VIMAR

SW24.D

24 Vdc control panel for swing gates

ELVOX Gates

ELVOX Gates

SW24.D

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1 - Product features

Control panel for 24 Vdc swing gates with a rated power of 80 + 80W, equipped with an encoder interface to detect obstacles and control the speed, and an integrated 433 MHz receiver.
The control panel:
- can customize the slow-down distance and speed for both opening and closing
- has an obstacle detection system
- has LEDs input diagnostics and programming
- has a removable radio memory
- has an integrated receiver with a capacity of 200 remote controls (hard-coded or rolling-code)
- has current control to protect the electric motor

Technical specifications

Power supply	230 Vac
Motor supply voltage	24 Vdc
Maximum motor power	80 + 80 W
Flashing light output	24 Vdc 15 W max
Accessories power supply	24 Vdc 500 mA
Receiver memory	200 remote controls
Receiver frequency	433 MHz
Remote control encoding	Rolling code or hard coded
Fuse F1 (line protection)	ATO 15 A
Fuse F2 (accessory protection)	5x20 mm F3.15 A
Operating temperature	-10 to +50°C

Controllable actuators

Ref.	Description
EAM2	EKKO 300D linear operator 24 V 3 m 300 kg
EAM3	EKKO 400D linear operator 24 V 4 m 250 kg
EIM1	HIDDY 200D underground operator 24 V 2 m 200 kg

2 - System type
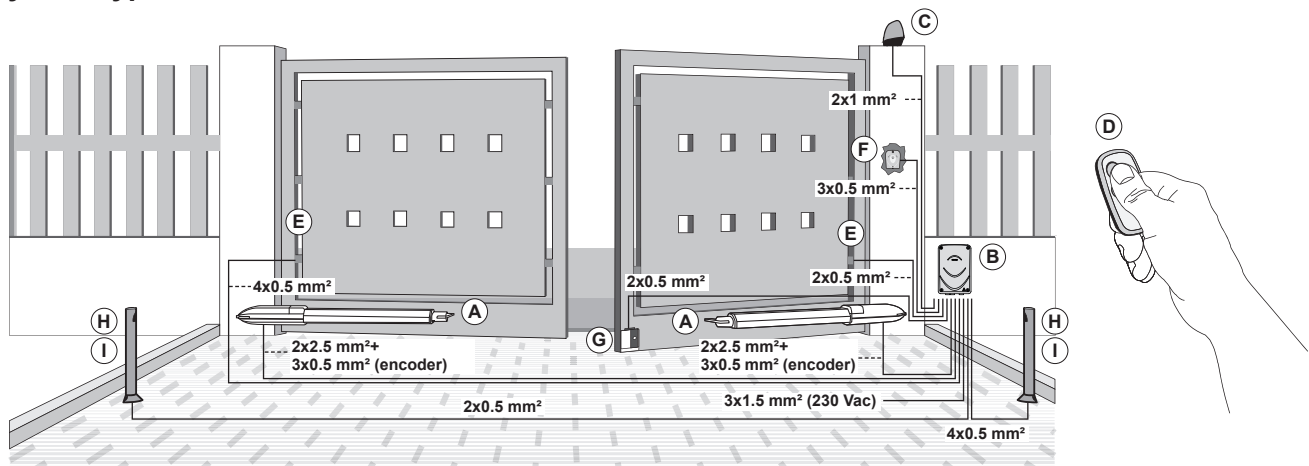
Components for implementing a complete system

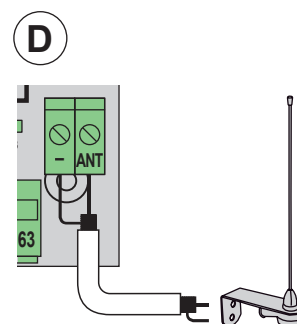| Main Components		Accessories (optional)	
Description	Ref.	Description	Ref.
Actuator	A	Electric lock + cylinder	G
Control panel	B	Post-mounted photocells	H
Blinking	C	Posts	I
Remote control	D		
Wall-mounted photocells	E		
Key selector	F		

3 - Description of the terminal blocks
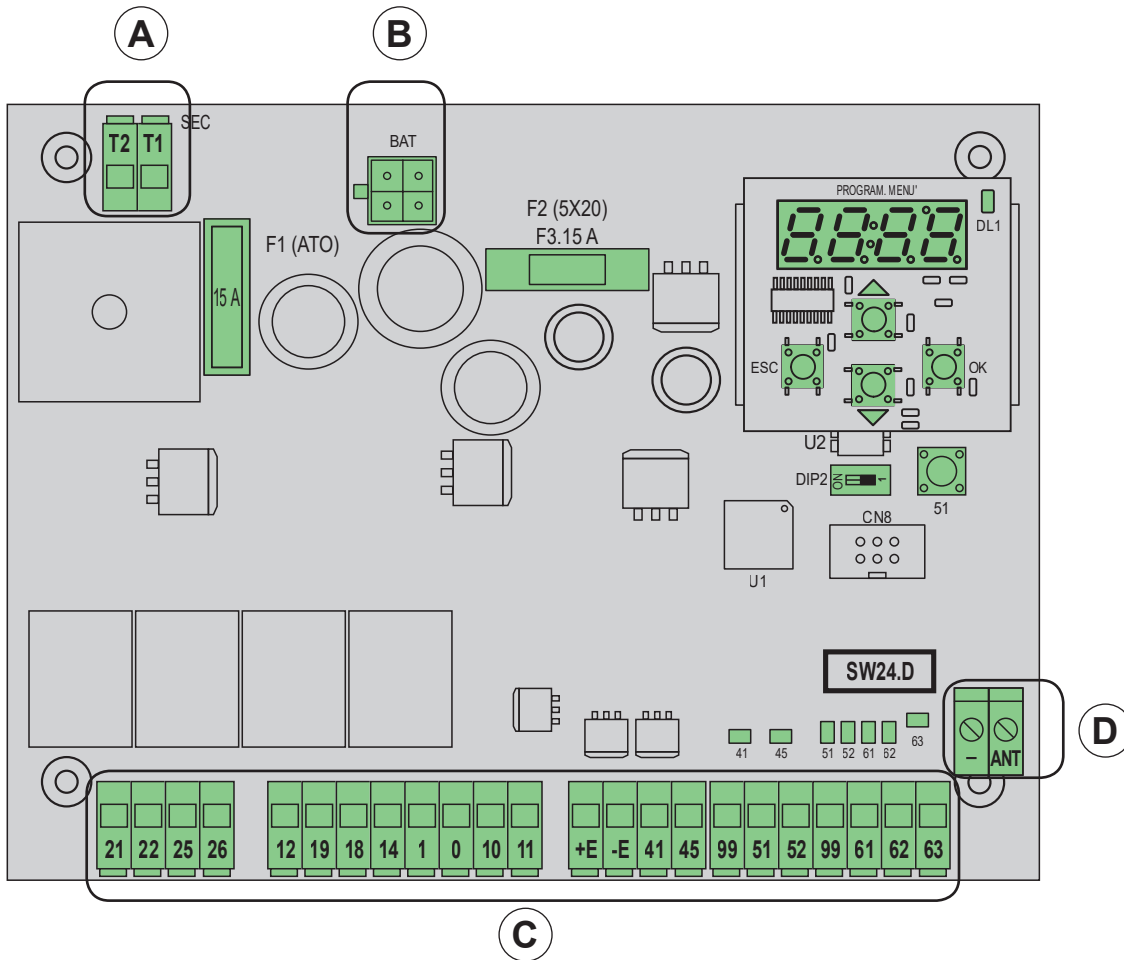
Terminal	Description	Rated data
T1	Transformer secondary connection	24 Vac
T2	Transformer secondary connection	
21	Opening motor 1	24 Vdc 80 W
22	Closing motor 1	
25	Opening motor 2	24 Vdc 80 W
26	Closing motor 2	
12	Auxiliary radio/courtesy light negative output	24 Vdc 120 mA
1	Accessories positive	
19	Electrical lock output	12 Vac 15 VA
18	Electrical lock output	
14	Gate open warning light negative output	24 Vdc 120 mA
1	Accessories positive	
1	Accessories positive	24 Vdc 500 mA
0	Accessories negative	
10	Flashing light negative	24 Vdc 15 W max
11	Flashing light positive	

Terminal	Description	Rated data
+E	Encoder power supply positive	12 Vdc
-E	Encoder power supply negative	
41	Motor 1 encoder signal	
45	Motor 2 encoder signal	
99	Common inputs	
51	Step-by-step (N.O.)	
52	Pedestrian (N.O.)	
99	Common inputs	
61	Stop (N.C.)	
62	Closing photocell (N.C.)	
63	Photocell (N.C.)	
-	Aerial earth	
ANT	Aerial signal	

A

N } - 230 Vac
L } - 120 Vac

SEC
T2 T1
BAT
PROGRA
F2 (5X20)
F3.15 A
F1 (ATO)

B

ZBA6

C

ANT

| 21 | 22 | 25 | 26 | | 12 | 19 | 18 | 14 | 1 | 0 | 10 | 11 | | +E | -E | 41 | 45 | | 99 | 51 | 52 | 99 | 61 | 62 | 63 |

OPEN M1 / CLOSE M1 / OPEN M2 / CLOSE M2
RAU- / LOCK / LOCK / SCA- / 24V+ / 24V- / BLINK- / BLINK+
ENC 12V+ / ENC 12V- / ENC SIG A M1 / ENC SIG A M2
COM / P.P. / PED / COM / STOP / PHC / PH

M1
M2
SCA
RAU

D

ANT
63
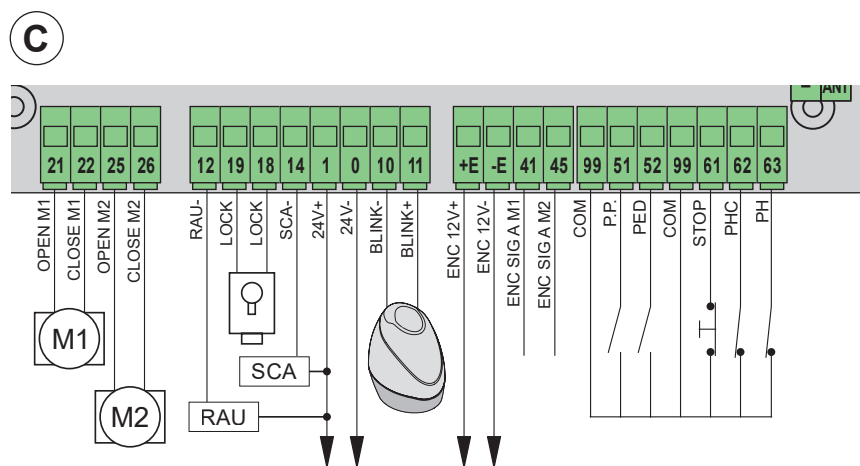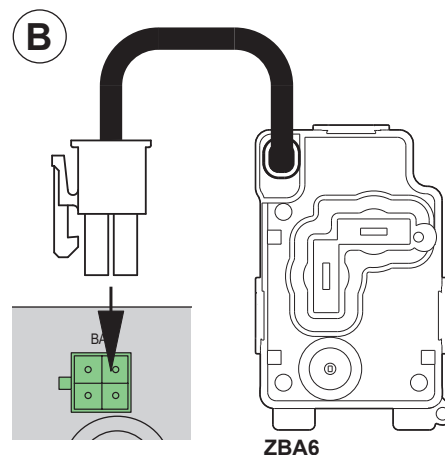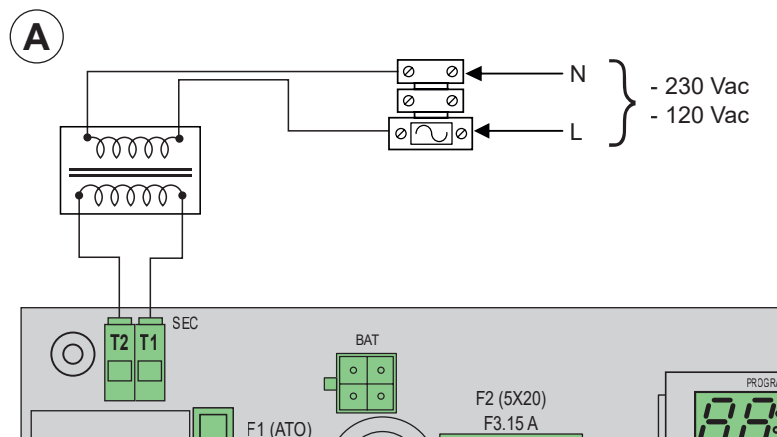
3.1 - Description of the output functions

0-1	**Accessories power supply:** 24 Vdc output Functions according to the P08 parameter setting. P08 = 0: Permanent power supply. P08 = 1, 2, 3: Photo-test active, the negative terminal (0) turns off for a few fractions of a second before the start of movement, so any accessories that require a permanent power supply (e.g. photocell receivers) must get the negative from an input common (terminal 99).
10-11	**Blinking:** 24 Vdc output powered when the gate is moving.
12-1	**Courtesy light (LCO) or Auxiliary Radio Output (RAU):** 24 Vdc Courtesy Light or Auxiliary Radio output: With P20 = PED it is for a Courtesy Light: - it turns on when the gate is moving and remains on for 100 s after it has stopped. With P20 = 2CH it is an Auxiliary Radio Output: - it turns on upon pressing the button that was saved on the remote control as the 2nd radio channel for the amount of time set in parameter P21.
14-1	**Gate Open Indicator Output (SCA):** 24 V DC output to indicate the gate movements operating according to the setting for parameter P07.
18-19	**Electrical Lock Output:** 12 Vac output to activate the electric lock when the gate starts to move.

Note: using the photo-test requires the safety devices to be wired in a specific manner (par. 4.3).

3.2 - Description of the input functions

51	**Step by step (N.O.):** Sequential control input, to control the full gate travel. Operating according to the setting for parameters P39 and P03: P39 = 0, P39 = 1 input 51 operating according to parameter P03. P39 = 2 input 51 only controls the opening. P03 = 1 collective, input 51 - not active in opening - in pause it reloads the pause time if automatic closing is active and suspends the pause if the input remains engaged (for connecting coils or a timer), re-closes if automatic closing is not active - in closing it re-opens. P03 = 2 sequential Opens, Stop, Closes, Stop, Opens. P03 = 3 sequential Opens, Closes, Opens
52	**Pedestrian (N.O.):** Control input to open the gate for pedestrians as input 51 but at pedestrian distance
61	**Stop (N.C.):** Stops the gate. If not used, jumper with the common (99)
62	**Closing photocell - PHC (N.C.):** If not used, jumper with the common (99)
63	**Photocell - PH (N.C.):** Operating according to the setting for parameter P06: P06 = 1 Photocell: - with the gate stopped, does not allow the gate to open - during opening stops the movement and when released proceeds with opening - with the gate open, does not allow closing and when released will reload the pause time - in closing stops the movement and when released reopens the gate P06 = 2 Sensitive edge with NC clean contact: - with the gate stopped, does not allow the gate to open - in opening disengages, re-closes after the pause time if automatic closing is active - with the gate open, does not allow closing and when released will reload the pause time - in closing disengages and opens P06 = 3 8.2 KΩ balanced sensitive edge (8K2) Same behaviour as the NC sensitive edge If not used, jumper with the common (99) and set P06 = 1

4 - Connecting accessories

4.1 - Key switch and control devices
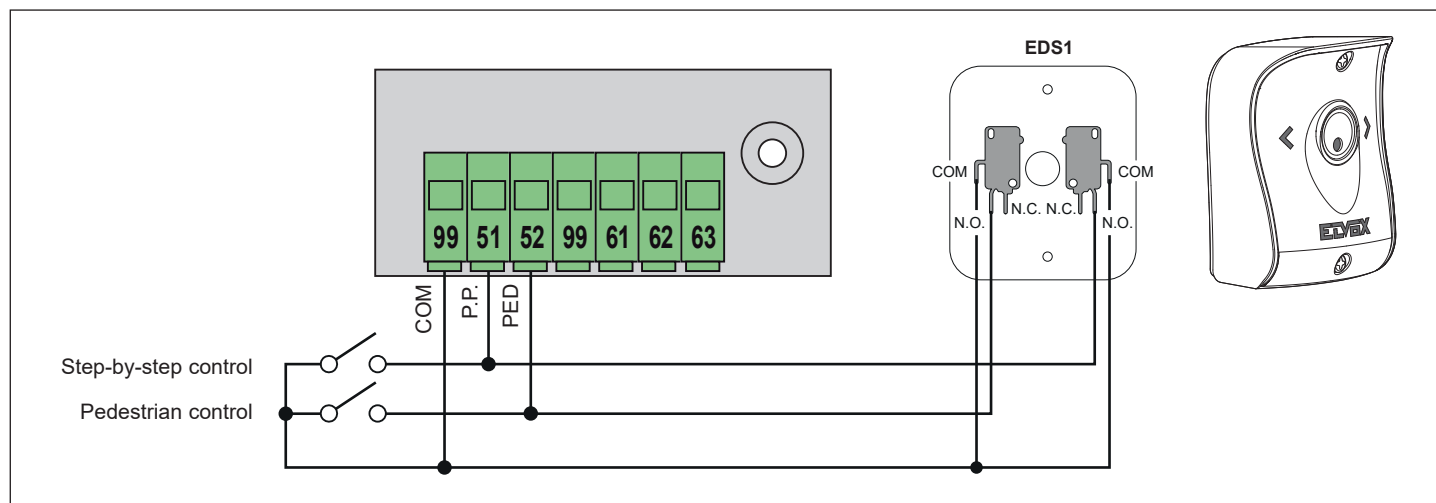
4.2 - Fotocellule e fotocellule in chiusura
Contatto normalmente chiuso (a fotocellule non impegnate i LED 62 e 63 devono essere accesi), se non utilizzato fare un ponticello tra COM e 62, COM e 63, è necessario rispettare la polarità per l'alimentazione delle fotocellule:

P06 = 1
P08 = OFF

RX1   RX2   TX1   TX2

(FSW)   (FSW)

NO COM NC − +   NO COM NC − +   − +   − +

| 12 | 19 | 18 | 14 | 1 | 0 | 10 | 11 | +E | -E | 41 | 45 | 99 | 51 | 52 | 99 | 61 | 62 | 63 |

24V+ 24V−   COM PHC PH
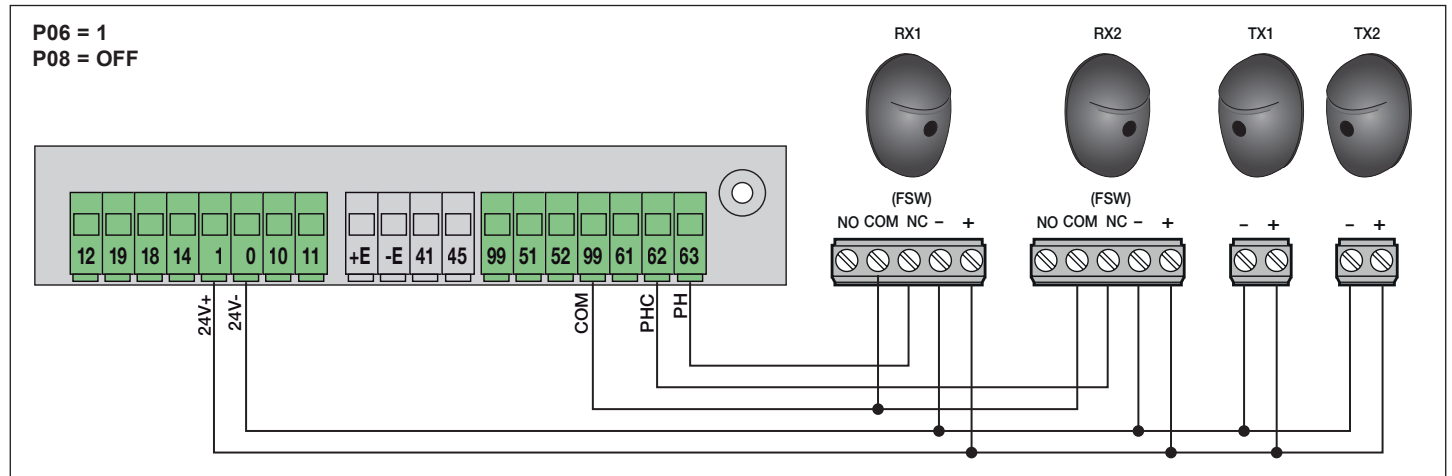
4.3 - Photocells and photocells when closing with photo-test active

P06 = 1
P08 = 3

RX1   RX2   TX1   TX2

(FSW)   (FSW)

NO COM NC − +   NO COM NC − +   − +   − +

| 12 | 19 | 18 | 14 | 1 | 0 | 10 | 11 | +E | -E | 41 | 45 | 99 | 51 | 52 | 99 | 61 | 62 | 63 |

24V+ 24V−   COM PHC PH

4.4 - Sensitive edge

P06 = 2

| 99 | 51 | 52 | 99 | 61 | 62 | 63 |

COM   BAR

P06 = 3

| 99 | 51 | 52 | 99 | 61 | 62 | 63 |

COM   8K2
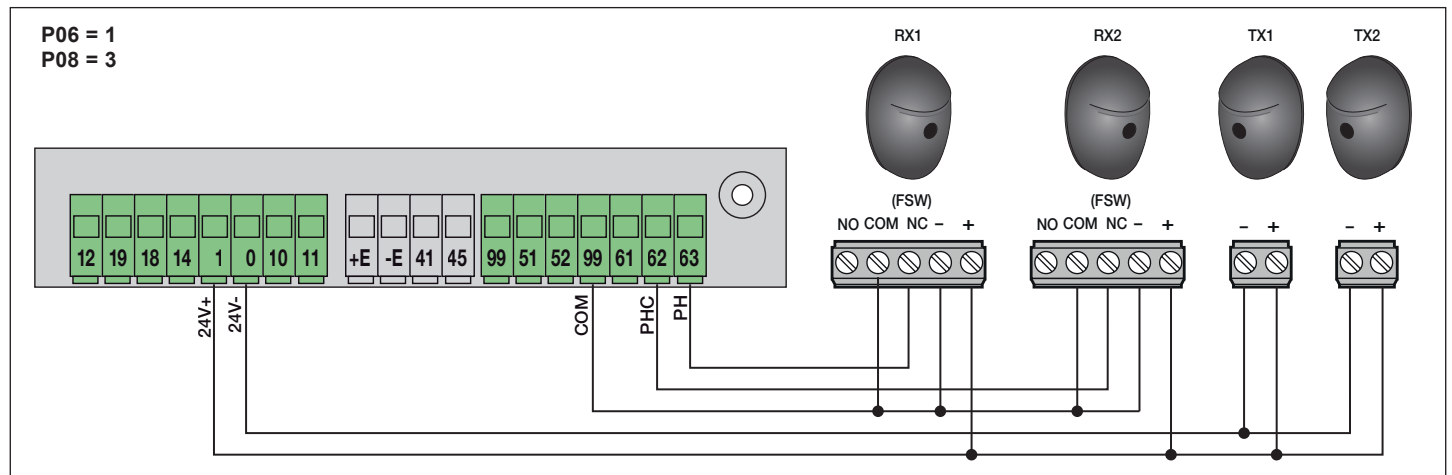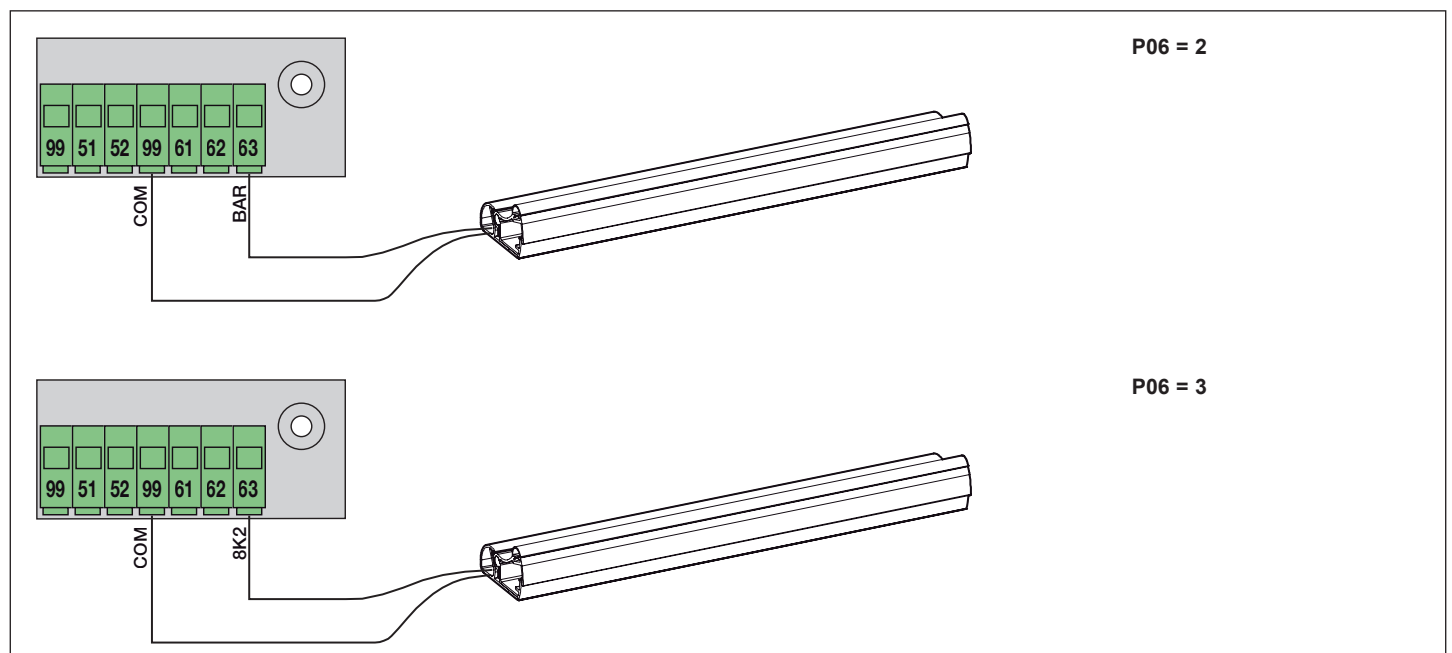
4.5 - Stop push-button

5 - Control panel programming

5.1 - Preliminary operations

After powering the unit, the name of the control board written as SW2.D, the firmware version FX.XX and 3 flashes with the word FLSH appear in the display, then display then goes off.
To function correctly, the control panel requires some minimum and essential settings and checks.

- Input status check:
  Check the diagnostic LEDs of the inputs, the LEDs 61, 62, 63 must be on.
  If one of the safety inputs (61, 62, 63) is not used, insert a bridge between the common (99) and the unused input.
  If one of the safety inputs (61, 62, 63) is open, the dot at bottom right-hand corner of the display flashes to indicate a engaged/non-working safety that will prevent the gate from moving. It will therefore be necessary to check the connections and the correct functioning status of the safety devices.

- Gate travel calibration
  The control panel must know some physical parameters of the gate in order to function correctly. The operation allowing the control panel to know these physical gate parameters is called travel calibration. If this is not done, the control panel may not perform slowdowns or detect obstacles correctly.

5.2 - Using the display

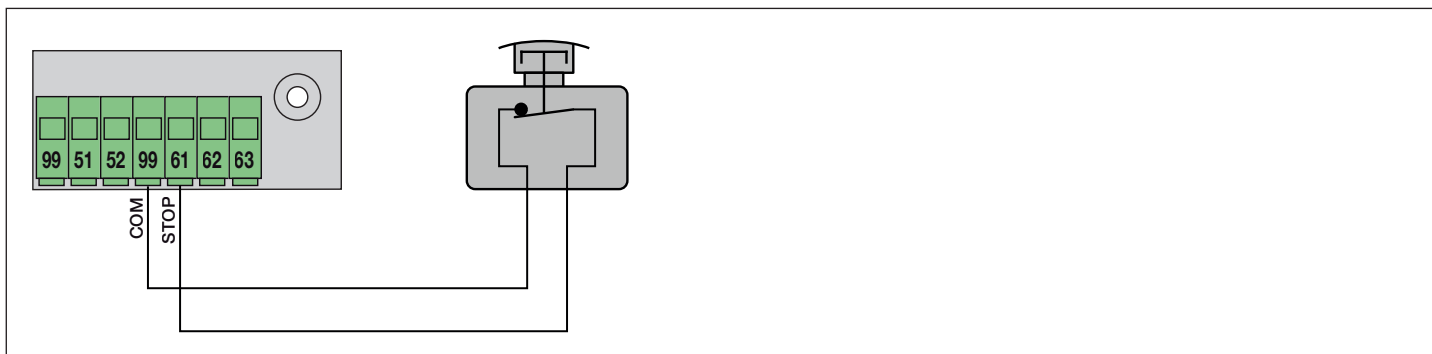| Button	Description
OK	Button to turn on the display, to access the menu and to confirm the parameter value change. When the motor is moving, when pushed once it displays the absorption in A of motor M1, when pushed twice it displays the absorption in A of motor M2
▲	Button to scroll up the menus and increase the parameter value
▼	Button to scroll down the menus and decrease the parameter value
ESC	Button to turn off the display, exit the menu and cancel the parameter value change
51	Step-by-step command button

5.3 - Menus

The control board programming is organized in menus and submenus that allow to access and edit the parameters and logics of the control board. The control board features the following first level menus:

Menu	Description
LRNE	Quick gate travel calibration
LRNA	Advanced gate travel calibration
PAR	Control board parameter setting menu
RAD	Remote controls management menu
DEF	Factory reset menu
CNT	Cycle counter menu
ALM	Board alarms menu
PASS	Board protection level setting menu

Submenus

All submenus are described in the table below.

<table>
<tr><td colspan="4">Quick gate travel calibration.
The calibration is fully self-performed and sets:
- Opening and closing slowdown to 30% of the total travel
- Opening delay between leaves to 3 s
- Closing delay between leaves to 6 s
It requires mechanical stops both on opening and closing
Rows highlighted in grey refer only refer to a double leaf installation, in a single leaf installations delays between leaves are not programmed</td></tr>
<tr><td>Button</td><td>Display msg</td><td colspan="2">Phase description</td></tr>
<tr><td>-</td><td>51</td><td colspan="2">Wait for calibration procedure start</td></tr>
<tr><td>51</td><td>CLS2</td><td colspan="2">When button pressed: leaf 2 closing and search for leaf 2 closing stop</td></tr>
<tr><td>-</td><td>CLS1</td><td colspan="2">Leaf 1 closing and search for leaf 1 closing stop</td></tr>
<tr><td>-</td><td>LOC</td><td colspan="2">Electric lock activation to free leaf 1</td></tr>
<tr><td>-</td><td>OPN1</td><td colspan="2">Leaf 1 opening travel measurement at slow down speed</td></tr>
<tr><td>-</td><td>OPN2</td><td colspan="2">Leaf 2 opening travel measurement at slow down speed</td></tr>
<tr><td>-</td><td>CLS2</td><td colspan="2">Leaf 2 closing at normal speed and then at slow down speed up to leaf 2 closing mechanical stop</td></tr>
<tr><td>-</td><td>CLS1</td><td colspan="2">Leaf 1 closing at normal speed and then at slow down speed up to leaf 1 closing mechanical stop</td></tr>
<tr><td>-</td><td>oooo</td><td colspan="2">Full opening and closing of both leaves for current thresholds measurement</td></tr>
<tr><td>-</td><td>END</td><td colspan="2">End of procedure</td></tr>
</table>

(Side label: LRNE)

<table>
<tr><td colspan="4">Advanced gate travel calibration.
Calibration allows the installer to set:
- Opening and closing slow down position
- Leaves end of travel positions
- Opening and closing delays between leaves
- Pedestrian opening position
It requires mechanical stops on closing only
Rows highlighted in grey refer only refer to a double leaf installation, in a single leaf installations delays between leaves are not programmed</td></tr>
<tr><td>Button</td><td>Display msg</td><td colspan="2">Phase description</td></tr>
<tr><td>-</td><td>51</td><td colspan="2">Wait for calibration procedure start</td></tr>
<tr><td>51</td><td>CLS2</td><td colspan="2">When button pressed: leaf 2 closing and search for leaf 2 closing stop</td></tr>
<tr><td>-</td><td>CLS1</td><td colspan="2">Leaf 1 closing and search for leaf 1 closing stop</td></tr>
<tr><td>-</td><td>LOC</td><td colspan="2">Electric lock activation to free leaf 1</td></tr>
<tr><td>51</td><td>OPN1</td><td colspan="2">Leaf 1 opening start.
When button pressed: leaf 1 opening slow down position setting, the leaf proceeds at slow down speed</td></tr>
</table>

(Side label: LRNA)

LRNA

51	SLO	Leaf 1 opening slow down. When button pressed: leaf 1 opening stop position setting, if 51 is not pressed, the leaf learns as the opening stopping position the one obtained from the opening mechanical stop
51	OPN2	Leaf 2 opening start. When button pressed: leaf 2 opening slow down position setting, the leaf proceeds at slow down speed
51	SLO	Leaf 2 opening slow down. When button pressed: leaf 2 opening stop position setting, if 51 is not pressed, the leaf learns as the opening stopping position the one obtained from the opening mechanical stop
51	CLS2	Leaf 2 closing start. When button pressed: leaf 2 closing slow down position setting, the leaf proceeds at slow down speed
-	SLO	Leaf 2 continues closing at slow down speed up to closing mechanical stop
51	CLS1	Leaf 1 closing start. When button pressed: leaf 1 closing slow down position setting, the leaf proceeds at slow down speed
-	SLO	Leaf 1 continues closing at slow down speed up to closing mechanical stop
51	0000 (second count)	Leaf 1 opening start. When button pressed: leaf 2 starts opening, the control board learns and programs the displayed opening delay between leaves. Leaf 1 and leaf 2 proceed to full opening
51	0000 (second count)	Leaf 2 closing start. When button pressed: leaf 1 starts closing, the control board learns and programs the displayed closing delay between leaves. Leaf 1 and leaf 2 proceed to full closing
-	END	End of procedure

Self-calibration:
If the gate travel parameter is changed, there is no need for the installer to run new calibrations, however, when changing the travel parameters, the control panel needs to learn the current curve again, thus disabling the obstacle detection only during the self-calibration cycle. Self-calibration is appropriately highlghted on the display that shows 51, meaning that a command is required in order for the board to self-calibrate.
The events generating self-calibration are:
- change in parameters: P09-10-11-12-13-14-15-16-17-18-19-20-21-22-25-26-31-36-43.

PAR

	Board parameters	
Sub menu	**Description**	**Values (default)**
P01	**Auto close**	**(ON)**
	Auto close not active	OFF
	Auto close active	ON
P02	**Pause time**	**(30)**
	2 s (minimum time)	2
	600 s (maximum time)	600
P03	**Command input n. 51**	**(1)**
	Collective During the opening the command is not active. If P01 = ON when paused it restarts the pause time and if the input 51 remains engaged the control board suspends the count until the input is disengaged (for the connection of coils or timers) if P01 = OFF, when paused it closes back During the closing it opens again	1

PAR

P03	**Step-bystep (4 steps logic)** Cycle command Opens, Stops, Closes, Stops, Opens…	2
	Step-bystep (2 steps logic) Cycle command Opens, Closes, Opens…	3
P04	**Pre-flash** The flashing light flashes for 3 s before the gate starts to move	**(OFF)**
	Pre-flash not active	OFF
	3 s pre-flash active	ON
P05	**Immediate closing**	**(OFF)**
	Immediate closing not active	OFF
	If the closing photocell is engaged and released during the opening or the pause time, the control unit closes the gate, regardless of the pause time set, 3 s after the complete opening or 3 s after the release of the photocell (depending on whether the release takes place during opening or pause).	ON
P06	**Safety input n. 63**	**(1)**
	Photocell (PH): - with the gate stopped, does not allow the gate to open - during opening stops the movement and when released proceeds with opening - with the gate open, does not allow it to close and when released will reload the pause time - on closing stops the movement and when released reopens the gate	1
	NC safety edge (BAR): - with the gate stopped, does not allow the gate to open - in opening disengages, closes after the pause time if auto close is active - with the gate open, does not allow closing and when released will reload the pause time - in closing disengages and opens	2
	8.2 KΩ balanced safety edge (8K2): Same behaviour as the NC safety edge	3
P07	**Output 14 type of open gate warning loght (SCA)**	**(OFF)**
	Gate closed: not active Gate not closed: active fixed	OFF
	Gate closed: not active Gate in opening: slow flash Gate not closed: active fixed Closing gate: quick flash	ON
P08	**Safety input test**	**(OFF)**
	Test not active	OFF
	Test active on input 62	1
	Test active on input 63	2
	Test active on both inputs 62 and 63	3
P09	**M1 slowdown distance during closing** Knowing that 0 means full closing and 100 full opening, it shows where M1 switches from normal speed to slow down speed on closing	**(30)**
	No slow down	0
	Maximum closing slow down travel	100
P10	**M2 slowdown distance during closing** Knowing that 0 means full closing and 100 full opening, it shows where M2 switches from normal speed to slow down speed on closing	**(30)**
	No slow down	0
	Maximum closing slow down travel	100

PAR			
PAR	P11	**M1 slowdown distance during opening** Knowing that 0 means full closing and 100 full opening, it shows where M1 switches from normal speed to slow down speed on opening	(70)
		All leaf travel on opening at slow down speed	0
		No slow down	100
	P12	**M2 slowdown distance during opening** Knowing that 0 means full closing and 100 full opening, it shows where M2 switches from normal speed to slow down speed on opening	(70)
		All leaf travel on opening at slow down speed	0
		No slow down	100
	P13	**M1 normal opening speed**	(100)
		Minimum speed	50
		Maximum speed	100
	P14	**M2 normal opening speed**	(100)
		Minimum speed	50
		Maximum speed	100
	P15	**M1 normal closing speed**	(100)
		Minimum speed	50
		Maximum speed	100
	P16	**M2 normal closing speed**	(100)
		Minimum speed	50
		Maximum speed	100
	P17	**M1 opening slow down speed**	(50)
		Minimum slow down speed * with encoder/without encoder	15 with * 35 without *
		Maximum slow down speed * with encoder/without encoder	75 with * 70 without *
	P18	**M2 opening slow down speed**	(50)
		Minimum slow down speed * with encoder/without encoder	15 with * 35 without *
		Maximum slow down speed * with encoder/without encoder	75 with * 70 without *
	P19	**M1 closing slow down speed**	(50)
		Minimum slow down speed * with encoder/without encoder	15 with * 35 without *
		Maximum slow down speed * with encoder/without encoder	75 with * 70 without *
	P20	**M2 closing slow down speed**	(50)
		Minimum slow down speed * with encoder/without encoder	15 with * 35 without *
		Maximum slow down speed * with encoder/without encoder	75 with * 70 without *
	P21	**M1 motor force** Sets the value of the force given to the motor to move the gate	(5)
		Minimum force	1
		Maximum force	10
	P22	**M2 motor force** Sets the value of the force given to the motor to move the gate	(5)
		Minimum force	1
		Maximum force	10
	P23	**M1 acceleration** M1 acceleration ramp until normal speed is reached	(3)
		Accelerazione massima	1
		Accelerazione minima	5

PAR			
PAR	P24	**M2 acceleration** M2 acceleration ramp until normal speed is reached	(3)
		Accelerazione massima	1
		Accelerazione minima	5
	P25	**M1 deceleration ramp** M1 motor deceleration ramp between normal speed and slow down speed	(6)
		Soft ramp (minimum deceleration)	1
		Steep ramp (maximum deceleration)	8
	P26	**M2 deceleration ramp** M2 motor deceleration ramp between normal speed and slow down speed	(6)
		Soft ramp (minimum deceleration)	1
		Steep ramp (maximum deceleration)	8
	P29	**Opening delay time between leaves (s)**	(3)
		Minimum delay	0
		Maximum delay	60
	P30	**Closing delay time between leaves (s)**	(6)
		Minimum delay	0
		Maximum delay	60
	P31	**Number of motors**	(2)
		Single leaf gate	1
		Double leaf gate	2
	P32	**Hammer strike** It moves the leaf slightly in the gate movement opposite direction to make the release of the electric lock easier	(OFF)
		Minimum energizing time (pulse)	OFF
		Maximum energizing time	ON
	P33	**Solenoid electric lock energizing time (s)**	(3)
		Hammer strike not active	0
		Hammer strike active	10
	P34	**2nd radio channel function**	(PED)
		The remote control button associated with the 2nd radio channel activates output 12 as an auxiliary radio output (RAU) for the time set in parameter P21	12
		The remote control button associated with the 2nd radio channel activates the pedestrian opening. The output 12 functions as a courtesy light (LCO): it is activated when the gate moves and remains active for 100 s after the gate stops	PED
	P35	**Output 12 as auxiliary radio output timer (RAU)**	(1)
		1 s (shortest time)	1
		60 s (longest time)	60
	P36	**Pedestrian opening distance (%)** Percentage of the opening total travel by a pedestrian command	(100)
		Shortest pedestrian distance	0
		Maximum distance (full M1 opening)	100
	P37	**Flashing light during battery operation**	(OFF)
		Flashing light not active in battery operation	OFF
		Flashing light active during battery operation	ON
	P38	**Battery operation mode**	(0)
		Normal operation	0
		After an opening command the gate remains open	1
		After the power goes off, the gate opens and stays open	2

PAR	P39	Dead-man operation	(0)
		Dead-man not active	0
		Emergency dead-man: - In regular operating conditions, standard operation - If safaties are engaged, dead-man operation only on input 51 and 52 as per parameter P41 setting. Remote controls are disabled	1
		Dead-man active: - step-by-step command disabled, remote controls disabled. The board accepts open and close mantained commands only	2
	P40	**Force on mechanical stops** Force applied by the motors against the mecahanical stops	**(1)**
		Minimum force (immediate stop detection)	0
		Maximum force (delayed stop detection)	5
	P41	**Function of inputs n. 51 and 52 and radio commands**	**(0)**
		51: step-by-step or collective command 52: pedestrian command	0
		51: open only command 52: close only command	1
		51 & radio command on channel 1: open only command 52 & radio command on channel 2: close only command	2
	P43	**Type of actuators used**	**(4)**
		EIM1 (24 V underground 2 m)	1
		EAM2 (24 V linear 3 m)	4
		EAM3 (24 V linear 4 m)	5

RAD		Remote control management	Msg display ex.
	1CH	**Remote control button programming on 1st channel (step-by-step or open, see P18)**	
		Waiting the code (press the remote control button), the receiver is empty	oooo
		Waiting the code (press the remote control button), the receiver is set as rolling code	rc
		Waiting the code (press the remote control button), the receiver is set as fixed code	fc
		Remote control button programmed on 1st channel as 1st code in the memory	1001
		Remote control button programmed on 1st channel as 55th code in the memory	1055
	2CH	**Memorizzazione di un tasto sul 2° canale (pedonale o uscita 12, vedere P20)**	
		Waiting the code (press the remote control button), the receiver is empty	oooo
		Waiting the code (press the remote control button), the receiver is set as rolling code	rc
		Waiting the code (press the remote control button), the receiver is set as fixed code	fc
		Remote control button programmed on 2nd channel as 1st code in the memory	2001
		Remote control button programmed on 2nd channel as 55th code in the memory	2055
	CTRL	**Remote control button memory position check**	
		Waiting the code (press the remote control button), the receiver is empty	none
		Waiting the code (press the remote control button), the receiver is set as rolling code	rc
		Waiting the code (press the remote control button), the receiver is set as fixed code	fc
		Remote control button in position n.1 in the memory on 1st channel	1001
		Remote control button in position n.99 in the memory on 2nd channel	2099
		Button not in the memory	no
	ERAS	**Remote control deletion**	
		Use ▲ ▼ buttons to select the n. of the remote control code to be deleted.	-
		Code stored in position 3 in the memory as 1st channel. Press OK to delete	1003
		Code stored in position 3 in the memory as 2nd channel. Press OK to delete	2003
		Memory position n. 3 free	3
		Deletion of all remote controls code from the memory of the receiver. Press OK and hold for 5 s to confirm	ALL

Setting the operating mode of the receiver of the control board:
The receiver of the control board operates in Rolling code mode or Fixed code according to the first programmed remote control button:
- if the first programmed remote control button is Rolling Code, the receiver only accepts Rolling Code remote controls
- if the first programmed remote control button is Fixed Code, the receiver only accepts Fixed Code remote controls
To change the receiver operating mode it is necessary to delete all the remote controls in the memory (ERAS-ALL) and program the first remote control according to the desired type.

<table>
<tr><td rowspan="4">DEF</td><td colspan="3">Factory reset</td></tr>
<tr><td>Button</td><td>Display Msg</td><td>Description</td></tr>
<tr><td>OK</td><td>oooo</td><td>Waiting to press OK for 5 s to load factory settings.</td></tr>
<tr><td colspan="3">Note:
Factory reset does not require performing a new gate travel calibration as it does not reset parameters P09-10-11-12-13-14-15-16-17-18-19-20-21-22-25-26-31-36-43.</td></tr>
</table>

<table>
<tr><td rowspan="9">CNT</td><td colspan="3">Counters</td></tr>
<tr><td>Button</td><td>Display Msg</td><td>Description</td></tr>
<tr><td>-</td><td>A025</td><td>First number of absolute cycles (multiplied by 10000)</td></tr>
<tr><td>▼</td><td>4075</td><td>Second number of absolute cycles</td></tr>
<tr><td colspan="3">In the example above, the gate has performed:
025 x (10000) + 4075 = 254075 total cycles</td></tr>
<tr><td>▼</td><td>P019</td><td>First number of partial cycles (multiplied by 10000)</td></tr>
<tr><td>▼</td><td>1234</td><td>Second number of partial cycles</td></tr>
<tr><td colspan="3">In the example above, the gate has performed:
019 x (10000) + 1234 = 191234 partial cycles</td></tr>
<tr><td>OK</td><td>oooo</td><td>By pressing OK for more than 5 s the control board resets the count of the number of partial cycles</td></tr>
</table>

<table>
<tr><td rowspan="6">ALM</td><td colspan="3">Alarms history</td></tr>
<tr><td>Button</td><td>Display Msg</td><td>Description</td></tr>
<tr><td>▲ ▼</td><td>X.FYY</td><td>Use ▲ ▼ keys to scroll the alarms of the control board in chronological order (last 9 memorized alarms, 1 most recent alarm, 9 oldest alarm).
X indicates the position of the alarm, YY the type of alarm (see the alarm list table)</td></tr>
<tr><td>-</td><td>1.F03</td><td>In position 1 alarm 03 is present (see the alarm list table)</td></tr>
<tr><td>-</td><td>2. no</td><td>In position 2 there is no alarm</td></tr>
<tr><td>OK</td><td>oooo</td><td>Press OK until the display shows "oooo" to clear the list of memorized alarms</td></tr>
</table>

<table>
<tr><td rowspan="5">PASS</td><td colspan="2">Protection level of the control board (default = OFF)</td></tr>
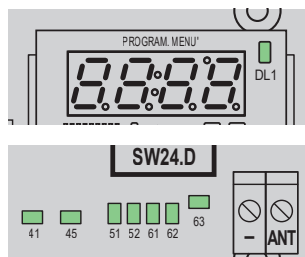<tr><td>OFF</td><td>No protection</td></tr>
<tr><td>1</td><td>Protection of menus PAR, DEF, LRNE e LRN</td></tr>
<tr><td>2</td><td>Protection of menu RAD</td></tr>
<tr><td>3</td><td>Full protection of the control board</td></tr>
</table>

6 - DIP-switch functions
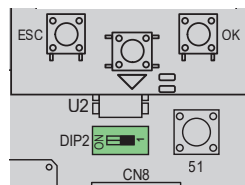
Dip	Function	Status	Description
Dip 2	Motor with/without encoder	OFF	The motors are equipped with encoders
		ON	The motors are not equipped with encoders

7 - LED functions

LED	Status	Description
DL1	OFF	Power supply not present
	ON	Power supply present
41	OFF	When the motor M1 is running: encoder signal absent (encoder not working)
	ON	When the motor M1 is running: encoder signal present (it appears as a very rapid flashing according to the rotation speed of the motor)
45	OFF	When the motor M2 is running: encoder signal absent (encoder not working)
	ON	When the motor M2 is running: encoder signal present (it appears as a very rapid flashing according to the rotation speed of the motor)
51	OFF	Step-by-step input (terminal 51) not engaged
	ON	Step-by-step input (terminal 51) engaged
52	OFF	Pedestrian input (terminal 52) not engaged
	ON	Pedestrian input (terminal 52) engaged
61	OFF	Stop contact (terminal 61) open (engaged)
	ON	Stop contact (terminal 61) closed (not engaged)
62	OFF	Photocell on closing engaged (terminal 62 open)
	ON	Photocell on closing not engaged (terminal 62 closed)
63	OFF	Photocell or safety edge engaged (terminal 63 open)
	ON	Photocell or safety edge not engaged (terminal 63 closed)

8 - List of alarms

Alarm	Description
no	No stored alarm
F01	Motor M1 power supply error
F02	Motor M2 power supply error
F03	Obstruction during opening for motor M1
F04	Obstruction during opening for motor M2
F05	Obstruction during closing for motor M1
F06	Obstruction during closing for motor M2
F10	Faulty EEPROM memory
F11	Time-out exceeded during travel calibration
F12	Fuse blown or not present
F13	Time-out exceeded during regular operation
F14	M1 encoder error
F15	M2 encoder error
F16	Excessive absorption on the motor M1 power output
F17	Excessive absorption on the motor M2 power output

Regulatory compliance
Vimar SpA declares that this electronic device complies with EU directives 2014/53/UE, 2006/42/CE, 2014/30/EU, 2014/35/EU. The full text of the declaration of EU compliance is on the product sheet available at the following Internet address: www.vimar.com.

REACH (EU) Regulation no. 1907/2006 – Art.33.
The product may contain traces of lead.

CE

CE