

## **ELECTRONIC CONTROL BOX FOR SINGLE DOOR**

Installation and usage manual

## Instructions for item 54610

### Description

Electronics allows for the control of a single door, even if it is planned to be connected by an interblock configuration for 2 or more doors:

Controls the opening of a door fitted with an electric or electronic lock – for example, electromagnets, electropistons or electrical contacts.

With the control box item 54610, the use of *Safety* series 131 and 137 security electromagnets, *Quadra* series 206, 208, 209, 216, 218, 219 electropistons, and *Omnia* series 346 and 348 electrical contacts is permitted.

Moreover, it can control the *Maxima* series art.25525 interblock for locks.

Furthermore, the control box is able to be linked with the *Control System* series art.54611 universal command console.

### Technical characteristics

Box in grey ABS, dimensions mm.240 x 150 x 48

Power: 12/24 V ac/dc

Current absorbed: 60 mA in stand-by

Microprocessor electronic control

Ability for connection via interblock (ITB) between 2 or more doors

Six-pole plug connector for the transfer of power to the console by series 05350 plug cables

Ten-pole plug connector for the transfer of commands and signals to the console by series 05352 plug cables

Inputs with NO contacts for :

- Opening
- Block
- Emergency
- Alarms reset
- Bolt position
- Shutter position

Outputs :

- C/NO/NC relay for connection to red/green signal lights;
- C/NO/NC alarm relay for prolonged opening of the shutter, faults, emergency, simultaneous opening of 2 or more doors if connected by interblock.

Possibility of connection in cascade by interblock of several doors (one to be connected for each door to be controlled);

Buttons for monitoring and regulating times of:

- Reclosure of the electric lock from 0-10 sec from the approach of the shutter;
- Reclosure of the electric lock from 0-60 sec if the shutter is not opened;
- Alarm for prolonged opening of the shutter from 0-120 sec.

## Inputs / Outputs

### Inputs :

AC / AC	: clamps for powering the electronics (not polarised)
ANTA	: NO contact for signalling the status of the shutter
CAT	: NO contact for signalling the status of the lock
RESET	: lock reset contact relating to GND. Pressure on the reset button closes the contact between Reset and GND;
EMERG	: NO contact for emergency locking, relating to GND. Pressure on the emergency button closes the contact between emergency and GND;
BLOC	: NO contact for blocking the lock, relating to GND. Pressure on the block button closes the contact in a stable manner between block and GND;
APER	: lock open contact, relating to GND. Pressure on the open button closes the contact between open and GND;

### Outputs :

APERT OUT : lock opening relay. The connections (shown below) vary according to the type of lock used. If the lock is of the safety type (closed bolt with no power, for example electric pistons series 208, 218, 219 and electrical contacts series 310, 346), then the connection will be made between COM and NO. If the lock is of the antipanic type (open bolt with no power, for example electric pistons series 206, 216, electrical contacts series 318, 348, electromagnets series 131 and 137), the connection must be made between COM and NC.

ALLARM OUT : signalling relay in case of alarm

SEMAFORO OUT : relay for connection to signal light systems for the bolt state;

GND : general ground signals

INTER : contact to be connected should a cascade connection by interblock for several doors be required.

## Selection of the control box's jumpers

The following jumpers from the electronic diagrams given above are able to be selected:

- AUX ON/OFF , AUX1 ON/OFF , AUX2 ON/OFF

These selections are not to be considered in the operation of the electronic control box. They must therefore be left free of any selection.

- SPRING ON/OFF

The selection in question is to be set in "ON" mode when spring-loaded pistons (eg series 21910) or electrical contacts are being used. Moreover, when a spring (21910) is used, it is necessary to select "OFF" mode for the jumper described below for electrical contacts. In all other cases, (eg electromagnets), the spring selection is set to "OFF".

- ELECTRIC CONTACT ON/OFF

The selection cited is to be set to "ON" mode when electrical contacts are being used. Moreover, when electrical contacts are use, it is necessary also to set the SPRING jumper above to "ON" mode.

- JUMPER POSITION 1,2,3,4,5

These selections are to be set in the following manner:

1,2,3 must be left free of selections

4,5 are required for specifying ITB mode. If there are two locks which must operate in interblock, then it is necessary to leave selection 4 free and select position 5 instead using the jumpers.

**N.B. :** In any case, one of the two ITB selections (positions 4 and 5) must be made before powering up the control box.

**When a jumper selection is changed, the electronics needs to be powered down and then powered up again so that the new settings can be memorised.**

### **Regulation procedure for the closure timings**

The control box is provided with microprocessor management which allows for the regulation, using the buttons, of the bolt closure timings for any requirement.

The operations described below are carried out while the control box is powered up.

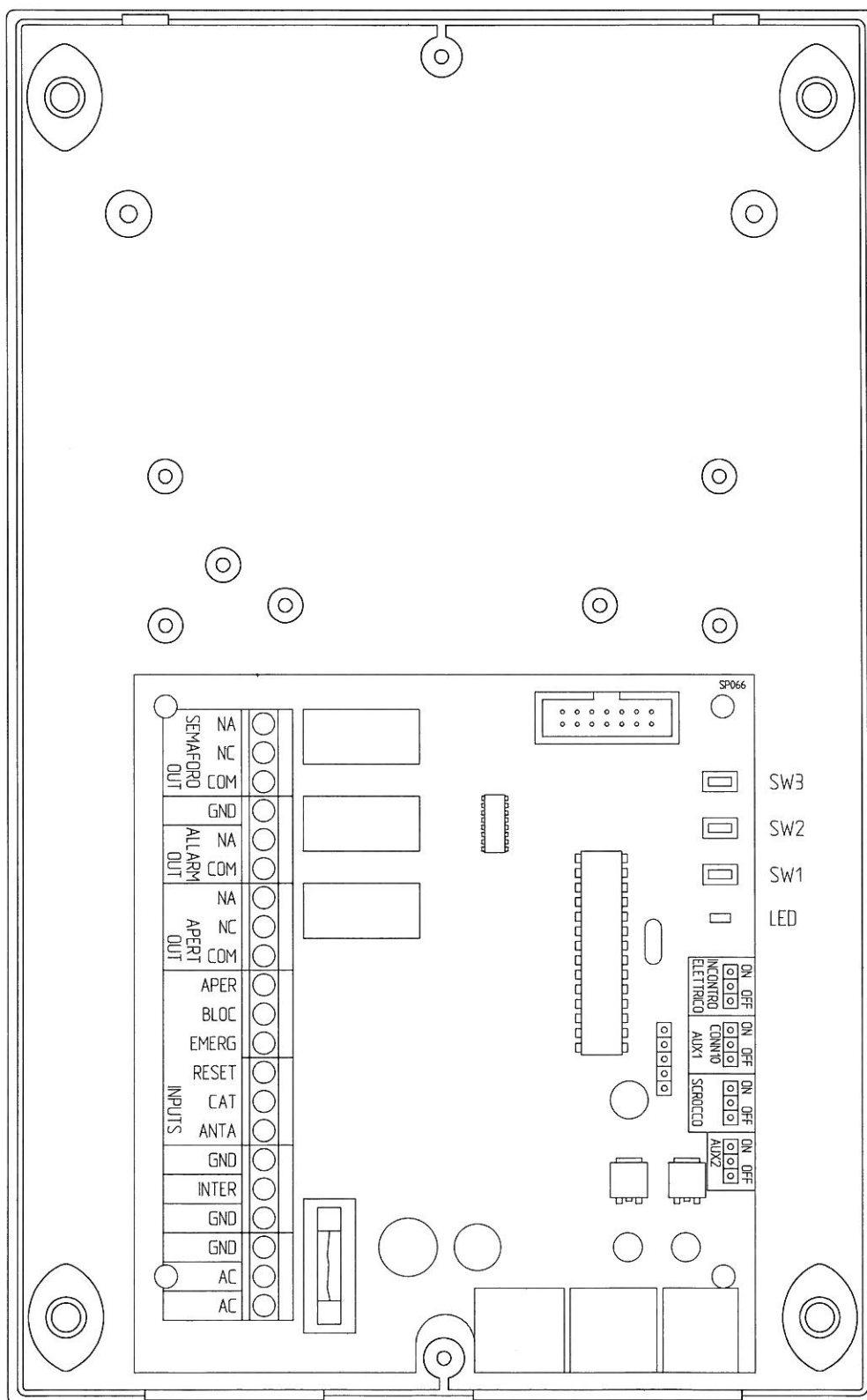
The timings are programmed through the three buttons on the panel – SW1, SW2 and SW3 – and all refer to LED1 on the same panel.

Each button refers to a single specific timing:

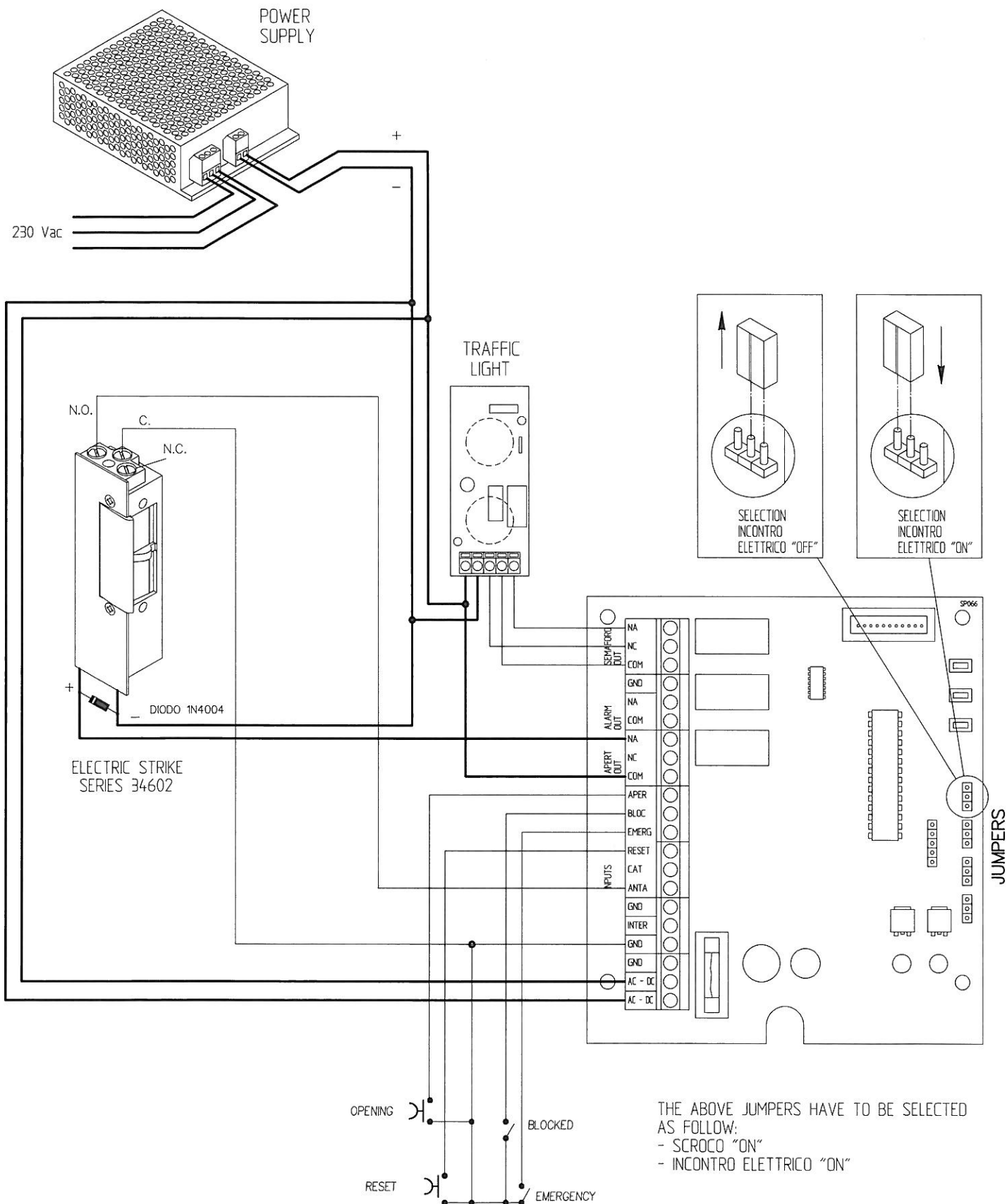
- SW1 refers to timing T1, which is the closure time of the bolt on the approach of the shutter. Adjustable from 0 to 5 seconds. Each flash corresponds to 1 second.  
Default setting of 1 seconds.  
  
SW2 refers to timing T2, which is the closure time of the bolt if the shutter is not opened. Adjustable from 0 to 60 seconds. Each flash corresponds to 5 seconds.  
Default setting of 5 seconds.
- SW3 refers to timing T3, which is the time after which will sound the alarm for prolonged opening of the shutter. Adjustable from 0 to 120 seconds. Each flash corresponds to 10 seconds.  
Default setting of 10 seconds.

In order to programme these settings, hold down the relevant button until the LED remains lit for approximately 1 second. Following this, the LED will begin to flash, showing the new timing. Count the flashes and release the button when the desired timing has been reached. At this point, the LED flashes to confirm the number of flashes selected.

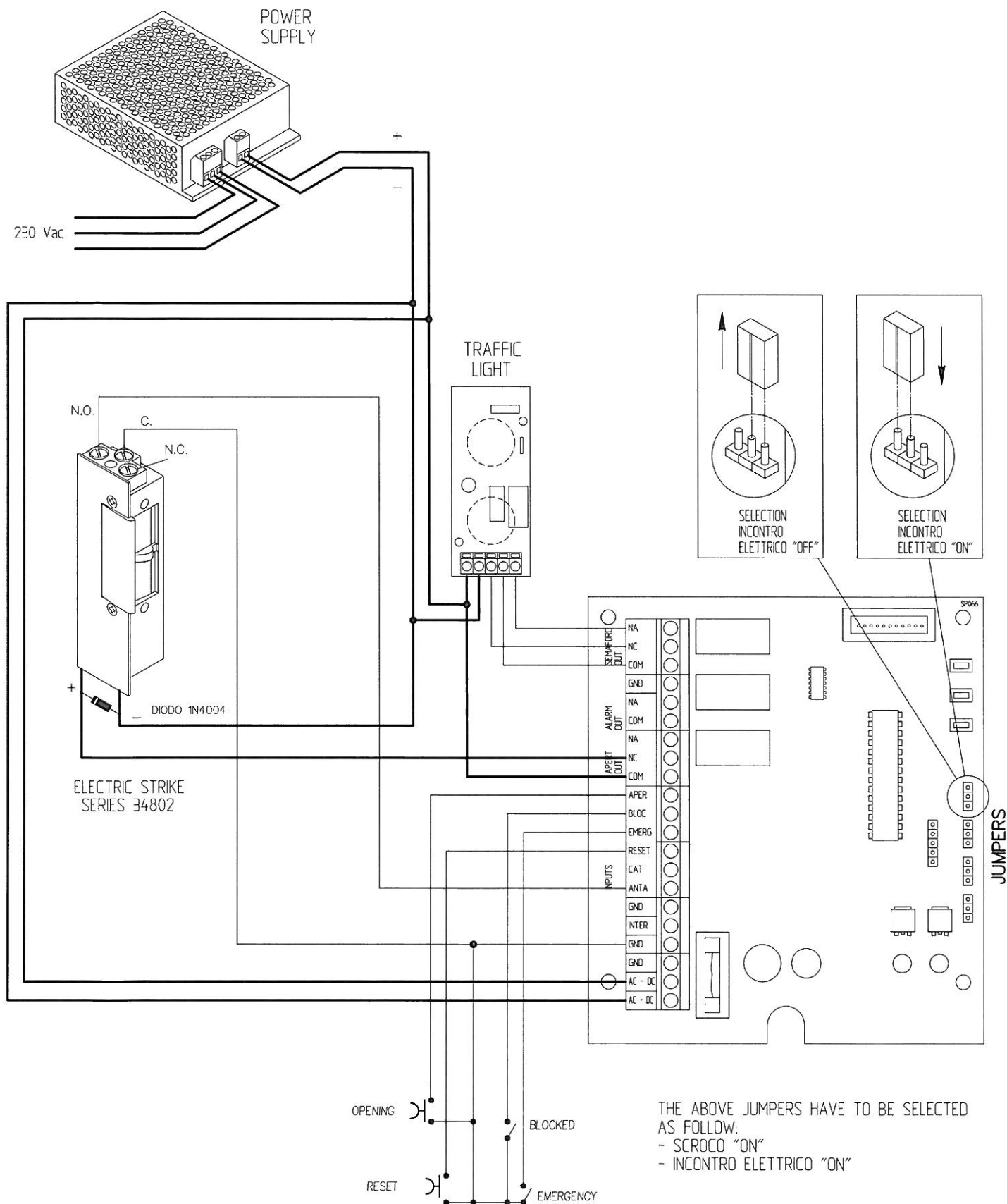
To deactivate a timing, it is necessary to hold down the button and release it as soon as the LED lights up. Following this, the LED confirms it with a fixed light.



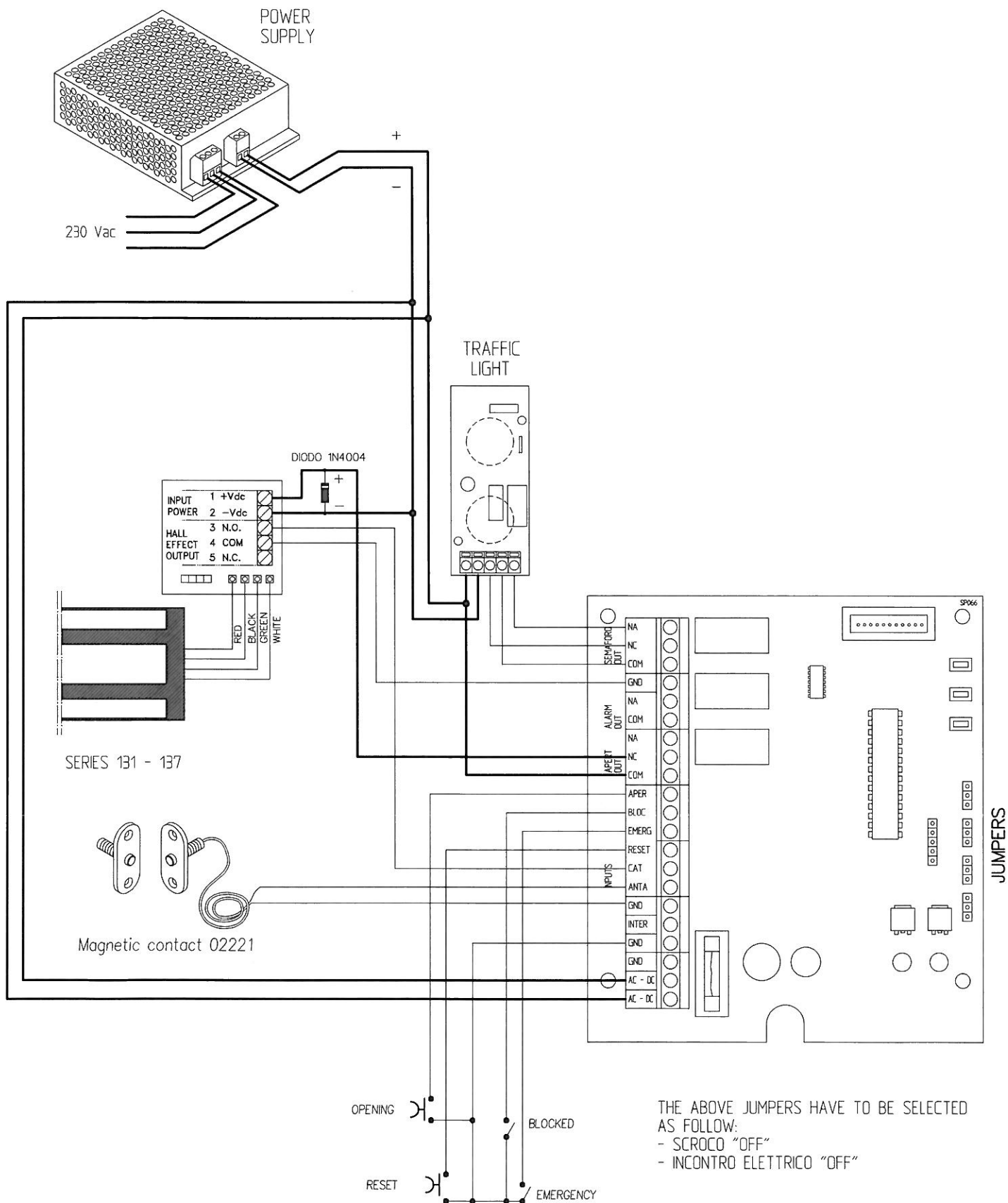
# CONNECTION DIAGRAM 54610 WHEN USED WITH ELECTRIC STRIKE SERIES 34602 (FAIL SECURE)



# CONNECTION DIAGRAM 54610 WHEN USED WITH ELECTRIC STRIKE SERIES 34802 (FAIL SAFE)

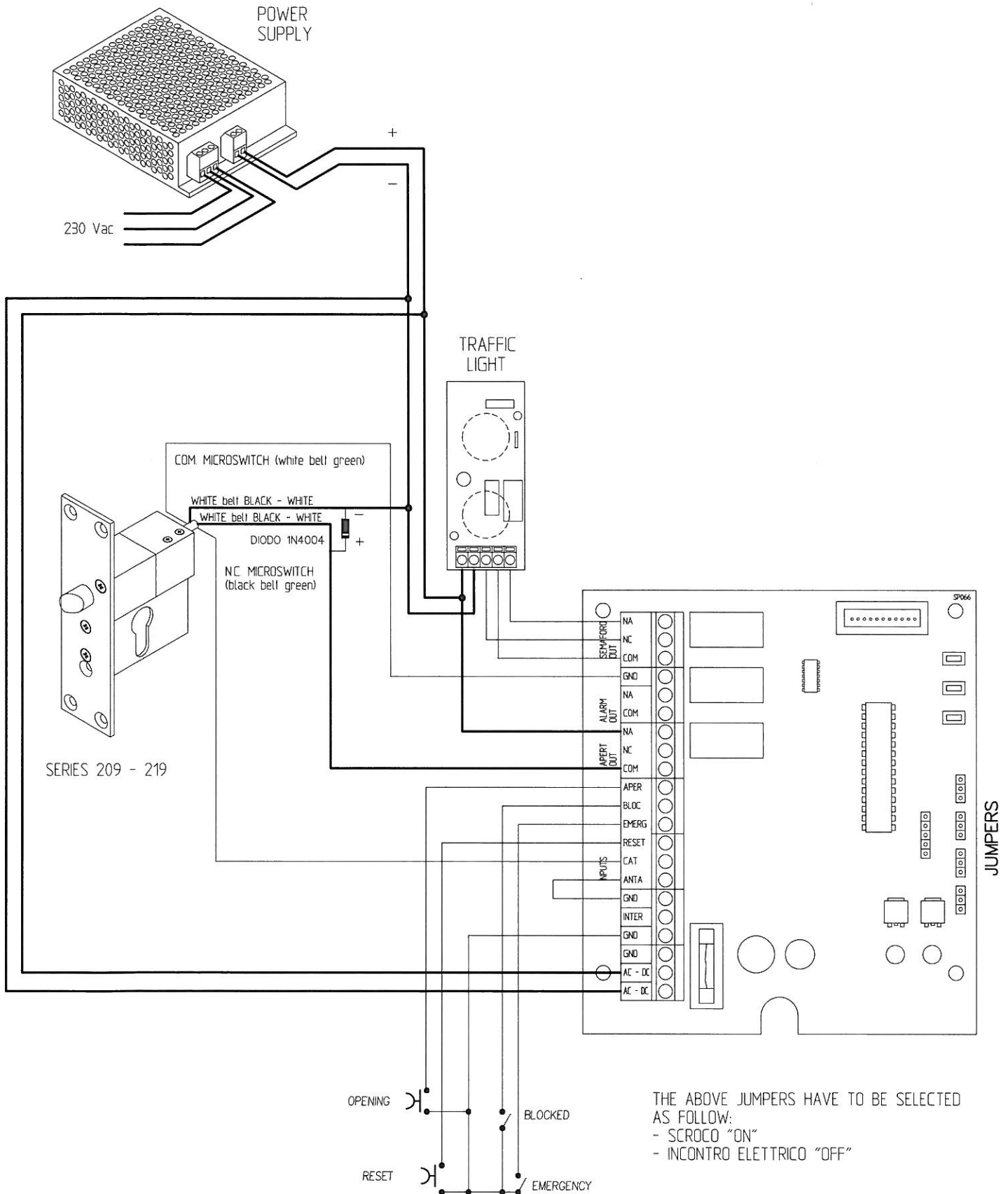


# CONNECTION DIAGRAM 54610 WHEN USED WITH ELETTROMAGNETIC LOCK SERIES 131 - 137

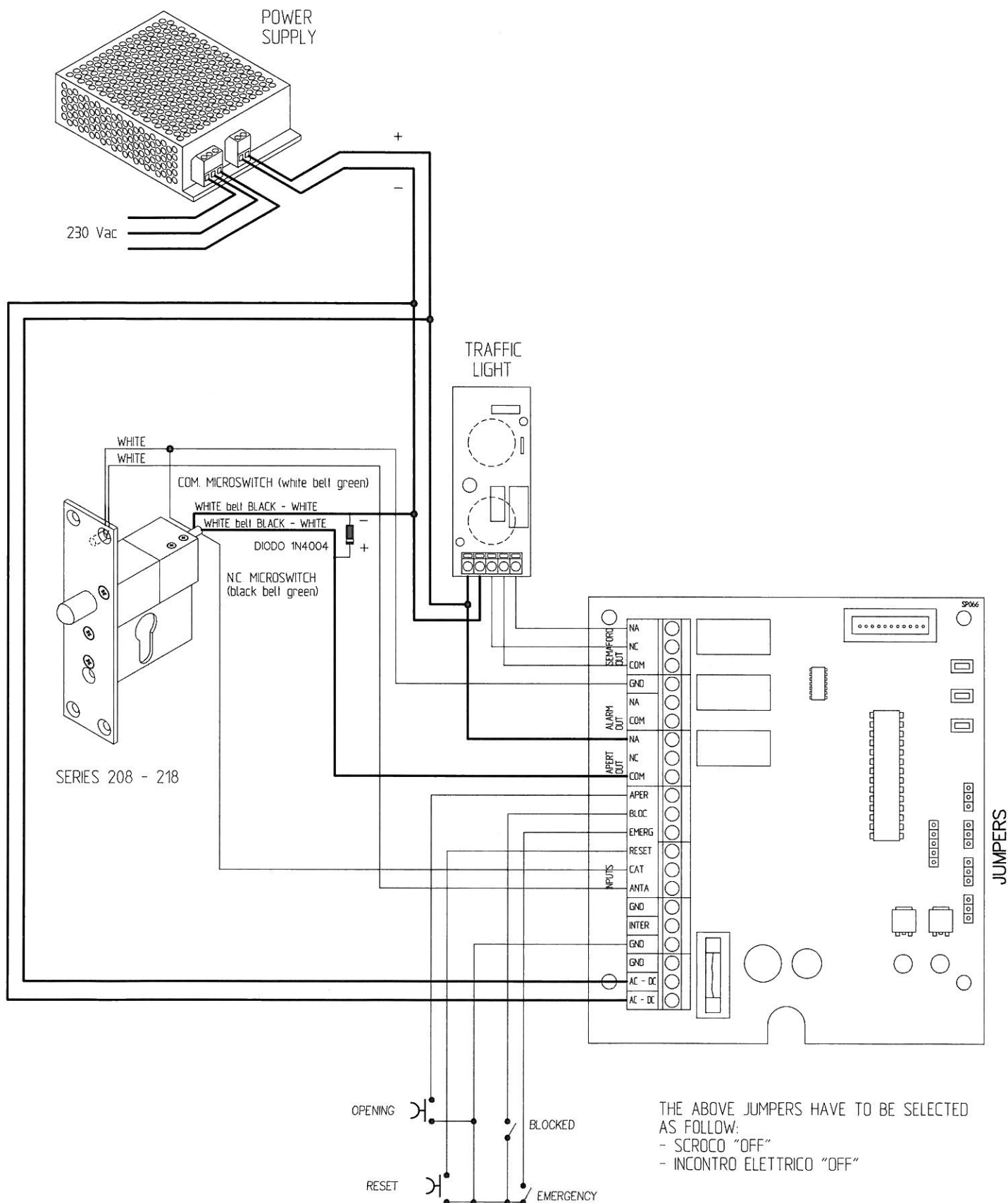




# CONNECTION DIAGRAM 54610 WHEN USED WITH SOLENOID BOLT SERIES 209 - 219



# CONNECTION DIAGRAM 54610 WHEN USED WITH SOLENOID BOLT SERIES 208 - 218 (FAIL SECURE)



# CONNECTION DIAGRAM 54610 WHEN USED WITH SOLENOID BOLT SERIES 206 - 216 (FAIL SAFE)

