

- PRE-SET FOR A TRAFFIC LIGHT WITH 3 LAMPS

- DEADMAN (HOLD-ON-SWITCHED) CONTROL

- AUTOMATIQUE OU SEMI-AUTOMATIQUE - PREPARE POUR HORLOGE EXTERNE

- FÜR AMPEL MIT 3 LICHTERN VORGESEHEN

- AUTOMATISCH ODER HALBAUTOMATISCH - FÜR EXTERNE UHR VORGESEHEN

- SCHRITT FÜR SCHRITT FUNKTION (IMPULSBETRIEB)

- PREPARE POUR FEU DE CIRCULATION A 3 VOYANTS

- AUTOMATIC OR SEMI-AUTOMATIC - PRE-SET FOR EXTERNAL TIME CLOCK

- STEP BY STEP FUNCTION

- FONCTION PAS-PAS - HOMME MORT

- TOTMANN-BETRIEB

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# GENERAL WARNINGS FOR PEOPLE SAFETY THANK YOU

### Thank you for purchasing a Fadini product.

Please read these instructions carefully before using this appliance. The instructions contain important information which will help you get the best out of the appliance and ensure safe and proper installation, use and maintenance. Keep this manual in a convenient place so that you can always refer to it for the safe and proper use of the appliance.

# INTRODUCTION

This operator is designed for a specific scope of applications as indicated in this manual, including safety, control and signaling accessories as minimum required with Fadini equipment.  $\Box$  Any applications not explicitly included in this manual may cause operation problems or damages to properties and people.  $\Box$  Meccanica Fadini S.r.l. is not liable for damages caused by the incorrect use of the equipment, or for applications not included in this manual or for malfunctioning resulting from the use of materials or accessories not recommended by the manufacturer.  $\Box$  The manufacturer reserves the right to make changes to its products without prior notice.  $\Box$  All that is not explicitly indicated in this manual is to be considered not allowed.

# **BEFORE INSTALLATION**

Before commencing operator installation assess the suitability of the access, its general condition and the structure. 

Make sure that there is no risk of impact, crushing, shearing, conveying, cutting, entangling and lifting situations, which may prejudice people safety. Do not install near any source of heat and avoid contacts with flammable substances. 

Keep all the accessories able to turn on the operator (transmitters, proximity readers, key-switches, etc) out of the reach of the children. 
Transit through the access only with stationary operator. Do not allow children and/or people to stand in the proximity of a working operator. 

To ensure safety in the whole movement area of a gate it is advisable to install photocells, sensitive edges, magnetic loops and detectors. Use yellow-black strips or proper signals to identify dangerous spots. 

Before cleaning and maintenance operations, disconnect the appliance from the mains by switching off the master switch. i If removing the actuator, do not cut the electric wires, but disconnect them from the terminal box by loosening the screws inside the junction box.

# INSTALLATION

All installation operations must be performed by a qualified technician, in observance of the Machinery Directive 2006/42/CE and safety regulations EN 12453 - ÉN 12445. Verify the presence of a thermal-magnetic circuit breaker 0,03 A - 230 V - 50 Hz upstream the installation. 
Use appropriate objects to test the correct functionality of the safety accessories, such as photocells, sensitive edges, etc. 

Carry out a risk analysis by means of appropriate instruments measuring the crushing and impact force of the main opening and closing edge in compliance with EN 12445. 
□ Identify the appropriate solution necessary to eliminate and reduce such risks. 
In case where the gate to automate is equipped with a pedestrian entrance, it is appropriate to prepare the system in such a way to prohibit the operation of the engine when the pedestrian entrance is used. 
Apply safety nameplates with CE marking on the gate warning about the presence of an automated installation. 

The installer must inform and instruct the end user about the proper use of the system by releasing him a technical dossier, including: layout and components of the installation, risk analysis, verification of safety accessories, verification of impact forces and reporting of residual risks.

# **INFORMATION FOR END-USERS**

The end-user is required to read carefully and to receive information concerning only the operation of the installation so that he becomes himself responsible for the correct use of it.  $\Box$  The end-user shall establish a written maintenance contract with the installer/maintenance technician (on -call).

□ Any maintenance operation must be done by qualified technicians. □ Keep these instructions carefully.

# WARNINGS FOR THE CORRECT OPERATION OF THE INSTALLATION

For optimum performance of system over time according to safety regulations, it is necessary to perform proper maintenance and monitoring of the entire installation: the automation, the electronic equipment and the cables connected to these. 

The entire installation must be carried out by gualified technical personnel, filling in the Maintenance Manual indicated in the Safety Regulation Book (to be downloaded from the requested site or www.fadini.net/supporto/downloads). **Operator:** maintenance inspection at least every 6 months, while for the electronic equipment and safety systems an inspection at least once every month is required. I The manufacturer, Meccanica Fadini S.r.l., is not responsible for non-observance of good installation practice and incorrect maintenance of the installation.

# **DISPOSAL OF MATERIALS**

Dispose properly of the packaging materials such as cardboard, nylon, polystyrene etc. through specializing companies (after verification of the regulations in force at the place of installation in the field of waste disposal). Disposal of electrical and electronic materials: to remove and dispose through specializing companies, as per Directive 2012/19/UE. Disposal of substances hazardous for the environment is prohibited.



# UE DECLARATION OF CONFORMITY (DoC) Manufacturer: Meccanica Fadini S.r.l. Address: Via Mantova, 177/A - 37053 Cerea - VR - Italy declare that the DoC is issued under our sole responsibility and belongs to the following product: Control unit model ELPRO S50-T1 is in conformity with the relevant Union harmonisation legislation: - Electromagnetic Compatibility Directive 2014/30/UE - Low Voltage Directive 2014/35/UE Meccanica Fadini S.r.l. Responsible/Manager Meccanica Fadini S.r.l.

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- Use a multipole cable type BUT FLESSIBILE FG 70R 12x1,5 mm<sup>2</sup>, up to a recommended distance of 20 m maximum between TALOS M50 and ELPRO S50-T1.

- For distances longer than 20 m use cables having an adequate section in compliance with the rules of good installation praxis.

- Use 1 mm<sup>2</sup> section wires for command and safety accessories.

N.W: To fit extra accessories such as lights, CCTV etc. use only solid state relays to prevent interference with the microprocessor.



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GB Elpro S50-T1

# CONTROLLER FOR TALOS M50 ANTI-TERRORISM RETRACTABLE BOLLARDS



Accessory	Electrical connections	Dip-switches and LED status of the various functions
24 V - 3 W max. Light indicating bollard in motion :	3       8         NOW       S         Light on = post down, gateway cleared         Light off = post up, gateway closed         Flashing 0,5 s (fast) = post moving up         Flashing 1 s (normal) = post moving down         With an external time clock: 2 short flashes followed by a longer pause	
24 Vdc output:	+ Output for any possible 24 Vdc application 200 mA for the accessories	
Motors:	Important: if the bollard does not operate in phase with the open/close commands as required, swap connections to 17/18. Bollard 1 MOTOR 1	DIP-SWITCH N° 12: ON: Motor run time max. 90 s 12 OFF: Motor run time max. 18 s T1 T2 MOTOR RUN TIME DWELL TIME 1 s - 22 s 1 s - 180 s
Limit switches:	limit switch opening TALOS 1 grey cable - white wire 0 limit switch closing TALOS 1 blue cable - white wire 0 limit switch +24 Vdc of the blue and grey cables 0 fithe blue and grey cables 0 of the blue and grey cables	L12 ON = it goes off with post 1 down L2 UP ON = it goes off with post 1 up L10 ON = it goes off with post 2 down L11 ON = it goes off with post 2 up L12 ON = it goes off with post 3 down L12 ON = it goes off with post 3 up
External flasher:	51       52       53         It is possible to connect an external flashing lamp to the bollard in addition to the incorporated LED lights. The flasher will be on during the rising and lowering movements and during the dwell time (if pre-selected)         230 V - 100 W max	DIP-SWITCH N° 4:         ON: Pre-flashing         4       OFF: No pre-flashing         DIP-SWITCH N° 10:         ON: Flasher. Deactivated during dwell time, automatic mode         10       OFF: Flasher. Activated during dwell time, automatic mode         OFF: Flasher. Activated during dwell time, automatic mode
Signalling LED lights:	51 52 53 WHY OF COMPARISON OUTput for the LED lights that are always on blinking during the rising and lowering movements of the post and with the post in standing position. They go off with post in down position.	

GB Elpro S50-T1

# CONTROLLER FOR TALOS M50 ANTI-TERRORISM RETRACTABLE BOLLARDS



Accessory	Electrical connections	Dip-switches and LED status of the various functions
Beeper, post in motion:	51       52       53       The acoustic device is inside the is on only during the rising and movements of the post.         Y       Image: Signal	post and lowering
Board power supply:	Elpro S50-T1 board and PC co power supply F N BOARD POWER SUPPLY 230 V ± 10% 50 Hz SINGLE-PHASE	ntroller

FUNCTIONS				
Description		Dip-switches and LED status of the various functions		
Automatic / semiautomatic: Automatic cycle: after a pulse to open, the bollard goes down, it stay time lasts, as pre-set by T2 trimmer, and on expiring of such time it go Semi-Automatic cycle: after a pulse to open, the bollard goes down Another pulse is needed to close the gateway.	DIP-SWITCH N° 3: ON: Automatic closing 3 OFF: No automatic closing. Semi-automatic mode T2 DWELL TIME 1 s - 180 s			
<b>Deadman control:</b> Open and Close operations are achieved "by holding a switch on" (r self-holding is involved). Therefore, a physical attendance is required the entire cycle of movements until either the button or key is release	no relay during ed.	DIP-SWITCH N° 7: ON: Deadman control 7 OFF: Standard operating mode		
<b>External time clock (optional):</b> CLOCK: the Elpro S50-T1 controller allows for a normal clock to be co to rise and lower. Connections: parallel connect the NO contact of the clock to the term and set the controller to automatic mode by Dip-Switch n° 3 = ON. How it works: set the clock to the required opening time. On the pre- lowered ( the indication light emits 2 short flashes followed by a long command/pulsing (even by remote control) is not accepted by the sy clock is expired. On expiring of it, and after the pre-set dwell time, the automatically.	nnected to it commanding the post ninals No. 4 open and No. 3 common, set time the post is automatically ler pause). Any further /stem until the time pre-set on the e post rises	DIP-SWITCH N° 3: ON: Automatic closing 3 OFF: No automatic closing. Semi-automatic operating mode		
Plug-in traffic lights card (optional):         The power supply of the traffic lights card is independent from that of the electronic control board:         - 230 V - 50 Hz with an output of 100 W at 230 V ea. lamp.         - 24 V with an output of 25 W each lamp.         - 12 V with an output of 22 W each lamp.         - 12 V with an output of 22 W each lamp.         Functioning applies also to traffic lights with 2 lamps, red and green (Dip Switch 8 = OFF and 9 = OFF).         Functioning logic:         - GREEN Light= post down, gateway OPEN         - RED Light = post moving or standing, gateway CLOSED         - YELLOW Light = it switches on before green turns to red light.	Address of the second s	$\begin{array}{c} DIP-SWITCHES N^{\circ} 8 \ and N^{\circ} 9: \\ \hline \\ \blacksquare \ OFF \ 9 \ 9 \ 9 \ 9 \ 9 \ F \ 9 \ 9 \ F \ 9 \ 10 \ 10 \ 10 \ 10 \ 10 \ 10 \ 10 $		

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