

FADINI
l'apricancello
Made in Italy

I LIBRETTO DI ISTRUZIONI
Elpro • S40

PROGRAMMATORE A MICROPROCESSORE
PER DISSUASORI A SCOMPARSA

- FINO A 4 DISSUASORI A SCOMPARSA
- APERTURA PEDONALE
- PREDISPOSTO PER SEMAFORO A 3 LUCI
- AUTOMATICO O SEMIAUTOMATICO
- COLLEGAMENTI SEPARATI PER ELETTROVALVOLA
- SISTEMA DI SUPERVISIONE INTEGRITÀ C.S.I.

- PREDISPOSIZIONE
PER OROLOGIO ESTERNO
- FUNZIONE PASSO-PASSO
- UOMO PRESENTE

pag. 1,2,3,4,5

GB INSTRUCTIONS
Elpro • S40

ELECTRONIC PROGRAMMER WITH
MICROPROCESSOR FOR RISING BOLLARDS

- UP TO 4 BOLLARDS
- STEP-BY-STEP FUNCTION
- PEDESTRIAN OPENING
- PREPARED FOR 3 LAMPS TRAFFIC LIGHTS
- AUTOMATIC OR SEMI- AUTOMATIC
- SEPARATE CONNECTIONS FOR ELECTRIC VALVE

- EXTERNAL TIME CLOCK
- DEADMAN CONTROL
- ISC SYSTEM i.e. INTEGRITY SUPERVISION

page 1,6,7,8,9

F NOTICES D'INSTRUCTION
Elpro • S40

PROGRAMMATEUR A MICROPROCESSEUR
POUR BORNES ESCAMOTABLES

- JUSQU'A 4 BORNES ESCAMOTABLES
- OUVERTURE PIETONS
- PREPARE POUR FEU DE CIRCULATION A 3 AMPOULES
- AUTOMATIQUE OU SEMIAUTOMATIQUE
- RACCORDEMENTS SEPARES POUR ELECTROVANNE
- CIRCUIT DE SUPERVISION D'INTEGRITE C.S.I.

- PREPARE POUR HORLOGE EXTERNE
- FONCTION PAS-PAS
- HOMME MORT

page 1, 10, 11, 12, 13

D ANLEITUNG
Elpro • S40

MIKROPROZESSORSTEUERUNG
FÜR VERSENKBARE ABSPERRPOLLER

- BIS ZU 4 VERSENKBAREN ABSPERRPOLLERN
- GEHTÜRFUNKTION
- FÜR AMPEL MIT 3 LICHTERN VORGESEHEN
- AUTOMATIK- ODER HALBAUTOMATIKBETRIEB
- GETRENNTE ANSCHLÜSSE FÜR ELEKTROVENTIL
- SYSTEM ZUR KONTROLLE DER INTEGRITÄT (I.Ü.S.)

- FÜR EXTERNE UHR VORGESEHEN
- IMPULSBETRIEB
- TOTMANN-BETRIEB

Seite 1, 14, 15, 16, 17

E FOLLETO DE INSTRUCCIONES
Elpro • S40

PROGRAMADOR DE MICROPROCESADOR
PARA BARRERAS ESCAMOTEABLES

- HASTA 4 BARRERAS ESCAMOTEABLES
- ABERTURA PEATONAL
- PREDISPUERTO PARA SEMÁFORO DE 3 LUCES
- AUTOMÁTICO O SEMIAUTOMÁTICO
- CONEXIONES SEPARADAS PARA ELECTROVÁLVULA
- SISTEMA DE SUPERVISIÓN INTEGRIDAD C.S.I.

- PREDISPOSICIÓN PARA RELOJ EXTERNO
- FUNCIÓN PASO-PASO
- HOMBRE PRESENTE

pág. 1, 18, 19, 20, 21

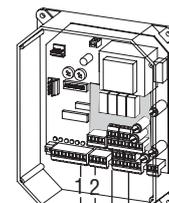
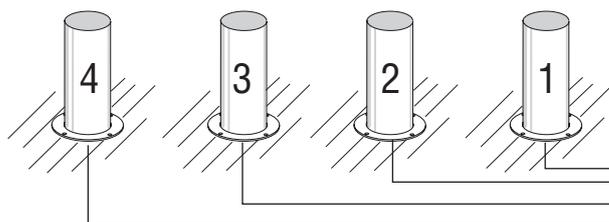
NL HANDLEIDING
Elpro • S40

PROGRAMMEERINRICHTING MET
MICROPROCESSOR VOOR VERZINKBARE PALEN

- MAXIMAAL 4 VERZINKBARE PALEN
- VOETGANGERSDOORGANG
- VOORBEREID VOOR STOPLICHT MET 3 LICHTEN
- AUTOMATISCH OF HALFAUTOMATISCH
- GESCHIEDEN VERBINDINGEN VOOR MAGNEETKLEP
- BEWAKINGSSYSTEEM INTEGRITEIT C.S.I.

- VOORBEREIDING VOOR EXTERNE KLOK
- STAP-VOOR-STAP FUNCTIE
- DODEMANSFUNCTIE

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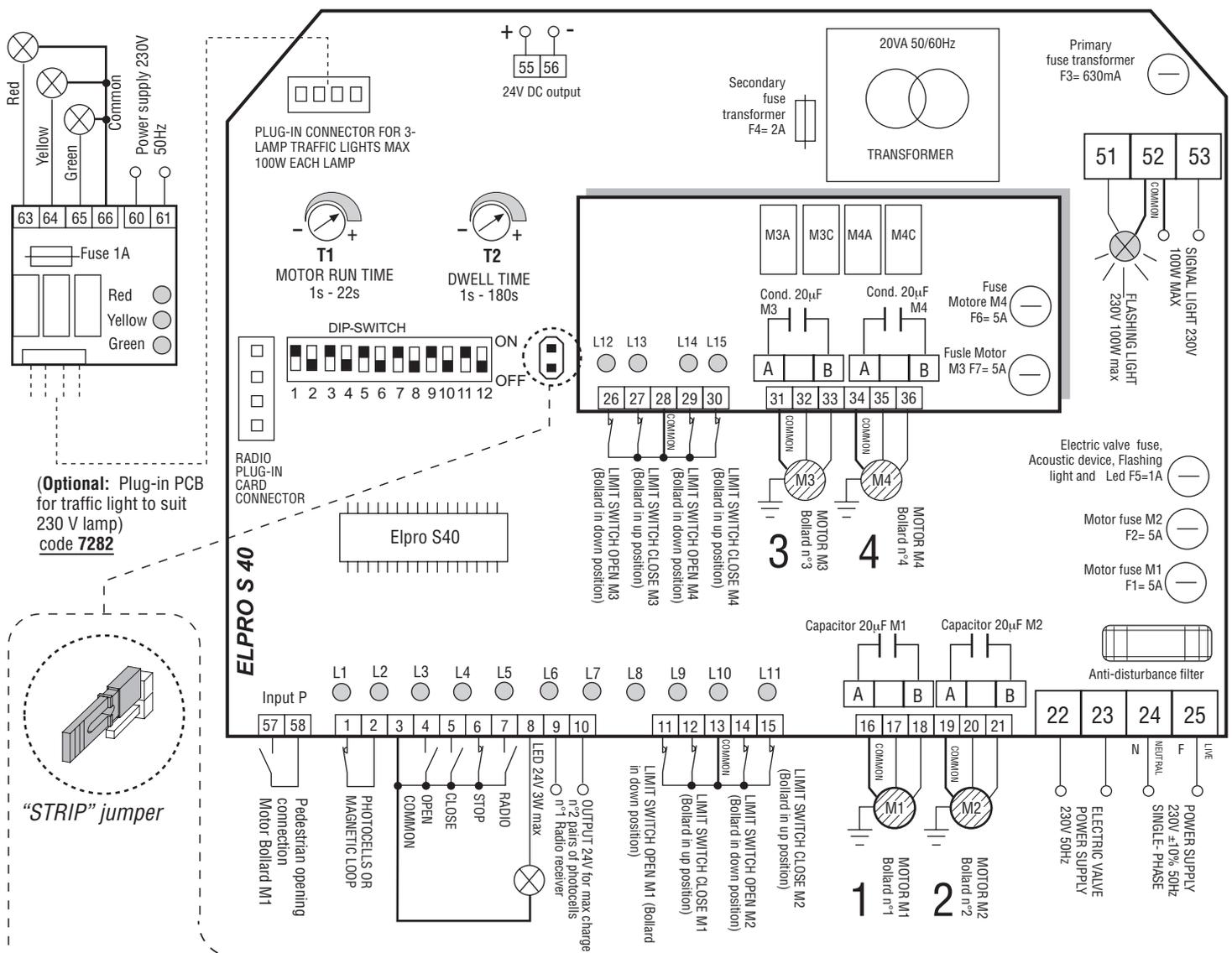


Dis. N. 4555



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LIMIT SWITCH DIAGNOSTIC:

Strabuc 918, Strabuc 930 Heavy Armoured, Strabuc 930 Opinat range of bollards:
With the "STRIP" jumper inserted (as in the picture), Elpro S40 checks cyclicly every 10 minutes that the closing limit switches (post raised) are in the correct position; should any of them fail to be such, only the motor of the post not in position is operated until this is fully up as required.

Coral and Vigilo range of posts:
For the posts that are fitted only with the opening limit switch, position the "STRIP" jumper as in the picture to achieve a correct performance of the system.

Note well: Whenever **Elpro S40** is re-powered, wait 10 seconds for the logic to become fully operating again.

The electronic control panel Elpro S40, new generation, is designed to operate the Strabuc, Coral and Vigilo. Power supply is 230V single-phase. Built in full compliance with 2006/95/CE Low Voltage Directive and 2004/108/CEE & 92/31/CEE Electro-Magnetic Compatibility Directive. Fitting operations are recommended by a qualified technician in conformity to the existing safety standards.

Elpro S40 is capable of monitoring damages or malfunctioning with the system (ISC)

I.S.C.= Integrity and Supervision Circuit, is a special function of Elpro S40 which can self control the electronic PCB and detect any damages occurring with any components or accessories. In this case, provided that the post is fitted with a release electric valve, lowering is allowed automatically.

The manufacturing company declines any responsibility for incorrect handling and application; also, it reserves the right to change or update the control panel any time.

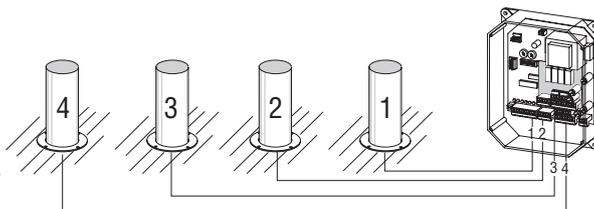
PLEASE NOTE:

- The control panel must be installed in a sheltered, dry place, inside the box provided with it.
 - Fit the mains to the control panel with a 0.03A high performance circuit breaker.
 - Use 1.5mm² section wires for voltage supply, electric motor and flashing lamp. Maximum recommended distance 50m.
 - Use 1mm² section wires for limit switches, photocells, push-buttons/key-switch and accessories.
- N.W: To fit extra accessories such as lights, CCTV etc. use only solid state relays to prevent damages to the microprocessor.



IN CASE OF FAILURE OF THE PANEL:

- Check the electronic PCB voltage supply is 230V ±10%
- Check the electric motor power supply is 230 V ±10%
- For longer distances increase wire section
- Check power supply 230V single-phase
- Check fuses
- Check all NC contacts
- Check that no voltage drop has occurred from the control board to the electric motor
- In case the electric valve is fitted, check integrity with all fuses

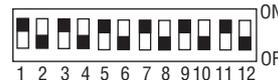


LED STATUS INDICATION

- L1= Pedestrian opening, normally **OFF**, alight when a pedestrian open pulse is given
- L2= Photocells or loop, normally **ALIGHT**, if obstructed light goes off
- L3= Open, normally **OFF**, alight when an open pulse is given
- L4= Close, normally **OFF**, alight when a close pulse is given
- L5= Stop, normally **ON**, it goes off when a stop pulse is given
- L6= Radio, normally **OFF**, alight when a Radio pulse is given
- L7= Normally **ON**, mains voltage and fuse integrity F1, F2, F3, F4
- L8= Limit switch open M1, normally **ON**, it goes off when the post is in down position
- L9= Limit switch close M1, normally **ON**, it goes off when the post is in up position
- L10= Limit switch open M2, normally **ON**, it goes off when the post is in down position
- L11= Limit switch close M2, normally **ON**, it goes off when the post is in up position
- L12= Limit switch open M3, normally **ON**, it goes off when the post is in down position
- L13= Limit switch close M3, normally **ON**, it goes off when the post is in up position
- L14= Limit switch open M4, normally **ON**, it goes off when the post is in down position
- L15= Limit switch close M4, normally **ON**, it goes off when the post is in up position

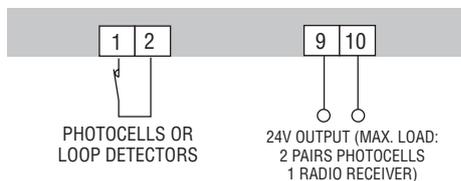
DIP-SWITCHES

- 1= ON Photocells or loop stop while opening
- 2= ON Radio no reversing while opening
- 3= ON Automatic closing
- 4= ON Pre flashing activated
- 5= ON Radio step by step stop in between
- 6= ON Pedestrian opening Motor M1 only one post operating
- 7= ON Deadman control
- 8= Traffic lights (see functions)
- 9= Traffic lights (see functions)
- 10= ON No lamp on during dwell time
- 11= ON Close on dwell time after passage through photocells or over the loop
- 12= ON Max working time 90s. OFF= 18s



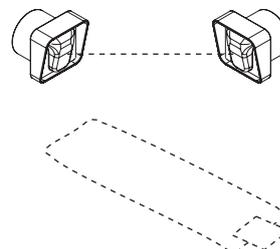
LOW VOLTAGE ELECTRICAL CONNECTIONS

Photocells or Loop Detectors:



DIP-SWITCH 1:

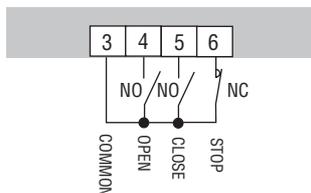
- ON: Photocells or loop stop while opening, reverse on closing once obstacle is removed
- OFF: Photocells or loop do not stop while opening, reverse on closing in case of an obstacle



DIP-SWITCH 11:

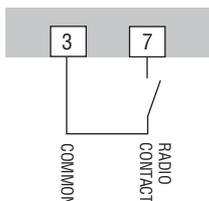
- ON: During dwell time, Automatic mode (Dip-Switch 3=ON) after engaging the photocells or loop, it closes 5s later
- OFF: It does not close after engaging the photocells or loop

Key switch:



Radio Contact:

- Open/Close (standard mode)
- It reverses at any pulse
- Step by step



DIP-SWITCH 2:

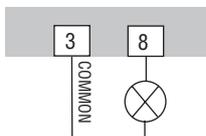
- ON: It does not reverse on opening
- OFF: It reverses at any pulse

DIP-SWITCH 5:

- ON: Step by step with stop in between
- OFF: Standard operation

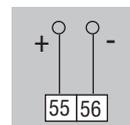
24V 3W Movement Indication Light:

- Light **ON**= Post in down position, free passage
- Light **OFF**= Post in up position, closed passage
- Flashing **0,5s (fast)**= rising post
- Flashing **1s (normally)**= lowering post
- With external clock: **2 short flashes** followed by a longer pause



24V DC Output:

Output for 24V D.C. applications



200mA for accessories



FADINI
the gate opener
Made in Italy

GB

Elpro · S40

**ELECTRONIC PROGRAMMER UP TO 4 BOLLARDS
WITH OR WITHOUT LIMIT SWITCHES**

ELECTRICAL POWER CONNECTIONS

Motors:

Important: when doing the electric power connections it is better to connect only one motor and its respective limit switches. Put the posts into phase one by one.



T1
MOTOR RUN TIME
1s - 22s

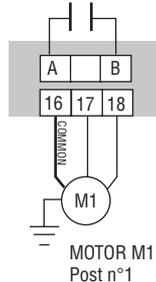


T2
DWELL TIME
1s - 180s

DIP-SWITCH 12:

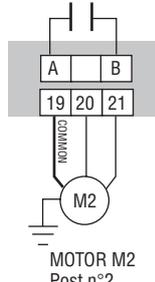
- ON: Motor run time max 90s
- 12 OFF: Motor run time max 18s

20µF additional capacitor in case of power shortage for Motor M1



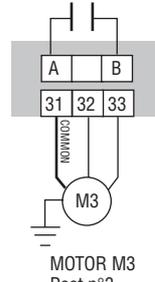
MOTOR M1
Post n°1

20µF additional capacitor in case of power shortage for Motor M2



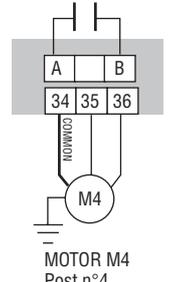
MOTOR M2
Post n°2

20µF additional capacitor in case of power shortage for Motor M3



MOTOR M3
Post n°3

20µF additional capacitor in case of power shortage for Motor M4



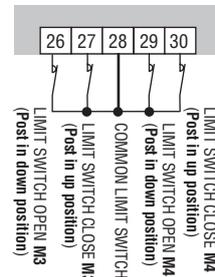
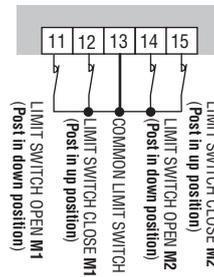
MOTOR M4
Post n°4

Limit switch:

There is no need to bridge the limit switch inputs of the posts which are not present in the installation

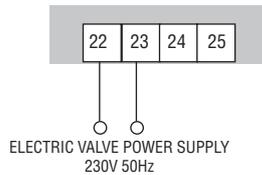
IMPORTANT: For Coral and Vigilo:

- 1) place the "STRIP" as indicated on page 6
- 2) bridge the closing limit switches inputs 12 and 15 (which are not used) with the common 13 and the inputs 27 and 30 (which are not used) with the common 28

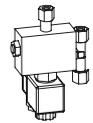


Electric valve power supply:

In case of power failure, electronic programmer malfunctioning, or a burnt fuse, should an electric valve be installed, the bollard lowers automatically

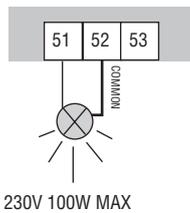


ELECTRIC VALVE POWER SUPPLY
230V 50Hz



External flashing light:

It is possible to connect both the external Flashing light and the intermittent signal led lights which are on only during the rising and lowering movement. The cable for the connection is the one labelled as flashing lights cable

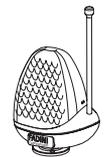


230V 100W MAX

DIP-SWITCH 4 and 10:

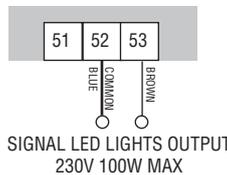
- ON: Pre-flashing
- 4 OFF: No pre-flashing

- ON: Flashing light out of service on Dwell Time. Automatic mode
- 10 OFF: Light flashes on Dwell Time. Automatic mode

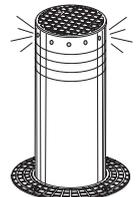


Signal led lights (for the "Strabuc" range only):

Output for intermittent signal led lights during the movement both rising and lowering and also on dwell in up position: the lights are off only when the bollard is in down position. Connect the **Blue-Common** wire and the **Brown** wire of the bollard flashing light cable.

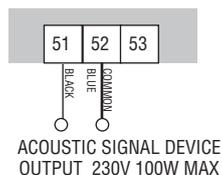


SIGNAL LED LIGHTS OUTPUT
230V 100W MAX

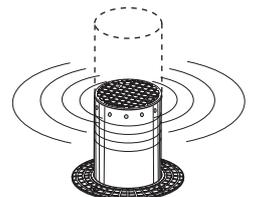


Acoustic signal "Beeper" during movement (optional accessory for the "Strabuc" range only):

The acoustic signal device inside the bollard is active during rising and lowering. The connection wires are the **Blue-Common** and the **Black** one of the flashing light cable

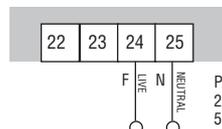


ACOUSTIC SIGNAL DEVICE OUTPUT 230V 100W MAX



PCB power supply:

Electronic programmer power supply



PCB POWER SUPPLY
230V ±10%
50Hz SINGLE PHASE



FUNCTIONS

Automatic / Semi-automatic:

Automatic cycle: after an opening pulse, the bollard goes down, it stops for dwell time pre-set in trimmer T2, after the pre-set time it closes automatically

Semi-Automatic: after an opening pulse, the bollard goes down. A closing pulse is needed to close.

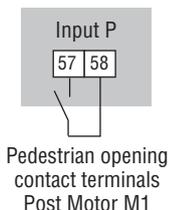


DIP-SWITCH 3

- ON= Automatic closing
OFF= No automatic closing.
Semi-automatic function

Pedestrian Opening:

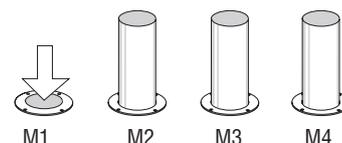
This command is separate from the standard opening command. When all the posts are in up position, on pulsing input P Dip-Switch 6= On, and 3=On, post n°1 (Motor M1) goes down for pedestrian opening, for the time pre-set in Trimmer T2, after this time it closes automatically



DIP-SWITCH 3 - 6 both on ON

- ON= Automatic closing
OFF= No automatic closing
3 semi-automatic closing

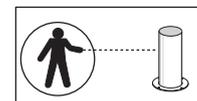
- ON= Pedestrian opening Motor M1
OFF= Standard operation
6

**Hold on switched (Deadman) control:**

Open and Close operations are achieved "by holding a switch on" (no relay self-holding is involved) therefore a physical attendance is required to keep the post opening or closing until either the button or key is released.

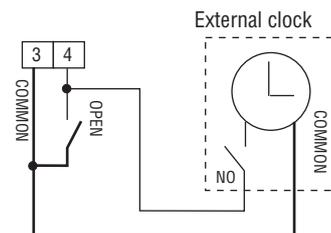
DIP-SWITCH 7

- ON= Deadman control
OFF= Standard operations
7

**External Clock (Optional):**

CLOCK: The electronic programmer Elpro S 40 can be connected to a clock for the post opening and closing
Connection: connect in parallel the NO clock contact to the 4 OPEN and 3 COMMON terminals, automatic closing is by Dip-Switch n°3=ON

How it works: Set the clock to the required time. On the pre-set time the post is automatically opened (the post goes down) and held open (the flashing light goes off and the led flashes twice and dwells). Any further pulsing (even by remote control) is not accepted by the system until the time pre-set by the clock has expired. On expiring and after the pre-set dwell time the post rises automatically.



DIP-SWITCH N°3=ON Automatic closing

- ON= Automatic closing
OFF= No automatic closing.
Semi-automatic function
3

Plug-in traffic lights interface (Optional):

The interface power supply (230V 50Hz 100W output per lamp) is independent from the one of the programmer. It can work also with the 2 lamps, Red and Green traffic lights (Dip Switch 8=OFF and 9=OFF)

Working logic:

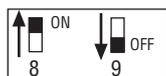
- **GREEN** Light= Post in **down position, OPEN** passage
- **RED** Light= Moving post or in **up position, CLOSED** passage
- **YELLOW** Light= it lights before the switching from the Green light to the Red light

Note: During **Pedestrian mode** the traffic light is always **RED**.

DIP-SWITCHES 8 and 9



Dip-Switch 8=OFF and 9=OFF
The yellow light turns on for the time of **0s** and after **0s** the Red light turns on **and the post starts rising immediately**



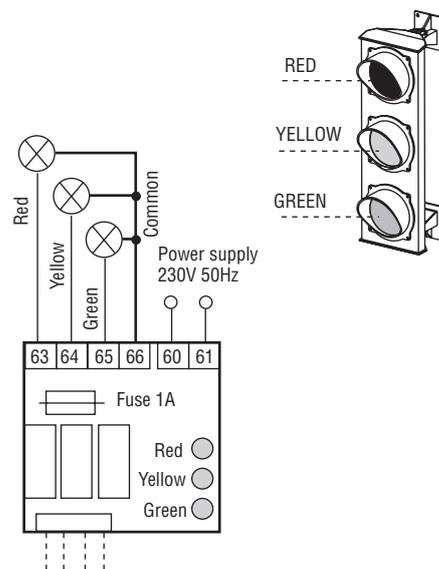
Dip-Switch 8=ON and 9=OFF
The yellow light turns on for the time of **2s** then the Red light turns on **and after 2s the post starts rising**



Dip-Switch 8=OFF and 9=ON
The yellow light turns on for the time of **6s** then the Red light turns on **and after 5s the post starts rising**

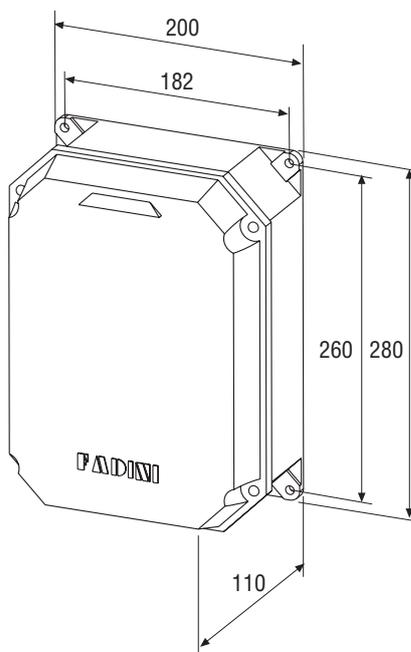


Dip-Switch 8=ON and 9=ON
The yellow light turns on for the time of **10s** then the Red light turns on **and after 7s the post starts rising**



(Optional: Plug-in PCB for
230V traffic lights)

code **7282**



- I** - Prima dell'installazione da parte di personale tecnico qualificato, si consiglia di prendere visione del Libretto Normative di Sicurezza che la Meccanica Fadini mette a disposizione.
- GB** - Please note that installation must be carried out by qualified technicians following Meccanica Fadini's Safety Norms Manual.
- F** - L'installation doit être effectuée par un technicien qualifié suivant le manuel des Normes de Sécurité de Meccanica Fadini.
- D** - Vor der Montage durch einen Fachmann, wird es empfohlen die Anleitung zur Sicherheitsnormen, die Meccanica Fadini zur Verfügung stellt, nachzulesen.
- E** - Antes de la instalación por el personal técnico calificado, se recomienda leer detenidamente el Folleto de la Reglamentación de Seguridad que la empresa Meccanica Fadini pone a su disposición.
- NL** - Voordat de installatie door gekwalificeerd technisch personeel wordt uitgevoerd, wordt geadviseerd om het boekje met veiligheidsvoorschriften dat Meccanica Fadini ter beschikking stelt door te lezen.



I Direttiva **2003/108/CE**
Smaltimento dei materiali
elettrici ed elettronici

**VIETATO GETTARE NEI RIFIUTI
MATERIALI NOCIVI PER L'AMBIENTE**

GB **2003/108/CE** Directive
for waste electrical and
electronic equipments

**DISPOSE OF PROPERLY
ENVIRONMENT-NOXIOUS MATERIALS**



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