advanced settings of the wings stroke (parameter LSI = P)

Connect to the MOTOR 1 output the wing which beats.Install an aventual electrical lock on this wing. MOTOR 1 is always activated first during opening phase and in second during closing phase. In this procedure it is necessary to provide also the positions where the slowing downs begin with a step by step command (SS).

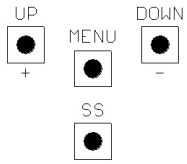
1	Unlock the motors, move the wings in the middle of the stroke and relock the motors.			
2	Press and keep pressed the buttons UP[+] e MENU for at least 5 seconds.	⇨	The **wing 1** moves in **opening**. If the wing moves in closing press the button DOWN to stop and reverse the direction of movement and give a step by step command (SS) to resume the procedure	LOP
3	When the wing 1 reaches the opening mechanical stop give a step by step command (SS)	⇨	The wing 1 stops and the **wing 2** moves in **opening**. If the wing moves in closing press the button DOWN to stop and reverse the direction of movement and give a step by step command (SS) to resume the procedure	LOP
4	When the wing 2 reaches the opening mechanical stop give a step by step command (SS)	⇨	Wing 2 stops, after 2 seconds the wing 2 moves in closing	LCL
5	When the wing 2 reaches the desired position of beginning of slowing down give a step by step command (SS)	⇨	The wing 2 begins the slowing down	
6	When the wing 2 reaches the closing mechanical stop give a step by step command (SS)	⇨	Wing 2 stops, after 2 seconds the wing 1 moves in closing	LCL
7	When the wing 1 reaches the desired position of beginning of slowing down give a step by step command (SS)	⇨	The wing 1 begins the slowing down	
8	When the wing 1 reaches the closing mechanical stop give a step by step command (SS)	⇨	Wing 1 stops, after 2 seconds the wing 1 moves in opening	LOP
9	When the wing 1 reaches the desired position of beginning of slowing down give a step by step command (SS)	⇨	The wing 1 begins the slowing down	
10	When the wing 1 reaches the the opening mechanical stop give a step by step command (SS)	⇨	Wing 1 stops, after 2 seconds the wing 2 moves in opening	LOP
11	When the wing 2 reaches the desired position of beginning of slowing down give a step by step command (SS)	⇨	The wing 2 begins the slowing down	
12	When the wing 2 reaches the the opening mechanical stop give a step by step command (SS)	⇨	Wing 2 stops, the gate closes with the slowing downs set during the learning phase and the delay between the wings set in the menu. When the gate is closed the learning phase is ended.	LCL

6. Menu

Ex. Base menu



Ex. Advanced menu



Entering the menu:
To enter the base menu settings keep pressed the MENU button for at least one second
To enter the advanced menu settings keep pressed the MENU button for at least five seconds

Navigation into the menu:
It is possible to move from an entry to another one using UP[+] e DOWN[-] buttons,
To change a parameter keep pressed the MENU button for at least 1 second until the parameter begins blinking, so release the key.
Use UP[+] and DOWN[-] buttons to change the parameter
At the end keep pressed MENU for al least 1 second until the parameter stops blinking to save the change.

A quick pressure of the menu key is enough to leave a menu

6.1 Base settings menu:

MENU	DESCRIPTION	SELECTABLE VALUES min-max	DEFAULT	UNITS
tCL	Auto reclosing time (0 = disabled)	0-900	20	s
tbr	Auto reclosing time after transit(0 = disabled)	0-30	0	s
SEI	Obstacle sensitivity (0 = disabled 100 = maximum sensitivity)	0-100	0	%
trq	Motor torque (running torque)	10-100	100	%
SSL	Slowing down mode 0 = normal 1 = fast with more torque	0-1	0	
SbS	Step by step configuration 0 = normal (OP-ST-CL-ST-OP-ST…) 1 = alternated STOP (OP-ST-CL-OP-ST-CL…) 2 = alternated (OP-CL-OP-CL…) 3 = condominium – timer 4 = condominium with immediate auto reclosing	0-4	0	
bLt	After black-out 0 = no action 1 = closing	0-1	0	
SSt	Soft start 0 = disabled 1 = enabled	0-1	0	
dLY	Second wing delay	0-300	2	s
LSI	Amplitude of slowing down (0 = disabled) P = personalized during learning 0…100% = percentage of stroke	0-100	15	%
ASL	Anti slip	0-300	0	s
nMt	Number of motors 1 = 1 motor 2 = 2 motors	1-2	2	

6.2 Advanced menu:

MENU	DESCRIPTION	SELECTABLE VALUES min-max	DEFAULT	UNITS
ELF.	Electrical brake activation time 0 = disabled 1 - 100= enabled	0-100	0	x0.01 s
SPh.	Functioning of closing photocell PHOTO1 moving from closed 0 = Check PHOTO1 1 = The gate opens also with PHOTO1 busy	0-1	1	
Ph2.	Functioning of opening photocell PHOTO2 0 = Enabled in opening and closing OP/CL 1 = Enabled only in opening OP	0-1	0	
tPh.	Photocells test 0 = disabled 1 = enabled PHOTO1 2 = enabled PHOTO2 3 = enabled PHOTO1 and PHOTO2	0-3	0	
Edi.	Safety edge type 0 = contact (NC) 1 = resistive (8k2)	0-1	0	
iEd.	Operation mode of safety edge 0= working only in closing with inversion of movement 1 = stops the automation (both opening and closing) and free the obstacle (short inversion)	0-1	0	
tEd.	Safety edge test 0 = disabled 1 = enabled	0-1	0	
LPo.	Pedestrian opening	0-100	30	%
tPC.	Auto reclosing time from pedestrian opening (0 = disabled)	0-900	20	s
FPr.	Blinker output mode 0 = Fix 1 = Blinking	0-1	1	
tPr.	Pre-flashing time (0 = disabled)	0-10	0	s
FCY.	Courtesy ligth settings 0 = At the end of movement for a TCY time 1 = On if the gate is not closed + TCY time 2 = On if courtesy light timer (TCY) not expired 3 = Open gate light on/off 4 = Open gate light with proportional flashing	0-4	0	
tCY.	Courtesy light time	0-900	0	s
dEA	Dead-man 0 = disabled 1 = enabled	0-1	0	
SEr.	Setting threshold of cycles for assistance request. Once limit is reached the next cycles will be done with fast blinking (only if FPr enabled) (0 = disabled)	0-100	0	x1000 cicli
SEF.	Continuous blinking for assistance request (done only with closed gate). 0 = disabled 1 = enabled	0-1	0	
HAo.	Water-hammer and elecrtical lock in opening phase (0 = disabled)	0-100	0	x100 ms
HAc.	Water-hammer in closing phase (0 = disabled)	0-100	0	x100 ms
tPr.	Time of pressure in closed for hydraulic motors (0 = disabled)	0-480	0	minuti
dEF.	Restore default settings, enter to modify the parameter and then keep pressed the MENU button, a count down appears that ends with don on the display			
trF.	Cancelling all transmitters, enter to modify the parameter and then keep pressed the MENU button, a count down appears that ends with don on the display			

6.3 Menu description:

6.3.1 Base settings menu

tCL Auto reclosing time
Active when the gate is in the completely open position, the gate automatically closes after tCL seconds. In this phase the display shows -tC with the blinking dash, that during the last 10 seconds will be replaced by the count down.

ttr Auto reclosing time after transit
If in the opening phase or in the completely open position the beam of the photocells is obscured and freed, the gate automatically closes after ttr seconds when the completely open position is reached, In this phase the display shows -tC with the blinking dash, that during the last 10 seconds will be replaced by the count down.

SEn Obstacle sensitivity
Adjust the obstacle sensitivity to ensure a correct functioning of the gate, it must stop if there is an obstacle but also it must ensure the complete movement in the worst conditions (exp. winter, hardening of motors, etc). After the adjustement of this parameter it is recommended to perform a complete movimentation (opening and closing) before trying the obstacle detection.

trq Motor torque
Adjust the motor torque to ensure a correct functioning of the gate, it is possible to adjust the percentage of torque between 10% to 100%. After the adjustement of this parameter it is recommended to perform a complete movimentation (opening and closing) to ensure a correct functioning of the gate.

SSL Slowing down mode
The control unit has 2 different type of slowing downs : standard or with higher torque and speed, for heavier gates.

SbS Step by step configuration (SS)

- SbS = 0 Normal (OP-ST-CL-ST-OP-ST…)
  Typical functioning of Step by Step. During the movement a SS command stops the gate.
- SbS = 1 Alternated STOP (OP-ST-CL-OP-ST-CL…)
  Alternated functioning with STOP during the opening. During the opening phase a SS command stops the gate.
- SbS = 2 Alternated (OP-CL-OP-CL…)
  The user cannot stop the gate during the movement with a SS command.
  A SS command during the movement inverts the movement.
- SbS = 3 Condominium – timer
  A SS command only opens the gate. When the gate is completely open, if the command persist the control unit will wait until the opening of the contact before beginning the contdown of the automatic reclosing (if enabled), onother SS command in this phase will restart the contdown of the automatic reclosing.
- SbS = 4 Condominium with immediate auto reclosing
  Like condominium – timer (previous point) but during the countdown a SS command will close the gate.

bLt After black-out
When the control unit turns on after a black-out,

- bLt = 0 No action – when the control unit turns on the gate doesn't move until the first command, the first movement is a slow opening.
- bLt = 1 Closing– turning on the control unit it will perform a slow closing.

SSt Soft start
The movement begins with reduced torque, used in light gates.

dLY Second wing delay
This is the setting of the delay of the second wing to ensure a correct working. In the closing phase the control unit adds 4 additional seconds to ensure that the wings don't overlap also in the worst conditions of functioning.

LSn Amplitude of slowing down
With this parameter it is possible to adjust the amplitude of the slowing down and eventually disable it (LSn =0). If you need more precise or different slowing down between opening and closing it is possible to set the parameter LSn on P (personalized) and perform an advanced learning of strokes (5.2) providing also the beginning of slowing downs during the learning.

ASL Antislip
This parameter is used if the motor slips, the control unit adds ASL seconds to movimentation to ensure a complete movements of the wings also in the worst condition.

nMt Number of motors
This parameter is used to set the number of motors, the learning operations and the functionality will be modified depending on this parameter.

6.3.2 Menu avanzato

EL.F. Electrical brake
Short reverse movement with reduced torque to reduce the inertia of the gate. The operation is performed at each stop of the movement except for fast movement after the intervention of a safety devices.

SP.h. Functioning of closing photocell PHOTO1 moving from closed position
The closing photocell has the following functioning

- Closing: immediate inversion of movement
- Opening from an intermediate position: no intervention
- Opening from closed position:
  - SP.h. = 0 The gate doesn't move if PHOTO1 beam is cut
  - SP.h. = 1 The gate moves while PHOTO1 beam is cut

Ph.2. Functioning of opening photocell PHOTO2
The opening photocell has the following functioning

- Opening: stops the movement and waits until the beam is freed, then moves in opening.
- Closing:
  - Ph.2. = 0 Stops the movement and waits until the beam is freed, then moves in opening
  - Ph.2. = 1 No intervention

tP.h. Photocells test
Enabling this function, before each movement starting from still gate, the control unit performs a functional check of the photocells. The check will not be performed in case of fast movement after the intervention of a safety devices. Follow paragraph 3.6 for the connections of the photocells.

Ed.T. Safety edge type
The control unit can work with two different type of safety edge:

- Ed.T. = 0 Mechanical with normally closed contact
- Ed.T. = 1 Resistive 8k2

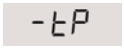
iE.d. Operation mode of safety edge
To allow the installation of the safety edges in both the directions of movements, it is possible to choose 2 different functioning:

- iE.d. = 0 Only in closing with total inversion of movement
- iE.d. = 1 Both directions of movements, stop and short inversion to free the obstacle

tE.d. Safety edge test
Enabling this function the control unit performs a functional check of the safety edge. This function is used if the edge connected to the control unit has an electronic self test (exp. radio edge R.CO.O). Connect the test contact of the edge to the power supply of the trasmitter of the photocells (paragraph 3.6) ad enable the self test with low voltage 0Vdc (for the compatibility follow the instruction of the manual of the safety edge).

LP.o. Pedestrian opening
Pedestrian opening can be performed only starting from closed. The parameter sets the opening like a percentage of the total stroke of the first wing.

tP.C. Auto reclosing time from pedestrian opening
Active when the gate is in the pedestrian opening, the gate automatically closes after tP.C. seconds. In this phase the display shows with the blinking dash, that during the last 10 seconds will be replaced by the count down.



FP.r. Flashing light output mode
It is possible to choose 2 different functioning for the blinker output:

- FP.r. = 0 Fixed blinker output. It will be necessary to connect a self flashing blinker (B.RO LIGHT 230 Vac)
- FP.r. = 1 Flashing light blinker output. It will be necessary to connect a fix light blinker (B.RO LIGHT FIX 230 Vac)

tP.r. Pre-flashing time
Pre-flashing before each movement in both directions, tP.r. seconds of pre-flashing

FC.y. Courtesy light settings
The control unit has 4 different functionings for courtesy light:

- FC.y. = 0 the light switches off at the end of a movement after tC.y. seconds
- FC.y. = 1 the light switches off only with closed gate after tC.y. seconds
- FC.y. = 2 lighted on for tC.y. seconds from the beginning of a movement, indipendently of the condition of the gate
- (the light could switch off before the end of movement)
- FC.y. = 3 open gate light - the light switches off immediately when the gate reaches the closed position
- FC.y. = 4 open gate light with proportional blinking:
  - opening – slow blinking
  - closing – fast blinking
  - opened – light on
  - closed – light off
  - stopped – 2flash + long wait + 2flash + long wait +…

tC.y. Courtesy light timer
Courtesy light activation timer

dE.A. Dead man

During dead man functioning mode the gate moves only with a permanent command.
The enabled commands are OPEN and CLOSE. SS and PED are disabled. During dead man functioning all the automatic movements are disabled, like short or total inversions. All safety devices are disabled except for STOP.

SE.r. Setting threshold of cycles for assistance request

It is possible to set a number of cycles before the request of assistance. Once the limit is reached the next cycles will be done with fast blinking (only if FPr enabled)

SE.F. Continuous flashing light for assistance request

Once limit SE.r. is reached the flashing light will blink also with the gate closed to show the request of assistance.

HA.o. Water-hammer and elecrtical lock in opening phase

This functioning is used with an electrical lock. The gate before opening closes shortly on the mechanical stop with the electrical lock activated, to ensure the correct declutching. The parameter is the time of pressure on the mechanical stop before opening, settable from 0.1s to 10 s.
The sequence done by the control unit before opening is the following:

- preventive activation of the electrical lock [1,5s]
- motor activation in closing with maximum torque. The duration of this phase is setted by the parameter HA.o.
- inversion of direction with another 2 seconds of activation of the electrical lock.

The control unit activate the electrical lock also if it moves from an intermediate position.

HA.c. Water-hammer in closing phase

This functioning is used with an electrical lock. When the gate reaches the closing mechanical stop the control unit perform a strong pressure, HA.c. seconds long, to ensure the locking of the electrical lock.

TiP.r. Time of pressure in closed position for hydraulic motors

This function is used to keep high the pressure of hydraulic motors, done only with closed gate, the control unit performs 1 minute of closing every TiP.r. minutes to keep high the pressure into the motors and the correct closed position.

dE.F. Restore default settings

With this parameter it is possible to restore the default settings of the control unit. The reset will restore all the parameters of the base and advanced menu, but doesn't modify the learnt strokes, the directions of motors and the transmitters.
Move to dE.F. then keep pressed MENU button until the display shows 0, release the button. Press again and keep pressed MENU button, the display will show a count down d80,d79,…,d01 ,don't release the button until the display showns 

tr.F. Erasing of all transmitters

With this parameter it is possible to erase all the transmitters learnt.
Move to tr.F. then keep pressed MENU button until the display shows 0, release the button. Press again and keep pressed MENU button, the display will show a count down d80,d79,…,d01 ,don't release the button until the display showns 

7. Display and control unit state

7.1 Normal functioning:

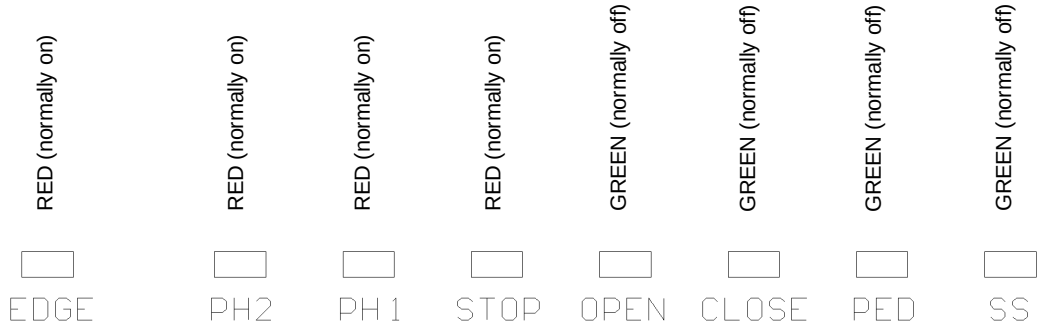
--	Standby - Gate closed
OP	Opening phase
CL	Closing phase
SO	Gate closed by user during opening
SC	Gate closed by user during closing
HA	Gate stopped by an external event (fotocellule, stop)
oP	Gate opened without automatic reclosing
PE	Gate opened in pedestrian position without automatic reclosing
-tC	Gate opened waiting for auto reclosing, last 10 seconds the dash will be replaced by the countdown
-tP	Gate opened in pedestrian position waiting for auto reclosing, last 10 seconds the dash will be replaced by the countdown
000.	During the normal functioning and out from any menu, the pression of the DOWN[-] button lets you see the number of cycles done, you will see units with dots on the bottom of display and thousand without dot, another pression of DOWN[-] or MENU button let you to leave the cycles visualization
000	
rAd	Visualized during the learning of transmitters
don	Visualized when memorized a new transmitter or at the and of a reset
Fnd	Visualized when memorized a key of a transmitter already memorized
CLr	Visualized when a trasmitter is erased
LOP	Visualized during the learnign of strokes to indicate that the control unit is opening the gate and waiting for the command of opening mechanical stop
LCL	Visualized during the learning of strokes to indicate that the control unit is clkosign the gate and waiting for the command of closing mechanical stop
L--	Visualized during the learning of strokes if there is an intervention of safety devices

7.2 Errors:

EF0	Impact sensor intervention
EEd	Safety edge intervention
EL5	Limit switches error (both opening and closing electrical limit switches busy in the same time)
EPH	Malfunctioning of photocells
Eth	Thermical intervention to preserve the control unit
EnE	Memory error
FUL	Full memory

The visualization of an error on the display persist until another command is given

7.3 Input LED and safety devices



8. Technical features

POWER SUPPLY AND CONSUMPTION

Power supply voltage		230 Vac - 50/60 Hz
Absorption from line		
Standard configuration	Standby	
(2 couple of photocells, RX radio safety edge)	Functioning (2 motors)	
Line fuse		F6.3A

MOTOR POWER SUPPLY

Number of motors	1 / 2
Motor power supply voltage	230 Vac - 50/60 Hz
Maximum power absorbed from motors	2 x 700W

ACCESSORIES POWER SUPPLY

Accessories power supply voltage		24Vdc - 24Vac
Maximum current absorbed from accessories		145 mA dc - 375 mA ac
Maximum power absorbed from accessories		3.5 W dc - 9W ac
Accessories fuses	Accessories 24 Vdc	F0.5A
	Accessories 24 Vac	F2A
Blinker output		230 Vac 60W max
Courtesy light output / open gate light		230 Vac 100W max
Electrical lock output	on terminal pole	12 Vac 15 VA
	with R1 card (optional)	dry contact 230 Vac 5A, 30 Vdc 5A max

FUNCTIONALITY

433 MHz radio receiver	Rolling code
Maximum transmitters	1000 (up to 8000)
Safety edge input	NC / 8k2