



## Mechanical operating instructions

Fire shutter - ELEKTROMATEN® FS



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# SAFETY DIRECTIONS

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## Basic Directions

Fire shutter ELEKTROMATEN® with integrated brake is designed to be used with fire shutters to protect against fire. The design of these drives is according to regulations for locking devices of German Institut für Bautechnik, Berlin, Fassung Oktober 1988.

Fire shutter ELEKTROMATEN® is designed to be used with power operated fire shutters that must be closed in the event of fire by their own weight – force of gravity.

In principle only electrical trained craftsmen should work on electrical equipment. They must assess the work which is assigned to them, identify potential danger sources and take suitable safety precautions.

Reconstruction or changes to ELEKTROMATEN® are only permissible with the approval of the manufacturer. Original replacement parts and accessories authorized by the manufacturer guarantee safety in use. Liability ceases to apply if other parts are used.

The operational safety of an ELEKTROMATEN® is only guaranteed if it is used in accordance to the regulations. The limiting values stated in the technical data should not be exceeded under any circumstances (see corresponding sections of the operating instructions)

## Safety Regulations

During the installation, initial installation, maintenance and testing of the ELEKTROMATEN® it is necessary to observe the safety and accident-prevention regulations valid for the specific application. In particular, you should observe the following regulations (this list is not exhaustive),

### European normative

- DIN EN 54                      Fire detection and fire alarm systems
  - 5: Heat detectors; Point detectors
  - 7: Smoke detectors - Point detectors using scattered light, transmitted light or ionization
  
- DIN EN 60950                Information technology equipment - Safety
- EN 50081-1/1992 EN 55022, EN 55011, EN 61000-3 -2/ -3
- EN 50082-2/1997 EN 61000-4 -2/ -3 / -4/ -5/ -6/ -11, ENV 50204
- DIN ISO 10823              Advice to be used for chain drive selection

Additionally the references of the below mentioned normative must be observed.

### VDE-Regulation

„Directive for holding devices“ - Deutschen Instituts für Bautechnik, Berlin, (Fassung Oktober 1988)

- DIN VDE 0833              Danger alarm devices for Fire, Burglary and Hold up
  - 1: General provisions
  - 2: Definition for Danger alarm devices
- DIN 14675                    Design of a fire alarm system

### Regulation of fire prevention



#### Regulations

Please ensure that the local regulations relating to the Safety of Operations of Doors are followed.

# SAFETY DIRECTIONS

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## Explanation of warnings

These operating instructions contain directions which are important for using the ELEKTROMATEN® appropriately and safely.

The individual directions have the following meaning:



### **DANGER**

This indicates danger to the life and health of the user if the appropriate precautions are not taken.



### **CAUTION**

This warns that the ELEKTROMATEN® or other materials may be damaged if the appropriate precautions are not taken.

## General warnings and safety precautions

The following warnings are to be understood as a general guideline for working with the ELEKTROMATEN® in conjunction with other devices. These directions must be observed strictly during installation and operation.



Check that all screw connections are secure before operating the control and adjusting the limit switches.



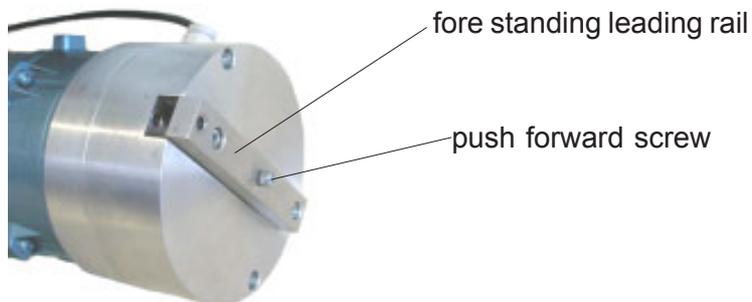
- Please observe the safety and accident prevention regulations valid for the specific application.
- The ELEKTROMATEN® must be installed with the authorised coverings and protective devices. Care should be taken that any seals are fitted correctly and screw couplings are tightened correctly.
- In the case of ELEKTROMATEN® with a permanent mains connection, an all-pole main switch with appropriate back-up fuse must be provided.
- Check live cables and conductors regularly for insulation faults or breakages. When a fault is detected in the cabling, the defective cabling should be replaced after immediately switching off the mains supply.
- Before starting operation, check whether the permissible mains voltage range of the devices corresponds to the local mains voltage.
- With three – phase motor connection it must have right phase rotation

# INITIAL OPERATION

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## 1. Universal brake

1.1 This universal brake is pre adjusted for INITIAL OPERATION ( Spring brake function)

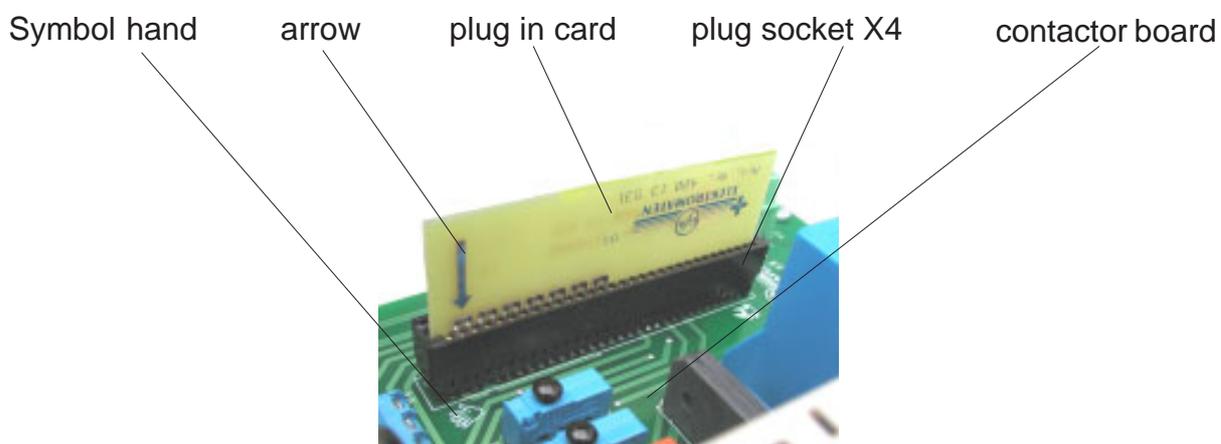


### ATTENTION:

- The brake is magnetic and it must be avoided that metallic part comes into the brake.
- Keep the brake clean. The polarity of the brake must be observed.

## 2. Plug-in card

2.1 Card is inserted function initial operation  
The arrow points to the hand symbol



# INITIAL OPERATION

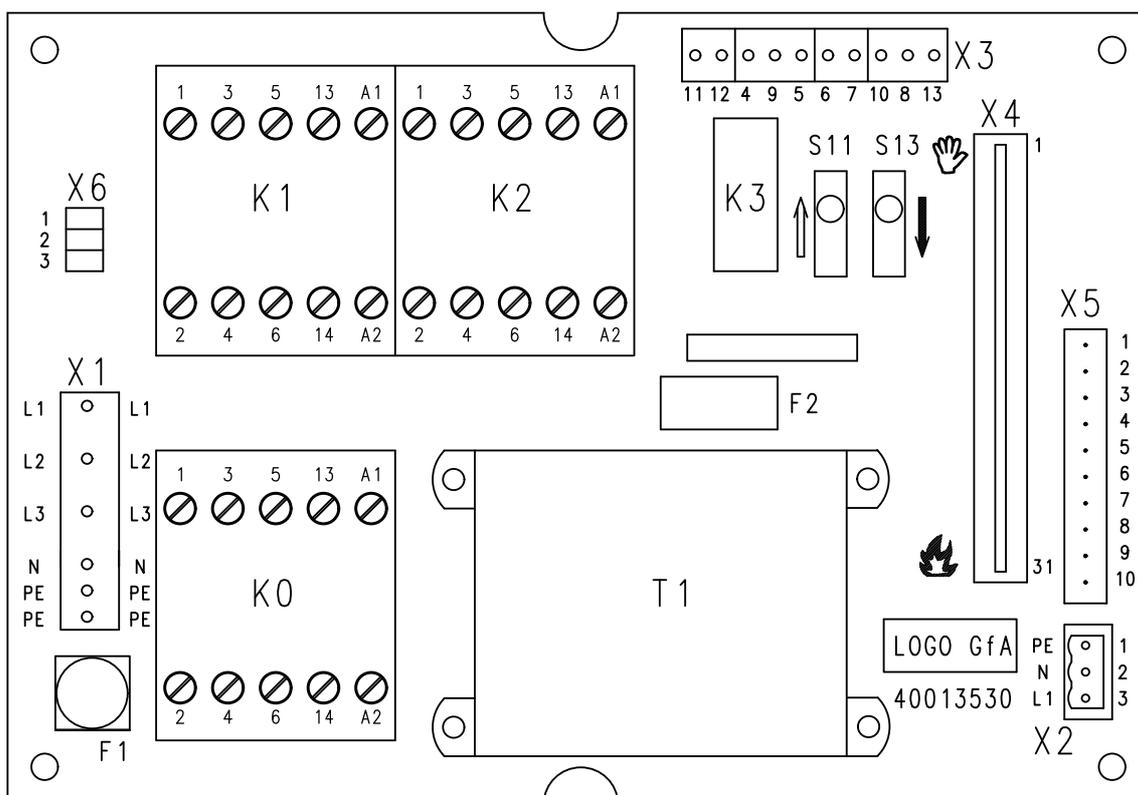
## 3. Control panel

3.1 Connect to mains supply

3.2 Approve phase rotation:

Push OPEN button S11 and the door shall open, otherwise disconnect mains supply and change phases L1 and L2.

Hardware print

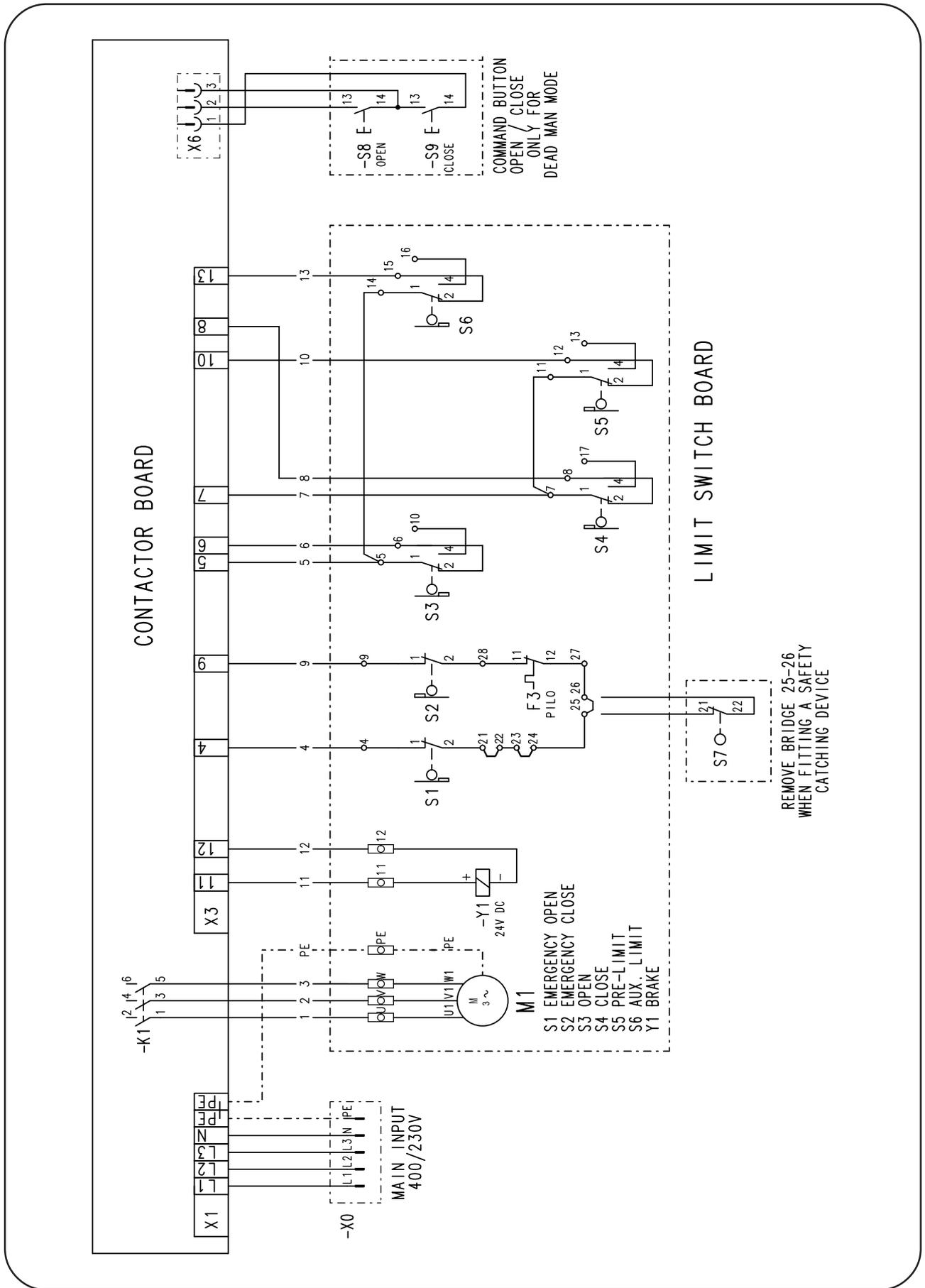


### Description:

- |            |                              |           |  |
|------------|------------------------------|-----------|--|
| <b>F1</b>  | Fuse<br>T4,0A (circuit 230V) | <b>X1</b> | Mains input  |
| <b>F2</b>  | Fuse<br>T1,6A (circuit 24V)  | <b>X2</b> | Supply for fire shutter panel (not available)                |
| <b>K0</b>  | Main contactor               | <b>X3</b> | Input limit switch   |
| <b>K1</b>  | Open contactor               | <b>X4</b> | Plug-in card   |
| <b>K2</b>  | Close contactor              | <b>X5</b> | Input connection cable fire shutter panel<br>(not available) |
| <b>K3</b>  | Realy                        | <b>X6</b> | Input two push button Open / close                           |
| <b>S11</b> | Open button                  |           |  |
| <b>S13</b> | Close button                 |           |  |
| <b>T1</b>  | Transformer                  |           |  |

# INITIAL OPERATION

## 3.3 Wiring diagram



# CONVERSION FROM FIRESHUTTER FUNCTION TO INITIAL OPERATION

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4. This conversion is only required if the door will have maintenance or if the interconnected fire shutter panel fails.



**Die conversion must be only a temporary solution because the fire shutter function is out of work and there is no fire safety function available.**

- 4.1 Door fully closed
- 4.2 Disconnect or switch OFF mains supply
- 4.3 Disconnect batteries; the door sets fully on the ground because the brake is out of function now. Eventually the emergency limit switch close will be contacted.
- 4.4 Open the control panel and disconnect X2(3 pole plug) and X5 (10 pole plug)
- 4.5 Remove plug in card and insert again in opposite function
- 4.6 Change key position at the brake to initial operation function.
- 4.7 Connect an external two push button (open/close) via terminal X 6 if required
- 4.8 Connect or switch ON mains supply.
- 4.9 Open the door (via S11 in the panel) If this would not be possible because of the emergency limit close is contacted, this limit shall be shortly bypassed to get the door moving.