E*lpro* • 33 *exp*

for SWING GATES

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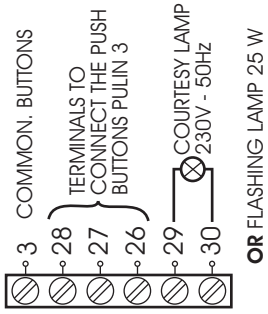
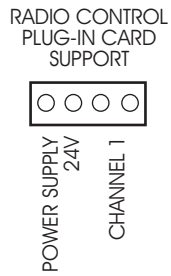
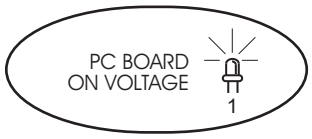
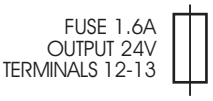
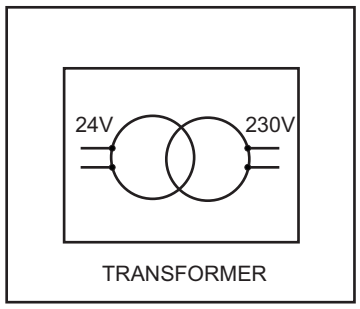
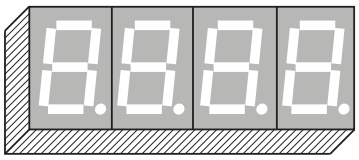


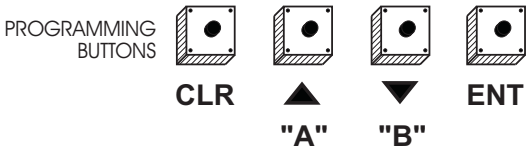


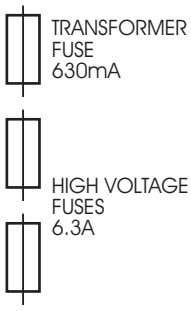


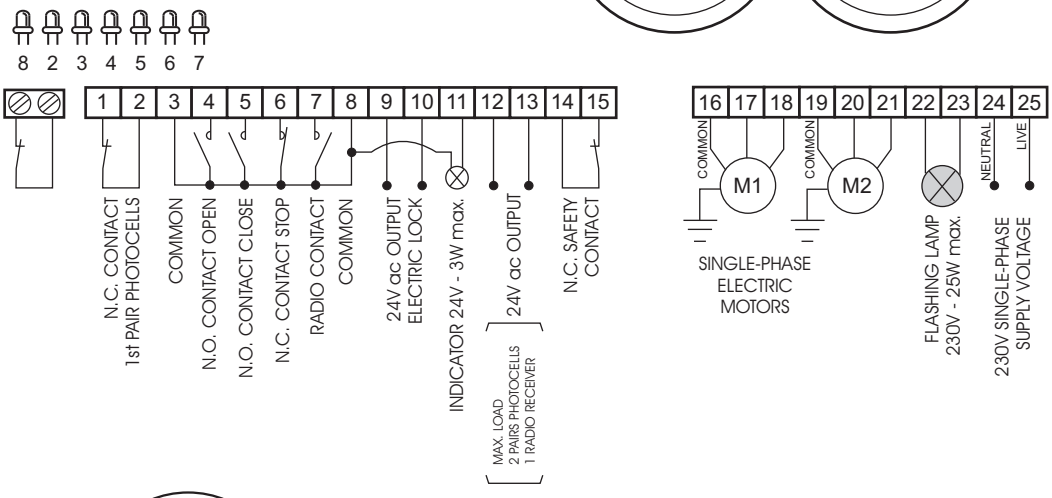


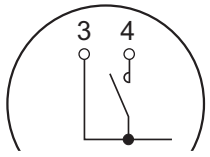




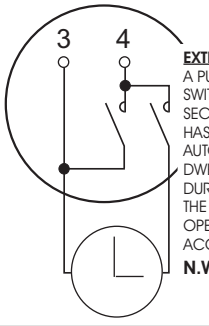




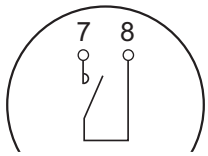




PEDESTRIAN OPENING CONTACT
ANY PULSE HELD ON FOR MORE THAN 2 SECONDS OPENS ONLY ONE GATE LEAF; TOW CONSECUTIVE PULSES OPEN BOTH GATE LEAVES
N.W.: set by MOD5=1



EXTERNAL TIME CLOCK INPUT:
A PULSE TO A N.C. COMMAND SWITCH HELD ON FOR MORE THAN 6 SECONDS. ONCE THE CLOCK TIME HAS EXPIRED, THE GATES ARE AUTOMATICALLY CLOSED, AFTER THE DWELL TIME.
DURING THE TIME CONTROLLED BY THE CLOCK NO OTHER PULSES eg OPEN-CLOSE-RADIO PULSES ARE ACCEPTED
N.W.: Set by MOD3=1 and MOD5=0



RADIO CONTACT:
ALL OPERATIONS OPEN CLOSE AND REVERSE
N.W.: set by MOD2=0

Should more pairs of photocells be required than the recommended quantity, fit an auxiliary transformer outside the control box.

N.W.: THIS PANEL IS TESTED TO OPERATE GATES ONLY THROUGH FADINI ACCESSORIES. NO GUARANTEE FOR ACCESSORIES OF OTHER MAKE OR SPECIAL APPLICATIONS

GB

Drwg. No. 3587

CONNECTION DIAGRAM ELECTRONIC PROGRAMMER FOR SINGLE-PHASE SWINGING GATES

meccanica FADINI

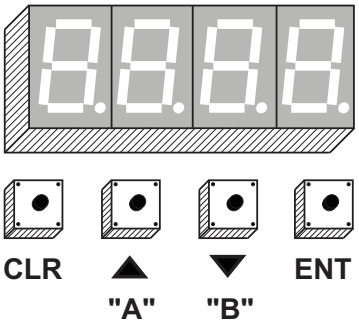
Elpro • 33 exp

DESCRIPTION OF THE FUNCTIONS OF THE CONTROL PANEL FOR SWINGING GATES

All the electrical connections are to be made as per the instructions and diagrams that follow. Supply the terminals 24-25 with 230 - 50 Hz single-phase voltage. The "red led" No. 1 goes on, this is the sign that the PC board is properly supplied. The word "BLOCCO" (Stop) is running from right to left in the display.

PARAMETERS AND MODES. SETTING PROCEDURE

Through the dispaly and by the programming buttons it is possible to access to and change all the functions of Elpro 33 exp.
The programs are devided into parameters (ie. variations of the times) and modes (ie. the functions).)



CLR = TO CLEAR OR VISUALIZE THE PARAMETERS OR THE MODES (WHEN THE DISPLAY FLASHES)
"A" ▲ = TO INCREASE VALUES OF PARAMETERS OR CHANGE MODES
"B" ▼ = TO DECREASE VALUES OF PARAMETERS OR CHANGE MODES
ENT = TO CHANGE (WHEN THE DISPLAY FLASHES) AND THEN TO CONFIRM ALL THE PARAMETERS AND MODES

To gain access to the parameters and modes press the button ▲ , the display visualizes the word "CODE" and immediately afterwards "0" ie. one of the two possible options of the program:

- "0" program is stopped
- "1" access to program allowed, ie. to parameters and modes

To change from "0" to "1",	press the button	"ENT"	value "0" flashes. Change is allowed.
	press the button	▲	value "1" is displayed (flashing) .
	press the button	"ENT"	the value stops flashing. Change is confirmed.
	press the button	▲	the first parameter "PR1A" is displayed.

Go on pressing the button and the following list of parameters and modes appears in a sequence:

ABBREVIATIONS TO APPEAR ON THE SCREEN (DISPLAY)

MODES:
MOD9
MOD8
MOD7
MOD6
MOD5
MOD4
MOD3
MOD2
MOD1

PARAMETERS:
PR10
PR9C
PR9A
PR8
PR7
PR6
PR5
PR4
PR3
PR2
PR1B
PR1A

THIS DIRECTION UP BY PRESSING THE BUTON: ▲ **"A"**
FROM *PR1A* to *MOD9*
YOU CAN GO DOWN THE MENUE BY PRESSING THE BUTTON: ▼ **"B"**

This section explains how to change the parameters and modes:

select the desired option and wait three seconds for the previously set value to appear.

press the button	"ENT"	the value starts flashing, changing is allowed.
press either	▲**"A"** or **"B"**▼	to increase or decrease the previous value.
press the button	"ENT"	the value stops flashing, change is confirmed.
		You can go back to the original menue options

To exit the program:

press the button	**"B"** ▼	until "CODE" and soon afterwards "1" are displayed.
press the button	"ENT"	value"1" starts flashing, ie. changing is allowed.
press the buton	**"B"** ▼	value "0" is displayed (flashing).
press the button	"ENT"	the value stops flashing, change is confirmed.
press the button	**"B"** ▼	gate status ie. operations to perform are diplayed in words (see the section "gate status on display")

- The button "CLR" allows to exit a parameter or mode without changing its value and, in case a value is displayed, to see which parameter or mode has been previously selected.

DESCRIPTION OF THE PARAMETERS (times) and MODES (functions):

PARAMETERS:

PR1A	= "Motor run time M1"	It can be varied from 0 to 150 sec. (Delay in close cycle).
PR1B	= "Motor run time M2"	It can be varied from 0 to 150 sec. (Delay in oepn cycle).
PR2	= "Dwell time"	It can be varied from 0 to 255 sec.
PR3	= "Delay time in close cycle"	It can be varied from 0 to 20 sec.
PR4	= "Stroke reversing pulse time"	It can be varied from 0 to 15 sec.
PR5	= "Electric lock time"	It can be varied from 0 to 15 sec.
PR6	= "Pre-flashing time"	It can be varied from 0 to 25 sec.
PR7	= "Flashing time on cycle end"	It can be varied from 0 to 25 sec.
PR8	= "Courtesy light time "	It can be varied from 0 to 255 sec.

ON TO 0 THE PARAMETER IS OUT OF SERVICE

PR9A = "Brake time open cycle" — It can be added to motor run time from 0 to 25 sec. for gate operators fitted with braking.

PR9C = "Brake time close cycle" — It can be added to motor run time from 0 to 25 sec. for gate operators fitted with braking.

MODES:

MOD1	= 1	"1° pair of photocells"	On obstacle removal it reverses gate on closing, stops it on opening
	= 0	"1° pair of photocells"	It reverses gate on closing, no stop on opening
MOD2	= 1	"Remote control"	No gate reversing on opening
	= 0	"Remote control"	Any new pulse reverses the gate
MOD3	= 1	"Mode of operation"	Automatic re-closing
	= 0	"Mode of operation"	No automatic re-closing, closing is by pulse
MOD4	= 1	"Radio"	Step by step, stop in between
	= 0	"Radio"	Reverse while gate is moving
MOD5	= 1	"Pedestrian opening"	In service by holding open button for more than 2 sec.
	= 0	"Pedestrian opening"	Out of service
MOD6	= 1	"2° pair of photocels"	Out of service
	= 0	"2° pair of photocels"	Pre-set for connection
MOD7	= 1	"Memory to store times"	Out of service
	= 0	"Memory to store times"	In service
MOD8	= 0	"Standard as pre-set"	
	= 1	"hold-on switched (deadman control)"	
	= 2	"Auto/Close"	Only with MOD3=1 (Automatic) and MOD6=0 (2nd pair photocells connected): on entry after transiting past the inside photocells, the system closes the gate after 2 seconds. On exit after transiting past the outside photocells, the system closes the gate after 2 seconds.
	= 3	"Additional pulsing"	a two second pulse is given every 2 hours. Please note well: connect the flashing lamp to terminals 29-30
	= 4	"deadman control +Additional pulsing"	Terminals 22 - 23 are to stay free
	= 5	"Auto/Close+Additional pulsing"	
MOD9	= 0	"blank"	

STATUS INDICATION LED's:

LED n. 1:	"Illuminated"	normally off.	it goes on when the PC board is on voltage.
LED n. 2:	"Photocells. 1st pair"	normally on.	it goes off when photocells are obstructed.
LED n. 3:	"Open"	normally off.	it goes on when an Open pulse is given.
LED n. 4:	"Close"	normally off.	it goes on when a Close pulse is given.
LED n. 5:	"Stop"	normally on.	it goes off when a stop pulse is given.
LED n. 6:	"Radio"	normally off.	it goes on by any pulse from the radio transmitter.
LED n. 7:	"Gate status"	Flashing.	it indicates the status of the gate. See the 24V 3W indicator.
LED n. 8:	"Photocells. 2nd pair"	normally on.	it goes off when the photocels are obstructed.
LED n. 9:	"Electric lock"	normally off.	it goes on when the electric lock is energized.
LED n.10:	"Gate Delay Relay. Close"	normally off.	it goes on during operation.
LED n.11:	"Gate Delay Relay. Open"	normally off.	it goes on during operation.
LED n.12:	"Gate Direction Relay"	normally off.	it goes on during operation.
LED n.13:	"Mains Relay"	normally off.	it goes on during operation.

GATE STATUS INDICATION BY DISPLAY:

On the display it is possible to see the status of the gate, ie. the operation the system is performing, by means of words running from right to left:

- When the gate is :	OPEN or CLOSED	(*semi-automatic*)	the words FADINI IN PAUSA (dwell) are displayed
	OPENING or CLOSING	(*semi-automatic*)	the words APRE o CHIUDE (opening/closing) are displayed
	OPEN or CLOSED	(*automatic*)	the words APRE o CHIUDE (open/close) are displayed
	OPENING or CLOSING	(*automatic*)	the words APRE o CHIUDE (opening/closing) are displayed
	STOPPED		the word BLOCCO (stop) is displayed
	OBSTRUCTED ie. PHOTOCELLS ENGAGED		the word FOTOCELLULE (photocells) is displayed

FUNCTIONING OF "PULIN 3" PUSH BUTTONS AND THE 24V 3W max. INDICATOR.

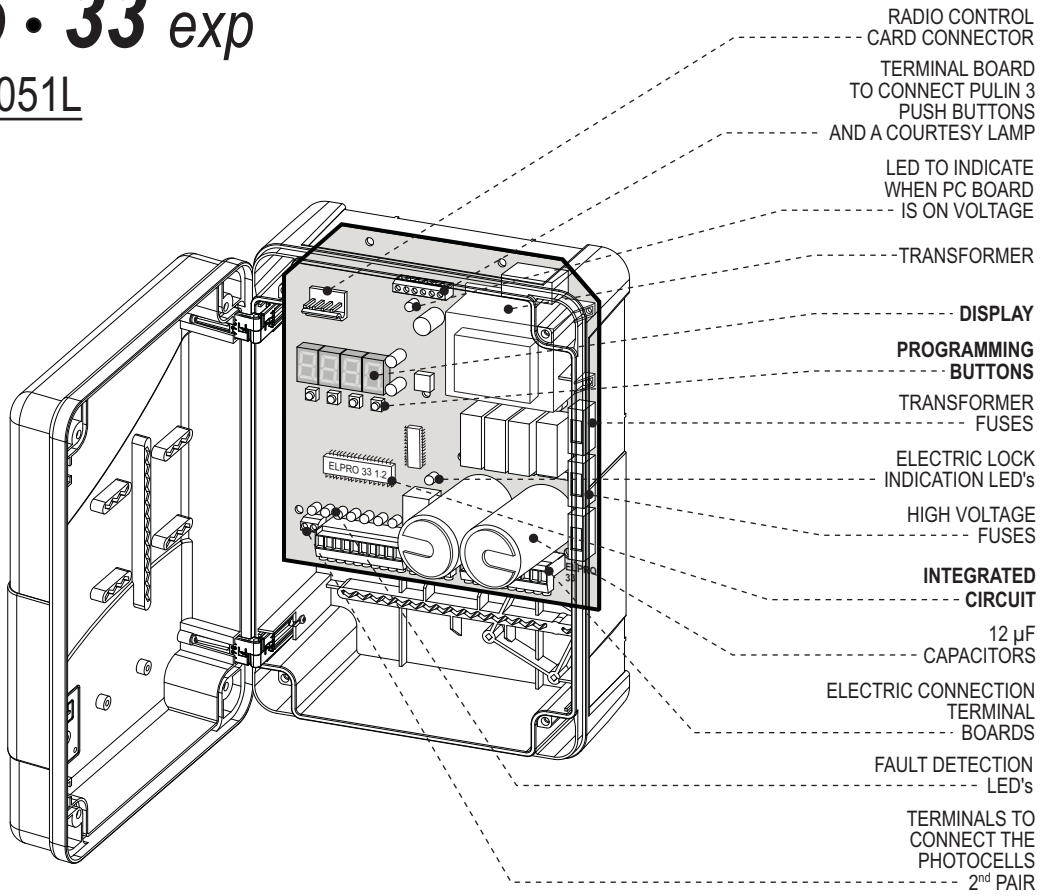
- When the gate is:	OPENING	The 24V-3W indicator flashes every 1 sec. (normal)	the Pulin led "Open"	flashes
	OPEN	The 24V-3W indicator stays on	the Pulin led "Stop"	stays on
	CLOSING	The 24V-3W indicator flashes 1/5 sec. (fast)	the Pulin led "Close"	flashes
	CLOSED	The 24V-3W indicator is off	the Pulin led "Stop"	flashes
	STOPPED	The 24V-3W indicator flashes every 2 sec. (slow)	all Pulin led's	flash

PROGRAMMING NOTES:

- PR1A or PR1B times are to be calculated on the opening cycle individually for each single gate leaf, considering that the respective motors go on running 3 seconds more than the actual gate travel.
- If the delay time in close cycle PR3 is set to 0 sec. both gate leafs start together. On opening the delay time is equal to PR3 up to 2 sec. max.
- PR4 ie. the stroke reversing pulse is operating only when the system is on fully closed gate position.
- If the electric lock time PR5 is set to 0 sec., the lectric lock is excluded.
- PR6 ie. the pre-flashing time is operating before each opening cycle (or closing cycle if on semi-automatic mode).
- PR7 ie. flashing time on cycle end is operating after each complete opening or closing cycles.
- The flashing lamp can be stopped during the dwell time: connect it to terminals 29-30, courtesy light output, and set PR8=0
- The courtesy light time is operating during and after each working cycle. terminals 29-30.
- PR9A and PR9C are only for swinging arm operators with braking feature. To calculate the total opening time you have to consider the *motor run time from closed gate position to when brake action starts*. To this time you have to add PR9A time so that the motor is running 3 more sec. beyond the actual piston stroke. For braking actuators, the motor run times are to be calculated during the closing cycle.
- If a second pair of photocells is required, MOD6 must be set to 0. It always reverses the gate travel on closing cycle and stops the gates on opening.
- After powering the system, you can only run a complete opening cycle to allow the control panel to memorize the time setting.
- After an opening cycle you can only run a closing cycle.
- Adjusting is allowed to be made olso while gate is moving and the new setting is memorized immediately.
- The courtesy light time is operating at the beginning of each cycle either opening or closing.
- After a stop pulse is given or the control panel is re-powered, led No. 5 Stop stays illuminated, and all the 3 leds of the Pulin push buttons are flashing (stand-by situation when a new command is waited for).

E*lpro* • *33* *exp*

Item No. 7051L

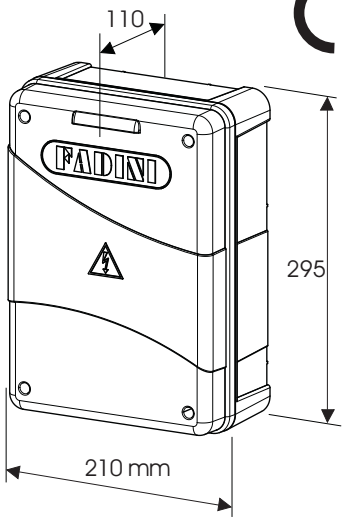


TECHNICAL SPECIFICATIONS

Power supply	230 V – 50 Hz
Voltage output	230 V – 25 W
Low voltage output	24 V – 10 W
E. M. Power	1'100 W
Mains fuses	6.3 A
Secondary fuses	1.6 A – 630 mA
Commanding logic	Open – Stop – Close
Relay	16 A – 250 Vac / 30 Vdc
Box dimensions	295 x 210 x 110 mm
Protection standards	IP 473
Weight	1.90 Kg
Box material	Gray polycarbonate "IQ20"

TRANSFORMER

Power	20
Magnetic core	1.5 W / Thickness 0.50
Voltage	0 – 230 V
Outputs	0 – 12 – 19 – 24 V
Working frequency	50 / 60 Hz
Insulation	4 Kv x 1'



N.W.: *For special applications, ie. to switch on lights, CCTV, etc. .... SOLID STATE RELAYS are recommended to be used only. Other types of relays would affect the microprocessor.*

CONNECTION NOTES

1) It is advisable not to expose the control box directly to weather conditions; if mounted outside, a suitable enclosure is recommended to protect it from sunshine and rain.
2) Properly earth the equipment.
3) Bridge terminals 1 – 2 if you do not require any photocells.
4) Should two sets of photocells be required, these are to be series connected to terminals 1-2; contact normally closed. In case they are installed parallel to each other, cross install the receivers with the projectors, receiver next to projector of the other set.
5) Bridge terminals 3 – 6 if you do not require any keyswitch or push buttons.
6) Fit the mains with a 0.03 Ampere magnetic-thermal circuit breaker .
7) Use mm^2 1.5 section wires for single-phase electric motors.
8) The 24 V~ output, terminals 12 – 13 can power supply only 2 pairs of photocells and 1 radio receiver. Should more photocells or receivers be required, an auxiliary transformer is to be fitted outside the control box.

GB

Drwg. No. 3587

meccanica FADINI® s.n.c.
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FADINI® the gate opener Made in Italy