

**General description:** The Elpro 13 exp is an electronic microprocessor programmer for controlling and managing single-phase gate openers fitted on swinging gates. single-phase 230V±10% 50Hz power supply, it satisfies the Low Voltage 2006/95/CE and Electro Magnetic Compatibility regulations 2004/108/CE safety standards and should therefore be installed by a qualified technician in compliance with applicable regulations. Programmed operation logic: automatic function, semi-automatic, pre-flashing, step-by-step by radio remote control, input for 2nd pair of photocells, electric lock output, pedestrian opening function, stroke reversing pulse function, operator status indicator light. The Manufacturer declines responsibility for improper use of the programmer and reserves the right to amend and update this manual and the programmer without prior notice. Not-compliance with installation rules can cause serious damage to properties and people.

#### ! IMPORTANT

- The programmer must be installed in a protected, dry place with its own protective case
- Apply a high sensitivity differential Thermo magnet switch type 0.03 A to the programmer's power supply
- Make sure that the electronic programmer has a 230V±10% 50Hz power supply
- For power supply, flashing light use cable with wires with a section of 1.5 mm<sup>2</sup> up to a distance of 50m; for Limitswitches and other accessories, use cables with wires with 1mm<sup>2</sup> sections.
- If the Photocells are not used, insert a jumper between terminals 1 and 2 and if the 2nd pair is not used, jumper the relative terminals
- If no Button switches or key switches without stop button are used, insert a jumper between terminals 3 and 6 NC contact

#### IF THE PROGRAMMER DOES NOT WORK:

- Ensure that the electronic programmer has a 230V±10% power supply
- Ensure that the electric motor has a 230V±10% power supply
- For distances of over 50 metres, increase the section of the wires.
- Check the single-phase 230V supply voltage
- Check the fuses
- Check all normally closed NC contacts of the programmer
- Check that there is no drop in voltage between the programmer and the electric motor

#### Diagnostic LEDs

- L1= ON if the programmer is powered
- L2= Photocell, normally ON, switches off with obstacle present
- L3= Open, normally OFF, lights when Open pulse is received
- L4= Close, normally OFF, lights when Close pulse is received
- L5= Stop, normally ON, switches off when Stop impulse is given
- L6= Radio, normally OFF, lights when Radio pulse is received

**DIP-SWITCH**

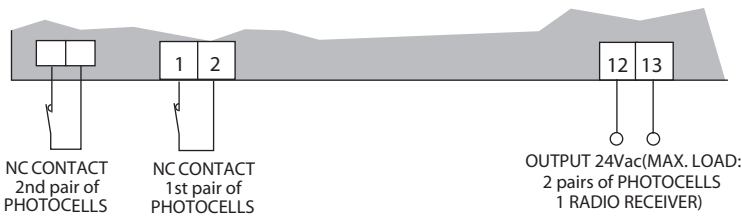
- 1= ON 1<sup>st</sup> pair of Photocells stop gates during opening
- 2= ON Radio does not invert during opening
- 3= ON Closes in Automatic mode
- 4= ON Pre-flashing of flashing light
- 5= ON Step-by-step by radio with intermediate stop
- 6= ON Single pedestrian when gate is closed
- 7= ON Stroke reversing pulse function enabled when opening from closed gate position
- 8= ON Eliminates the Leaf delay when opening. The motors start together



**LOW VOLTAGE ELECTRICAL CONNECTIONS**



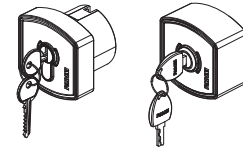
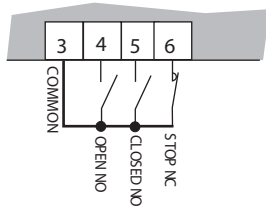
**Photocells:** The 1st pair of Photocells (device installed on gate posts) is managed by Dip-Switch 1  
 The 2nd pair of photocells (device installed inside entrance) stops during opening and changes direction when closing once the obstacle has been removed



DIP-SWITCH 1 (only for 1st pair of Photocells):

- ON: Photocell stops gate on opening and changes direction when closing once the obstacle has been removed
- OFF: Photocell no stop on opening and changes direction when closing in case of an obstacle

**Key switch:**



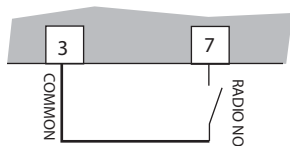
**Radio contact:** - Open/Close (normal) changes direction at each pulse  
 - Step-by-step with intermediate stop

**DIP-SWITCH 2:**

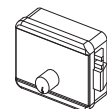
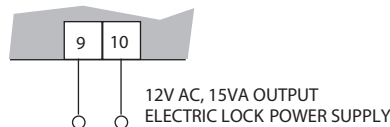
- ON: Does not change direction during opening
- OFF: Changes direction at each pulse

**DIP-SWITCH 5:**

- ON: Step-by-step with intermediate stop
- OFF: Normal operation

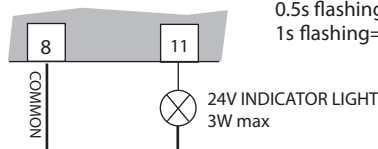


**Electric lock:** Mechanical accessory that locks the gate in closed position, recommended for installation with leaves over 1.80 m in length and locking operators. Operating time: power supply for seconds, 100ms in advance before leaf movement starts



**24V 3W Indicator light showing leaf in movement:**




Indicator light On = Gate open  
 Indicator light Off = Gate closed  
 0.5s flashing (fast) = closing movement  
 1s flashing = opening movement

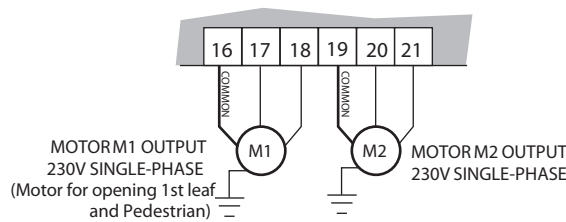


## ELECTRIC POWER CONNECTIONS

16 17 18 19 20 21 22 23 24 25

**Motors:** Having terminated the electrical connections of the Motors, the three timers must be adjusted for delay on closing, Dwell Time and Operating Time

-  CLOSING LEAF DELAY TIME  
0s - 18s
-  DWELL TIME (If Dip-Switch 3=ON)  
0s - 120s
-  OPERATING TIME  
2s - 100s



## DIP-SWITCH 8:

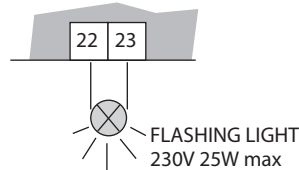
- ON: Eliminates the Leaf delay when opening. The motors start together
- 8 OFF: Leaf delay when opening enabled

## DIP-SWITCH 3

- ON = Closes in Automatic mode
- 3 OFF = Does not close in Automatic mode Semi-automatic function

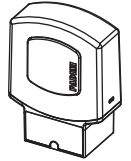
**Flashing light:**

Pre-flashing Dip-Switch 4=ON: Once the control pulse has been given the flashing light switches on and the operator starts 3 seconds later.



## DIP-SWITCH 4:

- ON: Pre-flashing
- 4 OFF: Without pre-flashing

**Programmer power supply:**

Apply a high sensitivity differential Thermo magnet switch type 0.03A to the programmer's power supply. The card requires a 230V 50Hz±10% single-phase power supply once all the low voltage and power connections have been completed.



## FUNCTIONS

**Automatic / Semi-automatic function:**

Automatic cycle: when an open pulse is given, the leaves open, they stop in dwell for the time set on the timer, after which they close automatically.

Semi-automatic cycle: when an open pulse is given, the leaves open. To close the leaves, give the close pulse.



DWELL TIME  
0s - 120s

## DIP-SWITCH 3

- ON = Closes in Automatic mode
- 3 OFF = Does not close in Automatic mode Semi-automatic function

**Pedestrian opening:**

Pedestrian opening of a completely closed gate leaf is obtained giving an Open command, with Dip-Switch no. 6=ON, to terminals 3-4:

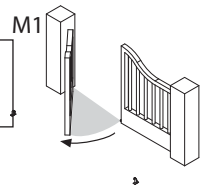
- a first opening command opens the Motor 1 leaf
- with a second command to terminals 3 and 4, the second leaf also opens.

The transmitter is always enabled for both leaves with Radio Contact 7-8.

The function "Pedestrian Opening" is not in service during the first operation cycle, after a power failure.

## DIP-SWITCH 6

- ON= Single-leaf pedestrian service
- 6 OFF= Normal service

**Stroke reversing pulse:**

Function (Dip-Switch no. 7=ON) that facilitates disengagement of the electric lock when the gate is completely closed, even in Pedestrian Opening mode: with the gate leaves closed, before opening they are pushed to close for 2 seconds.

## DIP-SWITCH 7:

- ON: Stroke reversing pulse function enabled when opening from closed gate
- 7 OFF: Stroke reversing pulse deactivated

**Step-by-step function:**

Dip-Switch no. 5=ON at each pulse on the radio contact the gate performs open-stop-close-stop

## DIP-SWITCH 5:

- ON: Step-by-step function enabled
- 5 OFF: Step-by-step function deactivated

**External clock (Optional):**

CLOCK: The Elpro 13 exp Programmer makes it possible to connect a normal clock for opening-closing

Wiring: connect in parallel the NO contact of the Clock with terminal no. 4 OPEN and no. 3 COMMON, activating automatic re-closing with the Dip-Switch no. 3=ON and setting the dwell time on the trimmer

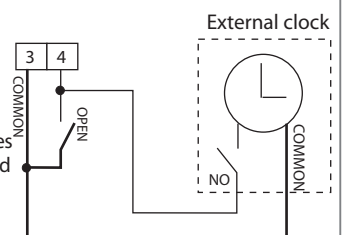
Operation: programme the opening time on the clock, at the time set the gate will open and remain open (the flashing light switches off and the indicator light gives the signal with two quick flashes followed by a longer dwell) and will not accept any further command (including radio commands) until the time set on the clock has elapsed, at the end of which, following the dwell time, automatic reclosure will take place.

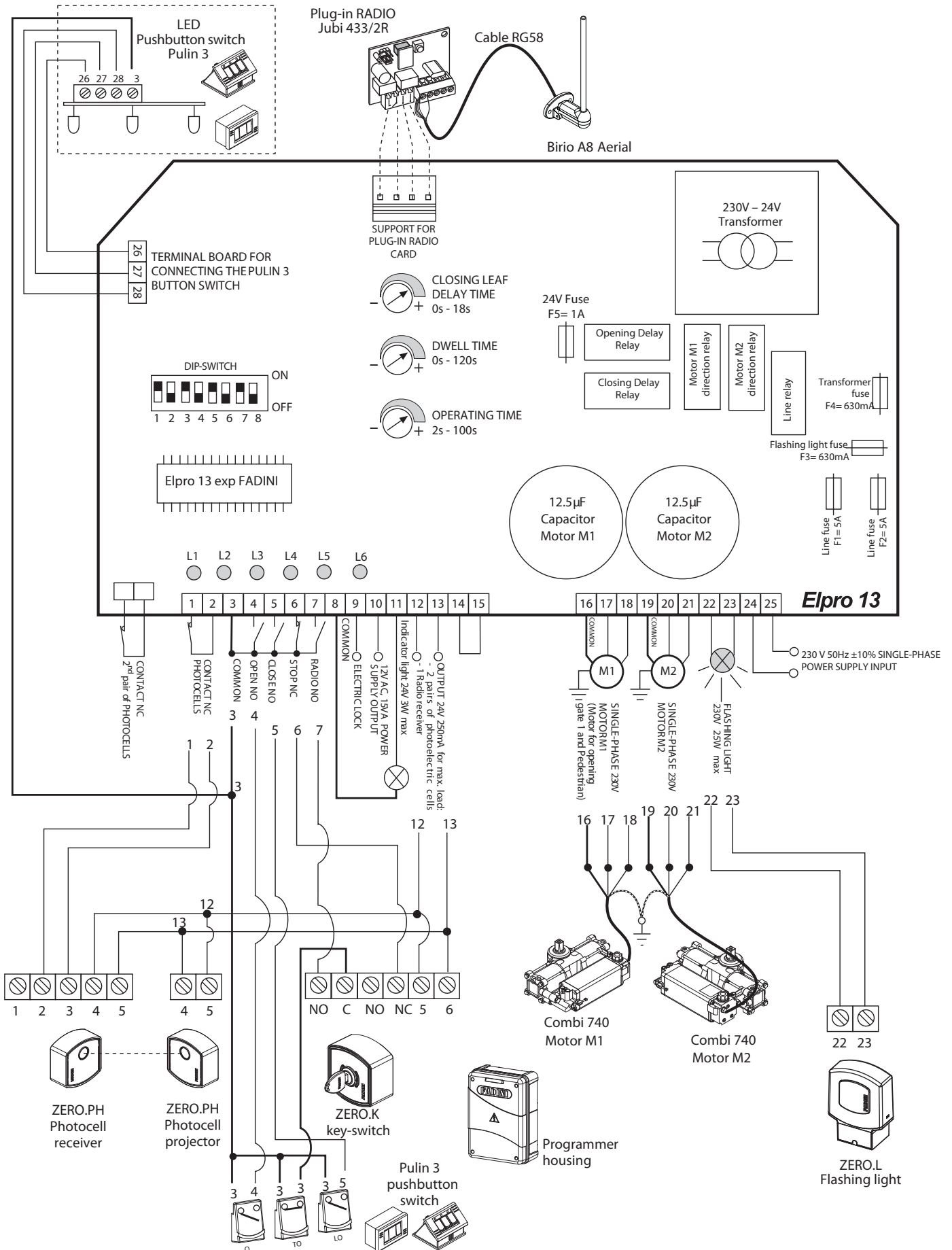


DWELL TIME  
0s - 120s

## DIP-SWITCH No. 3=ON Automatic Closing

- ON = Closes in Automatic mode
- 3 OFF = Does not close in Automatic mode Semi-automatic function





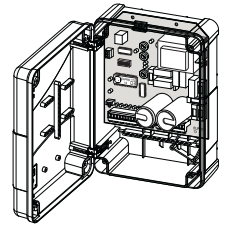
# Elpro·13 exp

IT

## DICHIARAZIONE DI CONFORMITÀ

Ditta Costruttrice: **FADINI** 

Via Mantova 177/A 37053 Cerea (VR) Italy Tel. 0442 330422 - Fax 0442 331054  
e-mail: info@fadini.net - www.fadini.net



DICHIARA SOTTO LA PROPRIA RESPONSABILITÀ CHE:

Modello: **Elpro·13 exp** programmatore elettronico a microprocessore

È CONFORME ALLA DIRETTIVA MACCHINE .....2006/42/CE

L'Elpro 13 exp viene commercializzato per essere installato come "impianto automatizzato", con accessori e componenti originali dalla Ditta Costruttrice. La ditta costruttrice non si assume responsabilità circa l'uso improprio del prodotto.

Il prodotto risulta conforme alle seguenti normative specifiche:

- Direttiva Bassa Tensione..... 2006/95 CE
- Direttiva Compatibilità Elettromagnetica..... 2004/108/CE

Al fine di certificare il prodotto il Costruttore dichiara sotto la propria responsabilità il rispetto della **NORMATIVA DI PRODOTTO** .....EN 13241-1

Meccanica Fadini S.r.l.

Data: 10-01-14

Il Responsabile

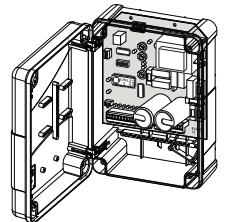


GB

## MANUFACTURER'S DECLARATION OF CONFORMITY

Manufacturer: **FADINI** 

Via Mantova 177/A 37053 Cerea (VR) Italy Tel. 0442 330422 - Fax 0442 331054  
e-mail: info@fadini.net - www.fadini.net



HEREBY DECLARES UNDER ITS OWN RESPONSIBILITY THAT:

Model: **Elpro·13 exp** electronic microprocessor programmer

COMPLIES WITH MACHINERY DIRECTIVE .....2006/42/CE

Elpro 13 exp is sold for installation as an automated system, with original accessories and components indicated by the Manufacturer. The Manufacturer declines all responsibility for improper use of the product.

The product is conforming to the following specific regulations:

- Low Voltage Directive ..... 2006/95 CE
- Electromagnetic Compatibility Directive ..... 2004/108/CE

In order to certify the product, the Manufacturer declares under its own responsibility that it complies with **PRODUCT STANDARD** .....EN 13241-1

Meccanica Fadini S.r.l.

Date: 10-01-14

Supervisor

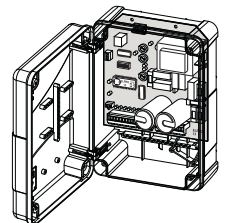


FR

## DECLARATION DE CONFORMITE

Constructeur: **FADINI** 

Via Mantova 177/A 37053 Cerea (VR) Italy Tel. 0442 330422 - Fax 0442 331054  
e-mail: info@fadini.net - www.fadini.net



DECLARE SOUS SA PROPRE RESPONSABILITE QUE :

Modèle **Elpro·13 exp** programmeur électronique à microprocesseur

EST CONFORME A LA DIRECTIVE MACHINES.....2006/42/CE

L'Elpro 13 exp est vendu pour être monté comme « installation automatisée », avec les accessoires et les composants originaux indiqués par le Constructeur. Le fabricant décline toute responsabilité en cas d'usage improprie du produit.

Le produit est conforme aux normes suivantes:

- Directive Basse Tension ..... 2006/95 CE
- Directive Compatibilité Electromagnétique ..... 2004/108/CE

Afin de certifier le produit, le Fabricant déclare sous sa propre responsabilité qu'il est conforme à la **NORME DE PRODUIT** .....EN13241-1

Meccanica Fadini S.r.l.

Date: 10-01-14

Le Responsable

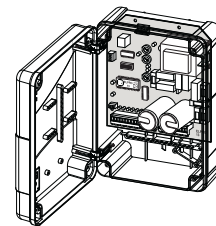


DE

## KONFORMITÄTSERKLÄRUNG

Herstellerrfirma: **FADINI** 

Via Mantova 177/A 37053 Cerea (VR) Italy Tel. 0442 330422 - Fax 0442 331054  
e-mail: info@fadini.net - www.fadini.net



ERKLÄRT UNTER IHRER EIGENEN VERANTWORTUNG, DASS:

Model: **Elpro·13 exp** die elektronische Mikroprozessorsteuerung

MIT DER MASCHINENRICHTLINIE 2006/42/CE ÜBEREINSTIMMT

Die Elpro 13 exp wird vermarktet, um als "automatisierte Anlage" mit Originalzubehör und Originalkomponenten, die von der Herstellerfirma angegeben werden, installiert zu werden. Die Herstellerfirma übernimmt keinerlei Verantwortung in Bezug auf die unsachgemäße Verwendung des Produktes.

Das Produkt entspricht den folgenden spezifischen Rechtsvorschriften:

- Niederspannungsrichtlinie ..... 2006/95 CE
- Elektromagnetischen Kompatibilitätsrichtlinie ..... 2004/108/CE

Zur Zertifizierung des Produktes erklärt der Hersteller auf seine eigene Verantwortung, dass die Produktrechtsvorschriften EN 13241-1 eingehalten werden

Meccanica Fadini S.r.l.

Datum: 10-01-14

Der Verantwortliche

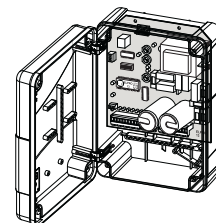


ES

## DECLARACIÓN DE CONFORMIDAD

Empresa Fabricante: **FADINI** 

Via Mantova 177/A 37053 Cerea (VR) Italy Tel. 0442 330422 - Fax 0442 331054  
e-mail: info@fadini.net - www.fadini.net



DECLARA BAJO SU PROPIA RESPONSABILIDAD QUE:

Modelo: **Elpro·13 exp** programador electrónico de microprocesador

ESTÁ EN CONFORMIDAD CON LA DIRECTIVA MÁQUINAS .....2006/42/CE

Elpro 13 exp se comercializa para ser empleado como "equipo automatizado", con accesorios y componentes originales indicados por la Empresa Fabricante. La empresa fabricante no se asume ninguna responsabilidad sobre el uso impropio del producto.

El producto está en conformidad con las siguientes normativas específicas:

- Directiva Baja Tensión ..... 2006/95 CE
- Directiva Compatibilidad Electromagnética ..... 2004/108/CE

Con la finalidad de certificar el producto, el Fabricante declara bajo su propia responsabilidad que se cumple con la NORMATIVA DE PRODUCTO .....EN 13241-1

Meccanica Fadini S.r.l.

Fecha: 10-01-14

El Responsable

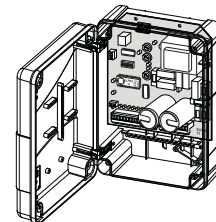


NL

## CONFORMITEITSVERKLARING

Fabrikant: **FADINI** 

Via Mantova 177/A 37053 Cerea (VR) Italy Tel. 0442 330422 - Fax 0442 331054  
e-mail: info@fadini.net - www.fadini.net



VERKLAART ONDER EIGEN VERANTWOORDELIJKHEID DAT:

Model: **Elpro·13 exp** elektronische programmeerinrichting met microprocessor

VOLDOET AAN DE MACHINERICHTLIJN .....2006/42/CE

Elpro 13 exp wordt in de handel gebracht om geïnstalleerd te worden als "geautomatiseerde installatie", met de door de fabrikant aangegeven originele accessoires en onderdelen. De fabrikant aanvaardt geen enkele aansprakelijkheid voor een oneigenlijk gebruik van het product.

Het product voldoet aan de volgende specifieke normen:

- Laagspanningsrichtlijn ..... 2006/95 CE
- Elektromagnetische Compatibiliteitsrichtlijn ..... 2004/108/CE

Teneinde het product te certificeren, verklaart de Fabrikant onder eigen verantwoordelijkheid de inachtneming van de PRODUCTNORM .....EN 13241-1

Meccanica Fadini S.r.l.

Datum: 10-01-14

De Verantwoordelijke





**IT** DATI TECNICI

Alimentazione .....230V - 50Hz  
 Uscita tensione .....230V - 50Hz  
 Uscita bassa tensione .....24V - 10W  
 Potenza di uscita .....1'100W  
 Fusibili di linea .....5A  
 Grado di protezione .....IP 64  
 Condensatori .....n °2 da 12,5µF - 400V

Trasformatore  
 Potenza .....20VA  
 Nucleo magnetico .....1,5W / spess. 0,5  
 Tensione .....0 - 230V  
 Isolamento .....4Kv x 1'

**GB** TECHNICAL FEATURES

Power supply .....230V - 50Hz  
 Voltage output .....230V - 50Hz  
 Low voltage output .....24V - 10W  
 Power output .....1'100W  
 Line fuses .....5A  
 Protection Class .....IP 64  
 Capacitors .....2 x 12.5 µF - 400V

Transformer  
 Power .....20VA  
 Magnetic core .....1.5W / thick. 0,5  
 Voltage .....0 - 230V  
 Insulation .....4Kv x 1'

**FR** DONNEES TECHNIQUES

Alimentation .....230V - 50Hz  
 Sortie tension .....230V - 50Hz  
 Sortie basse tension .....24V - 10W  
 Puissance sortie .....1'100 W  
 Fusibles de ligne .....5A  
 Degré de protection .....IP 64  
 Condensateurs .....2 de 12,5 µF - 400V

Transformateur  
 Puissance .....20VA  
 Noyau magnétique .....1,5W / épaisseur. 0,5  
 Tension .....0 - 230V  
 Isolation .....4kV x 1'

**DE** TECHNISCHE DATEN

Stromversorgung .....230V - 50 Hz  
 Spannung, Ausgang .....230V - 50 Hz  
 Niedrigspannung, Ausgang .....24V - 10W  
 Leistung, Abgabe .....1'100W  
 Linienicherungen .....5A  
 Schutzart .....IP 64  
 Kondensatoren .....2 Stück 12,5 µF - 400V

Transformator  
 Leistung .....20 VA  
 Magnetkern .....1,5W / Dicke 0,5  
 Spannung .....0 - 230V  
 Isolierung .....4 KV x 1'

**ES** DATOS TÉCNICOS

Alimentación .....230V - 50Hz  
 Salida tensión .....230V - 50Hz  
 Salida baja tensión .....24V - 10W  
 Potencia de salida .....1'100W  
 Fusibles de línea .....5A  
 Grado de protección .....IP 64  
 Condensadores .....n °2 de 12,5µF - 400V

Transformador  
 Potencia .....20VA  
 Núcleo magnético .....1,5W / esp. 0,5  
 Tensión .....0 - 230V  
 Aislamiento .....4Kv x 1'

**NL** TECHNISCHE GEGEVENS

Voeding .....230V - 50Hz  
 Uitgangsspanning .....230V - 50Hz  
 Laagspanningsuitgang .....24V - 10W  
 Uitgangsvermogen .....1'100W  
 Lijnzekeringen .....5A  
 Beveiligingsgraad .....IP 64  
 Condensatoren .....2 van 12,5 µF - 400V

Transformator  
 Vermogen .....20VA  
 Magnetische kern .....1,5W / dikte 0,5  
 Spanning .....0 - 230V  
 Isolatie .....4Kv x 1'



- IT** - 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.
- FR** - L'installation doit être effectuée par un technicien qualifié suivant le manuel des Normes de Sécurité de Meccanica Fadini.
- DE** - Vor der Montage durch einen Fachmann, wird es empfohlen die Anleitung zur Sicherheitsnormen, die Meccanica Fadini zur Verfügung stellt, nachzulesen.
- ES** - 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.



**IT** Direttiva 2002/95/CE  
 Smaltimento dei materiali  
 elettrici ed elettronici  
 VIETATO GETTARE NEI RIFIUTI  
 MATERIALI NOCIVI PER L'AMBIENTE

**GB** 2002/95/CE Directive  
 for waste electrical and  
 electronic equipments

DISPOSE OF PROPERLY  
 ENVIRONMENT-HARMFUL  
 MATERIALS

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La ditta costruttrice si riserva di apportare modifiche al presente libretto senza preavviso