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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 INTEGRITA' 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

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

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NOTICES D'INSTRUCTION

Elpro • S40

PROGRAMMATEUR A MICROPROCESSEUR
POUR BORNES ESCAMOTABLES

- FONCTIONNEMENT DE 4 BORNES ESCAMOTABLES
MAXIMUM AVEC OU SANS FINS DE COURSE
 - FONCTION PAS PAS
 - PREVU POUR L'INSTALLATION DU FEU DE SIGNALISATION A 3 AMPOULES
 - OUVERTURE PASSAGE PIETONS
 - AUTOMATIQUE OU SEMIAUTOMATIQUE
- LUMIERES DE SERVICE
 - FONCTION HORLOGE
 - HOMME MORT

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ANLEITUNG

Elpro • S40

MIKROPROZESSORSTEUERUNG
FÜR VERSENKBARE ABSPERRPOLLER

- BIS ZU 4 VERSENKBARE ABSPERRPOLLER
- GEHTÜRFUNKTION
- FÜR AMPEL MIT 3 LICHTERN VORGESEHEN
- AUTOMATIK- ODER HALBAUTOMATIKBETRIEB
- GETRENNTE ANSCHLÜSSE FÜR ELEKTROVENTIL
- SYSTEM ZUR KONTROLLE DER INTEGRITÄT

- FÜR EXTERNE UHR VORGESEHEN
- IMPULSBETRIEB
- TOTMANN-BETRIEB

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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

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NL

HANDLEIDING

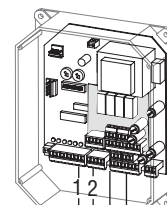
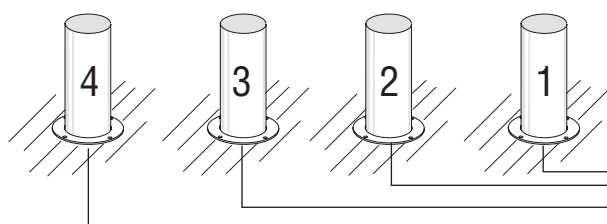
Elpro • S40

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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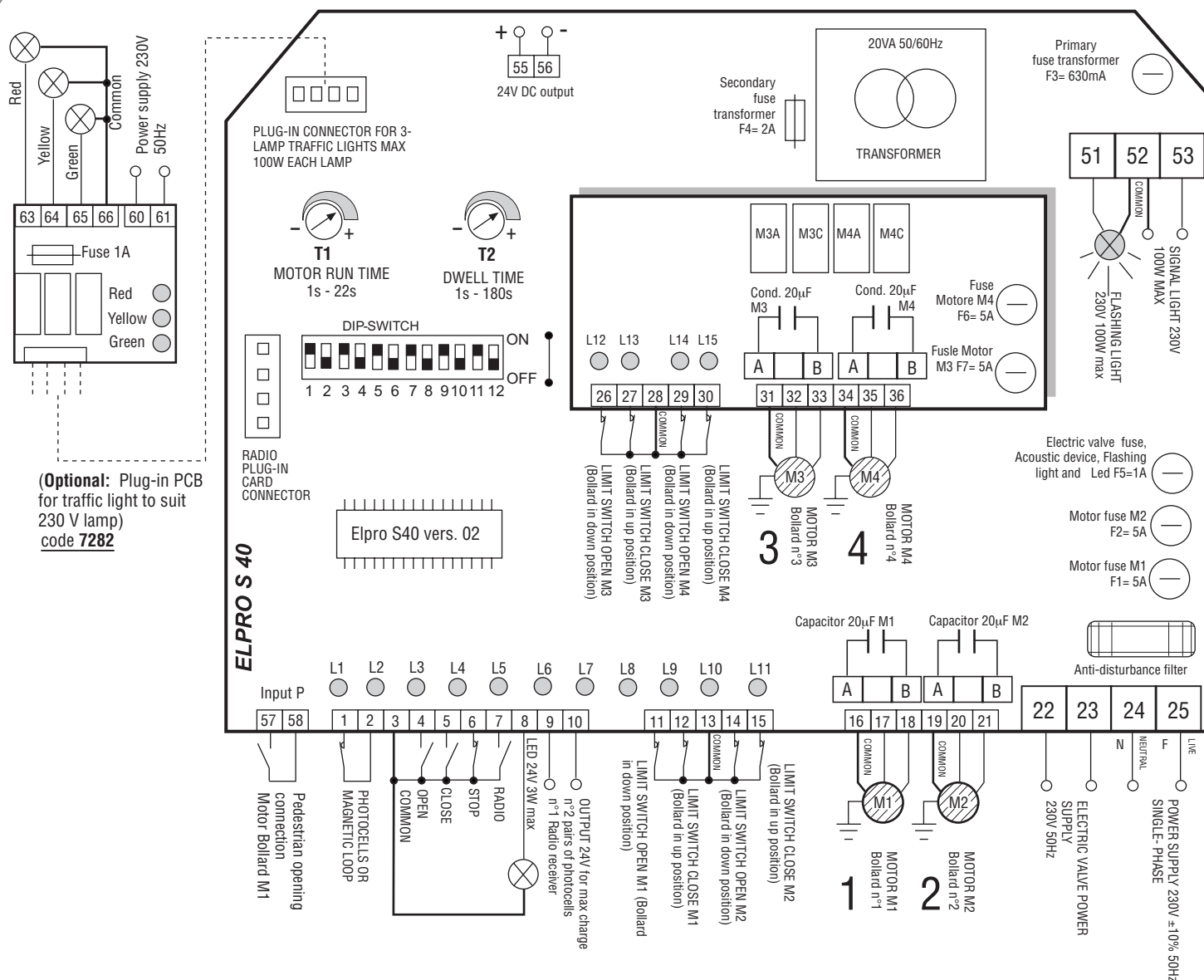


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Elpro S40

ELECTRONIC PROGRAMMER UP TO 4 BOLLARDS



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 BT 93/68/CE Low/High Voltage and EMC 93/68/CE Electro-Magnetic Compatibility Regulations. 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
- Check the electric motor power supply is 230 V
- Check fuses
- Check photocells if contacts are normally closed
- Check all NC contacts
- Check that no voltage drop has occurred from the control board to the electric motor
- Check all the status indication leds
- 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

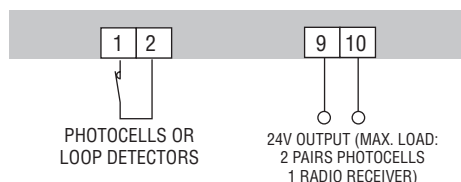
DIP-SWITCH

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 Dead man 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:

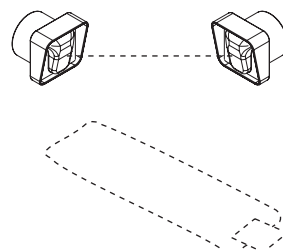


DIP-SWITCH 1:

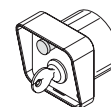
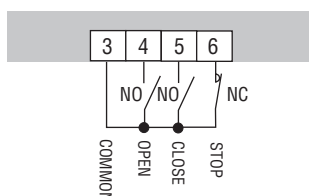
ON: Photocells or loop stop while opening, reverse on closing once obstacle is removed
 OFF: Photocells or loop do not stop while opening, reverse on closing in case of an obstacle

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

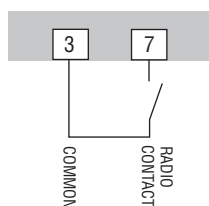


Key switch:



Radio Contact:

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



DIP-SWITCH 2:

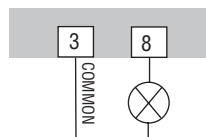
ON: It does not reverse on opening
 OFF: It reverses at any pulse

DIP-SWITCH 5:

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

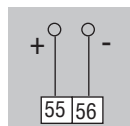
24V 3W Movement Indication Light :

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



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ELECTRONIC PROGRAMMER UP TO 4 BOLLARDS

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



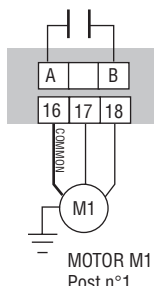
T2
DWELL TIME
1s - 180s

DIP-SWITCH 12:

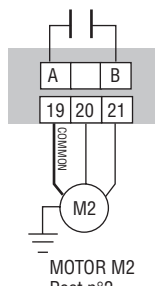
☒ ON: Motor run time max 90s

☐ 12 OFF: Motor run time max 18s

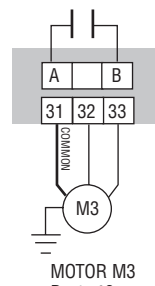
20 μ F additional capacitor in case of power shortage for Motor M1



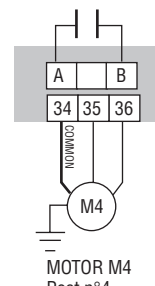
20 μ F additional capacitor in case of power shortage for Motor M2



20 μ F additional capacitor in case of power shortage for Motor M3



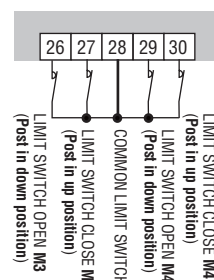
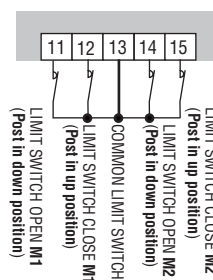
20 μ F additional capacitor in case of power shortage for Motor M4



Limit switch:

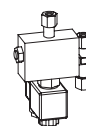
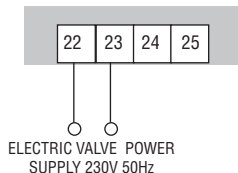
There is no need to bridge the limit switch inputs of the posts which are not present in the installation

IMPORTANT: For **Coral** and **Vigilo** posts with only one limit switch, 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



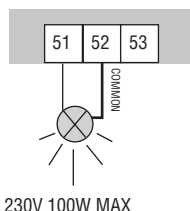
Electric valve power supply:

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



External flashing light:

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



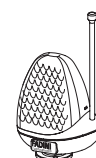
DIP-SWITCH 4 and 10:

☒ ON: Pre-flashing

☐ 4 OFF: No pre-flashing

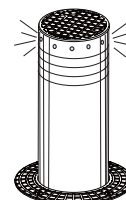
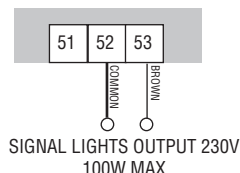
☒ ON: Flashing light out of service on Dwell Time. Automatic mode

☐ 10 OFF: Light flashes on Dwell Time. Automatic mode



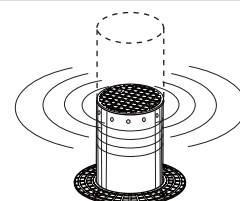
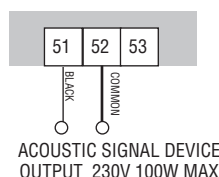
Signal lights:

Output for intermittent signal 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.



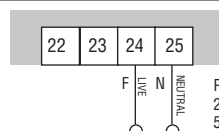
Acoustic signal during movement (optional accessory):

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



PCB power supply:

Electric programmer power supply

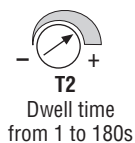


FUNCTIONS

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

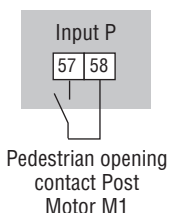
Semi-Automatic: after an opening pulse, the bollard goes down. A closing pulse is needed to close.

**DIP-SWITCH 3**

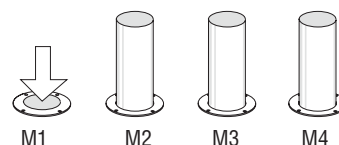
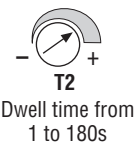
- ON= Automatic closing
 OFF= No automatic closing.
 3 Semi-automatic function

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**

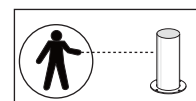
- ON= Automatic closing
 OFF= No automatic closing
 3 semi-automatic closing
- ON= Pedestrian opening Motor M1
 OFF= Standard operation
 6

**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.

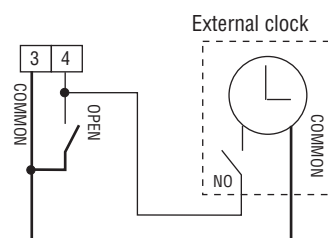
DIP-SWITCH 7

- 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 times. 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 automatically rises (automatic close).

**DIP-SWITCH N°3=ON Automatic closing**

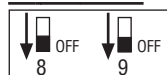
- ON= Automatic closing
 OFF= No automatic closing.
 3 Semi-automatic function

Plug-in traffic lights interface (Optional):

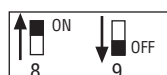
The interface power supply (230V 50Hz 100W output per lamp) is independent from the one of the programmer. It can work also with the 2 lamp Red and Green traffic lights (Dip Switch 8=OFF and 9=OFF)

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-SWITCH 8 e 9

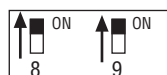
Dip-Switch 8=OFF and 9=OFF
 The yellow light turns on for the time of **0s** and after **0s** the Red light turns on **and the post starts rising**



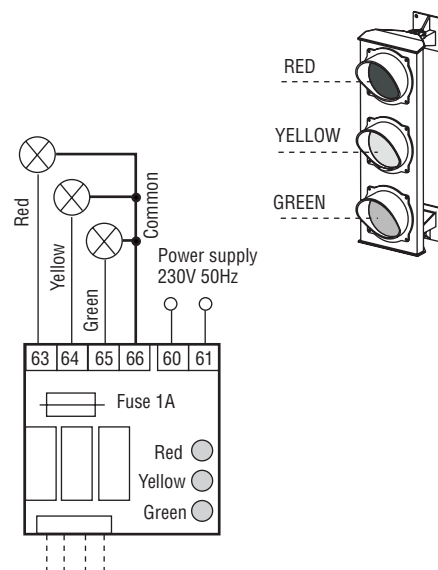
Dip-Switch 8=ON and 9=OFF
 The yellow light turns on for the time of **2s** then the Red light turns on and **after 2s the post starts rising**



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**

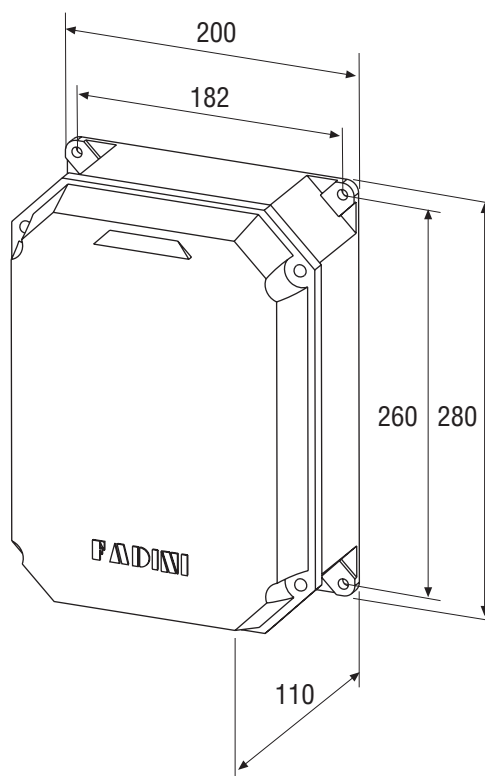


Dip-Switch 8=ON and 9=ON
 The yellow light turns on for the time of **10s** then the Red light turns on and **after 7s the post starts rising**



(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 von einem 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** - Vóór installatie, dat door bevoegd technisch personeel moet worden uitgevoerd, wordt het aangeraden de Handleiding met de Veiligheidsnormen door te lezen die Meccanica Fadini tot beschikking stelt.



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