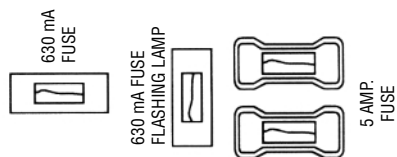
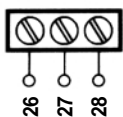
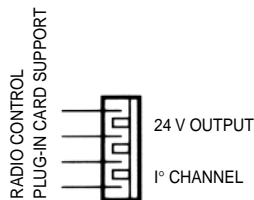
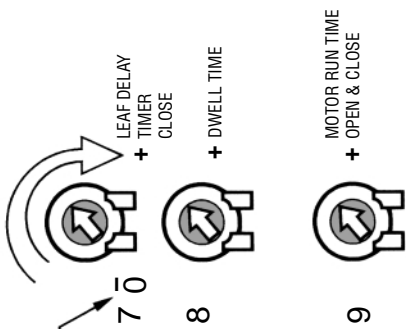
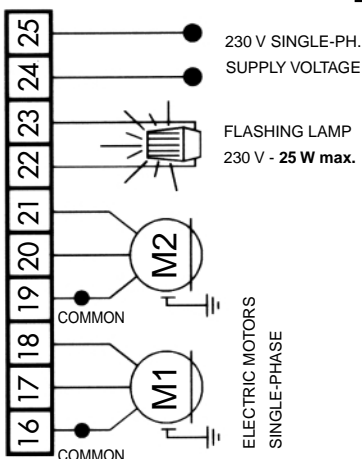
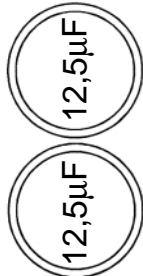


# Elpro · 13 exp

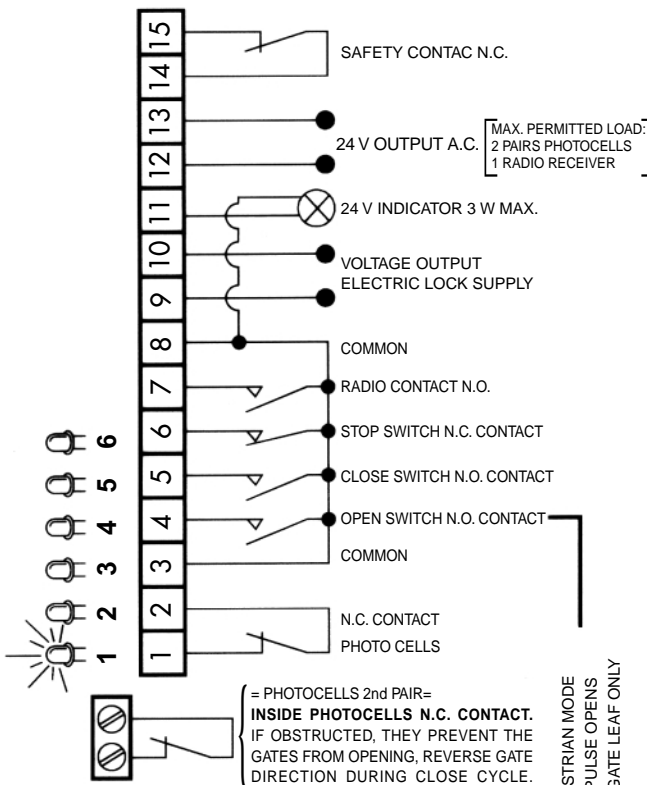
FOR SWING GATES



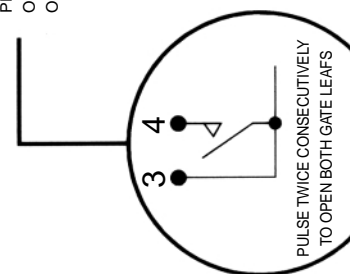
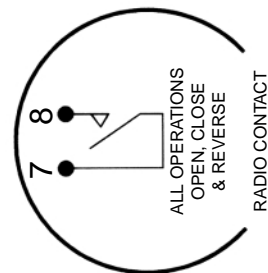
CAPACITORS



TERMINALS FOR THE CONNECTION OF THE PUSH BUTTONS PULIN 3



PEDESTRIAN MODE  
ONE PULSE OPENS  
ONE GATE LEAF ONLY



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

NOTE WELL: For special applications, ie to switch on lights - CCTV etc...., **SOLID STATE RELAYS** are recommended to be used only. Standard relays would affect the micro-processor.  
NOTE WELL: THIS PANEL IS TESTED TO OPERATE GATES ONLY THROUGH FADINI ACCESSORIES. NO GUARANTEE FOR ACCESSORIES OF OTHER MAKE OR SPECIAL APPLICATIONS.



Draw. No.1643

## CONNECTION DIAGRAM ELECTRONIC PROGRAMMER FOR SWING GATES, SINGLE-PHASE



# Elpro · 13 exp

## FEATURES OF THE ELECTRONIC PROGRAMMER FOR SWINGING GATES

All the electrical connections are to be made as per the following instructions and diagrams. Supply the terminals 24-25 with 230 V 50 Hz single-phase voltage. The "Red LED" switches on and stays on as long as the board is properly supplied. Through the timer No. 9 you can control the running time of the motor in both cycles, OPEN and CLOSE. Set it so that the running time of the motor is longer than the actual travel of the gate; set the timer No. 8 - DWELL - ie. the interval between open and re-closing, so that you can meet the required interval of time. The timer No. 7 - LEAF DELAY in "close" cycle - is to be set as follows: on to "-" (less) the delay is out of service; clockwise on to "+" (more) the delay is operative.

- With the electric motor connected to terminals 19-20-21: the delay is operative in the "open" cycle, with a factory pre-set time.  
- With the electric motor connected to 16-17-18: the delay is operative in "close" cycle and can be adjusted through the timer No. 7 on to "less" or "more".

**LOGIC OF THE ELECTRONIC PROGRAMMER:** When a pulse is given, the flashing light switches on. After three seconds the motors start. During the interval before re-closing, the light stays on. When the gates are fully re-closed, the light keeps on flashing for three more seconds and then switches off automatically.

The 3 second interval (pre-flashing) which precedes the actual start of the motors can be eliminated by means of the DIP-SWITCH "B" No. 4.

LED No. 1: It switches on when voltage is supplied.

LED No. 2: "PHOTOCELLS". Normally on. It switches off when the photocells are obstructed.

LED No. 3: "OPEN". It switches on when the respective switch is activated.

LED No. 4: "CLOSE". It switches on when the respective switch is activated.

LED No. 5: "STOP". Normally on. It switches off when the respective switch is activated.

LED No. 6: "RADIO". It switches on whenever a pulse is given, either from remote control, keyswitch or push buttons.

### DIP-SWITCH B SETTING IN ELPRO 13

N° 1 OFF = PHOTOCELLS. NO STOP IN OPEN CYCLE.  
REVERSE/CLOSE

N° 1 ON = STOP DURING OPEN CYCLE

N° 2 OFF = REMOTE CONTROL. REVERSE

N° 2 ON = NO REVERSE DURING OPEN CYCLE

N° 3 OFF = NO AUTOMATIC RECLOSING

N° 3 ON = AUTOMATIC RECLOSING

N° 4 OFF = NO PRE-FLASHING

N° 4 ON = PRE-FLASHING

N° 5 OFF = REMOTE CONTROL. NO STOP AND HOLD AS LONG  
AS BUTTON DOWN, IT OPENS STRAIGHT AWAY

N° 5 ON = STOP AND HOLD AS LONG AS  
THE BUTTON IS KEPT DOWN

N° 6 OFF = BOTH LEAFS ARE OPERATED

N° 6 ON = PEDESTRIAN. ONE LEAF ONLY  
GATES IN CLOSE POSITION

N° 7 OFF = S.R.P. OUT OF SERVICE

N° 7 ON = S.R.P. IN SERVICE  
GATES IN CLOSE POSITION

N° 8 OFF = LEAF DELAY OPEN CYCLE.  
ONE STARTS BEFORE THE OTHER

N° 8 ON = NO LEAF DELAY  
BOTH MOTORS START TOGETHER

LAMP ON = GATE OPEN  
LAMP FLASHES SLOWLY = GATE OPENING  
LAMP FLASHES FAST = GATE CLOSING  
LAMP OFF = GATE CLOSED

- 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) Bridge terminals 1-2 if you do not require any photocells.
- 3) Should two sets of photocells be required, these are to be series connected to terminals 1-2, contact normally closed.
- 4) Bridge terminals 6-8 if you do not require any keyswitch or push buttons.
- 5) Fit the mains to the control box with a high sensitivity, differential, magnetic-thermal switch, 0.03 Amps.
- 6) **OPERATING MODE WITH TWO PAIRS OF PHOTOCELLS, INDEPENDENT FROM EACH OTHER**  
Dip Switch No. 1 set to OFF, connect the pair of photocells that are inside the property to the terminals marked "2nd pair". The second pair always stops the gate in open cycle in case of an obstacle.  
During close cycle the second pair reverses the gate direction.
- 7) **NOTE WELL**  
**FAULT FINDING**
  - Check supply voltage with a tester: it must be 230 V, single-phase.
  - Check the high voltage fuses.
  - Check if the photo cell contacts are normally closed.
  - Check voltage from the control box to the electric motor(s): power might have dropped.
  - Check the low voltage fuse.
  - The section of the electric cables to the motor(s) must not be less than 1,5 mm<sup>2</sup>.
  - Connect the other pair to the terminals 1-2  
This pair performs in the standard pre-set mode, ie: no stop during open cycle, REVERSING GATE DIRECTION DURING CLOSE CYCLE.  
Terminals to stay linked out should the second pair of photocells not be used, and set the desired operating mode through DIPswitch No. 1.

\*24 V ~ output. Terminals 12-13. It can supply power for 2 pairs of photo cells plus 1 radio receiver.  
Terminal 11 provides a power output for a lamp. 24 V - 3 W max.  
Flashing lamp output. Terminals 22-23. Maximum available power 25 W max.



# Elpro · 13<sup>exp</sup>

## FEATURES AND TECHNICAL SPECIFICATIONS

"ELPRO 13" represents the latest state of the art technology for control panels. It is extremely versatile and can meet the most various requirements.

It has the same functions as ELPRO 9 and incorporates additional advantages as follows: Stroke Reversing Pulse, Pedestrian Operating Mode (where one leaf only can be operated allowing people to walk in/out), STOP and HOLD function by keeping the remote control button pressed down).

Further improvements can be noted in the "ELPRO 13" panel:

- Addition of a 1 A fuse to the 24 V circuit as a protection for the accessories (remote control - photocells - etc.) which are connected to the terminals 12-13 and for the panel itself in that it can prevent short circuit during installation.
- The pulse to the electric lock is increased to 2 seconds. Releasing is so much easier as the electric lock is released with an anticipation of 100 mS before the gate starts moving.
- A 24 V 3 W lamp indicates gate operations (Gate CLOSED = Lamp OFF - Gate in OPEN cycle = Lamp flashes slowly - Gate OPEN Lamp stays ON without flashing - Gate in CLOSE cycle = Lamp flashes fast).
- It provides a better switching intelligence design to enhance the reliability of the relays.
- The Motor Run Time is independent from the Leaf Delay Time in close cycle (the delay time is automatically added to the duration of the opening time).
- The 8 DIP-switches can be arranged into any of the possible patterns to achieve the required operating modes without any risk of interference with one another.

### "STROKE REVERSING PULSE" and "S.1A.P":

Set DIP switch No. 7 to ON. The "Stroke Reversing Pulse" (S.R.P.) is activated only with the gate in the CLOSE position. The pulse operates the gate in the CLOSE direction first and then immediately reverses into OPEN. (This will help the gate lock to release). All the other operations will be performed in the standard way. No danger comes from the Stroke Reversing Pulse. This function remains in service with the panel set to "Pedestrian Mode".

Set DIP switch No. 6 to ON for "Pedestrian Mode" (S.1A.P), terminals 3-4. Only one leaf is operated when the OPEN button is pressed down. Automatic reclosing. If the OPEN button is pressed twice in a row, both leafs are opened. The S.1A.P. function is activated only when the gate is in the fully CLOSE position. The remote control always operates both gates, terminals 7-8.

### DIP-SWITCH **B** SETTING IN ELPRO 13

N° 1 OFF = PHOTOCELLS. NO STOP IN OPEN CYCLE.  
REVERSE/CLOSE

N° 1 ON = STOP DURING OPEN CYCLE

N° 2 OFF = REMOTE CONTROL. REVERSE

N° 2 ON = NO REVERSE DURING OPEN CYCLE

N° 3 OFF = NO AUTOMATIC RECLOSING

N° 3 ON = AUTOMATIC RECLOSING

N° 4 OFF = NO PRE-FLASHING

N° 4 ON = PRE-FLASHING

N° 5 OFF = REMOTE CONTROL. NO STOP AND HOLD AS LONG  
AS BUTTON DOWN. IT OPENS STRAIGHT AWAY

N° 5 ON = STOP AND HOLD AS LONG AS  
THE BUTTON IS KEPT DOWN

N° 6 OFF = BOTH LEAFS ARE OPERATED

N° 6 ON = PEDESTRIAN. ONE LEAF ONLY  
GATES IN CLOSE POSITION

N° 7 OFF = S.R.P. OUT OF SERVICE

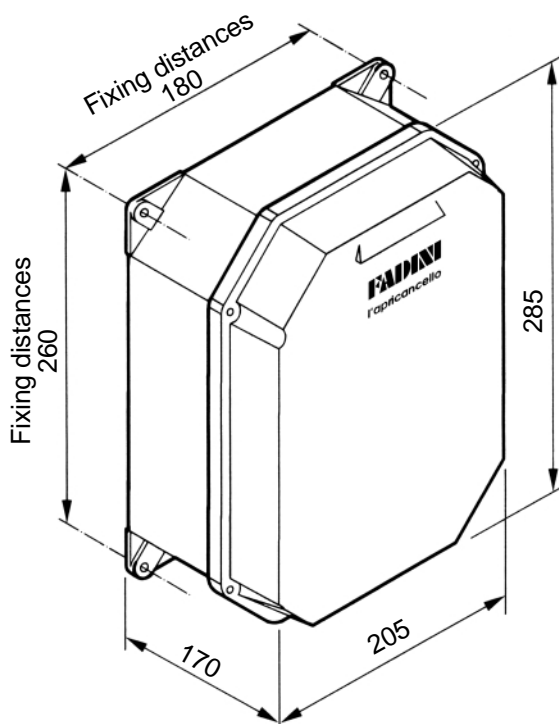
N° 7 ON = S.R.P. IN SERVICE  
GATES IN CLOSE POSITION

N° 8 OFF = LEAF DELAY OPEN CYCLE.  
ONE STARTS BEFORE THE OTHER

N° 8 ON = NO LEAF DELAY  
BOTH MOTORS START TOGETHER



# Elpro · 13 exp



## TECHNICAL DATA:

- Supply Voltage
- Voltage Output
- Low Voltage Output
- E.M. Power Output
- Line Fuses
- Secondary Fuses
- Command
  
- Dimensions of the Container
- IP Standards

## Open Contact Relay

### Approval Mark

- Capacitor

## Transformer

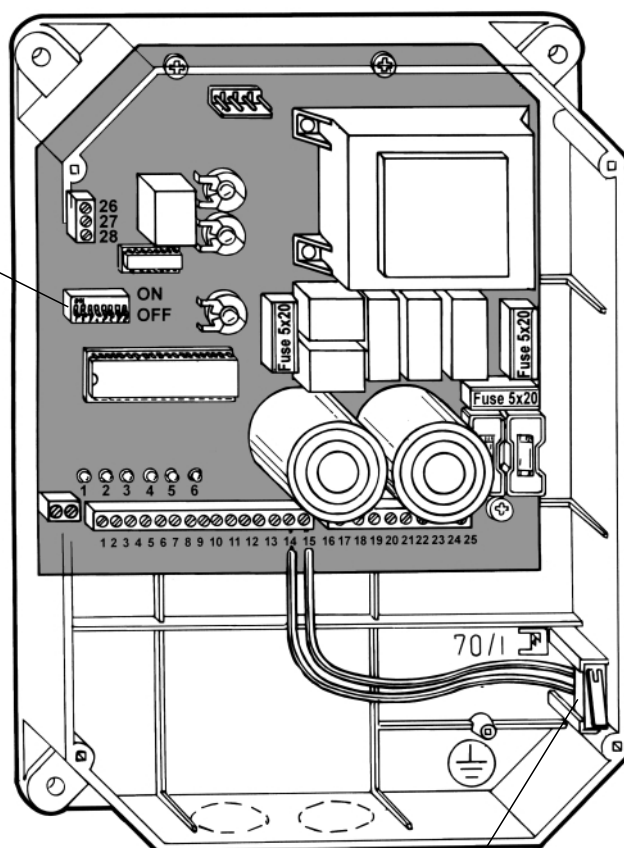
- Power
- Magnetic Core
- Supply Voltage
- Output
- Working Frequency
- Insulation

230 V - 50 Hz  
 230 V - 25 W  
 24V - 10W  
 1'100 W  
 5 A  
 1 A - 630 mA  
 Open - Stop - Close -  
 Other Functions  
 280x200x105 mm  
 IP 437

IMQ- -S-S-10 A - 240 V  
 12,5 µF - 400 V

20 VA  
 1,5 W / Thickness 0,50  
 0-230 V  
 0-12-18-24 V  
 50/60 Hz  
 4 Kv x 1'

8 WAY  
 DIP SWITCH



LOW VOLTAGE PROTECTION  
 MICROSWITCH



Draw. No. 1643



**meccanica**  
**FADINI**  
s.n.c.

AUTOMATIC GATE MANUFACTURERS

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**FADINI**  
 the gate opener  
 Made in Italy